COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES	**)** **)** **)**	**CASE NO. 2018-00294**

RESPONSE OF
KENTUCKY UTILITIES COMPANY
TO
FIRST REQUEST FOR INFORMATION OF THE
U. S. DEPARTMENT OF DEFENSE
DATED NOVEMBER 13, 2018

FILED: NOVEMBER 29, 2018

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Daniel K. Arbough**, being duly sworn, deposes and says that he is Treasurer for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Daniel K. Arbough

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 29th day of November 2018.

Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Lonnie E. Bellar**, being duly sworn, deposes and says that he is Chief Operating Officer for Louisville Gas and Electric Company and Kentucky Utilities Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Lonnie E. Bellar

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 29th day of November 2018.

Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Robert M. Conroy**, being duly sworn, deposes and says that he is Vice President, State Regulation and Rates, for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Robert M. Conroy

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 29th day of November 2018.

Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Christopher M. Garrett**, being duly sworn, deposes and says that he is Controller for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Christopher M. Garrett

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 28th day of November 2018.

Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

VERIFICATION

STATE OF TEXAS)
) **SS:**
COUNTY OF TRAVIS)

The undersigned, **Adrien M. McKenzie**, being duly sworn, deposes and says he is President of FINCAP, Inc., that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Adrien M. McKenzie

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 16th day of November 2018.

Notary Public (SEAL)

My Commission Expires:

04/17/2019

ROBERT LEE MARTINEZ
NOTARY PUBLIC STATE OF TEXAS
MY COMM. EXP. 4/17/2019
NOTARY ID 13019391-2

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **William Steven Seelye**, being duly sworn, deposes and states that he is a Principal of The Prime Group, LLC, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

William Steven Seelye

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 20th day of November 2018.

(SEAL)
Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **David S. Sinclair**, being duly sworn, deposes and says that he is Vice President, Energy Supply and Analysis for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

David S. Sinclair

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 29th day of November 2018.

Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

VERIFICATION

COMMONWEALTH OF PENNSYLVANIA)
) **SS:**
COUNTY OF CUMBERLAND)

The undersigned, **John J. Spanos**, being duly sworn, deposes and says that he is the Senior Vice President for Gannett Fleming Valuation and Rate Consultants, LLC, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

John J. Spanos

John J. Spanos

Subscribed and sworn to before me, a Notary Public in and before said County and Commonwealth, this 20th day of November 2018.

(SEAL)
Notary Public

My Commission Expires:
February 20, 2019

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Cheryl Ann Rutter, Notary Public
East Pennsboro Twp., Cumberland County
My Commission Expires Feb. 20, 2019
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

KENTUCKY UTILITIES COMPANY

Response to First Request for Information of the U. S. Department of Defense
Dated November 13, 2018

Case No. 2018-00294

Question No. 1

Responding Witness: Robert M. Conroy

Q-1. Please provide all exhibits, tables, figures and supporting workpapers in electronic format with all formulas intact supporting the current filing. This is an ongoing request for all subsequent testimonies filed.

A-1. See the responses to PSC 1-53 and PSC 1-65.

KENTUCKY UTILITIES COMPANY

Response to First Request for Information of the U. S. Department of Defense
Dated November 13, 2018

Case No. 2018-00294

Question No. 2

Responding Witness: Daniel K. Arbough / Adrien M. McKenzie

Q-2. If not already provided in response to the question above, please provide all exhibits, tables, figures and supporting workpapers in electronic format with all formulas intact supporting the testimonies of Mr. McKenzie and Mr. Arbough. This is an ongoing request for all subsequent testimonies filed by these witnesses.

A-2. See attachments being provided in Excel format, as well as the response to PSC 1-53.

The attachments are being provided in separate files in Excel format.

KENTUCKY UTILITIES COMPANY

Response to First Request for Information of the U. S. Department of Defense
Dated November 13, 2018

Case No. 2018-00294

Question No. 3

Responding Witness: Daniel K. Arbough / Adrien M. McKenzie

Q-3. Please provide copies of all publications and credit reports referenced in or considered by witnesses Mr. McKenzie and Mr. Arbough. This is an ongoing request for all subsequent testimonies filed by these witnesses.

A-3. See Exhibit DKA-3 of Mr. Arbough's Direct Testimony (Moody's Rating Methodology, Regulated Electric and Gas Utilities, dated June 23, 2017).

See Exhibit DKA-4 of Mr. Arbough's Direct Testimony (S&P Corporate Methodology and Key Credit Factors for the Regulated Utilities Industry, dated November 19, 2013).

See Exhibit DKA-5 of Mr. Arbough's Direct Testimony (Moody's Outlook on Utility Industry, dated June 18, 2018).

With the exception of court and regulatory decision and publications of federal agencies, which are publicly available from the respective sources, copies of all publications and source documents cited in Mr. McKenzie's testimony are attached.

INDEX TO WORKPAPERS
DIRECT TESTIMONY OF
ADRIEN M. MCKENZIE, CFA

NO.	Title
WP-1	Moody's Investors Service, "Regulation Will Keep Cash Flow Stable As Major Tax Break Ends," *Industry Outlook* (Feb. 19, 2014)
WP-2	S&P Global Ratings, "Assessing U.S. Investors-Owned Utility Regulatory Environments," *RatingsExpress* (Aug. 10, 2016)
WP-3	Value Line Investment Survey, Water Utility Industry (January 13, 2017) at p. 1780
WP-4	Edison Electric Institute, *Alternative Regulation for Emerging Utility Challenges: 2015 Update* (Nov. 11, 2015)
WP-5	Moody's Investors Service, "US utility sector upgrades driven by stable and transparent regulatory frameworks," *Sector Comment* (Feb. 2, 2014)
WP-6	Moody's Investors Service, "Moody's changes outlooks on 25 US regulated utilities primarily impacted by tax reform." *Ratings Action* (Jan. 19, 2018)
WP-7	Moody's Investor Service, "Tax reform is credit negative for sector, but impact varies by company," *Sector Comment* (Jan. 24, 2018)
WP-8	S&P Global Ratings, "U.S. Tax Reform: For Utilities' Credit Quality, Challenges Abound," *RatingsDirect* (Jan. 24, 2018)
WP-9	Fitch Ratings Inc., "Tax Reform Impact on the U.S. Utilities, Power & Gas Sector," *Special Report* (Jan. 24, 2018)
WP-10	Moody's Investors Service, "Announcement: Moody's changes the US regulated utility sector outlook to negative from stable." (June 18, 2018)
WP-11	Moody's Investors Service, "Credit Opinion: Louisville Gas & Electric Company.," *Credit Opinion* (Oct. 27, 2017)
WP-12	Moody's Investors Service, "Credit Opinion: Kentucky Utilities Company.," *Credit Opinion* (Oct. 27, 2017)
WP-13	S&P Global Ratings, "Summary: Louisville Gas & Electric Co.," *RatingsDirect* (Dec. 27, 2017)
WP-14	S&P Global Ratings, "Summary: Kentucky Utilities Co.," *RatingsDirect* (Dec. 27, 2017)
WP-15	BlackRock, "When the Fed Yields," *BlackRock Investment Institute* (May 2015)
WP-16	Josh Zumbrun, "Trump's Fiscal Plans, Fed's Asset Unwinding Could Fuel Rate Rise," *The Outlook*, The Wall Street Journal (May 7, 2017)
WP-17	Mark Vickery, "Rising Interest Rates Make Life Tough for Utilities," Zacks Investment Research (Sep. 8, 2017)
WP-18	Ben Eisen, "Investors Appear Ready to Heed More Hawkish Fed," Wall Street Journal (Sep. 22, 2017)
WP-19	The Economist, "Even stock market bulls are more cautious than at the start of the year," *Buttonwood* (Jul. 12, 2018)
WP-20	Jennifer Ablan, "Gundlach: Market unwind will be 'turbulent,' not over in a few days," *Reuters* (Feb. 7, 2018)
WP-21	Rich Miller and Christopher Condon, "Powell Suggests Fed to Go Ahead With Rate Hikes Despite Market Turmoil," www.bloomberg.com (Feb. 13, 2018)
WP-22	Cormac Mullen and Joanna Ossinger, "Bloomberg Markets: Jamie Dimon Warns of 5% Treasury Yields," *Bloomberg* (Aug. 5, 2018)

MCKENZIE WORKPAPERS INDEX
(Cont.)

WP-23	Wolters Kluwer, *Blue Chip Financial Forecast,* Vol. 37, No. 6 (Jun. 1, 2018)
WP-24	The Value Line Investment Survey (Mar. 24, 2017)
WP-25	CFRA, "Emera Incorporated," *Quantitative Stock Report* (Jun. 24, 2017)
WP-26	Roger A. Morin, "New Regulatory Finance," *Public Utilities Reports* at 71 (2006)
WP-27	Myron J. Gordon, "The Cost of Capital to a Public Utility," *MSU Public Utilities Studies* at 89 (1974)
WP-28	Roger A. Morin, "New Regulatory Finance," *Public Utilities Reports, Inc.* at 298 (2006)
WP-29	Roger A. Morin, "New Regulatory Finance," *Public Utilities Reports, Inc.*, at 307 (2006)
WP-30	*Morningstar*, "Ibbotson SBBI 2015 Classic Yearbook," at pp. 99, 108
WP-31	Duff & Phelps, "Cost of Capital Navigator, 2018 Cost of Capital: Annual U.S. Guidance and Examples," (Chapter 7, pp. 10-11, and CRSP Deciles Size Study)
WP-32	Roger A. Morin, "New Regulatory Finance," *Public Utilities Reports* at 189 (2006)
WP-33	Marshall E. Blume, "Betas and Their Regression Tendencies," *Journal of Finance*, Vo. 30, No. 3 (Jun. 1975), pp. 785-795
WP-34	E. F. Brigham, D. K. Shome, and S. R.Vinson, "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management* (Spring 1985)
WP-35	R. S. Harris and F. C. Marston, "Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts," *Financial Management* (Summer 1992)
WP-36	Roger A. Morin, "New Regulatory Finance," Public Utilities Reports, at 128 (2006)
WP-37	E. F. Brigham, D. A. Aberwald, and L. C. Gapenski, "Common Equity Flotation Costs and Rate Making," *Public Utilities Fortnightly,* May, 2, 1985
WP-38	Roger A. Morin, "New Regulatory Finance," *Public Utilities Reports, Inc.* (2006) at 335
WP-39	Value Line Investment Survey, *Forecast for the U.S. Economy* (Jun. 1, 2018)
WP-40	IHS Global Insight (Jun. 6, 2018)
WP-41	Energy Information Administration, *Annual Energy Outlook 2018* (Feb. 6, 2018)
WP-42	Value Line *Summary & Index* (Jul. 27, 2018)
WP-43	Value Line Source Documents – Utility Group
WP-44	IBES Source Documents – Utility Group
WP-45	Zacks Source Documents – Utility Group
WP-46	Bloomberg Source Documents – Utility Group
WP-47	S&P Capital IQ Source Documents – Utility Group
WP-48	FactSet Source Documents – Utility Group
WP-49	Morin, Roger A., "New Regulatory Finance," Public Utilities Reports, at 190 (2006)
WP-50	Utility Risk Premium – Regulatory Research Assoc. data (1974-2017)
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WP-52	IBES Source Documents – Non-Utility Group
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WP-56	FactSet Source Documents – Non-Utility Group

MOODY'S
INVESTORS SERVICE

US Regulated Utilities

Regulation Will Keep Cash Flow Stable As Major Tax Break Ends

Our outlook for the US regulated utility industry is stable. This outlook reflects our expectations for the fundamental business conditions in the industry.

» **Cost-recovery mechanisms, coupled with annual base-rate increases, will keep the ratio of industry-wide cash flow to debt at about 18%, within our range for a stable outlook.** Favorable rate orders are part of what we view as a broader shift toward stronger regulatory support for the industry, all the more important this year given the end of bonus depreciation. Industry regulation is the most important driver of our outlook.

» **Ratemaking mechanisms, such as revenue decoupling and riders, allow utilities to recover costs faster and improve the quality, predictability and stability of cash flow.** The ratio of cash flow to gross profit for a peer group of 122 US operating companies has been more stable on a year-over-year basis since 2009, as the use of riders in regulatory agreements has become more commonplace.

» **We are also seeing signs of improved regulatory support in historically contentious states, such as Connecticut and Illinois.** Stronger recovery mechanisms put in place last year for Connecticut Natural Gas Corp. (A3 stable) and Commonwealth Edison Co. (Baa1 stable) in Illinois will likely make cash flow more predictable for utilities in each state. This marks a turnaround in both states, where regulatory support was lacking for certain cost-recovery provisions in the past.

» **Stagnant customer demand is leading some utilities to pursue shareholder growth through financial engineering.** Some companies are restructuring their businesses by creating master limited partnerships and "yieldcos" to defend their historically high equity multiples. For now, credit risks are limited but so are any benefits for bondholders, and these structures may weaken sponsor credit quality over time.

» **What could change our outlook.** We could shift our outlook to positive if the ratio of cash flow to debt rose toward 25% on a sustainable basis, which could happen if return on equity rises or utilities deleverage significantly. A more contentious regulatory environment that resulted in a material deterioration in cash flow, such that the ratio fell to 13%, could cause us to have a negative outlook.

Supportive regulatory relationships drive our stable outlook

Regulatory support will help US electric and gas utilities maintain stable credit profiles in 2014, even with stagnant customer demand and without the cash-flow boost from bonus depreciation.

Fundamentally, the regulatory environment is the most important driver of our outlook because it sets the pace for cost-recovery. Favorable rate orders, even in states where utilities have had contentious regulatory relationships in the past, are part of what we view as a broader shift toward stronger regulatory support for the industry.

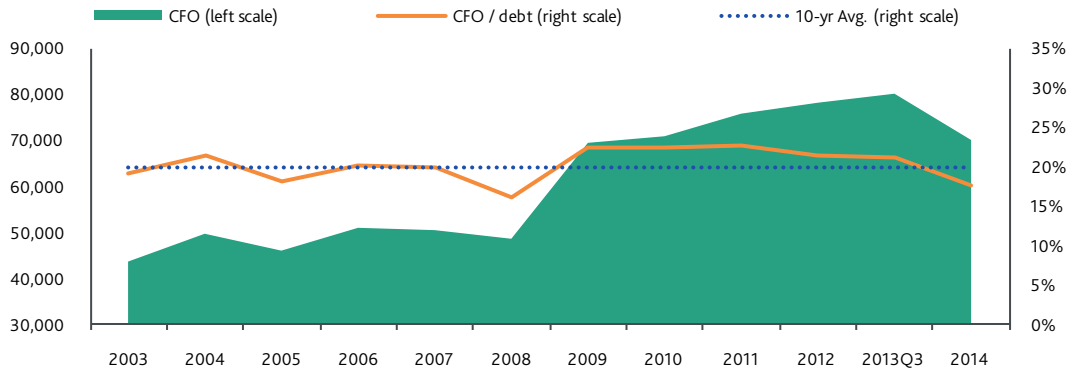
The improved regulatory framework, led by special cost-recovery mechanisms and annual base-rate increases, is all the more important this year for two reasons. First is the end of bonus depreciation, a temporary tax break that expired on December 31. We incorporate a view that bonus depreciation will not be extended; however, various corporate sectors are currently lobbying for the extension in 2014. Second is stagnant customer demand, which is also leading some utilities to pursue shareholder growth through financial engineering (please see page 6).

As Exhibit 1 shows, the ratio of cash flow to debt will decline this year to 18%, just below the 10-year trend line but within our range for a stable outlook. The decline is largely because of higher cash taxes, but utilities can still get some tax relief in 2014 by applying net operating loss carry-forwards (from factors unrelated to bonus depreciation) from past years to this year's tax payments—an option they didn't use when bonus depreciation was in effect.

We would likely shift our outlook to positive if the ratio of cash flow to debt rose to 25%, although that would take a marked increase in regulatory-allowed ROE levels or steps by utilities to scale back their dividend and stock-repurchase plans. A more contentious regulatory environment or a widespread adoption of more-aggressive financial strategies resulting in a material deterioration in cash flow, such that the ratio fell to 13%, would likely lead to a negative outlook.

EXHIBIT 1

Cash Flow to Debt Will Hover Below the 10-Year Average



Notes: Figures are in thousands of US dollars. A list of the 122 utilities included in our analysis starts on page 7. Data for the third quarter of 2013 are the latest available. Data for 2014 are our estimates.

Source: Moody's Investors Service

Improved regulatory environment means stable, more predictable cost-recovery

The US regulatory environment has improved significantly in the past year, providing for faster and more-certain cost-recovery in 2014.

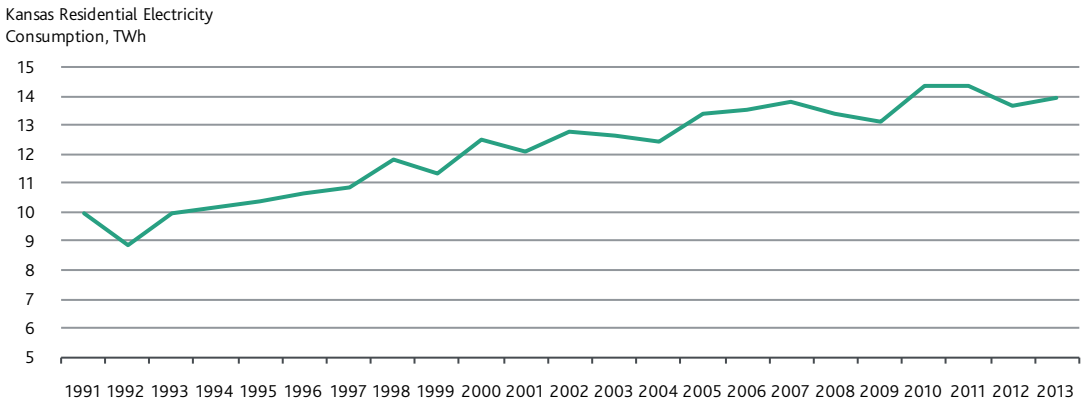
Puget Sound Energy Inc.'s (PSE; Baa1 stable) June 2013 rate order is a good example. Its regulator, the Washington Utilities and Transportation Commission, approved the decoupling of electric and gas revenue from sales volume, and a property-tax tracker that provides more-efficient recovery of property-tax expense. The commission acknowledged a need to reduce regulatory lag times by expediting the utility's rate filings and offering more real-time true-up of costs during rate filings. The regulator also provided the company with forward-looking annual revenue adjustments (about 3% for electric and 2% for gas) over the next three years. As a result of these changes, we expect that Puget Sound's cash-flow-to-debt ratio will continue to surpass 20%, exceeding the industry average, even without the cash-flow benefit of bonus depreciation.

Another example is Westar Energy Inc.'s (Baa1 stable) 2013 abbreviated rate case with the Kansas Corporation Commission. In addition to providing incremental cost-recovery for environmental upgrades, the regulator allowed Westar to increase its monthly fixed charge on customer bills. This movement in rate design will allow Westar to recover a greater portion of its fixed costs through fixed rates, rather than volumetric rates, thereby reducing Westar's dependency on selling higher volumes to recover fixed costs. The shift to a $12 residential monthly fixed charge from $9 will be a benefit amid flat customer demand in Kansas over the past three years (see Exhibit 2).

EXHIBIT 2

Demand for Electricity Has Been Stagnant in Kansas

Actual Consumption



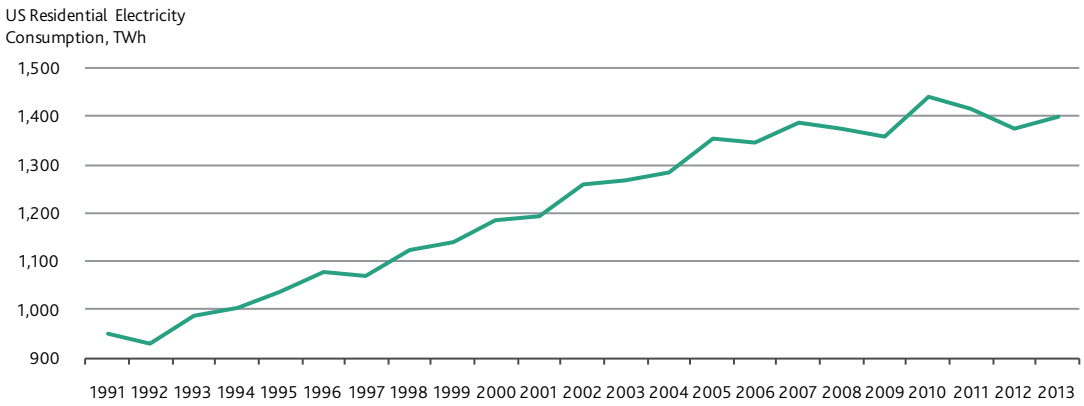
Notes: TWh stands for terawatt hour. 2013 US Energy Information Administration (EIA) data are through October 2013. Our estimates for November and December 2013 are based on historical trends.
Source: US Energy Information Administration

As demand for electricity wanes, rate structures that are tied more closely to volumetric charges than to fixed charges will threaten the gross profits of most electric and gas utilities. Exhibit 3 below shows the drop-off in US electricity demand since 2010, largely attributable to weather and slow economic growth as well as conservation and efficiency measures.

EXHIBIT 3

Demand for Electricity Is Slow to Rebound

Actual Consumption



Note: 2013 EIA data is through October 2013. Our estimates for November and December 2013 are based on historical trends.
Source: US Energy Information Administration

The industry's financial profile is becoming more predictable and steady because of these special recovery mechanisms that supplement cash recovery between general rate cases. As Exhibit 4 shows, the average ratio of cash flow from operations to gross profit had a standard deviation of 2.4% on a year-over-year basis between 2003 and 2008. This compares with a 1.1% standard deviation on average between 2009 and the third quarter of 2013, the latest data available, a period marked by a more pervasive use of cost-recovery mechanisms throughout the US.

EXHIBIT 4

Cost-Recovery Mechanisms Make Cash Flow More Predictable

Year	CFO / Gross Profit	Standard Deviation Rolling Two-Year Average	Average Standard Deviation
2003	30.9%		
2004	37.0%	4.3%	
2005	34.0%	2.1%	
2006	37.3%	2.4%	
2007	34.9%	1.7%	
2008	32.9%	1.4%	2.4%
2009	44.9%		
2010	42.5%	1.7%	
2011	44.8%	1.6%	
2012	44.3%	0.3%	
3Q13	43.0%	0.9%	1.1%

Note: The latest data available are for the third quarter of 2013.
Source: Moody's Investors Service

Cost-recovery improves, but not without exceptions

Most regulated electric and gas utilities in the US have shown evidence of improved regulatory relationships. Apart from Puget Sound's and Westar's cost-recovery improvements, we have seen regulatory improvement in Illinois and Connecticut, states in which the relationships between regulators and utilities have been somewhat contentious.

Stronger recovery mechanisms put in place late last year in both Illinois and Connecticut will make utility cash flow more predictable. For example, in Illinois, **Commonwealth Edison**'s (ComEd) cash flow to debt coverage will start improving in 2014, supported by the adoption of a version of formula ratemaking (i.e., the Energy Infrastructure Modernization Act, or "EIMA," which helps define various aspects of rate structure and cost-recovery in Illinois). The implementation of EIMA will make cost-recovery more tied to factors determined by a formula and less tied to rate-case negotiations (the results of which are less predictable).

Similarly, the Connecticut legislature in 2013 passed the Comprehensive Energy Strategy, which encourages the use of decoupling mechanisms and infrastructure replacement riders (i.e., the Distribution Integrity Management Program, or DIMP), while promoting growth of local distribution companies (LDCs) through customer conversions. These measures are subject to approval by the Public Utilities Regulatory Authority in rate-case proceedings, but were approved in **Connecticut Natural Gas**'s (CNG; A3 stable) December 2013 rate case. We expect decoupling, DIMP and conversion incentives to be applied to all LDCs in the state going forward.

These moves mark a turnaround in both states from past years, when regulatory support was lacking for certain cost-recovery provisions and when general rate case outcomes were deemed less than favorable from an investor perspective. For example, the Illinois legislature passed the EIMA in 2011, but the Illinois Commerce Commission did not fully implement it, initially, which made future cost-recovery for ComEd uncertain. Likewise, Connecticut LDCs had few tracking mechanisms and were exposed to declining customer usage in rate design. Now, through the adoption of EIMA in ComEd's rate structure (clarified by Senate Bill 9 in 2013) and CNG's implementation of decoupling and the DIMP, the financial profiles of both companies will likely improve.

These cost-recovery improvements are part of the broader trend we are seeing in the industry, but there are a few high-profile exceptions. Entergy Corp. (Baa3 stable), which has a history of contentious regulatory relationships in Arkansas and Texas, is one example.

Last year, Entergy Arkansas Inc. (Baa2 stable) put forth a nearly $145 million rate request but received about $81 million (the Arkansas Public Service Commission did allow a new cost-recovery rider for certain regional transmission expenses, however). Entergy Texas Inc. (Baa3 stable) requested about $53 million in rate increases for 2014, but the Texas Public Utilities Commission's (PUC) staff recommended a rate increase of a little more than $3 million. The PUC has not issued a final decision.

Another high-profile exception is Consolidated Edison of New York's (A2 stable) pending rate settlement, which calls for a two-year freeze on electric rates and a three-year rate freeze on gas and steam rates. Although the rate freeze would curb Consolidated Edison of New York's earnings, the settlement is credit neutral because of the provision for reasonable recovery of deferred storm costs related to Hurricane Sandy and other investments.

This year, one utility that might also buck the positive trend is Jersey Central Power & Light Co. (JCP&L; Baa2 negative). JCP&L has been the target of public criticism over its handling of outages related to Hurricane Sandy, besides allegations of over-earning. The staff of the New Jersey Board of Public Utilities has proposed that base rates be cut by $207 million (not considering recovery of storm costs, which will be addressed in a separate rate proceeding). This compares with the company's request for an increase of $11 million (again, not considering storm costs).

JCP&L's financial flexibility and financial metrics have already been weakened by costs associated with Hurricane Sandy, so a material rate reduction could hurt JCP&L's rating. If JCP&L can bring its ratio of cash flow to debt to at least 14% despite a rate decrease, then our rating outlook could stabilize. JCP&L had 12% cash flow to debt through the 12 months ended the third quarter of 2013.

More utilities are turning to financial engineering

Against a backdrop of stagnant demand, some utility holding companies are turning to forms of financial engineering, such as creating master limited partnerships (MLPs) and so-called yieldcos, to defend their historically high equity multiples. For the few companies that have proceeded with these strategies so far, the credit impact is neutral because the vehicles are small relative to the corporate sponsor's consolidated credit profile. But longer term, credit risks could increase if these companies eventually lose too much cash flow from their most stable assets and don't reduce debt enough to rebalance their capital structures.

We expect some more companies to go public with these financial-engineering vehicles this year. The joint venture among OGE, CenterPoint and ArcLight—the Enable Midstream Partners MLP—plans to complete an initial public offering in the first quarter. Dominion Resources Inc. (Baa2 stable) expects to publicly offer its MLP by mid-year. In addition, NextEra Energy Inc. (Baa1 stable) expects to make a decision whether to form a yieldco by then.

Meantime, several companies have pursued acquisitions outside of their core utility holdings and service territories, like MidAmerican Energy Holdings Co. (A3 stable), TECO Energy Inc. (Baa1 stable), and Avista Corp. (Baa1 stable). This trend is bound to continue as companies try to expand their regulated footprint and achieve regulatory diversity. We expect that most M&A activity in 2014 will be conservatively financed much like these transactions, which included equity financings.

EXHIBIT 5

Regulated Utilities: M&A Activity

	Acquirer			Acquiree				
Acquirer / Acquiree	Revenue	CFO	Debt	Revenue	CFO	Debt	Financing	Credit Implication
MidAmerican Energy Holdings Co. / NV Energy, Inc.	$12,373	$505	$4,255	$2,930	$794	$5,125	$5.6 billion in debt & equity	Positive; no ratings actions
TECO Energy, Inc. / New Mexico Gas Company	$2,851	$680	$3,156	$332	$65	$250	$950 million in debt, equity, & cash	Affirmed TECO Energy ratings
Avista Corp / Alaska Energy and Resources Company (AERC)	$1,581	$295	$1,739	$42	$20	$115	$170 million in equity	Neutral for Avista
Fortis, Inc. / UNS Energy Corporation	$3,654	$976	$5,783	$1,483	$400	$ 1,937	$4.3 billion in debt & equity	Slightly positive for UNS Energy Corporation; no ratings action

Notes: Financials are in millions, as of the 12 months ended September 30, 2013. AERC financials are based on Alaska Electric Light and Power Co. (AELP) 2012 FERC Form 1 data. Fortis and New Mexico Gas financials are as reported as of fiscal 2012. We expect TECO Energy will assume $200 million of debt already existing at New Mexico Gas Company. We expect Fortis to assume approximately $1.8 billion of debt already existing at UNS Energy Corporation. In addition, we expect Fortis to finance the UNS acquisition in a manner similar to historical precedent, with a balanced mix of debt and equity issued upstream from the utility (we expect Fortis to keep UNS's current capital structure in place).

Sources: Fortis Inc. Annual Report, AELP 2012 FERC Form 1, SNL, Moody's Financial Metrics

Appendix: Peer Group

Moody's Financial Metrics

	Entity Name	LT Rating	Outlook	CFO/Debt (3-Yr Avg) LTM 3Q11-LTM3Q13
Integrated	Alabama Power Company	A1	Stable	26%
	ALLETE, Inc.	A3	Stable	22%
	Appalachian Power Company	Baa1	Stable	17%
	Arizona Public Service Company	A3	Stable	28%
	Avista Corp.	Baa1	Stable	18%
	Black Hills Power, Inc.	A3	Stable	22%
	Cleco Power LLC	Baa1	Positive	19%
	Consumers Energy Company	(P)A3	Stable	27%
	Dayton Power & Light Company	Baa3	Stable	34%
	DTE Electric Company	A2	Stable	24%
	Duke Energy Carolinas, LLC	A1	Stable	23%
	Duke Energy Corporation	A3	Stable	15%
	Duke Energy Florida, Inc.	A3	Stable	21%
	Duke Energy Indiana, Inc.	A2	Stable	16%
	Duke Energy Kentucky, Inc.	Baa1	Stable	23%
	Duke Energy Ohio, Inc.	Baa1	Stable	25%
	Duke Energy Progress, Inc.	A1	Stable	23%
	El Paso Electric Company	Baa1	Stable	25%
	Empire District Electric Company (The)	Baa1	Stable	20%
	Entergy Arkansas, Inc.	Baa2	Stable	19%
	Entergy Louisiana, LLC	Baa1	Stable	17%
	Entergy Mississippi, Inc.	Baa2	Stable	16%
	Entergy New Orleans, Inc.	Ba2	Stable	20%
	Entergy Texas, Inc.	Baa3	Stable	14%
	Florida Power & Light Company	A1	Stable	32%
	Georgia Power Company	A3	Stable	25%
	Gulf Power Company	A2	Stable	26%
	Hawaiian Electric Company, Inc.	Baa1	Stable	17%
	Idaho Power Company	A3	Stable	16%
	Indiana Michigan Power Company	Baa1	Stable	21%
	Interstate Power and Light Company	A3	Stable	18%
	Kansas City Power & Light Company	Baa1	Stable	18%
	Kansas City Power & Light Company - Greater MO	Baa2	Stable	22%
	Madison Gas and Electric Company	A1	Stable	30%
	MidAmerican Energy Company	A1	Stable	24%
	Mississippi Power Company	Baa1	Stable	14%
	Nevada Power Company	Baa1	Stable	18%

	Entity Name	LT Rating	Outlook	CFO/Debt (3-Yr Avg) LTM 3Q11-LTM3Q13
	Northern States Power Company (Minnesota)	A2	Stable	25%
	Northern States Power Company (Wisconsin)	(P)A2	Stable	30%
	NorthWestern Corporation	A3	Stable	19%
	Ohio Power Company	Baa1	Stable	32%
	Oklahoma Gas & Electric Company	A1	Stable	27%
	Otter Tail Power Company	A3	Stable	24%
	Pacific Gas & Electric Company	A3	Stable	25%
	PacifiCorp	A3	Stable	23%
	Portland General Electric Company	A3	Stable	25%
	Public Service Co. of North Carolina, Inc.	A3	Stable	25%
	Public Service Company of Colorado	A3	Stable	23%
	Public Service Company of New Hampshire	Baa1	Stable	20%
	Public Service Company of New Mexico	Baa2	Positive	21%
	Public Service Company of Oklahoma	A3	Stable	27%
	Puget Sound Energy, Inc.	Baa1	Stable	21%
	San Diego Gas & Electric Company	A1	Stable	21%
	Sierra Pacific Power Company	Baa1	Stable	16%
	South Carolina Electric & Gas Company	Baa2	Stable	17%
	Southern California Edison Company	A2	Stable	30%
	Southern Indiana Gas & Electric Company	A2	Stable	28%
	Southwestern Electric Power Company	Baa2	Stable	18%
	Southwestern Public Service Company	Baa1	Stable	21%
	Tampa Electric Company	A2	Stable	32%
	Tucson Electric Power Company	Baa1	Stable	19%
	Union Electric Company	(P)Baa1	Stable	22%
	UNS Energy Corporation	Baa2	Stable	19%
	Virginia Electric and Power Company	A2	Stable	27%
	Westar Energy, Inc.	Baa1	Stable	16%
	Wisconsin Electric Power Company	A1	Stable	17%
	Wisconsin Power and Light Company	A1	Stable	31%
	Wisconsin Public Service Corporation	A1	Stable	26%
T&Ds	AEP Texas North Company	Baa1	Stable	22%
	Ameren Illinois Company	(P)Baa1	Stable	26%
	Atlantic City Electric Company	Baa2	Stable	15%
	Baltimore Gas and Electric Company	A3	Stable	19%
	CenterPoint Energy Houston Electric, LLC	A3	Stable	16%
	Central Hudson Gas & Electric Corporation	A2	Stable	29%
	Central Maine Power Company	A3	Stable	27%
	Cleveland Electric Illuminating Company (The)	Baa3	Stable	15%
	Commonwealth Edison Company	Baa1	Stable	21%

	Entity Name	LT Rating	Outlook	CFO/Debt (3-Yr Avg) LTM 3Q11-LTM3Q13
	Connecticut Light and Power Company	Baa1	Stable	13%
	Consolidated Edison Company of New York, Inc.	A2	Stable	23%
	Delmarva Power & Light Company	Baa1	Stable	17%
	Duquesne Light Company	A3	Stable	26%
	Jersey Central Power & Light Company	Baa2	Negative	18%
	New York State Electric and Gas Corporation	A3	Stable	26%
	Niagara Mohawk Power Corporation	A3	Stable	23%
	NSTAR Electric Company	A2	Stable	29%
	Ohio Edison Company	Baa2	Stable	25%
	Oncor Electric Delivery Company LLC	Baa3	Stable	20%
	Orange and Rockland Utilities, Inc.	A3	Stable	21%
	PECO Energy Company	A2	Stable	30%
	Pennsylvania Electric Company	Baa2	Stable	18%
	Pennsylvania Power Company	Baa2	Stable	37%
	Potomac Edison Company (The)	Baa3	Stable	19%
	Potomac Electric Power Company	Baa1	Stable	16%
	Public Service Electric and Gas Company	A2	Stable	25%
	Rochester Gas & Electric Corporation	Baa1	Stable	26%
	Texas-New Mexico Power Company	Baa1	Positive	26%
	Toledo Edison Company	Baa3	Stable	8%
	United Illuminating Company	Baa1	Stable	20%
	West Penn Power Company	Baa2	Stable	25%
	Western Massachusetts Electric Company	A3	Stable	23%
LDCs	Atlanta Gas Light Company	A2	Stable	30%
	Atmos Energy Corporation	A2	Stable	23%
	Berkshire Gas Company	Baa1	Stable	29%
	Connecticut Natural Gas Corporation	A3	Stable	26%
	DTE Gas Company	Aa3	Stable	24%
	Indiana Gas Company, Inc.	A2	Stable	27%
	Laclede Gas Company	(P)A3	Stable	26%
	New Jersey Natural Gas Company	(P)Aa2	Stable	19%
	Northern Illinois Gas Company	A2	Stable	49%
	Northwest Natural Gas Company	(P)A3	Stable	20%
	Piedmont Natural Gas Company, Inc.	A2	Stable	23%
	Questar Gas Company	A2	Stable	25%
	SEMCO Energy, Inc.	Baa1	Stable	15%
	SourceGas LLC	Baa2	Stable	14%
	South Jersey Gas Company	A2	Stable	21%
	Southern California Gas Company	A1	Stable	32%
	Southern Connecticut Gas Company	Baa1	Stable	22%

Entity Name	LT Rating	Outlook	CFO/Debt (3-Yr Avg) LTM 3Q11-LTM3Q13
UGI Utilities, Inc.	A2	Stable	27%
UNS Gas, Inc.	Baa1	Stable	27%
Washington Gas Light Company	A1	Stable	35%
Wisconsin Gas LLC	A1	Stable	28%
Yankee Gas Services Company	Baa1	Stable	18%

Source: Moody's Investors Service

Moody's Related Research

Industry Outlooks:

» US Regulated Utilities: Regulation Provides Stability as Business Model Faces Challenges, July 2013 (156754)

» US Regulated Utilities: Regulatory Support, Low Natural Gas Prices Maintains Stability, February 2013 (149379)

» US Unregulated Power: Headwinds continue for the merchant power players, July 2013 (156302)

» US Coal Industry Outlook Stabilizes as Business Conditions Hit Bottom, August 2013 (157309)

» Global Oil & Gas: Persistent High Oil Prices Keep Industry Robust, but Global Supply Increasing (Summary), December 2013 (160980)

Special Comment:

» US utility sector upgrades driven by stable and transparent regulatory frameworks, January 2014 (163726)

» YieldCos: Fantastic for Shareholders; Less So for Bondholders, November 2013 (160121)

» Planned Capital Expenditures Set to Fall in 2015, And Modestly Decline Thereafter, October 2013 (158945)

» US Telecommunications and Regulated Utilities: End of Bonus Depreciation Could Prompt Cuts in Capital Spending, Dividends, September 2013 (157572)

» US Local Gas Distribution Companies: Lower risks and unique growth opportunities versus electric utility peers, May 2013 (153018)

» The Prospect of US LNG Exports Influences Pricing and Gas Markets Worldwide, May 2013 (151819)

» US Extends Tax Credit for Wind Power, a Credit Positive for Developers and Utilities, January 2013 (148915)

Rating Methodology:

» Regulated Electric and Gas Utilities, December 2013 (157160)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

» contacts continued from page 1

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Assessing U.S. Investor-Owned Utility Regulatory Environments

Regulatory advantage is the most heavily weighted factor when S&P Global Ratings analyzes a regulated utility's business risk profile. One significant aspect of regulatory risk that influences credit quality is the regulatory environment in the jurisdictions where a utility operates. A utility management team's skill in dealing with regulatory risk can sometimes overcome a difficult regulatory environment. Conversely, companies' regulatory risk can increase even with supportive regulatory regimes if management fails to devote the necessary time and resources to the important task of managing regulatory risk. We modify our assessment of regulatory advantage to account for this dynamic in our ratings methodology (for the criteria we use to rate utilities, see "Corporate Methodology," and "Key Credit Factors For The Regulated Utilities Industry," published Nov. 19, 2013, on RatingsDirect.)

There are specific factors we use in the U.S. to assess the credit implications of the numerous regulatory jurisdictions here that help us determine the "preliminary regulatory advantage" in our credit analysis of each investor-owned regulated utility. We organize the subfactors of regulatory advantage into four categories:

- Regulatory stability,
- Tariff-setting procedures and design,
- Financial stability, and
- Regulatory independence and insulation.

Regulatory Stability

The foundation of our opinion of a jurisdiction is the stability of its approach to regulating utilities, encompassing transparency, predictability, and consistency. Given the maturity of the U.S. investor-owned utility industry, the long history of utility regulation (going back to the early 20th century) and the well-established constitutional protections accorded to utility investments, we emphasize the principle of consistency when weighing regulatory stability. We also incorporate the degree to which the regulatory framework either explicitly or implicitly considers credit quality in its design.

Regulatory Change Can Bring Stability, Or Take It Away

While stability is one of the four pillars of our approach to evaluating regulatory risk, experience shows us that it's not an absolute positive or negative for creditors. Change can boost or lessen risk, and any improvement in a regulatory regime will overcome any negative connotations of instability. A good example is Michigan, which in about 2008 revamped its whole approach to utility regulation. As implemented in subsequent years by the Michigan Public Service Commission, the reforms have almost completely transformed the regulatory environment in that state.

However, during any period of change, we see the uncertainties surrounding the process and the outcome as possible major causes of risk. A more recent and still ongoing example is New York, where the Public Service Commission's (NYPSC) Reforming the Energy Vision (REV) proceeding is possibly revving up risk for utilities. While the NYPSC seemed at first to be focusing more on high-minded policy questions than on making a lot of changes to day-to-day operations, the current phase could eventually disrupt the way utilities make money and affect their ability to earn the authorized return. If the end result is greater operating risk with no opportunity to earn greater returns, our assessment of the regulatory environment could change.

Durability of regulatory system

An established, dependable approach to regulating utilities is a hallmark of a credit-supportive jurisdiction. Creditors lend capital to utilities over long periods to fund the development of long-lived assets. A firm understanding of the basic "rules" that will govern how the utility will recover its costs, including servicing its debt and the return on its capital over an extended period, is essential to accurately assess credit risk. Major or frequent changes to the regulatory model invariably raise risk due to the possibility of future changes. Steady application of transparent, comprehensible policies and practices lowers risk.

How long a regulatory framework has been in place is the most important factor in this area. We view jurisdictions as most supportive when there have been no major changes or where the approach has been consistent for a long time and is not prone to further changes. Jurisdictions that have undergone a major, fundamental change in the regulatory paradigm that seems to be working well are a little less supportive, and less so a jurisdiction that is transitioning to a new regulatory approach. Credit risk rises if the transition attracts political attention. The less-supportive jurisdictions are those that frequently alter the basic regulatory approach. We also view the framework's development less favorably if policy disputes or legal actions cause contention, indicating that the political consensus regarding utility regulation is fragile.

Some jurisdictions permit competitive markets to prevail for some important functions of the delivery of utility services, notably wholesale markets for electricity and retail markets for electric or gas service. In others, vertical integration is the norm. A jurisdiction's credit-supportiveness is more prone to suffer if market forces directly influence major cost items that utilities could otherwise control through cost-based regulation because of the potential volatility it creates. The risk inherent in a market-based model is straightforward: utility rates are more volatile when markets influence them rather than fully embedded costs, and regulators are apt to resist full and timely recovery when market price changes are abrupt and substantial (and perhaps misunderstood). We observe less support for credit quality in jurisdictions that are in the midst of deregulating important parts of the utility framework. The uncertainty of the timing

of reaching the outcome--and what the result will be--is a negative factor from a credit perspective. Utilities are also prone to financial stress when the transition to competition causes potential "rate shock" for customers that regulators could resist.

Transparency of regulatory framework and attitude toward credit quality

We believe regulation works best when it is rule-based. Creditor interests are better protected by the presence of and adherence to a pre-set code of rules and procedures that we can look to when assessing risk. Risk is lower when the rules are more transparent and when they take into account a utility's financial integrity. We regard jurisdictions that require regulators to protect utilities' financial soundness and have transparent policies and procedures as the most credit-supportive. We ascribe higher risk in jurisdictions where policies and procedures support financial integrity, but where inconsistency can selectively arise. We believe a jurisdiction provides even less support when transparency merely exists. We see less support when any of these credit factors are absent, or if the regulator's record on following precedent is poor.

Tariff-Setting Procedures

We review rate decisions as part of our surveillance on each U.S. utility. We focus on the jurisdiction's overall approach to setting rates and the process it uses to establish base rates (practices pertaining to separate tariff provisions for large expenses are in the "Financial Stability" part of our analysis). We focus on whether base rates, over time, fairly reflect a utility's cost structure and allow a fair opportunity to earn a compensatory return that provides creditors with a financial cushion that supports credit quality. If the process is geared toward an incentive-based system, our analysis centers on the risks related to the incentive mechanisms. If the jurisdiction has vertically integrated utilities, we review the resource procurement process and assess how it affects regulatory risk.

Rate Cases Can Affect Creditworthiness

Although not common, rate case outcomes can sometimes lead directly to a change in our opinion of creditworthiness. Often it's a case that takes on greater importance because of the issues being litigated. For example, in 2010, we downgraded Florida Power & Light and its affiliates following a Florida Public Service Commission rate ruling that attracted attention due to drastic changes to settled practices on rate case particulars like depreciation rates. More recently, in June 2016, we downgraded Central Hudson Electric & Gas due to our revised opinion of regulatory risk. While that reflected the company's own management of regulatory risk, it was prompted in part by other rate case decisions in New York that highlighted the overall risk in the state.

Sometimes change comes from outside the usual rate case process. The aforementioned improvement in Michigan (see the previous sidebar) came from legislative changes that reformed rate case procedures such as interim rate increases and time limits on rate decisions. In March 2016, we affirmed our ratings on Entergy Corp. and kept the outlook positive based on the prospect of lower regulatory risk as the company pursues strategic changes in its various jurisdictions. For instance, legislation in Arkansas allowing for formula rates could better enable Entergy to manage regulatory lag and earn its authorized return.

Ability to timely recover costs

We review authorized returns and capital structures in our analysis, but we focus mainly on actual earned returns. Examples abound of utilities with healthy authorized returns that have no meaningful expectation of earning those returns due to, for example, rate case lag (i.e., the relationship between approved rates and the age of the costs used to set those rates) or expense disallowances. Also, the stability of the returns is as important as the absolute level of financial returns, and we note the equity component in the capital structure used to generate the revenue requirement in rate proceedings. Higher authorized and earned returns and thicker equity ratios translate into better credit measures and a more comfortable equity cushion for creditors. We consider a regulatory approach that allows utilities the opportunity to consistently earn a reasonable return as a positive credit factor.

A very credit-supportive jurisdiction is one in which all of the utilities it regulates consistently earn above-average returns. We assess jurisdictions lower if only some of them do, and lower still if the earnings records are below average or highly variable from year to year. We deem jurisdictions as weaker when all utilities earn well-below-average returns, and we consider jurisdictions where all utilities consistently earn exceedingly poor returns, including years with negative returns, as weakest.

We consider "regulatory lag" along with the record of earned returns to assess timeliness. Credit-supportive jurisdiction typically have a track record of little regulatory lag, indicating that responsibility for a poor or uneven earnings history lies more with management than its regulators. In addition to the regulator's efficiency in completing rate cases, we consider the obsolescence of the costs on which the rates are based, the timing of interim rates, and other practices (such as allowing rates to automatically change in a future period based on inflation) that affect a utility's ability to earn its authorized return.

If a jurisdiction uses incentives as the primary ratemaking tool and institutes a comprehensive incentive program that allows revenues and costs to diverge, we evaluate the incentive mechanisms' effect on a utility's earnings capability and stability. A common approach features an extended period between base rate reviews, during which rates change according to a formula based on inflation, a predetermined productivity factor, and capital spending. An incentive-based program can be close to credit-neutral compared with systems that permit more frequent and dynamic rate changes if the risk is symmetrical (i.e., an equal opportunity to earn over or under the authorized return and equivalent reward or penalty for doing so) and limited (a maximum or minimum earnings band). The effect on regulatory risk depends on whether we believe the efficiency targets are realistic and achievable, the regulator's treatment of disparities in actual versus authorized spending, and the framework's flexibility to adjust returns for capital market conditions. If there are operating standards, we determine whether they fairly reward or punish utilities if performance deviates from expectations.

There is a muted effect on regulatory risk in jurisdictions where incentives are not central, but are instead used only to augment cost-of-service regulation. A moderate amount of incentives that carry symmetrical risks can even modestly support better credit quality. For example, a fuel-adjustment and purchased-power clause with a sharing mechanism that affects less than 10% of the total fuel costs and cuts both ways when commodity markets change can modestly reduce risk by offering the utility a mild incentive for effective procurement and efficient operations, without unduly exposing it to commodity price risk.

We typically view jurisdictions as credit-supportive if regulators use symmetrical incentive mechanisms sparingly in the rate-setting process. When incentives play a larger role in the rate-setting approach, but are well-designed to evenly allocate risk, we see less support for credit quality. We regard still lower jurisdictions where incentives dominate and are poorly designed. Jurisdictions where incentives significantly degrade risk and are part of a comprehensive incentive regime harbor the most risk for creditors.

Financial Stability

When we evaluate U.S utility regulatory environments, we consider financial stability to be of substantial importance. Cash takes precedence in credit analysis. A regulatory jurisdiction that recognizes the significance of cash flow in its decision-making is one that will appeal to creditors.

Creative Ratemaking Can Help…If Used Correctly

The ability of financial stability factors to help a utility maintain and smooth its cash flow gives prominence to this area of our analysis. In addition to the near-ubiquitous fuel clauses, we see utilities give more attention to obtaining so-called "disc" mechanisms (DSIC, for distribution system investment charge, is a common acronym for this kind of rate adjustment) that accelerate and stabilize cash flow realization when a utility pursues a strategy of boosting rate base to fuel earnings growth.

For instance, Duquesne Light recently filed for a DSIC mechanism in Pennsylvania in conjunction with a long-term plan to improve its distribution system. Approval, requested for October, would enhance our view of Duquesne's ability to manage regulatory risk, because it would consequently be joining the other Pennsylvania utilities that already benefit from this mechanism. On the other end of the spectrum, Mississippi Power's ongoing travails in obtaining rate relief for its Kemper coal-fired plant, which has experienced significant cost and schedule problems, points to how regulatory risk can deteriorate under stress when well-established procedures for handling large and risky capital projects are absent or not followed.

Treatment of significant expenses

When utilities have major expenses such as fuel and purchased power/gas/water, the presence of separate tariff provisions to facilitate full and contemporaneous recovery is the most prominent factor in this part of our analysis. The timely adjustment of rates in response to changing commodity prices and other expenses that are largely out of management's control is a key feature of a credit-supportive regulatory jurisdiction. The analysis centers on the special tariff mechanisms to determine their effectiveness in producing the cash flow stability they are designed to achieve. The frequency of rate adjustments, the ability to quickly react to unusual market volatility, and the control of opportunities to engage in hindsight disallowances of costs could affect our analysis almost as much as whether the tariff provisions exist at all. The record of disallowances plays a part when we assess regulatory advantage.

We consider jurisdictions to be very credit-supportive if utilities can recover all high-expense items through an automatic tariff clause that is based on projected costs, adjusts frequently, and has no record of any significant disallowances. We see more risk if separate mechanisms exist, but lack some of the above features. We view jurisdictions that lack independent rate mechanisms for large expenses and have a record of significant disallowances

as weakest.

Treatment of capital spending

When applicable, a jurisdiction's willingness to support large capital projects with cash during construction is an important aspect of our analysis. This is especially true when the project represents a major addition to rate base and entails long lead times and technological risks that make it susceptible to construction delays. Broad support for all capital spending is the most credit-sustaining. Support for only specific types of capital spending, such as specific environmental projects or system integrity plans, is less so, but still favorable for creditors. Allowance of a cash return on construction work-in-progress or similar ratemaking methods historically were extraordinary measures for use in unusual circumstances, but when construction costs are rising, cash flow support could be crucial to maintain credit quality through the spending program. Even more favorable are those jurisdictions that present an opportunity for a higher return on capital projects as an incentive to investors.

Very supportive jurisdictions offer a separate recovery mechanism for all capital spending, a mandated current cash return during construction, and a bonus return for some or all capital projects. We deem a jurisdiction weaker if there is a separate mechanism for only certain kinds of spending and the cash return and higher return are subject to the regulator's discretion. We view jurisdictions that don't allow separate recovery or a current return as being lower on the scale. We assess a jurisdiction as weaker still when it doesn't have independent rate mechanisms for capital projects, and we view it as most risky when full recovery occurs only after a utility's assets become operational.

Cash-smoothing mechanisms

We have a more positive view of jurisdictions that use innovative regulatory provisions that help to smooth cash flow from period to period. For a jurisdiction that focuses on incentives in its basic approach to ratemaking, through multiyear rate plans or a formula rate plan, we view the availability of "reopeners" (to adjust rates for unexpected events out of the utility's control) as key to this part of our analysis. The utility's ability to petition for a rate increase when unexpected or uncontrollable costs arise in the midst of a long-term rate plan is a critical risk mitigant.

Other examples of risk-dampening regulatory policies include hedging program approvals, and decoupling (the separation of a utility's profits from sales) or weather-related mechanisms. If a utility seeks approval of a hedging program to manage exposure to commodity prices, it can reduce risk if there's a clearly stated hedging policy that its regulator has endorsed, and a track record of activity that conforms to the policy that has not been subject to regulatory second-guessing. A well-designed decoupling or weather-normalization mechanism that efficiently adjusts rates to offset the sales effect of economic conditions, customer usage trends, or weather will soften earnings and cash flow volatility to the benefit of creditors. If applicable, we view a record of regulatory responsiveness to extreme events for utilities that are prone to violent or disruptive weather (like hurricanes) as favorable for credit quality.

A jurisdiction is more credit-supportive if it makes extensive use of extraordinary and credit-supportive rate mechanisms. Also favorable are jurisdictions that use innovative mechanisms selectively, or have regulators that are receptive to reopeners where incentives are the main ratemaking method.

Regulatory Independence And Insulation

The role of politics in U.S. utility regulation is often misunderstood. In most jurisdictions, the regulator's function is to set and regulate rates and service standards with due regard not only for the interests of those who advance the capital needed to provide safe and reliable utility service, but for other constituents as well. Creditors should recognize that utility regulation harbors political as well as economic risks. Therefore, how politics could influence regulation helps us evaluate a regulatory environment.

Political Influence On Utility Regulation Can Yield Unexpected Results

This is often the most variable area of our analysis and the most difficult to assess. The most dramatic, fairly recent reminder of how political forces can influence regulatory risk was last year's unexpected reversal by the popularly elected Mississippi Supreme Court of a significant rate increase granted for Mississippi Power to help pay for a major power plant under construction. Regulators, who were ordered to roll back rates and issue refunds, struggled to make decisions amid the strained political atmosphere and extra scrutiny that the Court's action had created. The episode also highlighted the greater regulatory risk that attends jurisdictions that expose regulators (and in this case the appellate court) to direct political accountability.

Another more recent example of political influence on regulation underscores the complexity of this area of analysis, because it featured many participants at both the federal and state level. Electric utilities in Ohio had a credible strategy for dealing with rising competitive risks in their merchant generation portfolios by offering the output to retail customers at pre-set prices on a long-term basis, which the state regulator approved. The federal regulator (Federal Energy Regulatory Commission, or FERC), responding to complaints by other generators that the plan would inhibit the operation of the competitive electricity market, essentially overruled the Ohio regulators and blocked the utilities from pursing the strategy that would have reduced its risk profile. It essentially decided that its political interest in and ideological commitment to efficient electricity markets overrode the state's political interest in stable electric rates. The saga is still continuing with attempts to bypass the FERC's ruling through other means, but no matter what the ultimate result, we see how political considerations can increase risk.

Political independence of regulator

The primary factor in this part of our analysis is the regulators' (and, when relevant, the judicial body that reviews the regulators' decisions) political independence. We think it's more credit-supportive when the regulator is substantially independent of the political process. Jurisdictions are somewhat less favorable when insulation is strong, such as when the executive branch of government appoints regulators subject to legislative approval. We consider jurisdictions to be further down the scale when the same voters who pay utility bills directly elect the regulators, but institutional efforts have been made to erect some shield for regulators from transient political concerns. We view jurisdictions that arrange for direct political accountability of regulators that persistently influences regulatory decisions as less supportive.

Record of direct political intervention

The overall atmosphere that a regulator operates in can affect its ability to deliver sound, fair, and timely rate decisions and set prudent regulatory policies that assist utilities in managing business and financial risk. In this part of our

evaluation, we may consider the tone that politicians set, the history of political insulation given to the regulatory body and the courts that review its actions, and the behavior of important constituencies that intervene in utility proceedings. We also track the public visibility of utility issues, because we believe that the likelihood of constructive regulatory behavior increases with the comparative obscurity of utility issues.

We view a jurisdiction as having a lower risk if the regulatory environment is marked by cooperative attitudes and constructive interventions in important matters before the regulator. We assess a jurisdiction lower when the atmosphere is more combative and restricts the regulator's ability to act in the long-term best interests of all parties. We consider jurisdictions as weaker if the regulatory environment is so infused with short-term political influence over regulatory decisions that the regulator can't effectively consider investor interests in its decisions.

Related Criteria And Research

Related Criteria

- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- Criteria | Corporates | Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013

Stocks in the Water Utility Industry have traditionally been purchased by income-oriented investors for their yield and dividend growth prospects. Accounts interested in these equities typically are willing to sacrifice capital appreciation in return for a well-defined income stream and a reduced amount of risk. This may be changing, however, as the yields of many water utility stocks are now lower than the *Value Line* median.

Five of the eight regulated utility stocks we follow outperformed the market averages since we last reviewed the group three months ago. Of these, the best performers were the small capitalization equities.

From an operational standpoint, the group continued to post decent earnings. Much of this is the result of positive regulatory climates in many states around the country.

Capital spending in the industry is significant as the water infrastructure in the United States had long been neglected. Utilities are now investing heavily to replace aging pipelines and valves, and to modernize wastewater facilities.

Consolidation remains an ongoing trend in the industry. Smaller municipally run water districts do not have sufficient funds to bring their plant and equipment up to EPA-mandated standards. As a result, they are being merged with larger utilities that have better access to capital. In addition, because this industry is plagued with redundancies, mergers are leading to economies of scale.

Are Water Utility Stocks Still Yield Plays?

The average dividend yield on the eight regulated water utilities we follow is currently 2.1%, or exactly the same as the median for all stocks in the *Value Line* universe. Historically, the yield on these stocks has been much higher. As an example, the typical yield on an electric utility equity is about 3.6%, or 150 basis points higher than the water utility industry. Why is this? One reason is that when taken as a whole, the market capitalization of the group is very modest. Thus, it doesn't take a large shift into the sector by institutional investors to drive the price of these stocks higher and their yields lower. Indeed, the three stocks with the best returns over the past three months were all small cap stocks. *York Water* and *SJW* each surged 30% while *Middlesex Water* rose about 25%. Before these moves, the market capitalization of each individual stock was $375 million, $850 million, and $550 million, respectively. The spike in prices has also left the equities with respective yields of 1.7%, 1.5%, and 2.1%. Taking a look at the three biggest members of the group, only *American Water Works* performed well, while *Aqua America* and *American States Water* both only rose a meager 1%.

Operations And Earnings Are Solid

For the most part, water companies have been experiencing reasonable earnings growth. This comes despite a nationwide trend aimed at getting households to reduce their consumption of water. How can the bottom line do well when state authorities and the utilities themselves are discouraging water usage? The answer is that many states have implemented strategies that not only don't penalize utilities for selling less water, but provides incentives for households to conserve more.

INDUSTRY TIMELINESS: 89 (of 97)

State regulatory authorities are actively working with the industry in a way that is benefited both parties. In drought-stricken California, regulators have changed the compensation methodology for water utilities. Now they earn income on a fee basis, regardless of the amount of water sold. This has proven to be successful in cutting consumption without hurting the utilities bottom line.

As we often point out, the most important factor in a any utility's success, whether it provides electricity, gas, or water, is the regulatory climate in which it operates. Harsh regulatory conditions can make it nearly impossible for the best run utilities to earn a reasonable return on their investment.

Looking forward, the outlook for continued successful cooperation between states and utilities seems likely. Both parties realize that for decades much-needed capital improvements were deferred. Industry experts are now in agreement that large sums have to be made to bring the nation's water infrastructure up to par. Because water bills have been less than homeowners have been paying for other utility services, there appears to be less resistant in increasing them.

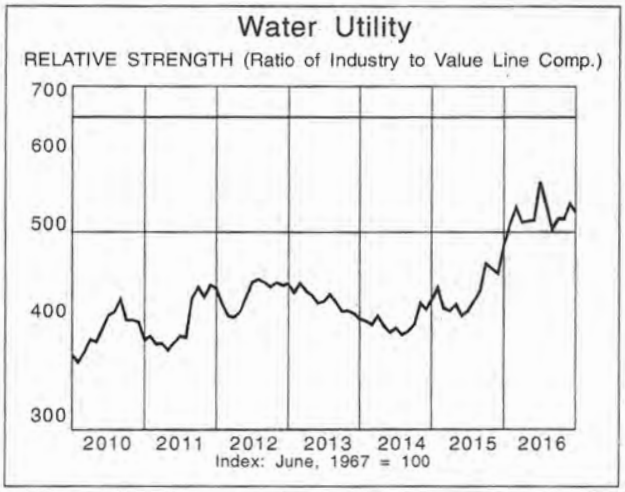
Consolidation

There are over 50,000 mostly small water authorities in the U. S. Many of these districts find themselves without the sums needed to modernize their facilities. As a result, many are merging with larger entities that have the financial wherewithal to make the required investment. *American Water Works*, *American States Water*, and *Aqua America* are three of the most active acquirers. Another benefit from these mergers is that there are a large amounts of redundancies in the industry and substantial cost savings can be achieved.

Conclusion

Our ranking system suggests that stock prices in this group are fully valued. None of the eight stocks are timely with *American Water Works*, *Connecticut Water Service*, *Middlesex Water*, *SJW Corp*, and *York Water* all ranked to underperform the market averages in the year ahead.

James A. Flood



Alternative Regulation for Emerging Utility Challenges: 2015 Update

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Contents

I. Introduction

Investor-owned electric utilities in the United States are buffeted today by varied and rapid changes in the business conditions they face. For vertically integrated electric utilities ("VIEUs") and utility distribution companies ("UDCs") alike, the traditional cost of service approach to rate regulation is often not ideal for helping utilities cope with these changes. Alternative approaches to regulation ("Altreg") can often help utilities secure better outcomes for their customers and shareholders.

The changing business climate stems primarily from three root causes. One is pressure, from policymakers and many customers, for the power industry to lighten its environmental footprint. In addition to evolving renewable portfolio standards at the state level, utilities must comply with an array of federal initiatives such as the Environmental Protection Agency's Clean Power Plan. Demand-side management ("DSM") programs and tightening building codes and appliance standards encourage energy efficiency. Some customers seek power from greener sources than the increasingly clean portfolios of utilities. Self generation from rooftop solar is one means to this end, and its cost is falling. Customer-sited distributed generation ("DG") must be accommodated, and utilities must purchase power surpluses that these facilities generate at regulated rates.

A second force for change is technological progress in metering and distribution. Advanced metering infrastructure and other smart grid technologies can improve reliability and facilitate integration of intermittent renewables. Time-sensitive pricing can encourage customers to use the grid in less costly ways. New value-added optional products and services can be offered which benefit customers.

A third force for change is increased concern about the reliability and resiliency of grid service. Some facilities are approaching advanced age, and some need more protection from severe weather. Many customers seek better quality service.

These forces are having important practical effects on utilities. Growth in the demand for their traditional services has slowed, and utilities face competition from distributed energy resources ("DERs"). Nevertheless, some utilities need capital expenditures ("capex") for cleaner generating capacity, smart grid facilities, increased resiliency, and replacement of aging assets. Many new facilities don't automatically trigger revenue growth. Increased marketing flexibility is needed to meet competitive challenges and complex, changing customer needs.

Under traditional regulation, the base rates that compensate utilities for costs of non-energy inputs are reset only in general rate cases with historical test years. These lengthy proceedings require a detailed review of all costs and their allocation amongst the utility's retail services. Revenue from secondary sources (e.g., off-system sales) is imputed against the revenue requirement.

Most base rate revenue is drawn from volumetric and other usage charges. Since the cost of base rate inputs is driven more by capacity than system use in the short run, a utility's finances are sensitive between rate

cases to the gap between growth in system use and capacity. A convenient proxy for this gap is the growth in use per customer (aka "average use"). The need for rate cases increases when average use declines.

Traditional regulation is ill-suited for addressing many of today's challenges. Growth in average use was once positive, and the resulting incremental revenues helped utilities finance rising cost without rate cases. Today, growth in the average use of residential and commercial customers is typically static and often negative. Utilities needing normal or high capital expenditures are then compelled to file rate cases more frequently. These involve high regulatory cost and are nonetheless frequently uncompensatory when they involve historical test years. Frequent rate cases also reduce utility opportunities to increase earnings from improved cost containment and marketing. Traditional regulation also does not allow for many value-added or optional rates and services. Improved utility performance is thus discouraged at a time when it is increasingly needed to respond to competitive pressures.

Increased financial attrition has been a factor in the long-term decline of average credit ratings among investor-owned electric utilities. This is illustrated in Figure 1. Higher risk raises financing costs and can discourage needed investments.

Alternative approaches to regulation have been developed which handle today's business conditions better. Some, such as multiyear rate plans, formula rates, and fully-forecasted test years, can involve sweeping regulatory change. Others, like revenue decoupling and cost trackers, target specific challenges.

This survey, now updated to include precedents through mid-2015, explains Altreg options and details precedents in the regulation of retail electric utility rates. A summary of states that currently use these approaches is featured in Table 1. Information is also provided on precedents for gas and water distributors and for energy utilities in Australia, Canada, and Britain. This year's survey also discusses marketing flexibility, a new Altreg area of growing interest to EEI members.

Figure 1

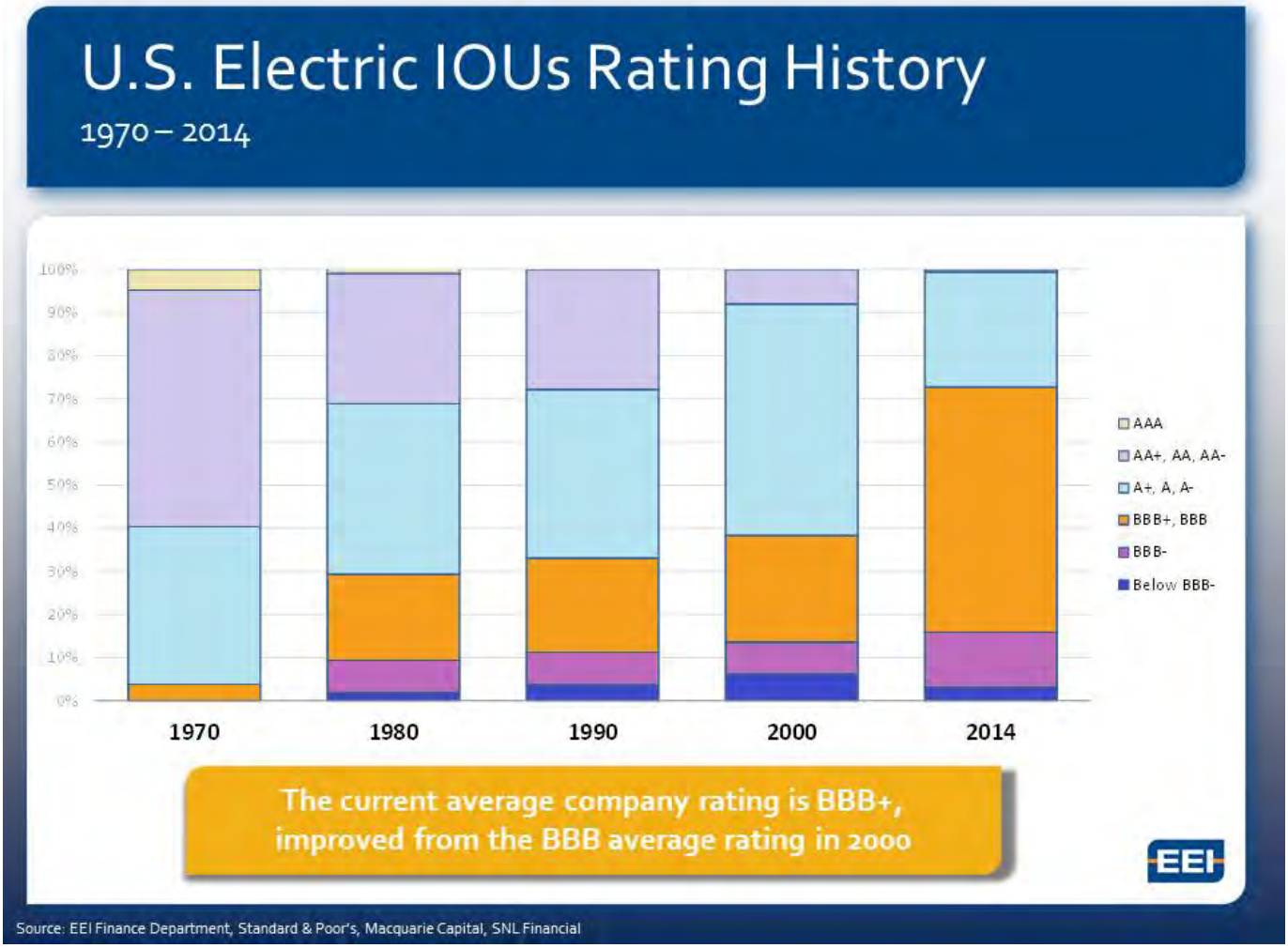
U.S. Electric IOUs Rating History
1970 – 2014
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
1970
1980
1990
2000
2014
AAA
AA+, AA, AA-
A+, A, A-
BBB+, BBB
BBB-
Below BBB-
The current average company rating is BBB+, improved from the BBB average rating in 2000
EEI
Source: EEI Finance Department, Standard & Poor's, Macquarie Capital, SNL Financial

Table 1

Alternative Regulation Tools: An Overview of Current Precedents

State	Capital Cost Trackers	Measures that Relax the Use/Revenue Link			Multiyear Rate Plans[1]	Retail Formula Rate Plans	Forward Test Years
		Decoupling True Up Plans	Lost Revenue Adjustment Mechanisms	Fixed Variable Retail Pricing			
Alabama	Electric & Gas					Electric & Gas	Yes
Alaska							
Arizona	Electric, Gas, & Water	Gas only	Electric & Gas		Electric only		
Arkansas	Electric & Gas	Gas only	Electric & Gas				
California	Electric & Gas	Electric & Gas			Electric & Gas		Yes
Colorado	Electric & Gas				Electric only		
Connecticut	Electric, Gas, & Water	Electric & Gas	Gas only	Electric & Gas			Yes
Delaware	Electric, Gas, & Water						
District of Columbia	Electric & Gas	Electric only					
Florida	Electric & Gas			Gas only	Electric only		Yes
Georgia	Electric & Gas	Gas only		Gas only	Electric only	Gas only	Yes
Hawaii	Electric only	Electric only			Electric only		Yes
Idaho	Electric only	Electric only					
Illinois	Gas & Water	Gas only		Electric & Gas		Electric only	Yes
Indiana	Electric, Gas, & Water	Gas only	Electric only		Gas only		
Iowa	Gas only			Gas only	Electric only		
Kansas	Gas only		Electric only	Gas only			
Kentucky	Electric & Gas		Electric & Gas	Gas only			Yes
Louisiana	Electric only		Electric only		Electric only	Electric & Gas	Yes
Maine	Electric, Gas, & Water	Electric only		Gas only	Gas only		Yes
Maryland	Electric & Gas	Electric & Gas					
Massachusetts	Electric & Gas	Electric & Gas	Electric & Gas		Gas only		
Michigan	Gas only	Gas only					Yes

Table 1 continued

State	Capital Cost Trackers	Measures that Relax the Use/Revenue Link			Multiyear Rate Plans[1]	Retail Formula Rate Plans	Forward Test Years
		Decoupling True Up Plans	Lost Revenue Adjustment Mechanisms	Fixed Variable Retail Pricing			
Minnesota	Electric & Gas	Electric & Gas					Yes
Mississippi	Electric & Gas		Electric & Gas	Electric only		Electric & Gas	Yes
Missouri	Gas & Water			Gas only			
Montana	Electric & Gas		Gas only				
Nebraska	Gas only			Gas only			
Nevada	Gas only	Gas only	Electric only				
New Hampshire	Electric, Gas, & Water			Gas only	Electric & Gas		
New Jersey	Electric, Gas, & Water	Gas only					
New Mexico							Yes
New York	Gas & Water	Electric & Gas	Gas only	Electric & Gas	Electric & Gas		Yes
North Carolina	Gas & Water	Gas only	Electric only				
North Dakota	Electric only			Gas only	Electric only		Yes
Ohio	Electric, Gas, & Water	Electric only	Electric only	Gas only	Electric only		
Oklahoma	Electric only		Electric only	Electric & Gas		Gas only	
Oregon	Electric & Gas	Electric & Gas	Electric & Gas				Yes
Pennsylvania	Electric, Gas, & Water			Gas only			Yes
Rhode Island	Electric & Gas	Electric & Gas					Yes
South Carolina	Electric only		Electric only			Gas only	
South Dakota	Electric only						
Tennessee	Gas only	Gas only		Gas only		Gas only	Yes
Texas	Electric & Gas			Gas only		Gas only	
Utah	Gas only	Gas only					Yes
Vermont				Gas only			
Virginia	Electric & Gas	Gas only		Gas only	Electric only		
Washington	Gas only	Electric & Gas			Electric & Gas		
West Virginia	Electric only						
Wisconsin				Gas only			Yes
Wyoming	Electric only	Gas only	Electric & Gas	Electric & Gas			Yes

[1] This column excludes plans involving rate freezes without extensive supplemental funding from trackers.

II. Cost Trackers

A cost tracker is a mechanism for expedited recovery of specific utility cost (e.g., outside of a rate case). Balancing accounts are typically used to track unrecovered costs. Cost recovery is often implemented using tariff sheet provisions called riders.

Trackers are used in various situations where they are more practical than rate cases for addressing particular costs. Utilities usually recover fuel and purchased power costs via trackers because the volatility and substantial size of these costs would otherwise lead to frequent rate cases and materially impact utility risk. Other volatile expenses that are sometimes addressed with trackers include those for pensions, severe storms, and uncollectible bills.

A second use of trackers is for costs incurred due to policies of government agencies. Examples here include franchise fees and certain taxes. Tracking costs like these is fair to utilities and encourages government agencies to consider the impact of their policies on customer bills.

Trackers are also used to compensate utilities for costs that are rapidly rising and don't otherwise trigger new revenue, whether or not they are volatile or mandated. This encourages needed expenditures and reduces risk and the frequency of rate cases. Examples of operation and maintenance ("O&M") expenses that are sometimes tracked due in large measure to their rapid growth include those for health care.

Trackers for some costs have multiple rationales. DSM expenses, for example, are often sizable and sometimes grow rapidly.[1] Utility DSM programs are often mandated. Additionally, DSM can slow growth in the average use of power and reduce the need for plant additions, important sources of earnings growth for utilities. Tracking DSM expenses helps to balance utility incentives to embrace DSM.

Capital cost trackers typically address the accumulating depreciation, return on asset value, and taxes that result from the capex.[2] Capital costs can qualify for tracker treatment on several grounds. Major plant additions are volatile. Capex might be necessitated by highway construction or changes in government safety, reliability, or environmental standards. Capex is sometimes large enough to cause brisk cost growth that would otherwise occasion frequent rate cases.

An early use of capital cost trackers in the electric utility industry was to address construction costs of large power plants. These plants can take years to construct. An allowance in rates for a return on funds used during construction was traditionally not permitted until assets were used and useful and a rate case was filed. Deferred recovery of the allowance strains utility cash flow, increases financing expenses, and induces more rate "shock" when the value of the plant and construction financing is finally added to the rate base.

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[1] This survey only documents capital cost trackers. Trackers for DSM expenses are ubiquitous so that there is less need for documentation.

[2] Recovery is sometimes achieved by keeping a rate case open beyond the date of a final decision for the limited purpose of adding assets to the revenue requirement.

Many commissions have addressed these problems by making a return on construction work in progress ("CWIP") eligible for immediate recovery. Capital cost trackers have often been used in lieu of frequent rate cases to obtain CWIP recovery.

Capital costs of distribution system modernization are sometimes recovered using trackers for somewhat different reasons. The annual expenditure may not be as large as that for large generation units, and construction of specific assets usually takes less than a year. However, the capex can still be sizable and doesn't automatically trigger new revenue when completed. A tracker for accelerated modernization costs can help a company modernize its grid and improve its services without frequent rate cases.

Capital costs of generation emissions controls are often accorded tracker treatment. These controls are occasioned by the emissions policies of state and federal agencies. Additionally, the facilities do not produce revenue and some facilities typically become used and useful each year over a series of years.

There are varied treatments of costs in approved capital trackers. Regulators often approve tracked capex budgets in advance, usually after considerable deliberation. Procedures for reviewing the need for generation plant additions are especially well established. Once a budget is set, the treatment of variances between actual and budgeted cost becomes an issue. Some trackers permit conventional prudence review treatment of cost overruns. In other cases, no adjustments are subsequently made if cost exceeds the budget. In between these extremes are mechanisms in which deviations, of prescribed magnitude, from budgeted amounts are shared formulaically (e.g., 50-50) between the utility and its customers. Utilities are also permitted sometimes to share in the benefits of capex underspends. The prudence of tracked capex is often subject to a final review when the cost is added to rate base, a step that usually occurs in the next rate case.

Recent precedents for capital cost trackers are listed in Table 2 and Figures 2 and 3. It can be seen that the precedents are numerous and continue to grow. This is the most widely used Altreg tool in the United States. For electric utilities, trackers for emissions controls, generation capacity, advanced metering infrastructure, and general system modernization have been especially common in recent years. Trackers for gas distributors typically address the cost of replacing old cast iron and bare steel mains. Trackers for water utilities, sometimes called distribution system improvement charges, are also common for accelerated modernization.

Figure 2: Recent Capital Cost Tracker Precedents by State: Energy Utilities

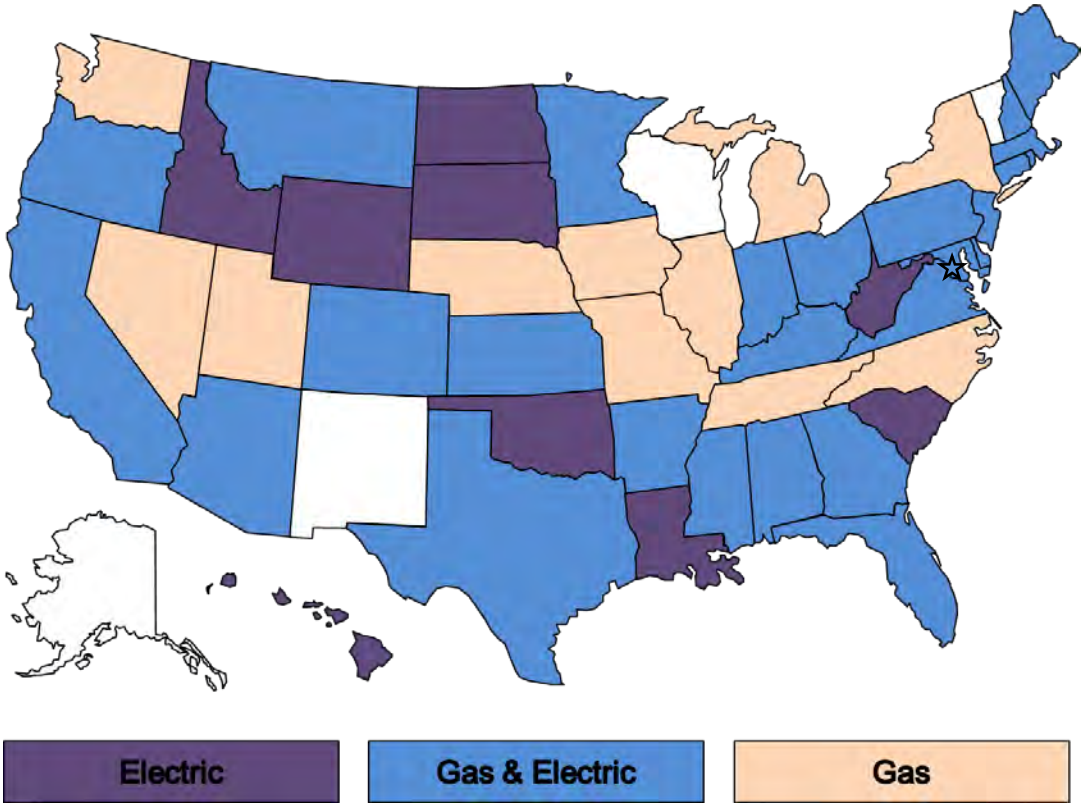


Figure 3: Recent Capital Cost Tracker Precedents by State: Water Utilities

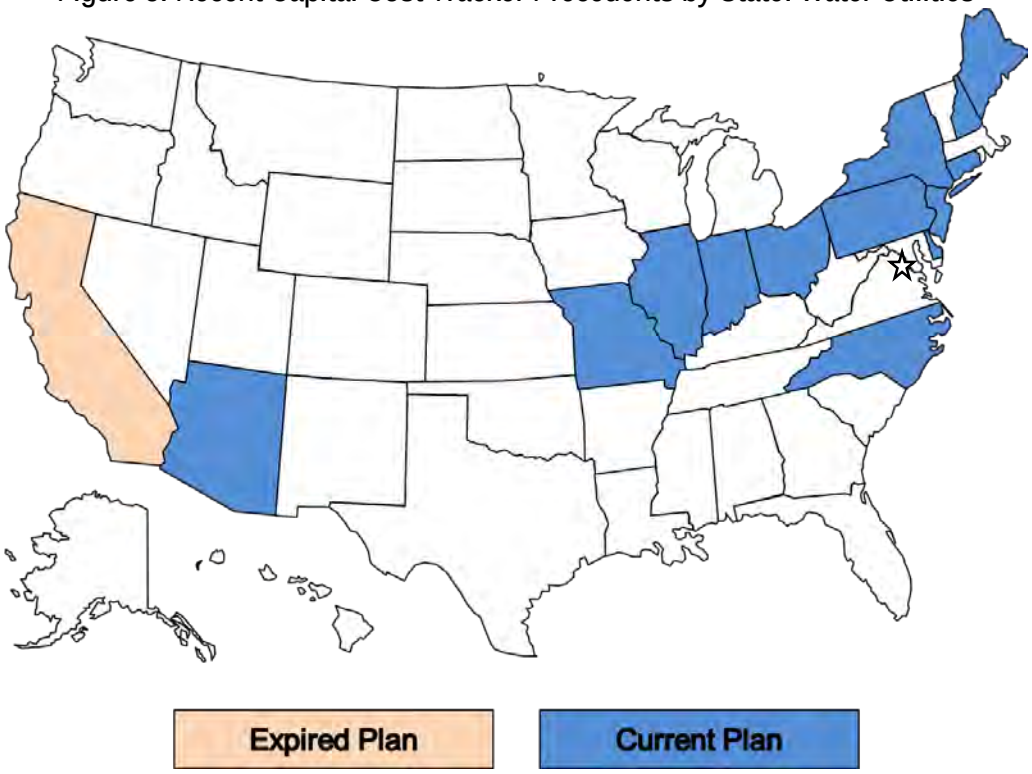


Table 2

Recent Capital Cost Tracker Precedents

Jurisdiction	Company Name	Services Included	Tracker Name	Eligible Investments	Case Reference
AL	Alabama Power	Electric	Rate Certificated New Plant	Any approved by Commission through CPCN	Dockets 18117 and 18416 (November 1982)
AL	Mobile Gas Service	Gas	Cast Iron Replacement Factor	Replacement of cast iron mains	Docket 24794 (November 1995)
AR	Arkansas Oklahoma Gas	Gas	Act 310 Surcharge	Relocations of pipelines mandated by government agencies	Docket 12-088-U (July 2013)
AR	Arkansas Oklahoma Gas	Gas	System Safety Enhancement Rider	Replacement of bare steel mains, mains on low pressure systems, mains that are subject of an advisory notice by government that company deems to be unsatisfactory	Docket 13-078-U (July 2014)
AR	CenterPoint Energy Arkla	Gas	Main Replacement Rider	Replacement of cast iron and bare steel mains and services	Docket 06-161-U (October 2007)
AR	CenterPoint Energy Arkla	Gas	Government Mandated Expenditure Surcharge Rider	Replacements resulting from highway and street rebuilding	Docket 10-108-U (March 2011)
AR	Empire District Electric	Electric	Alternative Generation Environmental Recovery Rider	Environmental	Docket 15-010-U (August 2015)
AR	Oklahoma Gas & Electric	Electric	Smart Grid Rider	Systemwide smart grid implementation	Docket 10-109-U (August 2011)
AR	SourceGas Arkansas	Gas	At-Risk Meter Relocation Program Rider	Installation of new services for meters relocated due to motor vehicle collision risk	Docket 13-079-U (July 2014)
AR	SourceGas Arkansas	Gas	Main Replacement Program Rider	Replacement of bare steel and coated steel mains, mains that are subject of an advisory notice by government that company deems to be unsatisfactory, and associated services	Docket 13-079-U (July 2014)
AR	SourceGas Arkansas	Gas	Act 310 Surcharge	Bare steel and cast iron pipeline replacement, in-line inspection project, emissions controlling catalysts for compressor station engines, greenhouse gas monitoring of some regulator stations, highway relocation projects	Docket 13-072-U (April 2014)
AR	SWEPCO	Electric	Alternative Generation Recovery Rider	New generation	Docket 09-008-U (November 2009)
AR	SWEPCO	Electric	Rider Environmental Compliance Surcharge	Environmental	Docket 15-021-U (October 2015)
AZ	Arizona Public Service	Electric	Renewable Energy Standard Adjustment Schedule	Renewables not recovered in base rates	Docket E-01345A-08-0172
AZ	Arizona Public Service	Electric	Environmental Improvement Surcharge	Environmental improvement projects	Docket E-01345A-11-0224 (May 2012)
AZ	Arizona Public Service	Electric	Four Corners Rate Rider Surcharge	Generation	Docket E-01345A-11-0224 (December 2014)
AZ	Arizona Water Company	Water	Arsenic Cost Recovery Mechanism	Investments to reduce arsenic in water supply	Various (operating regions have separate decisions approving ACRMs)
AZ	Arizona Water Company - Eastern Group	Water	System Improvement Benefits Mechanism	Replacement of leak prone mains and related services, meters, and hydrants, replace meters that do not have lead free brass, other replacements for mains, services, meters, and hydrants that are at the end of their useful life	Decision 73938 (June 2013)
AZ	Southwest Gas	Gas	Customer Owned Yard Line Cost Recovery Mechanism	Replacement and ownership of customer-owned yard lines that have been shown to be leaking	Docket G-01551A-10-0458 (January 2012)
AZ	Tucson Electric Power	Electric	Environmental Compliance Adjustor	Miscellaneous environmental projects	Decision 73912 (June 2013)
CA	Pacific Gas & Electric	Electric	Smart Grid Memorandum Account	Smart grid projects that received DOE matching funds	Decision 09-09-029 (September 2009)
CA	Pacific Gas & Electric	Gas Transmission	Pipeline Safety Implementation Plan	Pipeline replacement, automated valve installation, and upgrades to pipeline	Decision 12-12-030 (December 2012)
CA	Pacific Gas & Electric	Electric	Smart Grid Pilot Deployment Project Balancing Account	Pilot programs for smart grid line sensors, volt/VAR optimization, detection and location of distribution line outages and faulted circuits, and information technology investments to improve short term demand forecasting for power procurement	Decision 13-03-032 (March 2013)
CA	San Diego Gas & Electric	Electric & Gas	Advanced Metering Infrastructure Balancing Account	AMI	Decision 07-04-043 (April 2007)
CA	San Diego Gas & Electric	Electric	Energy Storage Balancing Account	Projects to store solar energy	Decision 13-05-010 (May 2013)
CA	San Diego Gas & Electric	Gas	Post-2011 Distribution Integrity Management Program Balancing Account	DIMP related costs	Decision 13-05-010 (May 2013)
CA	San Diego Gas & Electric	Gas	Transmission Integrity Management Program Balancing Account	TIMP related costs	Decision 13-05-010 (May 2013)
CA	San Diego Gas & Electric	Gas Transmission	Safety Enhancement Capital Cost Balancing Account	Replacement of mains that fail pressure tests or that cannot be pressure tested	Decision 14-06-007 (June 2014)
CA	Southern California Edison	Electric	SmartConnect Balancing Account	Advanced metering infrastructure project	Decision 08-09-039 (September 2008)
CA	Southern California Edison	Electric	Solar PV Balancing Account	Solar generation	Decision 09-06-049 (June 2009)
CA	Southern California Gas	Gas	Advanced Metering Infrastructure Balancing Account	AMI	Decision 10-04-027 (April 2010)
CA	Southern California Gas	Gas	Post-2011 Distribution Integrity Management Program Balancing Account	DIMP related costs	Decision 13-05-010 (May 2013)
CA	Southern California Gas	Gas	Transmission Integrity Management Program Balancing Account	TIMP related costs	Decision 13-05-010 (May 2013)
CA	Southern California Gas	Gas Transmission	Safety Enhancement Capital Cost Balancing Account	Replacement of mains that fail pressure tests or that cannot be pressure tested	Decision 14-06-007 (June 2014)
CO	Black Hills Colorado Electric	Electric	Transmission Cost Adjustment Rider	Transmission projects	Docket 09-014E, Decision C09-0271 (March 2009)
CO	Black Hills Colorado Electric	Electric	Clean Air Clean Jobs Act Rider	Gas-fired generation	Docket 14AL-0393E, Decision C14-1504 (December 2014)
CO	Public Service Company of Colorado	Electric	Transmission Cost Adjustment	Transmission projects	Docket 07A-339E, Decision C07-1085 (December 2007)
CO	Public Service Company of Colorado	Gas	Pipeline Safety Integrity Adjustment	Gas distribution and transmission integrity management programs, main replacement, partial recovery of two large pipeline replacements	Docket 10-AL-963G (August 2011)

Table 2 continued

Jurisdiction	Company Name	Services Included	Tracker Name	Eligible Investments	Case Reference
CO	Public Service Company of Colorado	Electric	Clean Air Clean Jobs Act Rider	Miscellaneous environmental projects including gas-fired generation, scrubbers	Proceeding 14A-680E, Decision C15-0292 (March 2015)
CO	Rocky Mountain Gas	Gas Transmission	System Safety and Integrity Rider	TIMP, DIMP, and other safety regulatory compliance projects	Docket 13AL-0046G, Decision R14-0114 (February 2014)
CT	Aquarion Water Company of Connecticut	Water	Water Infrastructure and Conservation Adjustment	Replacement of infrastructure including mains, valves, services, meters, and hydrants that have reached the end of their useful life or are no longer able to function as intended	Docket 08-06-21WI01 (December 2008)
CT	Connecticut Light & Power	Electric	System Resiliency Plan	Structural hardening	Docket 12-07-06 (January 2013)
CT	Connecticut Natural Gas	Gas	System Expansion Reconciliation Mechanism	System expansion	Docket 13-06-02 (November 2013)
CT	Connecticut Natural Gas	Gas	DIMP True-Up Mechanism	Cast iron and bare steel main replacement	Docket 13-06-08; (January 2014)
CT	Connecticut Water	Water	Water Infrastructure and Conservation Adjustment	Replacement of infrastructure including mains, valves, services, meters, and hydrants that have reached the end of their useful life or are no longer able to function as intended	Docket 08-10-15WI01 (March 2009)
CT	Southern Connecticut Gas	Gas	System Expansion Reconciliation Mechanism	System expansion	Docket 13-06-02 (November 2013)
CT	Torrington Water	Water	Water Infrastructure and Conservation Adjustment	Replacement of infrastructure including mains, valves, services, meters, and hydrants that have reached the end of their useful life or are no longer able to function as intended	Docket 09-06-17WI01 (December 2009)
CT	United Water Connecticut	Water	Water Infrastructure and Conservation Adjustment	Replacement of infrastructure including mains, valves, services, meters, and hydrants that have reached the end of their useful life or are no longer able to function as intended	Docket 09-06-17WI01 (December 2009)
CT	Yankee Gas Services	Gas	System Expansion Reconciliation Mechanism	System expansion	Docket 13-06-02 (November 2013)
DC	Potomac Electric Power	Electric	Underground Project Charge	Undergrounding of specific feeders	Formal Case 1116 (November 2014)
DC	Washington Gas Light	Gas	Plant Recovery Adjustment	Remediation/replacement of mechanical couplings	Formal Case 1027 (December 2009)
DC	Washington Gas Light	Gas	Accelerated Pipe Replacement Plan Adjustment	Replacement of cast iron mains, bare steel mains and services and "black plastic" services	Formal Case 1115 (January 2015)
DE	Artesian Water	Water	Distribution System Improvement Charge	Replacement of infrastructure (e.g., existing mains, services, meters, and hydrants)	Docket 01-474 (December 2001)
DE	Delmarva Power & Light	Gas	Utility Facility Relocation Charge	Replacements due to mandated relocations that are not otherwise reimbursed	Docket 12-546 (October 2013)
DE	Delmarva Power & Light	Electric	Utility Facility Relocation Charge	Replacements due to mandated relocations that are not otherwise reimbursed	Docket 13-115 (August 2014)
DE	Sussex Shores Water	Water	Distribution System Improvement Charge	Replacement of infrastructure (e.g., existing mains, services, meters, and hydrants)	Docket 01-470 (December 2001)
DE	Tidewater Utilities	Water	Distribution System Improvement Charge	Replacement of infrastructure (e.g., existing mains, services, meters, and hydrants)	Docket 03-210 (May 2003)
DE	United Water Delaware	Water	Distribution System Improvement Charge	Replacement of infrastructure (e.g., existing mains, services, meters, and hydrants)	Docket 01-481 (December 2001)
FL	Chesapeake Utilities	Gas	Gas Reliability Infrastructure Program Tariff	Replacement of bare steel mains and services	Docket 120036-GU (September 2012)
FL	Florida City Gas	Gas	Safety and Access Verification Expedited Program	Replacement of unprotected steel mains, relocation of certain gas mains in rear lot easements	Docket 150116-GU (September 2015)
FL	Florida Power and Light	Electric	Environmental Cost Recovery Clause	Miscellaneous environmental projects	Docket 080281-EI (August 2008)
FL	Florida Power and Light	Electric	Capacity Cost Recovery Clause	Nuclear power	Docket 090009-EI (November 2009)
FL	Florida Power and Light	Electric	Generation Base Rate Adjustment	Generation	Docket 120015-EI (December 2012)
FL	Florida Public Utilities	Gas	Gas Reliability Infrastructure Program Tariff	Replacement of bare steel mains and services	Docket 120036-GU (September 2012)
FL	Gulf Power	Electric	Environmental Cost Recovery Clause	Miscellaneous environmental projects	Docket 930613-EI (January 1994)
FL	Peoples Gas System	Gas	Cast Iron/Bare Steel Replacement Rider	Replacement of bare steel and cast iron pipes	Docket 110320-GU (September 2012)
FL	Progress Energy Florida	Electric	Environmental Cost Recovery Clause	Miscellaneous environmental projects	Docket 050078-EI (September 2005)
FL	Progress Energy Florida	Electric	Capacity Cost Recovery Clause	Nuclear power	Docket 090009-EI (November 2009)
FL	Progress Energy Florida	Electric	Generation Base Rate Adjustment	Generation	Docket 130208 (November 2013)
FL	Tampa Electric	Electric	Environmental Cost Recovery Clause	Miscellaneous environmental projects	Docket 960688-EI (August 1996)
GA	Atlanta Gas Light	Gas	Pipeline Replacement Program Cost Recovery Rider	Replacement of cast iron and bare steel pipe	Docket 29950 as STRIDE tracker in 2009
GA	Atlanta Gas Light	Gas	Strategic Infrastructure Development and Enhancement Surcharge	Pre-1985 plastic mains and services replacement, planned customer expansions, and infrastructure improvements that sustain reliability and operational flexibility	Docket 8516-U and 29950 (October 2009 and August 2013)
GA	Atmos Energy (now Liberty Utilities)	Gas	Pipe Replacement Surcharge	Replace cast iron and bare steel pipe	Docket 12509-U (December 2000)
GA	Georgia Power Company	Electric	Environmental Compliance Cost Recovery	Miscellaneous environmental projects	Docket 25060-U (December 2007)
GA	Georgia Power Company	Electric	Nuclear Construction Cost Recovery	Nuclear generation	Docket 27800, Senate Bill 31
HI	Hawaii Electric Light	Electric	Renewable Energy Infrastructure Program Surcharge	Renewable energy infrastructure	Docket 2007-0416 (December 2009)
HI	Hawaiian Electric Company	Electric	Renewable Energy Infrastructure Program Surcharge	Renewable energy infrastructure	Docket 2007-0416 (December 2009)
HI	Maui Electric	Electric	Renewable Energy Infrastructure Program Surcharge	Renewable energy infrastructure	Docket 2007-0416 (December 2009)
IA	Black Hills Energy	Gas	System Safety Maintenance Adjustment	Replacement of steel and pvc pipe, relocations mandated by local governments	Docket RPU-2012-0004 (March 2013)
ID	PacifiCorp	Electric	Energy Cost Adjustment Mechanism	Lake Side II generation facility	Case PAC-E-13-04 (October 2013)

Table 2 continued

Jurisdiction	Company Name	Services Included	Tracker Name	Eligible Investments	Case Reference
IL	Ameren Illinois	Gas	Rider Qualifying Infrastructure Plant	Replacement of prone to leak distribution and transmission pipe, installation of AMI and communications infrastructure, replacing or installing transmission or distribution facilities to establish over-pressure protection, replacement of difficult to locate mains and services, replacement of high pressure transmission pipelines without a recorded maximum allowable operating pressure, replacements to facilitate an upgrade from a low pressure system to a high pressure system	Docket 14-0573 (January 2015)
IL	Consumers Illinois Water Company (Kankakee, Vermilion, Woodhaven Districts)	Water	Qualifying Infrastructure Plant Surcharge Rider	Replacement of non-revenue producing infrastructure (e.g., existing mains, services, meters, and hydrants)	Docket 01-0561 (December 2001)
IL	Illinois-American Water (Chicago Metro Division)	Water	Qualifying Infrastructure Plant Surcharge Rider	Replacement of non-revenue producing infrastructure (e.g., existing mains, services, meters, and hydrants)	Docket 09-0251 (March 2010)
IL	Illinois-American Water (Single Tariff Pricing Zone)	Water	Qualifying Infrastructure Plant Surcharge Rider	Replacement of non-revenue producing infrastructure (e.g., existing mains, services, meters, and hydrants)	Docket 04-0336 (December 2004)
IL	Northern Illinois Gas	Gas	Rider Qualifying Infrastructure Plant	Replacement of cast iron pipe, non-cast iron pipe, and copper services; relcoation of meters from inside customers' premises; upgrading of system from low pressure to medium pressure; replacement or installation of regulator stations, regulators, valves and associated facilities to establish over-pressure protection	Docket 14-0292 (July 2014)
IL	Peoples Gas Light & Coke	Gas	Rider Qualifying Infrastructure Plant	Replacement of cast and ductile iron, relcoation of meters from inside customers' premises, upgrading of system from low pressure to medium pressure, replacement of high pressure transmission pipelines at higher risk of failure or lacking records, installation of regulator stations to establish over-pressure protection	Docket 13-0534 (January 2014)
IN	Duke Energy Indiana	Electric	Qualified Pollution Control Property	Miscellaneous environmental projects	Cause 41744 (February 2001)
IN	Duke Energy Indiana	Electric	Integrated Coal Gasification Combined Cycle Generating Facility Revenue Recovery Adjustment	Integrated gasification combined cycle generating plant	Docket 43114 (November 2007)
IN	Indiana Michigan Power	Electric	Clean Coal Technology Rider	Miscellaneous environmental projects	Cause 43636 (June 2009)
IN	Indiana Water Service	Water	Distribution System Improvement Charge	Replacement of non-revenue producing infrastructure (e.g., existing mains, services, meters, and hydrants)	Cause 42743 DSIC-1 (December 2004)
IN	Indiana-American Water	Water	Distribution System Improvement Charge	Replacement of non-revenue producing infrastructure (e.g., existing mains, services, meters, and hydrants)	Cause 42351 DSIC-1 (February 2003)
IN	Indianapolis Power & Light	Electric	Environmental Compliance Cost Recovery	Miscellaneous environmental projects	Cause 42170 (November 2002)
IN	Northern Indiana Public Service	Electric	Environmental Cost Recovery Mechanism	Miscellaneous environmental projects	Cause 42150 (November 2002)
IN	Northern Indiana Public Service	Electric	Transmission, Distribution & Storage System Improvement Charge	Investments to maintain the capacity deliverability of system and replacement of aging infrastructure, economic development	Cause 44370 and 44371 (February 2014)
IN	Northern Indiana Public Service	Gas	Distribution System Improvement Charge	Gas system deliverability and system integrity projects, rural main extensions	Cause 44403 TDSIC 1 (January 2015)
IN	Utility Center Inc.	Water	Distribution System Improvement Charge	Replacement of non-revenue producing infrastructure (e.g., existing mains, services, meters, and hydrants)	Docket 42416 DSIC-1 (June 2003)
IN	Vectren Energy Delivery (Indiana Gas and Southern Indiana Gas & Electric)	Gas	Compliance and System Improvement Adjustment	System and pressure improvements, storage operations, instrumentation and communications equipment, public improvement projects, service replacements, and economic development	Cause 44429 (August 2014)
KS	Atmos Energy	Gas	Gas System Reliability Surcharge	Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations	Docket 10-ATMG-133-TAR (December 2009)
KS	Black Hills Energy (Aquila)	Gas	Gas System Reliability Surcharge	Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations	Docket 08-AQLG-852-TAR (July 2008)
KS	Kansas Gas Service	Gas	Gas System Reliability Surcharge	Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations	Docket 10-KGSG-155-TAR (December 2009)
KS	Midwest Energy	Gas	Gas System Reliability Surcharge	Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations	Docket 09-MDWE-722-TAR (May 2009)
KY	Atmos Energy	Gas	Pipe Replacement Program Rider	Replacement of bare steel service lines, curb valves, meter loops, and mandated relocations	Docket 2009-00354 (May 2010)
KY	Columbia Gas	Gas	Advanced Main Replacement Rider	Replacement of cast iron and bare steel mains and services	Docket 2009-00141 (September 2009)
KY	Delta Natural Gas	Gas	Pipe Replacement Program Surcharge	Replacement of bare steel pipe, service lines, curb valves, meter loops, and mandated pipe relocations	Case 2010-00116 (October 2010)
KY	Kentucky Power	Electric	Environmental Cost Recovery Surcharge	Miscellaneous environmental projects	Docket 2002-00169 (March 2003)
KY	Kentucky Utilities	Electric	Environmental Cost Recovery Surcharge	Miscellaneous environmental projects	Case 93-465 (July 1994)
KY	Louisville Gas & Electric	Electric	Environmental Cost Recovery Surcharge	Miscellaneous environmental projects	Case 94-332 (April 1995)
KY	Louisville Gas & Electric	Gas	Gas Line Tracker	Replacement and transfer of ownership of customer owned service risers	Case 2012-00222 (December 2012)
LA	Cleco Power	Electric	Infrastructure and Incremental Costs Recovery	Projects to be determined in subsequent filings to Commission	Docket U-30689 and U-32779 (October 2010 and June 2014)
LA	Entergy Gulf States Louisiana	Electric	Formula Rate Plan-3	Acquisition of generating facility, new generating facility or refurbishment of existing generating facility if the revenue requirement related to the project exceeds $10 million	Docket U-32707 (December 2013)
LA	Entergy Louisiana	Electric	Formula Rate Plan 7	Cost of Ninemile 6 natural gas generating facility; New generating facility, acquisition of a generating facility, or refurbishment of existing generating facility if the revenue requirement related to the project exceeds $10 million	Docket U-32708 and 31971 (January 2014 and April 2012)
MA	Bay State Gas	Gas	Targeted Infrastructure Recovery Factor	Replacement of bare steel mains and services	DPU 09-30
MA	Bay State Gas	Gas	Gas System Enhancement Adjustment Factor	Replacement of non-cathodically protected steel, cast iron, and wrought iron mains and associated services, service tie-ins, encroached pipe, and meters	DPU 14-134
MA	Berkshire Gas	Gas	Gas System Enhancement Adjustment Factor	Replacement of non-cathodically protected steel, cast iron mains and associated services, encroached pipe, and meter sets composed of non-cathodically protected steel, cast iron or copper	DPU 14-131
MA	Fitchburg Gas & Electric Light	Gas	Gas System Enhancement Adjustment Factor	Replacement of cast main and unprotected steel mains and services and encroached pipe	DPU 14-130

Table 2 continued

Jurisdiction	Company Name	Services Included	Tracker Name	Eligible Investments	Case Reference
MA	Massachusetts Electric	Electric	Net CapEx Factor	Potentially all distribution investments	DPU 09-39
MA	Massachusetts Electric	Electric	Solar Cost Adjustment Provision	Solar generation	DPU 09-38
MA	Massachusetts Electric	Electric	Smart Grid Adjustment Provision	Pilot smart grid investments including AMI, high speed communications network, in-home energy management devices, distribution automation, advanced capacitor control, advanced grid monitoring, remote fault indicators	DPU 11-129
MA	Nantucket Electric	Electric	Solar Cost Adjustment Provision	Solar generation	DPU 09-38
MA	Nantucket Electric	Electric	Smart Grid Adjustment Provision	Pilot smart grid investments including AMI, high speed communications network, in-home energy management devices, distribution automation, advanced capacitor control, advanced grid monitoring, remote fault indicators	DPU 11-129
MA	National Grid (Boston-Essex Gas and Colonial Gas	Gas	Targeted Infrastructure Recovery Factor	Replacement of bare steel, cast iron, and wrought iron mains, services, meters, meter installations, and house regulators	DPU 10-55
MA	National Grid (Boston-Essex Gas and Colonial Gas	Gas	Gas System Enhancement Adjustment Factor	Replacement of non-cathodically protected steel, cast iron, and wrought iron mains and associated services, inside services, service tie-ins, encroached pipe, and meters	DPU 14-132
MA	New England Gas	Gas	Targeted Infrastructure Recovery Factor	Replacement of non-cathodically protected steel mains and services and small diameter cast-iron and wrought iron	DPU 10-114
MA	New England Gas	Gas	Gas System Enhancement Adjustment Factor	Replacement of non-cathodically protected steel, cast iron, and wrought iron mains and associated services, inside services, service tie-ins, encroached pipe, and meters	DPU 14-133
MA	NSTAR Electric	Electric	Capital Projects Scheduling List	Stray voltage inspection survey and remediation program; double pole inspections, replacements, and restorations; and manhole inspection, repair, and upgrade	DTE 05-85 and DPU 10-70-B
MA	NSTAR Electric	Electric	Smart Grid Adjustment Factor	Smart grid pilot	DPU-09-33
MA	Western Massachusetts Electric	Electric	Solar Program Cost Adjustment	Solar generation	DPU 09-05
MD	Baltimore Gas & Electric	Electric	Electric Reliability Investment Surcharge	Upgrades to improve poorest performing feeders, selective undergrounding, expanded recloser development on 13kV and 34 kV lines, diverse routing of 34 kV supply circuits	Case 9326 (December 2013)
MD	Baltimore Gas & Electric	Gas	Strategic Infrastructure Development and Enhancement Program	Replacement of bare steel mains and services, cast iron mains, copper services, and pre-1982 plastic "Ski Bar" risers	Case 9331 (January 2014)
MD	Columbia Gas of Maryland	Gas	Strategic Infrastructure Development and Enhancement Program	Replacement of bare steel and cast iron mains and bare steel services	Case 9332 (August 2014)
MD	Delmarva Power & Light	Electric	Grid Resiliency Charge	Feeder hardening	Case 9317 (September 2013)
MD	Potomac Electric Power	Electric	Grid Resiliency Charge	Feeder hardening	Case 9311 (July 2013)
MD	Washington Gas Light	Gas	Strategic Infrastructure Development and Enhancement Program Rider	Replacement of bare and unprotected steel mains and services, targeted copper and pre-1975 plastic services, mechanically coupled pipe main and services, and cast iron mains	Case 9335 (May 2014)
ME	Central Maine Power	Electric	Customer Relationship Management & Billing Rate Adjustment	Customer relationship management & billing system replacement	Docket 2015-00040 (October 2015)
ME	Maine Water Company	Water	Water Infrastructure Charge	Replacement of stationary physical plant assets needed to operate a water system	Various orders separately issued for operating divisions
ME	Northern Utilities	Gas	Targeted Infrastructure Recovery Adjustment	Cast iron, bare steel, and unprotected coated steel mains and services replacements, replacement of farm tap regulators	Docket 2013-00133 (December 2013)
MI	Consumers Energy	Gas	Enhanced Infrastructure Replacement Program	Cast iron replacements	Case U-17643 (January 2015)
MI	Michigan Consolidated Gas (now DTE Gas)	Gas	Infrastructure Recovery Mechanism	Replacement of cast iron mains, replacement of indoor meters with outdoor meters, pipeline integrity projects designed to comply with federal and state safety standards	Case U-16999 (April 2013)
MI	SEMCO Gas	Gas	Main Replacement Rider	Replacement of cast iron and unprotected steel mains and service lines	Case U-16169 and U-17824 (January 2011 and June 2015)
MN	Interstate Power & Light	Electric	Renewable Energy Recovery Adjustment	Renewable generation	Docket M-10-312 (December 2013)
MN	Minnesota Power	Electric	Arrowhead Regional Emission Abatement Rider	Miscellaneous environmental projects	Docket M-05-1678 (June 2006)
MN	Minnesota Power	Electric	Transmission Cost Recovery Rider	Incremental transmission investment	Docket M-07-965 (December 2007)
MN	Minnesota Power	Electric	Renewable Resource Rider	Renewable generation	Docket M-10-273 (July 2010)
MN	Minnesota Power	Electric	Rider for Boswell Unit 4 Emission Reduction	Miscellaneous environmental projects	Docket M-12-920 (November 2013)
MN	Northern States Power (Xcel Energy)	Electric	Metropolitan Emissions Reduction Project (later called Environmental Improvement Rider)	Miscellaneous environmental projects	Docket M-02-633 (March 2004)
MN	Northern States Power (Xcel Energy)	Electric	Transmission Cost Recovery Rider	Incremental transmission investment	Docket M-06-1103 (November 2006)
MN	Northern States Power (Xcel Energy)	Electric	Renewable Energy Standard Cost Recovery Rider	Renewable generation	M-07-872 (March 2008)
MN	Northern States Power (Xcel Energy)	Gas	State Energy Policy Rider	Cast iron replacements	Docket M-08-261 (November 2008)
MN	Northern States Power (Xcel Energy)	Electric	Mercury Cost Recovery Rider	Miscellaneous environmental projects	Docket M-09-847 (November 2009)
MN	Otter Tail Power	Electric	Renewable Resource Cost Recovery Rider	Renewable generation	Docket M-08-119 (August 2008)
MN	Otter Tail Power	Electric	Transmission Cost Recovery Rider	Incremental transmission investment	Docket M-09-881 (January 2010)
MO	AmerenUE	Gas	Infrastructure System Replacement Surcharge	Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations	Case GT-2008-0184 (February 2008)
MO	Atmos Energy	Gas	Infrastructure System Replacement Surcharge	Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations	Docket GO-2009-0046 (October 2008)
MO	Laclede Gas	Gas	Infrastructure System Replacement Surcharge	Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations	Docket GR-2007-0208 (July 2007)
MO	Missouri American Water	Water	Infrastructure System Replacement Surcharge	Replacement of mains, associated valves and hydrants, main cleaning and relining projects	Case WO-2004-0116 (December 2003)
MO	Missouri Gas Energy	Gas	Infrastructure System Replacement Surcharge	Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations	Docket GR-2009-0355 (February 2010)

Table 2 continued

Jurisdiction	Company Name	Services Included	Tracker Name	Eligible Investments	Case Reference
MS	Atmos Energy	Gas	Supplemental Growth Rider	Extraordinary service expansions to new industrial customers for economic development	Docket 2013-UN-23 (July 2013)
MS	Centerpoint Energy	Gas	Supplemental Growth Rider	Extraordinary service expansions to new commercial and industrial customers for economic development	Docket 13-UN-214 (October 2013)
MS	Mississippi Power	Electric	Enviromental Compliance Overview Plan Rate	Miscellaneous environmental projects	Docket 92-UA-0058 and 92-UN-0059 (July 1992)
MT	Northwestern Energy	Electric	NA - Amounts recovered through electric supply service rates	Generation	Docket D.2008.6.69 (November 2008)
MT	Northwestern Energy	Gas	Natural Gas Supply Tracker	Battle Creek natural gas production resources	Docket D2012.3.25 (November 2012)
NC	Aqua North Carolina	Water	Water System Improvement Charge	Replacement of distribution system mains, valves, services, meters, and hydrants, main extensions, projects to comply with primary drinking water standards, unreimbursed facility relocation costs due to highways	Docket W-218, Sub 363 (May 2014)
NC	Aqua North Carolina	Water	Sewer System Improvement Charge	Replacement of pumps, motors, blowers, and other mechanical equipment, collection main extensions designed to implement solutions to wastewater problems, improvements necessary to reduce inflow and infiltration to the collection systems as required by state and federal law and regulations, unreimbursed costs of highway relocations	Docket W-218, Sub 363 (May 2014)
NC	Carolina Water Service	Water	Water System Improvement Charge	Replacement of distribution system mains, valves, services, meters, and hydrants, main extensions, projects to comply with primary drinking water standards, unreimbursed facility relocation costs due to highways	Docket W-354, Sub 336 (March 2014)
NC	Carolina Water Service	Water	Sewer System Improvement Charge	Replacement of pumps, motors, blowers, and other mechanical equipment, collection main extensions designed to implement solutions to wastewater problems, improvements necessary to reduce inflow and infiltration to the collection systems as required by state and federal law and regulations, unreimbursed costs of highway relocations	Docket W-354, Sub 336 (March 2014)
NC	Piedmont Natural Gas	Gas	Integrity Management Rider	Investments driven by federal pipeline safety and integrity requirements	Docket G-9, Sub 631 (December 2013)
ND	Montana-Dakota Utilities	Electric	Environmental Cost Recovery Tariff	Miscellaneous environmental projects	Case PU-13-85 (December 2013)
ND	Montana-Dakota Utilities	Electric	Generation Resource Recovery Rider Tariff	New Generation	Case PU-14-108 (August 2014)
ND	Northern States Power- MN	Electric	Transmission Cost Rider	Transmission projects	Case PU-12-813 (February 2014)
ND	Northern States Power- MN	Electric	Renewable Energy Rider	North Dakota based renewable generation	Case PU-12-813 (February 2014)
ND	Otter Tail Power	Electric	Renewable Resource Rider	Renewables	Case PU-06-466 (May 2008)
ND	Otter Tail Power	Electric	Transmission Facility Cost Recovery Tariff	Transmission investments required to serve retail customers	Case PU-11-682 (April 2012)
ND	Otter Tail Power	Electric	Environmental Cost Recovery Tariff	Miscellaneous environmental projects	Case PU-13-84 (December 2013)
NE	Black Hills Nebraska Gas Utility	Gas	Infrastructure System Replacement Recovery Charge	Non-revenue increasing projects to replace existing assets	Application NG-0074
NE	SourceGas Distribution	Gas	Pipeline Replacement Charge	Projects entering service before May 2014 that are installed to comply with safety requirements as replacements for existing facilities, projects that will extend the useful life of existing assets or enhance pipeline integrity, facility relocations	Application NG-0072 (June 2013)
NE	SourceGas Distribution	Gas	System Safety and Integrity Rider	Projects entering service after April 2014 that comply with federal regulations including transmission and distribution integrity management plans or are facility relocations costing $20,000 or more	Application NG-0078 (October 2014)
NH	Aquarion Water of New Hampshire	Water	Water Infrastructure and Conservation Adjustment Charge	Projects to upgrade or replace non-revenue producing assets including main, valve, and hydrant replacement, main cleaning and relining, and non-reimbursable relocations	Docket DW 08-098 (September 2009)
NH	Energy North	Gas	Cast Iron/Bare Steel Replacement Program	Replacement of cast iron and bare steel pipe	Docket DG-107 (June 2007)
NH	Granite State Electric	Electric	Reliability Enhancement Plan Capital Investment Allowance	Feeder hardening and asset replacement	Docket DG-107 (June 2007)
NH	Public Service Company of New Hampshire	Electric	Energy Service	Miscellaneous environmental projects	DE 11-250 (April 2012)
NH	Public Service Company of New Hampshire	Electric	Reliability Enhancement Plan	Reliability improvements	DE 09-035, DE 11-250, and DE 14-238 (June 2015)
NJ	Elizabethtown Gas	Gas	Elizabethtown Natural Gas Distribution Utility Reinforcement Effort	System hardening	Docket GO13090826 (July 2014)
NJ	New Jersey American Water	Water	Distribution System Improvement Charge	Incremental non-revenue water main replacement, rehabilitation, or mandated relocation projects, service line replacements, valve and hydrant replacement	Docket WR12070669 (October 2012)
NJ	New Jersey Natural Gas	Gas	New Jersey Reinvestment in System Enhancement	Storm hardening projects	Docket GR13090828 (July 2014)
NJ	Public Service Electric and Gas	Electric	Solar Generation Investment Program	Solar generation	Docket EO09020125 (August 2009)
NJ	Public Service Electric and Gas	Electric & Gas	Capital Infrastructure Investment Program	Electric: reliability upgrades & feeder replacement, Gas: replacement of cast iron & bare steel mains and services	Dockets GO09010050, EO11020088, GO10110862 (April 2009 and July 2011)
NJ	Public Service Electric and Gas	Electric & Gas	Energy Strong Adjustment Mechanism	Electric: substation flood mitigation, gird reconfiguration strategies, and smart grid; Gas: Metering and regulating station flood mitigation, replacement of utilization pressure cast iron in flood prone areas	Docket EO13020155, GO13020156 (May 2014)
NJ	South Jersey Gas	Gas	Storm Hardening and Reliability Program	Replacement of low pressure mains and services with high pressure mains and services, removal of regulator stations, installation of excess flow valves in coastal areas	Docket GO13090814 (August 2014)
NJ	United Water New Jersey	Water	Distribution System Improvement Charge	Repair, replace, and/or clean mains, replace valves, hydrants, and service lines	Docket WR12080724 (October 2012)
NV	Southwest Gas	Gas	Gas Infrastructure Replacement Mechanism	Early vintage pipe replacements, conversion of master metered customers to individual meters	Docket 14-10002 (December 2014)

Table 2 continued

Jurisdiction	Company Name	Services Included	Tracker Name	Eligible Investments	Case Reference
NY	Corning Natural Gas	Gas	Safety and Reliability Charge	Replacement of leak prone pipe and ancillary costs to maintain a safe and reliable system	Case 11-G-0280 (October 2015)
NY	Keyspan Energy Long Island	Gas	Leak Prone Pipe Surcharge	Accelerated leak prone pipe removal program	Case 12-G-0214 (December 2014 and March 2015)
NY	Long Island American Water	Water	System Improvement Charge	Iron removal, storage tank rehabilitiation, suction well rehabilitation at selected plants, customer information system	Case 11-W-0200 (March 2012)
NY	United Water New Rochelle	Water	Long Term Main Renewal Project	Cleaning and relining of mains	Case 99-W-0948 (August 2000)
NY	United Water New York	Water	Underground Infrastructure Renewal Program	Replacement of infrastructure including mains, valves, services, meters, and hydrants	Case 06-W-0131 (December 2006)
NY	United Water New York	Water	New Water Supply Source Surcharge	Projects to provide new sources of water in the short and long term	Case 06-W-0131 (December 2006)
OH	Aqua Ohio	Water	System Infrastructure Improvement Surcharge	Replacement of service lines, mains, hydrants, valves, main extensions to resolve documented water supply problems	Case 04-1824-WW-SIC (March 2005)
OH	Cleveland Electric Illuminating	Electric	Rider AMI	Ohio Site Deployment	Cases 09-1820-EL-ATA and 12-1230-EL-SSO
OH	Cleveland Electric Illuminating	Electric	Delivery Capital Recovery Rider	Distribution, subtransmission, general, and intangible plant not included in most recent rate case	Case 10-388-EL-SSO (August 2010)
OH	Columbia Gas	Gas	Infrastructure Replacement Program Rider	Replacement of cast iron and bare steel mains & services, AMI	Cases 08-0072-GA-AIR, 08-0073-GA-ALT, 08-0074-GA-AAM, and 08-0075-GA-AAM (December 2008); Case 09-1036-GA-RDR (April 2010)
OH	Duke Energy Ohio	Gas	Accelerated Main Replacement Program Rider	Replacement of bare steel and cast iron mains and services and faulty risers	1478-GA-ALT, and 01-1539-GA-AAM (May 2002); 07-0589-GA-AIR 07-0590-GA-ALT 07-0591-GA-AAM (May 2008)
OH	Duke Energy Ohio	Gas	Advanced Utility Rider	Gas AMI	Cases 07-0589-GA-AIR, 07-0590-GA-ALT, and 07-0591-GA-AAM (May 2008)
OH	Duke Energy Ohio	Electric	Infrastructure Modernization Distribution Rider	Electric AMI	Cases 08-920-EL-SSO and 08-921-EL-AAM and 08-922-EL-UNC and 08-923-EL-ATA (December 2008)
OH	Duke Energy Ohio	Electric	Distribution Capital Investment Rider	Distribution capital investments not recovered through other trackers	Case 14-841-EL-SSO (April 2015)
OH	East Ohio Gas d/b/a Dominion East Ohio	Gas	Pipeline Infrastructure Replacement Rider	Bare steel and cast iron pipelines & faulty riser replacements	Case 08-169-GA-ALT (October 2008)
OH	East Ohio Gas d/b/a Dominion East Ohio	Gas	Automated Meter Reading Charge	AMR	Cases 07-0829-GA-AIR and 06-1453-GA-UNC (October 2008); Case 09-38-GA-UNC (May 2009); Case 09-1875-GA-RDR (May 2010)
OH	Ohio American Water	Water	System Improvement Charge	Non-revenue producing service lines, hydrants, mains, valves, main extensions that improve supply problems, main cleaning	Case 05-577-WW-SIC (August 2005)
OH	Ohio Edison	Electric	Rider AMI	Ohio Site Deployment	Cases 09-1820-EL-ATA and 12-1230-EL-SSO
OH	Ohio Edison	Electric	Delivery Capital Recovery Rider	Distribution, subtransmission, general, and intangible plant not included in most recent rate case (filed in 2007)	Case 10-388-EL-SSO (August 2010)
OH	Ohio Power	Electric	Distribution Investment Rider	Net distribution capital additions since the date certain of most recent rate case not recovered through other riders	Case 11-346-EL-SSO
OH	Ohio Power	Electric	GridSMART Rider (Phase I)	Smart grid	Case 08-917-EL-SSO and 08-918-EL-SSO (March 2009)
OH	Toledo Edison	Electric	Rider AMI	Ohio Site Deployment	Cases 09-1820-EL-ATA and 12-1230-EL-SSO
OH	Toledo Edison	Electric	Delivery Capital Recovery Rider	Power distribution, subtransmission, general, and intangible plant not included in most recent rate case (filed in 2007)	Case 10-388-EL-SSO (August 2010)
OH	Vectren Energy Delivery	Gas	Distribution Replacement Rider	Replacement of cast iron and bare steel mains and services	Cases 07-1081-GA-ALT, 07-1080-GA-AIR and 08-0632-GA-AAM (January 2009)
OK	Oklahoma Gas & Electric	Electric	System Hardening Recovery Rider	Undergrounding and other circuit hardening	Cause PUD 20080387, Order 567670 (May 2009)
OK	Oklahoma Gas & Electric	Electric	Smart Grid Rider	Smart grid	Cause PUD 201000029 (July 2010)
OK	Oklahoma Gas & Electric	Electric	Crossroads Rider	Crossroads Wind Farm	Cause PUD 201000037 (July 2010)
OK	Public Service Company of Oklahoma	Electric	System Reliability Rider	Grid resiliency projects	Cause PUD 201300202 (January 2014)
OK	Public Service Company of Oklahoma	Electric	Advanced Metering Infrastructure Tariff	Advanced metering infrastructure deployment	Cause PUD 201300217 (April 2015)
OR	Northwest Natural Gas	Gas	System Integrity Program	Bare steel replacement, transmission integrity management program, distribution integrity management program	Docket UM 1406, Order 09-067 (March 2009)
OR	PacifiCorp	Electric	Renewable Adjustment Clause	Renewable generation	Docket UM 1330 (December 2007)
OR	PacifiCorp	Electric	Lake Side 2 Tariff Rider	Generation	Docket UE 263, Order 13-474 (December 2013)
OR	PacifiCorp	Electric	M2O Transmission Rider	Mona to Oquirrh transmission line only if line is placed into service within 6 months of May 31, 2013	Docket UE 246, Orders 12-493 and 13-195 (December 2012 and May 2013)
OR	Portland General Electric	Electric	Renewable Adjustment Clause	Renewable generation	Docket UM 1330 (December 2007)
PA	Columbia Gas	Gas	Distribution System Improvement Charge	Replacement of cast iron, bare steel, and first generation plastic mains and services, install excess flow valves, install or relocate automated meters, and replace risers, meter bars, and service regulators	P-2012-2338282 (March 2013)
PA	Columbia Water Company	Water	Distribution System Improvement Charge	Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)	Docket P-00021979
PA	Duquesne Light	Electric	Smart Meter Charge Rider	AMI	Docket M-2009-2123948 (April 2010)
PA	Equitable Gas	Gas	Distribution System Improvement Charge	Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)	Docket P-2013-2342745 (July 2013)
PA	Metropolitan Edison	Electric	Smart Meters Technologies Charge	AMI	Docket M-2009-2123950 (April 2010)

Table 2 continued

Jurisdiction	Company Name	Services Included	Tracker Name	Eligible Investments	Case Reference
PA	PECO	Electric	Smart Meter Cost Recovery Rider	AMI	Docket M-2009-2123944 (April 2010)
PA	PECO	Electric	Distribution System Improvement Charge	Storm hardening and resiliency measures, underground cable replacement, substation retirements, and facility relocations	Docket P-2015-2471423 (October 2015)
PA	PECO	Gas	Distribution System Improvement Charge	Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)	Docket P-2013-2347340 (September 2015)
PA	Pennsylvania Electric	Electric	Smart Meters Technologies Charge	AMI	Docket M-2009-2123950 (April 2010)
PA	Pennsylvania Power	Electric	Smart Meters Technologies Charge	AMI	Docket M-2009-2123950 (April 2010)
PA	Pennsylvania-American Water	Water	Distribution System Improvement Charge	Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)	Docket P-000961031 (August 1996)
PA	Peoples Natural Gas	Gas	Distribution System Improvement Charge	Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)	Docket P-2013-2344596 (May 2013)
PA	Peoples TWP	Gas	Distribution System Improvement Charge	Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)	Docket P-2013-2344595 (May 2013)
PA	Philadelphia Gas Works	Gas	Distribution System Improvement Charge	Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)	Docket P-2012-2337737 (April 2013)
PA	Philadelphia Surburban Water	Water	Distribution System Improvement Charge	Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)	Docket P-00961035 (August 1996)
PA	PPL Electric Utilities	Electric	Act 129 Compliance Rider	AMI	Docket M-2009-2123945 (January 2010)
PA	PPL Electric Utilities	Electric	Distribution System Improvement Charge	Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., poles, wires)	Docket P-2012-2325034 (May 2013)
PA	UGI Central Penn Gas	Gas	Distribution System Improvement Charge	Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)	Docket P-2013-2398835 (September 2014)
PA	UGI Penn Natural Gas	Gas	Distribution System Improvement Charge	Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)	Docket P-2013-2397056 (September 2014)
PA	West Penn Power	Electric	Smart Meter Surcharge	AMI	Docket M-2009-2123951 (June 2011)
RI	Narragansett Electric (electric operations)	Electric	Electric Infrastructure, Safety, and Reliability Plan Factor	Replacements and load growth	Docket 4218 (December 2011)
RI	Narragansett Electric (gas operations)	Gas	Gas Infrastructure, Safety, and Reliability Plan Factor	Previous accelerated capital replacement program investments plus main and service replacements and reliability investments	Docket 4219 (September 2011)
SC	South Carolina Electric & Gas	Electric	NA	Nuclear generation	Docket 2008-196-E (March 2009)
SD	Black Hills Power	Electric	Environmental Improvement Adjustment tariff	Miscellaneous environmental projects	Docket EL11-001
SD	Black Hills Power	Electric	Phase in plan rate	Gas-fired generation	Docket EL12-062 (September 2013)
SD	Northern States Power- MN	Electric	Environmental Cost Recovery Tariff	Miscellaneous environmental projects	Docket EL07-026 (January 2009)
SD	Northern States Power- MN	Electric	Transmission Cost Recovery Tariff	Transmission	Docket EL07-007 (January 2009)
SD	Northern States Power- MN	Electric	Infrastructure Rider	Generation	Docket EL 12-046 (April 2013)
SD	Otter Tail Power	Electric	Transmission Cost Recovery Tariff	Retail sales portion of specific transmission projects	Docket EL 10-015 (November 2011)
SD	Otter Tail Power	Electric	Environmental Quality Cost Recovery Tariff	Miscellaneous environmental projects	Docket EL 14-082 (December 2014)
TN	Piedmont Natural Gas	Gas	Integrity Management Rider	Distribution and transmission integrity management planning as required by the US Department of Transportation	Docket 13-00118 (May 2014)
TX	AEP Texas Central	Electric	Advanced Metering System Surcharge	AMI	Docket 36928
TX	AEP Texas North	Electric	Advanced Metering System Surcharge	AMI	Docket 36928
TX	Atmos Energy Mid Tex	Gas	Gas Reliability Infrastructure Program	Incremental investment in new and replacement pipe, pipeline integrity including mains replacement	Texas Utilities Code 104.301 and Gas Utilities Docket 9615
TX	Atmos Energy Pipelines	Gas	Gas Reliability Infrastructure Program	Incremental investment in new and replacement pipe, pipeline integrity including mains replacement	Gas Utilities Dockets 9615 and 10640
TX	Atmos Energy West Texas Division	Gas	Gas Reliability Infrastructure Program	Incremental investment in new and replacement pipe, pipeline integrity including mains replacement	Texas Utilities Code 104.301 and Gas Utilities Docket 9608
TX	Centerpoint Energy Entex - Houston Division	Gas	Gas Reliability Infrastructure Program	Incremental investment in new and replacement pipe, pipeline integrity including mains replacement	Texas Utilities Code 104.301 and Gas Utilities Docket 10067
TX	Centerpoint Energy Houston Electric	Electric	Advanced Metering System Surcharge	AMI	Docket 35620 (August 2008)
TX	Centerpoint Energy Houston Electric	Electric	Distribution Cost Recovery Factor	Change in net distribution rate base since last rate case	Docket 44572 (August 2015)
TX	Oncor Electric Delivery	Electric	Advanced Metering System Surcharge	AMI	Docket 35718 (August 2008)
TX	Texas-New Mexico Power	Electric	Advanced Metering System Surcharge	AMI	Docket 38306 (July 2011)
UT	Questar Gas	Gas	Infrastructure Rate Adjustment Tracker	Replacement of aging high-pressure feeder lines	Docket 09-057-16 (June 2010)
VA	Appalachian Power	Electric	Environmental & Reliability Cost Recovery Surcharge	Miscellaneous environmental & reliability projects	Docket PUE-2007-00069 (December 2007)
VA	Appalachian Power	Electric	Environmental Rate Adjustment Clause	Miscellaneous environmental projects	Case PUE-2011-00035 (November 2011)
VA	Appalachian Power	Electric	Generation Rate Adjustment Clause	Dresden plant	Docket PUE-2011-00036 (January 2012)
VA	Atmos Energy	Gas	Infrastructure Reliability and Replacement Adjustment	Replacement of first generation plastic pipe and service lines and bare steel mains and services	Case PUE-2012-00049 (August 2012)
VA	Columbia Gas of Virginia	Gas	SAVE Rider	Replacement of bare steel and cast iron mains, some early plastic pipe, isolated bare steel services, and risers prone to failure	Case PUE-2011-00049 (November 2011)
VA	Roanoke Gas Company	Gas	SAVE Rider	Replacement of cast iron mains, bare steel mains and services and pre-1973 plastic pipe	Case PUE-2012-00030 (August 2012)
VA	Virginia Electric Power	Electric	Rider S	Virginia City Hybrid Energy Center	Case PUE-2007-00066 (March 2008)
VA	Virginia Electric Power	Electric	Rider R	Bear Garden Generating Station	Case PUE-2009-00017 (March 2010)
VA	Virginia Electric Power	Electric	Rider W	Warren County Power Station	Case PUE-2011-00042 (February 2012)
VA	Virginia Electric Power	Electric	Rider B	Biomass conversions	Case PUE-2011-00073 (March 2012)
VA	Virginia Electric Power	Electric	Rider BW	Brunswick County Power Station (natural gas combined cycle generating station)	Case PUE-2012-00128 (August 2013)

Table 2 continued

Jurisdiction	Company Name	Services Included	Tracker Name	Eligible Investments	Case Reference
VA	Virginia Natural Gas	Gas	SAVE Rider	Replacement of first generation plastic mains, cast and wrought iron mains, bare and ineffectively coated steel mains, and service lines installed prior to 1971	Case PUE-2012-00012 (June 2012)
VA	Washington Gas Light	Gas	SAVE Rider	Replacement of bare and unprotected steel services and mains, mechanically coupled pipe, copper services, cast iron main, and pre-1975 plastic services	Cases PUE-2010-00087 and PUE-2012-00096 (April 2011 and November 2012)
WA	Cascade Natural Gas	Gas	Pipeline Replacement Program Cost Recovery Mechanism	Replacement of bare steel and poorly coated pipelines and distribution systems	Docket PG-131838 (October 2013)
WV	Appalachian Power	Electric	Construction/765kW Surcharge	Generation, environmental	Case 11-0274-E-GI (June 2011)
WV	Monongahela Power	Electric	Vegetation Management Surcharge	Capitalized distribution vegetation management expenses	Case 14-0702-E-42T (February 2015)
WV	Potomac Edison	Electric	Vegetation Management Surcharge	Capitalized distribution vegetation management expenses	Case 14-0702-E-42T (February 2015)
WV	Wheeling Power	Electric	Construction/765kW Surcharge	Generation, environmental	Case 11-0274-E-GI (June 2011)
WY	Black Hills Power	Electric	Cheyenne Prairie Generating Station rate rider tariff	Construction of Cheyenne Prairie Generating Station	Docket 20002-84-ET-12 (November 2012)
WY	Cheyenne Light, Fuel, & Power	Electric	Cheyenne Prairie Generating Station rate rider tariff	Construction of Cheyenne Prairie Generating Station	Docket 20003-123-ET-12 (November 2012)

III. Relaxing the Link Between Revenue and System Use

Policymakers are increasingly interested in relaxing the link between the revenues utilities realize, and the kWh and kW of system use by customers. This reduces the financial attrition that results from slowing growth in system use (given legacy rate designs) more efficiently than frequent rate cases. In addition, utilities have more incentive to embrace DSM. Three approaches to relaxing the revenue/usage link are well established: lost revenue adjustment mechanisms ("LRAMs"), revenue decoupling, and fixed/variable pricing.

A. Lost Revenue Adjustment Mechanisms

LRAMs keep utilities whole for short-term losses in base rate revenues that are due to their DSM programs (and potentially also DG). Recovery usually is effected through a special rate rider. Estimates of load losses are needed.

LRAMs encourage utilities to embrace DSM that is eligible for LRAM treatment. They do not provide recovery for the revenue impact of external forces, like DSM programs managed by independent agencies, which slow load growth. Estimates of load savings from utility DSM can be complex and are sometimes controversial. The scope of DSM initiatives addressed by LRAMs is therefore frequently limited to those for which load impacts are easier to measure. When usage charges are high, the utility remains at risk for revenue fluctuations in volumes and peak load due to weather, local economic activity, and other volatile demand drivers.

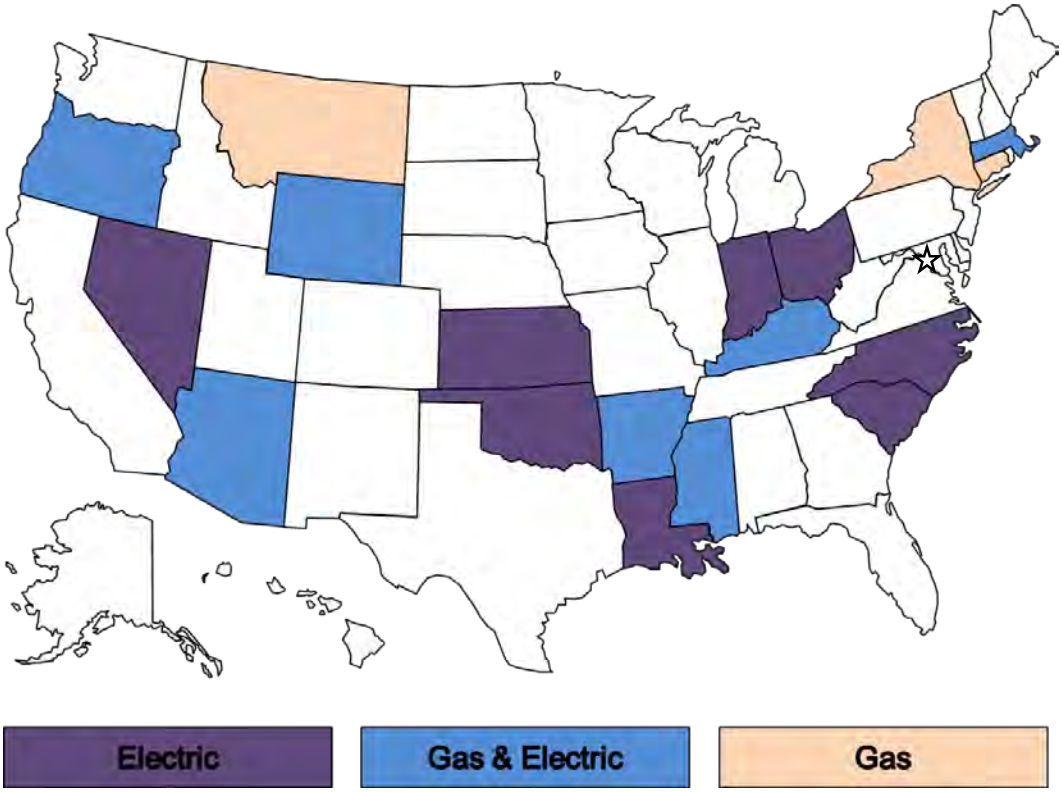
Precedents for LRAMs are detailed in Table 3 and Figure 4 below.[3] LRAMs are currently the most popular means of relaxing the link between revenue and system use in the US electric utility industry. Since our 2013 survey, LRAMs have been adopted for electric utilities in Arizona, Louisiana, and Mississippi. A few utilities have LRAMs that address DG. LRAMs are less popular for gas distributors since the declining average use they have typically experienced for many years is due chiefly to external forces that LRAMs don't address. Some utilities have LRAMs for some services and revenue decoupling for others. In New York, for example, some natural gas distributors have decoupling for residential and commercial customers and LRAMs for some large load customers.

B. Revenue Decoupling

Revenue decoupling adjusts a utility's rates periodically to help its actual revenue track its allowed revenue more closely. Most decoupling systems have two basic components: a revenue decoupling mechanism ("RDM") and a revenue adjustment mechanism ("RAM"). The RDM tracks variances between actual and allowed revenue and adjusts rates to reduce them. The RAM escalates allowed revenue to provide relief for growing cost pressures.

[3] Some mechanisms similar to LRAMs are excluded from this survey.

Figure 4: Current LRAMs by State



RDMs can make true ups annually or more frequently. More frequent adjustments cause actual revenue to track allowed revenue more closely so that rate adjustments are smaller. The size of the rate adjustment that is permitted in a given year is sometimes capped. A "soft" cap permits utilities to defer for later recovery account balances that cannot be drawn down immediately. A "hard" cap does not.

RDMs vary in the scope of services to which they apply. Quite commonly, only revenues from residential and commercial business customers are decoupled. These customers account for a high share of a distributor's base rate revenue and are often the primary focus of DSM programs. RDMs also vary in terms of the services for which revenues are pooled for true up purposes. In some plans all services are placed in the same "basket." Other plans have multiple baskets, and these insulate customers of services in each basket from changes in revenue for services in other baskets.

Some RDMs are "partial" in the sense that they exclude from decoupling the revenue impact of certain kinds of demand fluctuations. For example, true ups are sometimes allowed only for the difference between allowed revenue and weather normalized actuals. An RDM that instead accounts for *all* sources of demand variance is called a "full" decoupling mechanism.

Table 3

Current LRAM Precedents[1]

State	Company	Services	Approval Date	Case Reference
AR	Arkansas Oklahoma Gas	Gas	June 2011	Docket 07-077-TF, Order Number 30
AR	Centerpoint Energy Arkla	Gas	June 2011	Docket 07-081-TF, Order Number 31
AR	Entergy Arkansas	Electric	June 2011	Docket 07-085-TF, Order Number 40
AR	Oklahoma Gas & Electric	Electric	June 2011	Docket 07-075-TF, Order 26
AR	SourceGas Arkansas	Gas	June 2011	Docket 07-078-TF, Order 26
AR	Southwestern Electric Power	Electric	June 2011	Docket 07-082-TF, Orders 35 and 36
AZ	Arizona Public Service	Electric	May 2012	Docket E-01345A-11-0224, Decision 73l83
AZ	Tucson Electric Power	Electric	June 2013	Docket E-01933A-12-0291; Decision 73912
AZ	UNS Electric	Electric	September 2013	Docket E-04204A-12-0504; Decision 74235
AZ	UNS Gas	Gas	May 2012	Docket G-04204A-11-0158 Decision 73142
CT	Southern Connecticut Gas	Gas	August 1995	Docket 93-03-09
CT	Yankee Gas Service	Gas	January 2012	Docket 11-10-03
IN	Duke Energy Indiana (PSI)	Electric	February 2010	Cause 43374
IN	Indiana-Michigan Power	Electric	September 2010	Cause 43827
IN	Northern Indiana Public Service	Electric	May 2011	Cause 43618
IN	Southern Indiana Gas & Electric	Electric	August 2011 (large commercial and industrials), June 2012 (residential and small commercial)	Causes 43938 and 43405 DSMA 9 S1
KS	Kansas Gas & Electric	Electric	January 2011	Docket 10-WSEE-775-TAR
KS	Westar Energy	Electric	January 2011	Docket 10-WSEE-775-TAR
KY	Atmos Energy	Gas	September 2009	Case 2008-00499
KY	Columbia Gas of Kentucky	Gas	October 2009	Case 2009-00141
KY	Delta Natural Gas	Gas	July 2008	Docket 2008-00062
KY	Duke Energy Kentucky	Electric	December 1995 and February 2005	Cases 95-321 and 2004-00389
KY	Duke Energy Kentucky	Gas	February 2005	Case 2004-00389
KY	Kentucky Power	Electric	December 1995	Case 95-427
KY	Kentucky Utilities	Electric	May 2001	Case 2000-0459
KY	Louisville Gas & Electric	Electric & Gas	November 1993	Case 93-150
LA	Cleco Power	Electric	October 2014	Docket R-31106
LA	Entergy Gulf States Louisiana	Electric	October 2014	Docket R-31106
LA	Entergy Louisiana	Electric	October 2014	Docket R-31106
LA	Southwestern Electric Power	Electric	October 2014	Docket R-31106
MA	All Electric distributors	Electric	July 2012	D.P.U. 12-01A
MA	Berkshire Gas	Gas	October 1992	D.P.U. 91-154
MA	Commonwealth Gas d/b/a NSTAR Gas	Gas	November 1994	D.P.U. 94-128

Table 3 (cont'd)

State	Company	Services	Approval Date	Case Reference
MA	NSTAR Electric	Electric	April 1992, June 1994, and June 2010	D.P.U. 90-335, D.P.U. 94-2/3-CC, and D.P.U. 10-06
MS	Atmos Energy	Gas	August 2014	Docket 2014-UA-017
MS	Centerpoint Energy	Gas	August 2014	Docket 2014-UA-007
MS	Entergy Mississippi	Electric	September 2014	Docket 2009-UN-064
MS	Mississippi Power	Electric	March 2015	Docket 2014-UN-10
MT	Montana-Dakota Utilities	Gas	October 2006	Docket D2005.10.156; Order 6697c
NC	Duke Energy Carolinas	Electric	February 2010	Docket E-7, Sub 831
NC	Progress Energy Carolinas (Carolina Power & Light)	Electric	November 2009	Docket E-2, Sub 931
NC	Virginia Electric Power	Electric	October 2011	Docket E-22, Sub 464
NV	Nevada Energy	Electric	May 2011	Docket 10-10024
NV	Sierra Pacific Power	Electric	May 2011	Docket 10-10025
NY	Keyspan Long Island	Gas	December 2009	Case 06-G-1186; Currently effective for all customers not in RDM
NY	Keyspan New York	Gas	December 2009	Case 06-G-1185; Currently effective for all customers not in RDM
OH	American Electric Power (Ohio Power, Columbus Southern Power)	Electric	May 2010	Docket 09-1089-EL-POR; Effective for classes not included in RDM
OH	Dayton Power & Light	Electric	June 2009	Docket 08-1094-EL-SSO
OH	Duke Energy Ohio (Cincinnati Gas & Electric)	Electric	July 2007 and August 2012	Dockets 06-0091-EL-UNC and 11-4393-EL-RDR; Effective for classes not included in RDM
OH	First Energy Ohio (Cleveland Electric Illuminating, Toledo Edison, Ohio Edison)	Electric	March 2009	Docket 08-935-EL-SSO
OK	Empire District Electric	Electric	November 2009	Cause 200900146 Order 571326
OK	Oklahoma Gas & Electric	Electric	July 2008	Cause 200800059 Order 556179
OK	Public Service of Oklahoma	Electric	January 2010	Cause PUD 200900196; Order 572836
OR	Cascade Natural Gas	Gas	April 2006	Order 06-191; UG 167 Effective for classes not included in RDM
OR	Portland General Electric	Electric	September 2001	Order 01-836; UE 79 Effective for classes not included in RDM
OR	Avista Utilities	Gas	December 1993	Order 93-1881
SC	Duke Energy Carolinas	Electric	January 2010	Docket 2009-226-E Order 2010-79
SC	Progress Energy Carolinas	Electric	June 2009	Docket 2008-251-E Order 2009-373
SC	South Carolina Electric & Gas	Electric	July 2010	Docket 2009-261-E, Order 2010-472
WY	Cheyenne Light, Fuel, and Power	Electric & Gas	September 2011	Dockets 20003-108-EA-10 and 30005-140-GA-10
WY	Montana-Dakota Utilities	Electric	January 2007	Docket 20004-65-ET-06

[1] LRAMs listed here include only those mechanisms that compensate utilities for actual revenues lost due to DSM and DG.

The great majority of decoupling systems have a RAM since, if allowed revenue is static, the utility will experience financial attrition as its costs inevitably rise. Utilities that do not have RAMs in their decoupling systems often file frequent rate cases or are allowed to use capital cost trackers to address attrition. The more important issue in a proceeding to consider decoupling is therefore the design of the RAM rather than the need for one.

Most RAMs escalate allowed revenue only for customer growth. Escalation for customer growth is sensible because it is an important driver of cost and also highly correlated with other drivers such as peak demand. The need for rate cases is thereby reduced but is rarely eliminated since cost has other drivers such as input price inflation. When RAMs are escalated only for customer growth, utilities usually retain the freedom to file rate cases to address other cost factors and often do. Some RAMs are "broad-based" in the sense that they provide enough revenue growth to compensate the utility for several kinds of cost pressures. This can materially reduce the need for rate cases and provide a foundation for a multiyear rate plan.

Revenue decoupling compensates utilities for declining average use even if it is driven in part by external forces such as independently administered DSM programs. The lost revenue disincentive is removed for a wide array of utility initiatives to encourage DSM without requiring load impact calculations or rate designs that discourage DSM. To the extent that recovery of allowed revenue is ensured, utilities can use rate designs with usage charges more aggressively to foster DSM. This makes environmental intervenors strong supporters of decoupling. Controversy over billing determinants in rate cases with future test years is reduced.

Revenue decoupling is a popular means of relaxing the link between a utility's revenue and customers' kWh consumption. States that have tried gas and electric revenue decoupling are indicated on the maps below in Figures 5a and 5b, respectively. Revenue decoupling precedents in the United States and Canada are detailed in Table 4. In the electric utility industry, decoupling has been favored in states that strongly support DSM. Since our 2013 survey, decoupling has been adopted for electric utilities in Connecticut, Maine, Minnesota, and Washington state. Decoupling is the most widespread means of relaxing the revenue/usage link for gas distributors. This reflects the fact that gas distributors often experience declining average use and that this has been driven chiefly by external forces. Table 4 indicates the kinds of RAMs chosen in approved decoupling systems. Note that RAMs for electric utilities are frequently broad-based.

C. Fixed/Variable Pricing

Fixed/variable pricing is an approach to rate design that uses fixed charges (charges that do not vary with the actual sales volume or peak demand) to compensate utilities for fixed costs of service. For residential and small commercial services, customer charges (a flat monthly fee per customer) are the most common fixed charge used. Base revenue thus tends to grow at the gradual pace of customer growth. A *straight* fixed/variable ("SFV") rate design recovers *all* base revenue through fixed charges. A rate design that recovers a substantial but smaller share of fixed costs through fixed charges is sometimes called *modified* fixed/variable pricing.

Figure 5a: Electric Revenue Decoupling by State

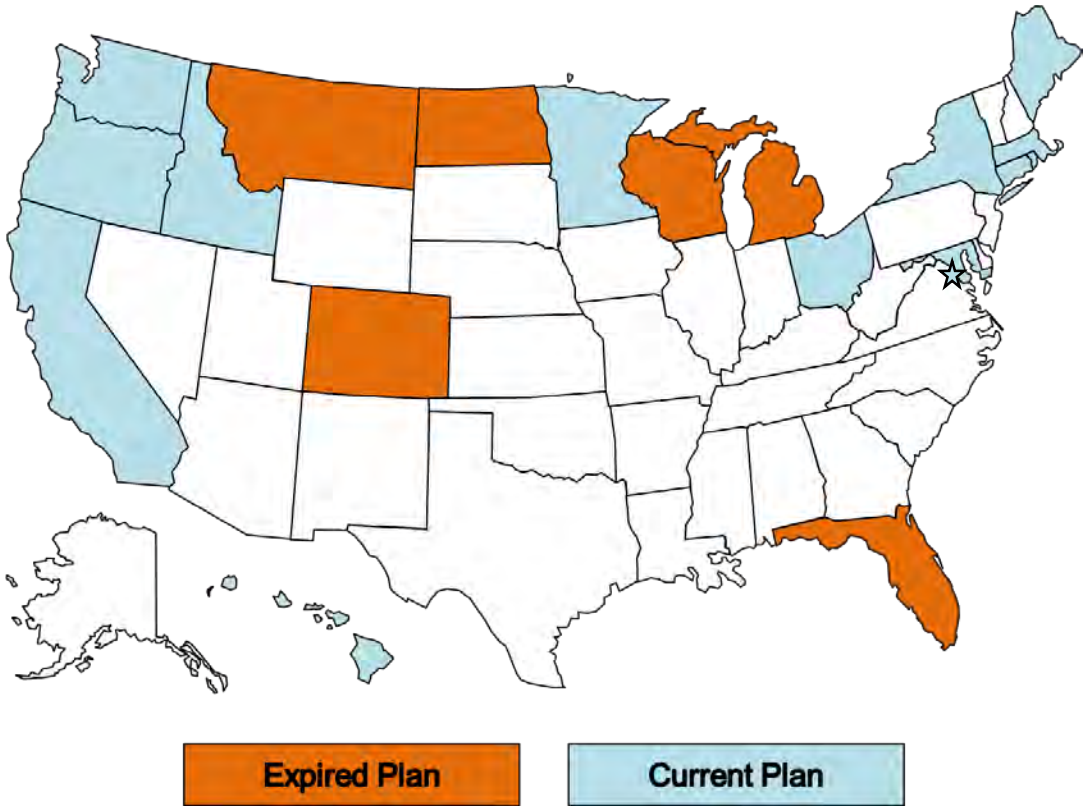


Figure 5b: Gas Revenue Decoupling by State

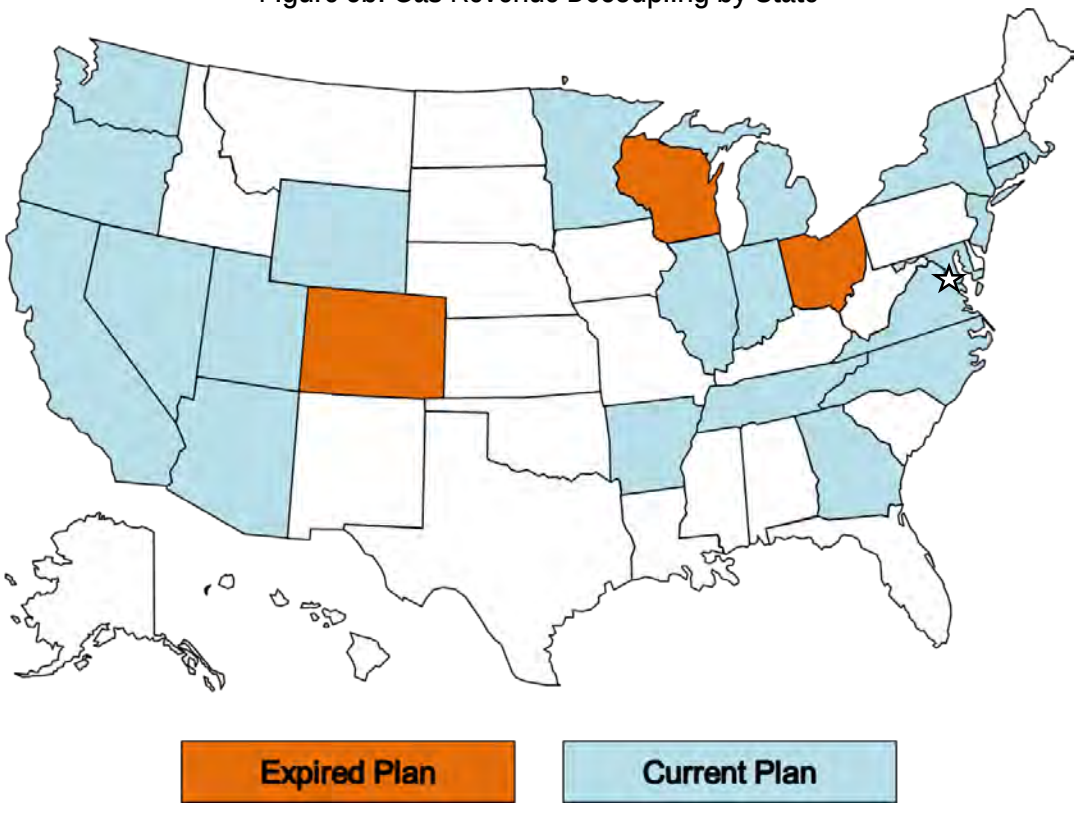


Table 4

Revenue Decoupling Precedents

Jurisdiction	Company Name	Services	Plan Years	Revenue Adjustment Mechanism	Case Reference
Current					
United States					
AR	Arkansas Oklahoma Gas	Gas	2014-open	No RAM but multiple capital cost trackers	Docket 13-078-U
AR	CenterPoint Energy	Gas	2008-2016	No RAM but multiple capital cost trackers	Dockets 06-161-U, 11-088-U, 12-057-TF, and 13-114-TF
AR	SourceGas Arkansas (Arkansas Western)	Gas	2014-open	No RAM but multiple capital cost trackers	Docket 13-079-U
AZ	Southwest Gas	Gas	2012-open	Customers	Docket G-01551A-10-0458
CA	Bear Valley Electric Service	Electric	2013-2016	Stairstep	Decision 14-11-002
CA	California Pacific Electric	Electric	2013-2015	Indexing	Decision 12-11-030
CA	Pacific Gas & Electric	Gas & Electric	2014-2016	Stairstep	Decision 14-08-032
CA	San Diego Gas & Electric	Gas & Electric	2012-2015	Stairstep	Decision 13-05-010
CA	Southern California Edison	Electric	2012-2014	Hybrid	Decision 12-11-051
CA	Southern California Gas	Gas	2012-2015	Stairstep	Decision 13-05-010
CA	Southwest Gas	Gas	2014-2018	Stairstep	Decision 14-06-028
CT	Connecticut Light & Power	Electric	2014-open	No RAM	Docket 14-05-06
CT	Connecticut Natural Gas	Gas	2014-open	No RAM	Docket 13-06-08
CT	United Illuminating	Electric	2013-open	Stairstep until July 2015, No RAM thereafter	Docket 13-01-19
DC	Potomac Electric Power	Electric	2010-open	Customers	Order 15556
GA	Atmos Energy	Gas	2012-open	No RAM but FRP type mechanism also in effect	Docket 34734
HI	Hawaiian Electric Company	Electric	2011-open	Hybrid	Dockets 2008-0274, 2008-0083, 2013-0141
HI	Hawaiian Electric Light Company	Electric	2012-open	Hybrid	Dockets 2008-0274, 2009-0164, 2013-0141
HI	Maui Electric	Electric	2012-open	Hybrid	Dockets 2008-0274, 2009-0163, 2013-0141
ID	Idaho Power	Electric	2012-open	Customers	Cases IPC-E-11-19, IPC-E-14-17
IL	North Shore Gas	Gas	2012-open	No RAM	Case 11-0280
IL	Peoples Gas Light & Coke	Gas	2012-open	No RAM but broad-based capital cost tracker	Case 11-0281
IN	Citizens Gas	Gas	2007-open	Customers	Cause 42767
IN	Indiana Gas	Gas	2011-2015	Customers	Cause 44019
IN	Indiana Gas	Gas	2016-2019	Customers	Cause 44598
IN	Indiana Natural Gas	Gas	2014-open	Customers	Cause 44453
IN	Vectren Southern Indiana	Gas	2011-2015	Customers	Cause 44019
IN	Vectren Southern Indiana	Gas	2016-2019	Customers	Cause 44598
MA	Bay State Gas	Gas	2015-2018	Revenue per Customer Stairstep	DPU 15-50
MA	Boston-Essex Gas	Gas	2010-open	Customers	DPU 10-55
MA	Colonial Gas	Gas	2010-open	Customers	DPU 10-55
MA	Fitchburg Gas & Electric	Gas	2011-open	Customers	DPU 11-02
MA	Fitchburg Gas & Electric	Electric	2011-open	No RAM	DPU 11-01
MA	Massachusetts Electric	Electric	2010-open	No RAM but broad-based capital cost tracker	DPU 09-39
MA	New England Gas	Gas	2011-open	Customers	DPU 10-114
MA	Western Massachusetts Electric	Electric	2011-open	No RAM	DPU 10-70
MD	Baltimore Gas & Electric	Electric	2008-open	Customers	Letter Orders ML 108069, 108061
MD	Baltimore Gas & Electric	Gas	1998-open	Customers	Case 8780
MD	Chesapeake Utilities	Gas	2006-open	Customers	Order 81054
MD	Columbia Gas of Maryland	Gas	2013-open	Customers	Order 85858
MD	Delmarva Power & Light	Electric	2007-open	Customers	Order 81518
MD	Potomac Electric Power	Electric	2007-open	Customers	Order 81517
MD	Washington Gas Light	Gas	2005-open	Customers	Order 80130
ME	Central Maine Power	Electric	2014-open	Customers	Docket 2013-00168

Table 4 (cont'd)

Jurisdiction	Company Name	Services	Plan Years	Revenue Adjustment Mechanism	Case Reference
Current (cont'd)					
United States (cont'd)					
MI	Consumers Energy	Gas	2015-open	No RAM	Case U-17643
MI	Michigan Consolidated Gas	Gas	2013-open	No RAM	Case U-16999
MI	Michigan Gas Utilities	Gas	2015-open	No RAM	Case U-17273
MN	CenterPoint Energy	Gas	2015-2018	Customers	GR-13-316
MN	Minnesota Energy Resources	Gas	2013-2016	Customers	GR-10-977
MN	Northern States Power - MN	Electric	2016-2018	Customers	GR-13-868
NC	Piedmont Natural Gas	Gas	2008-open	Customers	Docket G-9, Sub 550
NC	Public Service Co of NC	Gas	2008-open	Customers	Docket G-5, Sub 495
NJ	New Jersey Natural Gas	Gas	2014-open	Customers	Docket GR13030185
NJ	South Jersey Gas	Gas	2014-open	Customers	Docket GR13030185
NV	Southwest Gas	Gas	2009-open	Customers	D-09-04003
NY	Central Hudson G&E	Gas & Electric	2015-2018	Revenue per Customer Stairstep for Gas, Stairstep for Electric	Cases 14-E-0318, 14-G-0319
NY	Consolidated Edison	Gas	2014-2016	Revenue per Customer Stairstep	Case 13-G-0031
NY	Consolidated Edison	Electric	2014-2016	Stairstep	Case 13-E-0030
NY	Corning Natural Gas	Gas	2015-2017	Customers	Case 11-G-0280
NY	Keyspan Energy Delivery - Long Island	Gas	2010-open	Revenue per Customer Stairstep through 2012, Customers After 2012	Case 06-G-1186
NY	Keyspan Energy Delivery New York	Gas	2013-2014	Revenue per Customer Stairstep through 2014, Customers After 2014	Case 12-G-0544
NY	National Fuel Gas	Gas	2013-2015	Customers	Case 13-G-0136
NY	New York State Electric & Gas	Gas	2010-2013	Revenue per Customer Stairstep through 2013, Customers thereafter	Case 09-E-0715
NY	New York State Electric & Gas	Electric	2010-2013	Stairstep through 2013, No RAM thereafter	Case 09-G-0716
NY	Niagara Mohawk	Gas	2013-2016	Optional Revenue per Customer Stairstep	Case 12-G-0202
NY	Niagara Mohawk	Electric	2013-2016	Optional Stairstep	Case 12-E-0201
NY	Orange & Rockland Utilities	Gas	2015-2018	Revenue per Customer Stairstep	Case 14-G-0494
NY	Orange & Rockland Utilities	Electric	2015-2017	Stairstep	Case 14-E-0493
NY	Rochester Gas & Electric	Gas	2010-2013	Revenue per Customer Stairstep through 2013, Customers thereafter	Case 09-E-0717
NY	Rochester Gas & Electric	Electric	2010-2013	Stairstep through 2013, No RAM thereafter	Case 09-G-0718
NY	St. Lawrence Gas	Gas	2010-open	Revenue per Customer Stairstep through 2012, Customers thereafter	Case 08-G-1392
OH	AEP Ohio	Electric	2012-2018	Customers	Cases 11-351-EL-AIR, 13-2385-EL-SSO
OH	Duke Energy Ohio	Electric	2015-open	Customers	Case 14-841-EL-SSO
OR	Cascade Natural Gas	Gas	2013-2015	Customers	Order 13-079
OR	Northwest Natural Gas	Gas	2012-open	Customers	Order 12-408
OR	Portland General Electric	Electric	2014-2016	Customers	Order 13-459
RI	Narragansett Electric	Electric	2012-open	No RAM but broad-based capital cost tracker	Docket 4206
RI	Narragansett Electric	Gas	2012-open	Customers	Docket 4206
TN	Chattanooga Gas	Gas	2013-open	Customers	Docket 09-0183
UT	Questar Gas	Gas	2010-open	Customers	Docket 09-057-16
VA	Columbia Gas of Virginia	Gas	2013-2015	Customers	Case PUE-2012-00013
VA	Virginia Natural Gas	Gas	2013-2016	Customers	Case PUE-2012-00118
VA	Washington Gas Light	Gas	2013-2016	Customers	Case PUE-2012-00138
WA	Avista	Gas & Electric	2015-2019	Customers	Dockets UE-140188 and UG-140189
WA	Puget Sound Energy	Gas & Electric	2013-2016	Revenue per Customer Stairstep	Dockets UE-121697 and UG-121705
WY	Questar Gas	Gas	2012-open	Customers	Docket 30010-113-GR-11
WY	SourceGas Distribution	Gas	2011-open	Customers	Docket 30022-148-GR-10

Table 4 (cont'd)

Jurisdiction	Company Name	Services	Plan Years	Revenue Adjustment Mechanism	Case Reference
Current (cont'd)					
Canada					
BC	BC Hydro	Electric	2015-2016	Stairstep	Order G-48-14
BC	FortisBC	Electric	2014-2019	Indexing	Order G-139-14
BC	FortisBC Energy	Gas	2014-2019	Indexing	Order G-138-14
BC	Pacific Northern Gas	Gas	2003-open	Customers	N/A
ON	Enbridge Gas Distribution	Gas	2014-2018	Stairstep	EB-2012-0459
ON	Union Gas	Gas	2014-2018	Indexing	EB-2013-0202
Historic					
United States					
AR	Arkansas Oklahoma Gas	Gas	2007-2013	No RAM	Dockets 07-026-U, 07-077-TF
AR	Arkansas Western	Gas	2008-2013	No RAM	Docket 07-078-TF
CA	Bear Valley Electric Service	Electric	2009-2012	Stairstep	Decision 09-10-028
CA	Pacific Gas & Electric	Gas & Electric	1982-1983	Hybrid	Decision 93887
CA	Pacific Gas & Electric	Electric	1984-1985	Hybrid	Decision 83-12-068
CA	Pacific Gas & Electric	Electric	1986-1989	Hybrid	Decision 85-12-076
CA	Pacific Gas & Electric	Electric	1990-1992	Hybrid	Decision 89-12-057
CA	Pacific Gas & Electric	Gas & Electric	1993-1995	Hybrid	Decision 92-12-057
CA	Pacific Gas & Electric	Gas & Electric	2004-2006	Indexing	Decision 04-05-055
CA	Pacific Gas & Electric	Gas & Electric	2007-2010	Stairstep	Decision 07-03-044
CA	Pacific Gas & Electric	Gas & Electric	2011-2013	Stairstep	Decision 11-05-018
CA	Pacific Gas & Electric	Gas	1978-1981	No RAM	Decisions 89316, 91107
CA	PacifiCorp	Electric	1984-1985	Stairstep	Decision 89-09-034
CA	San Diego Gas & Electric	Gas & Electric	1982-1983	Hybrid	Decision 93892
CA	San Diego Gas & Electric	Gas & Electric	1986-1988	Hybrid	Decision 85-12-108
CA	San Diego Gas & Electric	Electric	1989-1993	Hybrid	Decision 89-11-068
CA	San Diego Gas & Electric	Gas & Electric	1994-1999	Hybrid	Decision 94-08-023
CA	San Diego Gas & Electric	Gas & Electric	2005-2007	Indexing	Decision 05-03-025
CA	San Diego Gas & Electric	Gas & Electric	2008-2011	Stairstep	Decision 08-07-046
CA	Southern California Edison	Electric	1983-1984	Hybrid	Decision 82-12-055
CA	Southern California Edison	Electric	1986-1991	Hybrid	Decision 85-12-076
CA	Southern California Edison	Electric	2001-2003	Indexing	Decision 02-04-055
CA	Southern California Edison	Electric	2004-2006	Hybrid	Decision 04-07-022
CA	Southern California Edison	Electric	2006-2008	Hybrid	Decision 06-05-016
CA	Southern California Edison	Electric	2009-2011	Stairstep	Decision 09-03-025
CA	Southern California Gas	Gas	1979-1980	No RAM	Decision 89710
CA	Southern California Gas	Gas	1981-1982	Stairstep	Decision 92497
CA	Southern California Gas	Gas	1983-1984	Hybrid	Decision dated December 8, 1982
CA	Southern California Gas	Gas	1986-1989	Hybrid	Decision 85-12-076
CA	Southern California Gas	Gas	1990-1993	Hybrid	Decision 90-01-016
CA	Southern California Gas	Gas	1998-2002	Indexing	Decision 97-07-054
CA	Southern California Gas	Gas	2005-2007	Indexing	Decision 05-03-025
CA	Southern California Gas	Gas	2008-2011	Stairstep	Decision 08-07-046
CA	Southwest Gas	Gas	2009-2013	Stairstep	Decision 08-11-048
CO	Public Service Company of Colorado	Gas	2008-2011	Customers	Decision C07-0568
CO	Public Service Company of Colorado	Electric	2012-2014	Stairstep	Decision C12-0494
CT	United Illuminating	Electric	2009-2013	Stairstep until 2011/No RAM for 2011 onwards	Docket 08-07-04
FL	Florida Power Corporation	Electric	1995-1997	Customers	Docket 930444
ID	Idaho Power	Electric	2007-2009	Customers	Case IPC-E-04-15
ID	Idaho Power	Electric	2010-2012	Customers	Case IPC-E-09-28
IL	North Shore Gas	Gas	2008-2012	Customers	Case 07-0241
IL	Peoples Gas Light & Coke	Gas	2008-2012	Customers	Case 07-0242
IN	Citizens Gas	Gas	2007-2011	Customers	Cause 42767
IN	Vectren Energy	Gas	2007-2011	Customers	Cause 43046
IN	Vectren Southern Indiana	Gas	2007-2011	Customers	Cause 43046
MA	Bay State Gas	Gas	2009-open	Customers	DPU 09-30
ME	Central Maine Power	Electric	1991-1993	Customers	Docket 90-085
MI	Consumers Energy	Electric	2009-2011	Customers	Case U-15645
MI	Consumers Energy	Gas	2010-2012	Customers	Case U-15986
MI	Detroit Edison	Electric	2010-2011	Customers	Case U-15768
MI	Michigan Consolidated Gas	Gas	2010-2012	Customers	Case U-15985
MI	Michigan Gas Utilities	Gas	2010-2013	Customers	Case U-15990
MI	Upper Peninsula Power	Electric	2010-2011	Customers	Case U-15988
MN	CenterPoint Energy	Gas	2010-2013	Customers	Docket GR-08-1075
MT	Montana Power Company	Electric	1994-1998	Customers	Docket 93.6.24

Table 4 (cont'd)

Jurisdiction	Company Name	Services	Plan Years	Revenue Adjustment Mechanism	Case Reference
Historic (cont'd)					
United States (cont'd)					
NC	Piedmont Natural Gas	Gas	2005-2008	Customers	Docket G-44 Sub 15
ND	Northern States Power - MN	Electric	2012	Not Applicable, plan only 1 year in duration	Case PU-11-55
NJ	New Jersey Natural Gas	Gas	2007-2010	Customers	Docket GR05121020
NJ	New Jersey Natural Gas	Gas	2010-2013	Customers	Docket GR05121020
NJ	South Jersey Gas	Gas	2007-2010	Customers	Docket GR05121019
NJ	South Jersey Gas	Gas	2010-2013	Customers	Docket GR05121019
NY	Central Hudson G&E	Gas	2009-open	Customers	Case 08-E-0888
NY	Central Hudson G&E	Electric	2009	No RAM	Case 08-E-0887
NY	Central Hudson G&E	Gas & Electric	2010-2013	Revenue per Customer Stairstep for Gas, Stairstep for Electric	Case 09-E-0588
NY	Central Hudson G&E	Gas & Electric	2013-open	Customers for Gas, No RAM for Electric	Case 12-M-0192
NY	Consolidated Edison	Electric	1992-1995	Stairstep	Opinion 92-8
NY	Consolidated Edison	Gas	2007-2010	Stairstep	Case 06-G-1332
NY	Consolidated Edison	Electric	2008-open	No RAM	Case 07-E-0523
NY	Consolidated Edison	Gas	2010-2013	Revenue per Customer Stairstep	Case 09-G-0795
NY	Consolidated Edison	Electric	2010-2013	Stairstep	Case 09-E-0428
NY	Corning Natural Gas	Gas	2012-2015	Revenue per Customer Stairstep	Case 11-G-0280
NY	Keyspan Energy Delivery - New York	Gas	2010-open	Revenue per Customer Stairstep	Case 06-G-1185
NY	Long Island Lighting Company	Electric	1992-1994	Stairstep	Opinion 92-8
NY	National Fuel Gas	Gas	2008-open	Customers	Case 07-G-0141
NY	New York State Electric & Gas	Electric	1993-1995	Stairstep	Opinion 93-22
NY	Niagara Mohawk	Electric	1990-1992	Stairstep	Case 94-E-0098
NY	Niagara Mohawk	Gas	2009-open	Customers	Case 08-G-0609
NY	Niagara Mohawk	Electric	2011-open	No RAM	Case 10-E-0050
NY	Orange & Rockland Utilities	Electric	2012-2015	Stairstep	Case 11-E-0408
NY	Orange & Rockland Utilities	Electric	2011-2012	No RAM	Case 10-E-0362
NY	Orange & Rockland Utilities	Electric	2008-2011	Stairstep	Case 07-E-0949
NY	Orange & Rockland Utilities	Electric	1991-1993	Stairstep	Case 89-E-175
NY	Orange & Rockland Utilities	Gas	2012-2015	Customers	Case 08-G-1398
NY	Orange & Rockland Utilities	Gas	2009-2012	Revenue per Customer Stairstep	Case 08-G-1398
NY	Rochester Gas & Electric	Electric	1993-1996	Stairstep	Opinion 93-19
OH	Duke Energy Ohio	Electric	2012-2014	Customers	Case 11-5905-EL-RDR
OH	Vectren Energy	Gas	2007-2009	Customers	Case 05-1444-GA-UNC
OR	Cascade Natural Gas	Gas	2007-2012	Customers	Order 06-191
OR	Northwest Natural Gas	Gas	2002-2005	Customers	Order 02-634
OR	Northwest Natural Gas	Gas	2005-2009	Customers	Order 05-934
OR	Northwest Natural Gas	Gas	2009-2012	Customers	Order 07-426
OR	PacifiCorp	Electric	1998-2001	Indexing	Order 98-191
OR	Portland General Electric	Electric	1995-1996	Stairstep	Order 95-0322
OR	Portland General Electric	Electric	2009-2010	Customers	Order 09-020
OR	Portland General Electric	Electric	2011-2013	Customers	Order 10-478
TN	Chattanooga Gas	Gas	2010-2013	Customers	Docket 09-0183
UT	Questar Gas	Gas	2006-2010	Customers	Docket 05-057-T01
VA	Virginia Natural Gas	Gas	2009-2012	Customers	Case PUE-2008-00060
VA	Washington Gas Light	Gas	2010-2013	Customers	Case PUE-2009-00064
WA	Avista	Gas	2007-2009	Customers	Docket UG-060518
WA	Avista	Gas	2009-2012	Customers	Docket UG-060518
WA	Avista	Gas	2013-2014	Revenue per Customer Stairstep	Docket UG-120437
WA	Cascade Natural Gas	Gas	2005-2010	Customers	Docket UG-060256
WA	Puget Sound & Power	Electric	1991-1995	Customers	Docket UE-901184-P
WI	Wisconsin Public Service	Gas & Electric	2009-2012	Customers	D-6690-UR-119
WI	Wisconsin Public Service	Gas & Electric	2013	Not Applicable, plan only 1 year in duration	Docket 6690-UR-121
WY	Questar Gas	Gas	2009-2012	Customers	Docket 30010-94-GR-08

Table 4 (cont'd)

Jurisdiction	Company Name	Services	Plan Years	Revenue Adjustment Mechanism	Case Reference
Historic (cont'd)					
Canada					
BC	BC Gas	Gas	1994-1995	Hybrid	Order G-59-94
BC	BC Gas	Gas	1996-1997	Hybrid	N/A
BC	BC Gas	Gas	1998-2000	Hybrid	Order G-85-97
BC	BC Gas	Gas	2000-2001	Hybrid	Order G-48-00
BC	BC Hydro	Electric	2009-2010	Hybrid	Order G-16-09
BC	BC Hydro	Electric	2011	Not Applicable, plan only 1 year in duration	Order G-180-10
BC	BC Hydro	Electric	2012-2014	Stairstep	Order G-77-12A
BC	FortisBC	Electric	2012-2013	Stairstep	Order G 110-12
BC	Terasen Gas	Gas	2008-2009	Hybrid	Order G-33-07
BC	Terasen Gas	Gas	2004-2007	Hybrid	Order G-51-03
BC	Terasen Gas	Gas	2010-2011	Hybrid	Order G-141-09
BC	Terasen Gas	Gas	2012-2013	Stairstep	Order G-44-12
ON	Enbridge Gas Distribution	Gas	2008-2012	Revenue per Customer Indexing	Docket EB-2007-0615
ON	Union Gas	Gas	2008-2012	Indexing	Docket EB-2007-0606

Fixed/variable pricing relaxes the revenue/usage link with low administrative cost since it requires neither decoupling true ups nor load impact calculations. When average use is declining, base revenue will grow more rapidly with fixed/variable pricing so that rate cases tend to be less frequent even if the decline is largely driven by external forces. Base revenue grows more slowly than under conventional rate designs if average use is rising. The short term disincentive is removed to embrace various DSM initiatives. However, fixed/variable pricing reduces a utility's ability to use usage charges as a tool for promoting DSM. For example, it does not encourage customers with electric vehicles to charge these vehicles at night. Note also that the principle of rate design gradualism often discourages regulators from immediately adopting SFV pricing.

SFV pricing has been used on a large scale by interstate gas transmission companies since the early 1990s. Precedents for fixed/variable pricing in retail ratemaking are listed below on Table 5 and Figure 6. It can be seen that fixed/variable pricing has to date been considerably more common for gas distributors than electric utilities. This again reflects the greater problem of declining average use that gas distributors have faced, and the fact that the decline has been driven largely by external forces. Since our 2013 survey, fixed/variable pricing has been implemented for an electric utility in Oklahoma.

In addition to the precedents listed here, utilities in Wisconsin and several other states have in recent years made sizable steps in the direction of fixed/variable pricing by redesigning rates for small volume customers to raise customer charges and lower volumetric charges substantially. Investor-owned utilities in Canada are typically permitted to raise a much higher portion of their revenue through fixed charges than are utilities in the United States. Most fixed/variable rate designs feature uniform fixed charges within service classes, but gas utilities in Florida, Georgia, and Oklahoma have fixed charges that vary in some fashion with long term consumption patterns.

Figure 6: Fixed/Variable Pricing Precedents by State

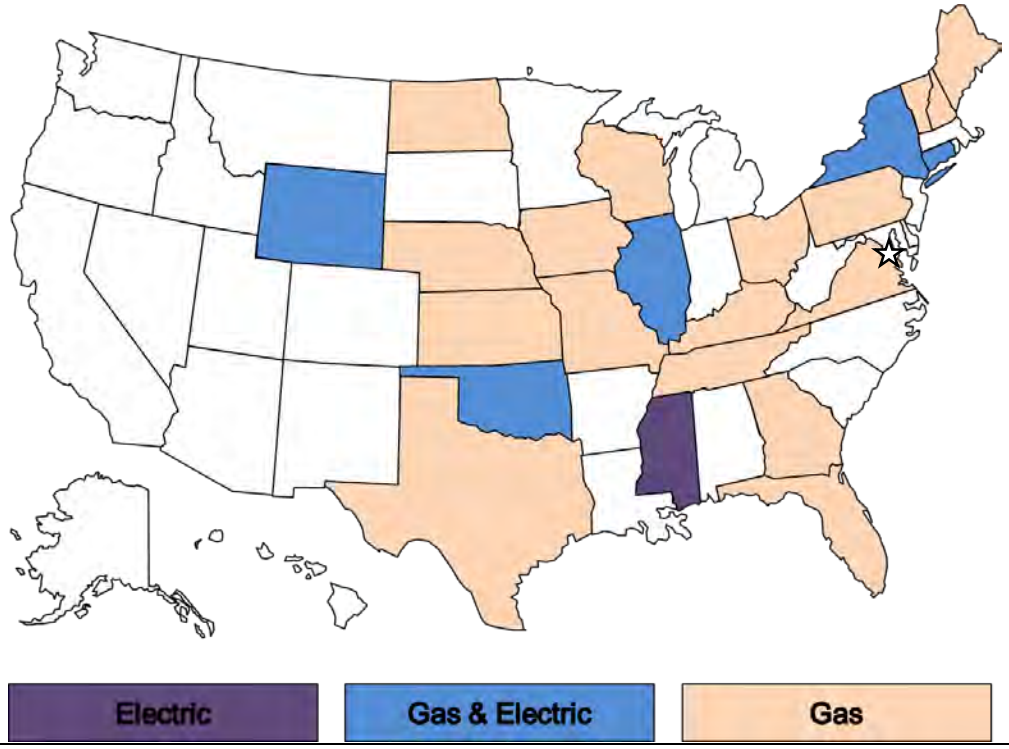


Table 5

Fixed Variable Residential Pricing Precedents[1]

Jurisdiction	Company Name	Services	Years in Place	Case Reference
CT	Connecticut Light & Power	Electric	2007-open	Docket 07-07-01
CT	Connecticut Natural Gas	Gas	2014-open	Docket 13-06-08
CT	United Illuminating	Electric	Occurred over period of years	No specific case
CT	Yankee Gas System	Gas	2011-open	Docket 10-12-02
FL	Peoples Gas System	Gas	2009-open	Docket 080318-GU
GA	Liberty Utilities	Gas	2015-open	Docket 34734
IA	Black Hills Energy	Gas	2009-open	Docket RPU-08-3
IL	Ameren CILCO	Gas	2008-2012	Case 07-0588
IL	Ameren CIPS	Gas	2008-2012	Case 07-0589
IL	Ameren IP	Gas	2008-2012	Case 07-0590
IL	Ameren Illinois	Gas	2012-open	Case 11-0282
IL	Ameren Illinois	Electric	Occurred over period of years	No specific case
IL	Commonwealth Edison	Electric	2011-2013	Case 10-0467
IL	Mt. Carmel Public Utilities	Gas	2013-open	Case 13-0079
IL	North Shore Gas	Gas	2008-open	Case 07-0241
IL	Peoples Gas Light & Coke	Gas	2008-open	Case 07-0242
KS	Atmos Energy	Gas	2010-open	Docket 10-ATMG-495-RTS
KS	Black Hills Energy (formerly Aquila)	Gas	2007-open	Docket 07-AQLG-431-RTS
KS	Kansas Gas Service	Gas	2012-open	Docket 12-KGSG-835-RTS
KY	Atmos Energy	Gas	2014-open	Case 2013-00148
KY	Columbia Gas	Gas	2013-open	Case 2013-00167
KY	Delta Natural Gas	Gas	2007-open	Case 2007-00089
KY	Duke Energy Kentucky	Gas	2010-open	Case 2009-00202
ME	Maine Natural Gas	Gas	Occurred over period of years	Docket 2009-00067
ME	Northern Utilities	Gas	2014-open	Docket 2013-00133
MO	AmerenUE	Gas	2007-open	Case GR-2007-0003
MO	Atmos Energy	Gas	2007-2010	Case GR-2006-0387
MO	Atmos Energy	Gas	2010-open	Case GR-2010-0192
MO	Empire District Gas	Gas	2010-open	Case GR-2009-0434
MO	Laclede Gas	Gas	2002-open	Case GR-2002-356
MO	Missouri Gas Energy	Gas	2007-open	Case GR-2006-0422
MS	Mississippi Power	Electric	Occurred over period of years	No specific case
ND	Xcel Energy	Gas	2005-open	Case PU-04-578
NE	SourceGas Distribution	Gas	2012-open	Docket NG-0067
NH	Liberty Utilities (EnergyNorth Natural Gas)	Gas	Occurred over period of years	No specific case
NH	Northern Utilities	Gas	2014-open	DG 13-086
NY	Central Hudson Gas & Electric	Electric & Gas	Occurred over period of years	No specific case
NY	Consolidated Edison	Electric & Gas	Occurred over period of years	No specific case
NY	Corning Gas	Gas	Occurred over period of years	No specific case
NY	Keyspan Energy Delivery - Long Island	Gas	Occurred over period of years	No specific case
NY	Keyspan Energy Delivery - New York	Gas	Occurred over period of years	No specific case
NY	National Fuel Gas	Gas	Occurred over period of years	No specific case

Table 5 (cont'd)

Jurisdiction	Company Name	Services	Years in Place	Case Reference
NY	New York State Electric & Gas	Electric	Occurred over period of years	No specific case
NY	Niagara Mohawk	Electric & Gas	Occurred over period of years	No specific case
NY	Orange & Rockland	Electric & Gas	Occurred over period of years	No specific case
NY	Rochester Gas & Electric	Electric & Gas	Occurred over period of years	No specific case
OH	Columbia Gas	Gas	2008-open	Case 08-0072-GA-AIR
OH	Dominion East Ohio	Gas	2008-2010	Case 07-830-GA-ALT
OH	Duke Energy Ohio (CG&E)	Gas	2008-open	Case 07-590-GA-ALT
OH	Vectren Energy Delivery of Ohio	Gas	2009-open	Case 07-1080-GA-AIR
OK	Arkansas Oklahoma Gas	Gas	2013-open	Cause PUD 201200236
OK	Centerpoint Energy	Gas	2010-open	Cause PUD 201000030
OK	Oklahoma Natural Gas	Gas	2004-open	Causes PUD 200400610, PUD 201000048, PUD 200900110
OK	Public Service Company of Oklahoma	Electric	2015-open	Cause PUD 201300217
PA	Columbia Gas	Gas	2013-open	Docket R-2012-2321748
TN	Atmos Energy	Gas	2012-open	Docket 12-00064
TN	Piedmont Natural Gas	Gas	2012-open	Docket 11-00144
TX	Atmos Energy - Mid-Tex Division	Gas	Occurred over period of years	No specific case
TX	Atmos Energy - West Texas Division	Gas	Occurred over period of years	No specific case
TX	Centerpoint Energy Houston Division	Gas	Occurred over period of years	No specific case
TX	Centerpoint Energy Beaumont/East Texas Division	Gas	Occurred over period of years	No specific case
VA	Columbia Gas of Virginia	Gas	Occurred over period of years	No specific case
VT	Vermont Gas Systems	Gas	Occurred over period of years	No specific case
WI	Madison Gas & Electric	Gas	2015-open	Docket 3270-UR-120
WI	Wisconsin Public Service	Gas	2015-open	Docket 6690-UR-123
WY	SourceGas Distribution	Gas	2011-open	Docket 30022-148-GR-10
WY	PacifiCorp (d/b/a Rocky Mountain Power)	Electric	2009-open	Docket 20000-333-ER-08

[1] Fixed variable pricing precedents include power and gas distributors that have a customer charge equal to or in excess of $15 (or $20 for vertically integrated electric utilities).

IV. Forward Test Years

General rate cases involve "test years" in which revenue requirements and billing determinants (e.g., the residential delivery volume) are jointly considered in ratesetting. A historical test year ends before the rate case is filed. A forward (a/k/a "fully forecasted") test year ("FTY") begins after the rate case is filed. An FTY typically begins about the time the rate case is expected to end and new rates take effect. Two-year forecasts may be required in this event which span both the year of the rate case and the rate effective year.[4] In between forward and historical test years is the option of a "partially forecasted" test year in which some months of historical data on utility operations are combined with some months of forecasted data. Under this approach, actual data for all months usually become available during the course of the rate case.

Historical test years tend to be uncompensatory when cost is growing faster than billing determinants. Annual rate cases with historical test years can alleviate but not eliminate underearning under these conditions. The effect on credit metrics can be material.[5] Where historical test years are used, there are thus added advantages to implementing other Altreg innovations discussed in this survey.

Forward test years can fully compensate utilities when cost growth exceeds growth in billing determinants. If this imbalance is chronic, however, FTYs do not eliminate the problem of frequent rate cases. It is therefore not unusual for regulators to combine FTYs with other Altreg remedies, such as cost trackers or multiyear rate plans.

Many approaches are used to forecast costs in FTY rate cases. Some companies rely on their budgeting process to make cost projections. Others normalize data for an historical reference period, adjusted for known and measurable changes, and then use indexing and other statistical methods to extend projections. A mixture of forecasting methods is common. For example, index-based forecasting may be used only for O&M expenses.

FTYs were adopted in many jurisdictions during the 1970s and 1980s, when rapid inflation and major plant additions coincided with oil shock-induced slowdowns in the growth of average use. Several additional states have recently moved in the direction of FTYs. Some of these states are in the West, where comparatively rapid economic growth has required more rapid buildout of utility infrastructure.

Current state policies concerning test years are summarized below in Figure 7 and Table 6. In many jurisdictions the use of partially or fully-forecasted test years is not standardized. For example, in some jurisdictions, including Illinois and North Dakota, utilities are allowed to select their type of rate case test year. Test year selection may also be made part of the rate case (e.g., Utah). A few jurisdictions allow forward test years to be used in rate cases or formula rate plans, but not both (e.g., Illinois and Arkansas).

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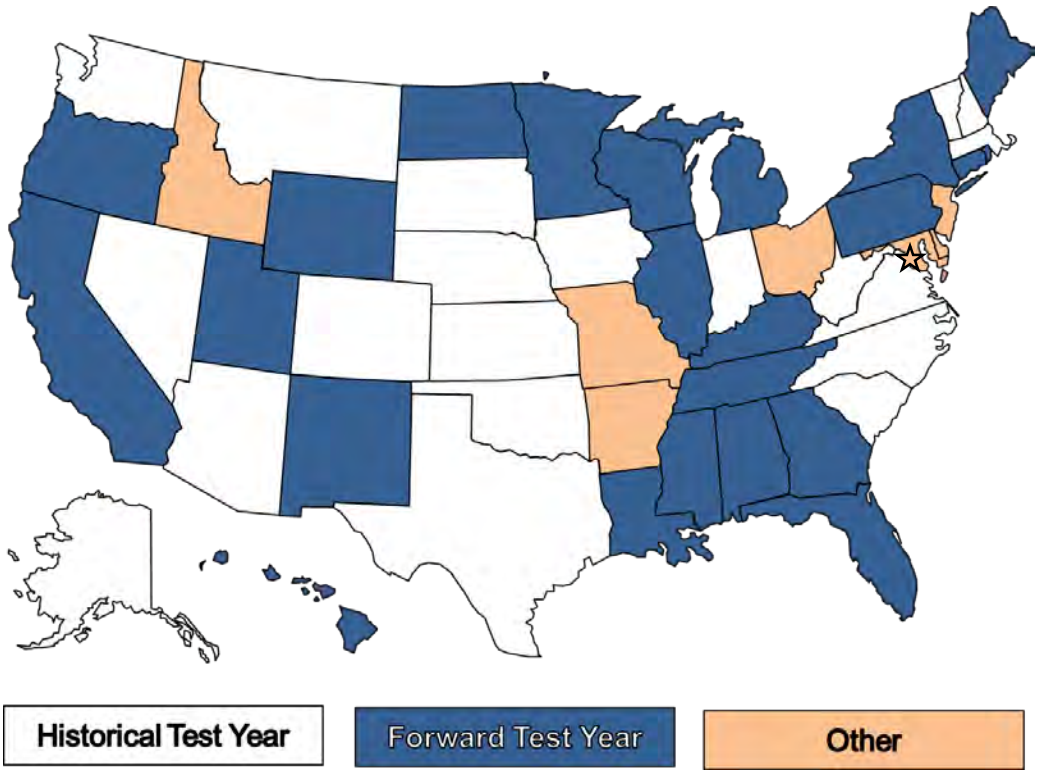
[4] A forward test year can in principle be the rate case year, and thereby not require two-year forecasts. Proposed rates can be established on an interim basis shortly after the filing.

[5] For evidence see "Forward Test Years for US Electric Utilities" by Mark Newton Lowry, David Hovde, Lullit Getachew, and Matt Makos, Edison Electric Institute, 2010.

Because of these complications, we have separated Table 6 into separate sections, specifying where FTYs are commonly used or occasionally used. Figure 7 shows jurisdictions where FTYs are commonly or occasionally used. Jurisdictions where partially-forecasted test years are commonly or occasionally used are in the category titled Other, with the remaining jurisdictions counted as historical test years.

The ranks of US jurisdictions that allow the use of forward test years have swollen and now encompass about half of the total. Since our 2013 survey, electric utilities in Pennsylvania have successfully used FTYs and utilities in Arkansas and Indiana have received legislative authorization for their use.[6][7] Forward test years are the norm in Canadian regulation.

Figure 7: Test Year Policy by State



[6] In addition, another electric utility in Mississippi was recently permitted to use a forward-looking formula rate plan.

[7] FTYs in Arkansas can only be used in formula rate plans.

Table 6

Test Year Approaches of US Jurisdictions

Jurisdiction	Notes
Fully-Forecasted Test Years Commonly Used (15)	
Alabama	Utilities operate under forward-looking formula rate plans
California	
Connecticut	
FERC	Rate cases use forward test years but some formula rate plans use historical test years
Florida	
Georgia	
Hawaii	
Maine	
Michigan	
Minnesota	
New York	
Oregon	
Rhode Island	
Tennessee	
Wisconsin	
Fully-Forecasted Test Years Occasionally Used (9)	
Illinois	Utilities use various test years including forward test years ("FTYs")
Kentucky	Utilities use various test years including FTYs
Louisiana	Utilities use various test years including FTYs
Mississippi	Both electric utilities operate under forward-looking formula rate plans. Gas formula rate plans rely on historical test years ("HTYs").
New Mexico	A recently passed law allows for use of FTYs, and at least one rate increase based on FTY evidence has been approved
North Dakota	Utilities use various test years including FTYs
Pennsylvania	Partially-forecasted test years have traditionally been the norm. However, a law allowing fully-forecasted test years passed in 2012 and several electric utility rate increases based on FTY evidence have been approved.
Utah	Test year selection is part of the rate case and can be contested. Several recent rate cases have used FTYs.
Wyoming	Rocky Mountain Power has recently used FTYs
Partially-Forecasted Test Years Commonly or Occasionally Used (8)	
Arkansas	Utilities have typically used partially forecasted test years in rate cases. However, a recent bill authorized the use of formula rates with either historical or forecasted test periods.
Delaware	Before restructuring FTY filings were common, but companies have used a mix of HTYs and partially-forecasted test years in recent filings
District of Columbia	PEPCO has filed rate cases using both hybrid and historical test years recently
Idaho	
Maryland	Utilities use various test years excluding FTYs
Missouri	Utilities have the option to file partially-forecasted test years
New Jersey	
Ohio	
Historical Test Years Commonly Used (20)	
Alaska	
Arizona	
Colorado	Utilities have filed FTY evidence. However, no FTY rates have yet been approved but a recent case made extraordinary HTY adjustments.
Indiana	A recently passed law allows for use of FTYs, but no rate increase based on FTY evidence has been approved for an energy utility to date
Iowa	
Kansas	
Massachusetts	
Montana	
Nebraska	Nebraska has no electric IOUs. Gas companies are legally authorized to use FTYs but commonly use HTYs.
Nevada	
New Hampshire	
North Carolina	
Oklahoma	
South Carolina	
South Dakota	
Texas	
Vermont	
Virginia	
Washington	
West Virginia	

V. Multiyear Rate Plans

Multiyear rate plans ("MRPs") are designed to reduce regulatory cost, while increasing the utility incentive for efficient operation. Rate cases are held infrequently, most often at three to five year intervals. Between rate cases, rate escalations are based on a combination of automatic attrition relief mechanisms ("ARMs") and cost trackers. The rate adjustments provided by ARMs are largely "external" in the sense that they give a utility an *allowance* for cost growth rather than reimbursement for its *actual* growth.

The "externalization" of ratemaking that ARMs and rate case moratoria achieve gives utilities more opportunity to profit from improved performance. Benefits of better performance can be shared between the utility and its customers. Performance incentives are strengthened despite streamlined regulation. Lower regulatory cost has special appeal in jurisdictions where numerous utilities must be regulated.

ARMs can cap growth in rates (e.g., customer charges and cents per kWh) or allowed revenue. Rate caps are favored when and where utilities are encouraged to bolster customer use of the grid. Revenue caps are usually combined with revenue decoupling mechanisms, and are often favored where utilities must cope with declining average use and/or policymakers strongly encourage DSM.

Several approaches to ARM design are well-established. These include multiyear cost forecasts, indexing, and hybrids. Indexing escalates rates (or revenue) automatically for inflation and sometimes also for growth in other cost drivers like the number of customers served. A hybrid approach to ARM design was developed in the US that involves indexing of revenue for O&M expenses and forecasts for capital cost revenue.

The indexing approach to ARM design has been more common for UDCs because their cost growth is relatively gradual and predictable. Hybrid and forecasted ARMs have historically been more common for vertically integrated electric utilities because occasional major plant additions have given their cost trajectories more of a "stairstep" pattern. However, this pattern is becoming less common in an era when demand growth is slower and fewer large power plants are under construction. Some VIEUs operating under MRPs have separate ARMs for generation and distribution.

Cost trackers are often used in MRPs to address changes in business conditions that are difficult to address using ARMs. A tracker that recovers a large portion of a utility's capex cost can sometimes permit the company to operate under a multiyear freeze on rates for other non-energy costs. MRPs with "tracker/freeze" provisions for vertically integrated utilities often accord tracker treatment to costs of new or refurbished generating plants.[8] Trackers also address *force majeure* events like severe storms and changes in tax rates that affect costs.

Many MRPs feature earnings sharing mechanisms ("ESMs") that automatically share earnings surpluses and/or deficits that result when the rate of return on equity ("ROE") deviates from its regulated target. Some MRPs feature "off-ramps" that permit plan suspension when earnings are unusually high or low.

[8] A good example is the Generation Base Rate Adjustment in the current MRP of Florida Power & Light.

Plans often feature performance incentive mechanisms that are linked to the utility's service quality. With stronger cost containment incentives, there is a greater need for a link between revenue and service quality. Many MRPs combine revenue decoupling, the tracking of DSM expenses, and performance incentives for DSM. The stronger incentive to contain cost that MRPs provide then becomes a "fourth leg" for the DSM stool.

MRPs have long been used to regulate utilities where market-responsive rates and services are a priority. Infrequent rate cases reduce the regulatory cost of allocating the revenue requirement between a complex and changing mix of market offerings and lessen concerns about cross-subsidization. These benefits of MRPs can be enhanced by designing other plan provisions in ways that insulate core customers from potentially adverse consequences of marketing flexibility.

For example, in the early 1990s, Maine's electric utilities were still vertically integrated and needed flexibility in marketing power to paper and pulp customers, some of whom had cogeneration options. The commission, under the chairmanship of Thomas Welch (a former telecom industry lawyer) approved a succession of price cap plans for Central Maine Power which facilitated marketing flexibility. As a result, the company had more freedom to enter into special contracts. The stronger incentives the company had to offer the right discounts to customers at risk of bypass was acknowledged by the commission when costs were allocated in later rate cases.

MRPs were first widely used in the United States to regulate railroad, oil pipeline, and telecommunications companies. A major attraction was the ability of MRPs to afford utilities flexibility in serving markets with diverse competitive pressures and complex, changing customer needs. US and Canadian precedents for MRPs in the electricity and gas utility industries are indicated in Table 7 and Figures 8a and 8b.[9] In the US, MRPs have traditionally been most common in California and the Northeast. MRPs have been adopted by well-known VIEUs in Florida, North Dakota, and Virginia since our 2012 survey. A number of states have, additionally, experimented with "mini-MRPs" with terms of only two years. The forecast and tracker/freeze approaches to ARM design are most common currently in the US. The Federal Energy Regulatory Commission ("FERC") uses MRPs with index-based ARMs to regulate oil pipelines.

Canada is moving towards MRPs with index-based ARMs for gas and electric power distribution in all four populous provinces. In advanced economies overseas, MRPs are more the rule than the exception for utility regulation. Australia, Britain, and New Zealand are long time practitioners.

[9] Rate freezes without extensive supplemental funding from capital cost trackers are excluded from Table 7 and Figures 8a and 8b.

Figure 8a: Recent US Multiyear Rate Plan Precedents by State

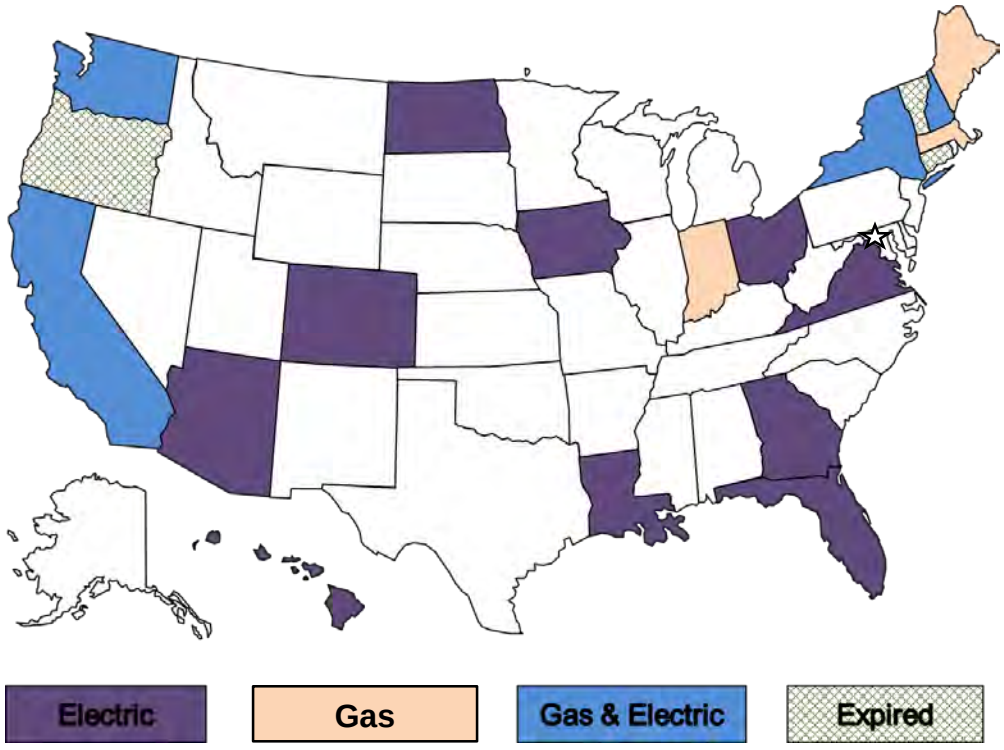


Figure 8b: Recent Canadian Multiyear Rate Plan Precedents by Province

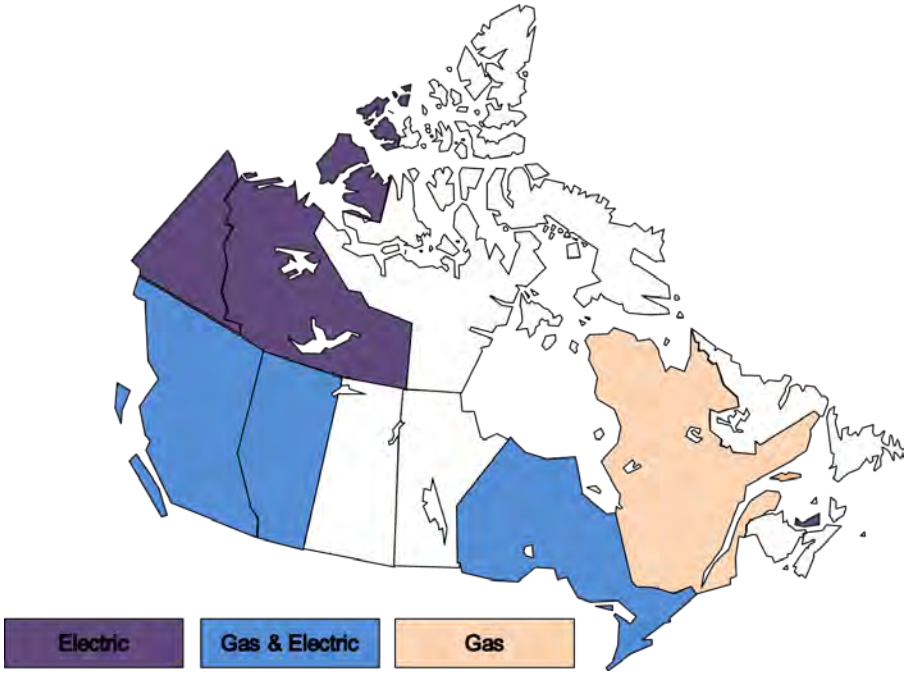


Table 7

Multiyear Rate Plan Precedents [1]

Jurisdiction	Company	Plan Term	Services Covered	Rate Escalation Provisions	Earnings Sharing Provisions	Case Reference
Current						
United States						
AZ	Arizona Public Service	2012-2016	Bundled power service	Rate Freeze with an adjustment to account for purchase of SCE's share of Four Corners generating facility, additional capital and other cost trackers, LRAM	None	Decision 73183; May 2012
CA	Bear Valley Electric Service	2013-2016	Power distribution	Revenue Cap Stairstep	None	Decision 14-11-002; November 2014
CA	California Pacific Electric	2013-2015	Power distribution	Revenue Cap Index	None	Decision 12-11-030; November 2012
CA	Pacific Gas & Electric	2014-2016	Gas & bundled power service	Revenue Cap Stairstep	None	Decision 14-08-032; August 2014
CA	PacifiCorp	2011-2013, extended through 2016	Bundled power service	Price Cap Index: Rates escalated by Global Insight forecast of CPI, less 0.5% productivity factor; supplemental funding for major plant additions can be requested in annual filings	None	Decision 10-09-010; September 2010
CA	San Diego Gas & Electric	2012-2015	Gas & bundled power service	Revenue Cap Stairstep	None	Decision 13-05-010; May 2013
CA	Southern California Gas	2012-2015	Gas	Revenue Cap Stairstep	None	Decision 13-05-010; May 2013
CA	Southwest Gas	2014-2018	Gas	Revenue Cap Stairstep	None	Decision 14-06-028; June 2014
CO	Public Service of Colorado	2015-2017	Bundled power service	Rate Freeze with multiple capital cost trackers	Sharing of overearnings only up to earnings cap	Decision C15-0292; March 2014
FL	Florida Power & Light	2013-2016	Bundled power service	Rate Freeze with multiple capital and other cost trackers	None	Docket 120015-EI; December 2012
FL	Gulf Power	2014-June 2017	Bundled power service	Price Cap Stairstep through 2015, Rate Freeze beyond	None	Docket 130140-EI; December 2013
FL	Duke Energy Florida (formerly Progress Energy Florida)	2012-2016, extended through 2018	Bundled power service	Rate Freeze with one step plus capital and other cost trackers	None	Dockets 120022-EI and 130208-EI; 2012 and November 2013
FL	Tampa Electric	2013-2017	Bundled power service	Revenue Cap Stairstep	None	Docket 130040-EI
GA	Georgia Power	2014-2016	Bundled power service	Revenue Cap Stairstep	Sharing of overearnings only with deadband	Docket 36989; December 2013
HI	Hawaiian Electric Company	2012-open	Bundled power service	Revenue Cap Hybrid	Sharing of overearnings only without deadband, multiple sharing levels	Dockets 2008-0274 & 2008-0083
HI	Hawaiian Electric Light Company	2013-open	Bundled power service	Revenue Cap Hybrid	Sharing of overearnings only without deadband, multiple sharing levels	Dockets 2008-0274 & 2009-0164
HI	Maui Electric	2013-open	Bundled power service	Revenue Cap Hybrid	Sharing of overearnings only without deadband, multiple sharing levels	Dockets 2008-0274 & 2009-0163
IA	MidAmerican Energy	2014-2017	Bundled power service	Revenue Cap Stairstep for 2014-2016, Rate Freeze for 2017	Sharing of overearnings only with deadband up to earnings cap	RPU-2013-0004
IN	Northern Indiana Public Service Company	2015-2020	Gas	Rate Freeze with capital and other cost trackers, possible reopening in 2017	Earnings cap implemented if company overearns since last rate case or prior 59 months, whichever is less	Cause 43894 and 44403 TDSIC 1 (August 2013 and January 2015)
LA	Cleco Power	2014-2017	Bundled power service	Rate Freeze with capital and other cost trackers	Sharing of overearnings only with deadband up to earnings cap	Docket U-32779; June 2014
MA	Bay State Gas	2015-2018	Gas	Revenue Cap Stairstep for 2015, 2016, Revenue Freeze through October 2018	None	DPU 15-150; October 2015
ME	Summit Natural Gas of Maine	2013-2022	Gas	Price Cap Indexing: 75% of change in GDPPI	None until company has 1,000 or more customers, then sharing of under/overearnings evenly with deadband	Docket 2012-258; January 2013
NH	Northern Utilities	May 2014 - April 2017	Gas	Revenue Cap Stairstep for 2014-2015, Rate Freeze in 2016	Sharing of overearnings only with deadband up to earning cap	DG 13-086; April 2014
NH	Public Service Company of New Hampshire	2010-2015	Power distribution (generation regulated separately)	Revenue Cap Stairstep: Rate increases allowed to account for distribution capital additions in 2010-2013	Sharing of overearnings only with deadband	DE 09-035
NH	Unitil Energy Systems	2011-2016	Power distribution	Revenue Cap Stairstep: Rate increases allowed to account for distribution capital additions in 2011-2013	Sharing of overearnings only with deadband	DE 10-055

Table 7 (cont'd)

Jurisdiction	Company	Plan Term	Services Covered	Rate Escalation Provisions	Earnings Sharing Provisions	Case Reference
Current (cont'd)						
United States (cont'd)						
NY	Central Hudson Gas & Electric	2015-2018	Gas & power distribution	Revenue Cap Stairstep	Sharing of overearnings with deadband and multiple sharing bands	Cases 14-E-0318, 14-G-0319
NY	Consolidated Edison	2014-2016	Gas	Revenue Cap Stairstep	Sharing of overearnings only with deadband and multiple bands	Case 13-G-0031
NY	Corning Natural Gas	2012-2015	Gas	Revenue Cap Stairstep	Sharing of overearnings only with deadband and multiple bands	Case 11-G-0280
NY	Orange & Rockland Utilities	November 2015-October 2018	Gas	Revenue Cap Stairstep	Sharing of overearnings only with deadband and multiple sharing bands	Case 14-G-0494
ND	Northern States Power - Minnesota	2013-2016	Bundled power service	Revenue Cap Stairstep for 2013-2015, Rate Freeze in 2016	Sharing of overearnings only without deadband, earnings adjusted for effects of weather	Case PU-12-813
OH	First Energy Ohio	2011-2014, later extended to 2016	Power distribution	Rate Freeze supplemented by capital and other cost trackers	Company subject to Significantly Excessive Earnings Test conducted annually	Cases 11-388-EL-SSO, 12-1230-EL-SSO
US	All	2011-2016	Oil pipelines	Price Cap Index: PPI-Finished Goods + 2.65%	None	Docket RM10-25-000; December 2010
VA	Appalachian Power	2014-2017	Bundled power service	Rate Freeze supplemented by capital and other cost trackers	None	Senate Bill 1349
VA	Virginia Electric Power	2015-2019	Bundled power service	Rate Freeze supplemented by capital and other cost trackers	None	Senate Bill 1349
WA	Puget Sound Energy	2013-2016	Gas & bundled power service	Revenue Cap Stairstep	Sharing of overearnings only without deadband, equal sharing between company and customers	Dockets UE-121697 and UG-121705
Canada						
Alberta	Altagas Utilities and ATCO Gas	2013-2017	Gas	Revenue per Customer Indexing: Input price index - 1.16%, + capital cost trackers	None	Decision 2012-237
Alberta	ATCO Electric, EPCOR, Fortis Alberta	2013-2017	Power distribution	Price Cap Index: Input Price Index - 1.16%, + capital cost trackers	None	Decision 2012-237
British Columbia	FortisBC	2014-2018	Bundled power service	Revenue Cap Index: I-Factor - 1.03%, + capital cost tracker for CPCN projects	Symmetric without deadband	Project #3698719, Decision; September 2014
British Columbia	FortisBC Energy	2014-2018	Gas	Revenue Cap Index: I-Factor - 1.1%, + capital cost tracker for CPCN projects	Symmetric without deadband	Project #3698715, Decision; September 2014
Ontario	All unless company opts out	2014-2018	Power distribution	Price Cap Index: Input price index - (0%+stretch); stretch factor reassigned annually, + capital cost tracker option available	None	EB-2010-0379 Report of the Board; November 2013
Ontario	Horizon Utilities	2015-2019	Power distribution	Revenue Cap Stairstep	Sharing of overearnings only without deadband	EB-2014-0002; December 2014
Ontario	Hydro One Networks	2015-2017	Power distribution	Revenue Cap Stairstep	None	EB-2014-0247; March 2015
Ontario	Enbridge Gas Distribution	2014-2018	Gas	Revenue Cap Stairstep	Sharing of overearnings only without deadband	EB-2012-0459, Decision with Reasons; July 2014
Ontario	Union Gas Limited	2014-2018	Gas	Revenue Cap Index: 40% of growth in GDP-IPI	Sharing of overearnings only with deadband, multiple sharing ranges	EB 2013-0202 Decision; October 2013
Prince Edward Island	Maritime Electric	2013-2016	Bundled power service	Price Cap Stairstep: Bill defines rates for each year.	Earnings cap set at allowed ROE, no floor	Bill 26 (2012) Electric Power (Energy Accord Continuation) Amendment Act
Quebec	Gazifere	2011-2015	Gas distribution	Price Cap Index	Sharing of overearnings only without deadband and multiple sharing bands up to earnings cap	D-2010-112; August 2010
Yukon Territory	Yukon Electrical Company, Limited	2013-2015	Bundled power service	Revenue Cap Stairstep	None	Board Order 2014-06; April 2014

Table 7 (cont'd)

Jurisdiction	Company	Plan Term	Services Covered	Rate Escalation Provisions	Earnings Sharing Provisions	Case Reference
Current (cont'd)						
Great Britain						
Great Britain	All	2013-2021	Gas and power transmission	British-Style Hybrid	Not reviewed	RIIO-T1 Final Proposals, April and December 2012
Great Britain	All	2013-2021	Gas distribution	British-Style Hybrid	Not reviewed	RIIO-GD1 Final Proposals, December 2013
Great Britain	All	2015-2023	Power distribution	British-Style Hybrid	Variances of cost from budgets shared though Information Quality Incentive Mechanism	RIIO-ED1 Final Proposals, December 2014
Australia/New Zealand						
Australia	ActewAGL	2015-2019	Power transmission & distribution	Australian-Style Hybrid	Not reviewed	Final Decision ActewAGL distribution determination 2015-16 to 2018-19; April 2015
Australia	Ausgrid	2015-2019	Power distribution	Australian-Style Hybrid	Not reviewed	Final Decision Ausgrid distribution determination 2015-16 to 2018-19; April 2015
Australia	Directlink	2015-2020	Power transmission	Australian-Style Hybrid	Not reviewed	Final Decision Directlink transmission determination 2015-16 to 2019-20; April 2015
Australia	Endeavour Energy	2015-2019	Power distribution	Australian-Style Hybrid	Not reviewed	Final Decision Endeavour Energy distribution determination 2015-16 to 2018-19; April 2015
Australia	Energex	2015-2020	Power distribution	Australian-Style Hybrid	Not reviewed	Final Decision Energex determination 2015-16 to 2019-20
Australia	Ergon Energy	2015-2020	Power distribution	Australian-Style Hybrid	Not reviewed	Final Decision Ergon Energy determination 2015-16 to 2019-20
Australia	Essential Energy	2015-2019	Power distribution	Australian-Style Hybrid	Not reviewed	Final Decision Essential Energy distribution determination 2015-16 to 2018-19; April 2015
Australia	Jemena Gas Networks	2015-2020	Gas distribution	Australian-Style Hybrid	Not reviewed	Final Decision Jemena Gas Networks (NSW) Ltd Access Arrangement 2015−20; June 2015
Australia	SA Power Networks	2015-2020	Power distribution	Australian-Style Hybrid	Not reviewed	Final Decision SA Power Networks determination 2015-16 to 2019-20
Australia	TasNetworks	2015-2019	Power transmission	Australian-Style Hybrid	Not reviewed	Final Decision TasNetworks transmission determination 2015-16 to 2018-19; April 2015
Australia	TransGrid	2015-2018	Power transmission	Australian-Style Hybrid	Not reviewed	Final Decision TransGrid transmission determination 2015-16 to 2017-18; July 2015
Australia	Power & Water	2014-2019	Power transmission & distribution	Australian-Style Hybrid	Not reviewed	2014 Networks Price Determination Final Determination Part-A Statement of Reasons; April 2014
Australia	All Queensland Distributors	2011-2016	Gas distribution	Australian-Style Hybrid	Not reviewed	Access Arrangement Proposal for Qld Gas Network, Final Decision; June 2011
Australia	Energex and Ergon Energy	2010-2015	Power distribution	Australian-Style Hybrid	Not reviewed	Queensland Distribution Determination 2011-11 to 2014-15 (Final Decision)
Australia	Envestra	2011-2016	Gas distribution	Australian-Style Hybrid	Not reviewed	Access Arrangement Proposal for the SA Gas Network, Final Decision; June 2011
Australia	All Victorian Distributors	2013-2017	Gas distribution	Australian-Style Hybrid	Not reviewed	Access Arrangement Final Decision; March 2013

Table 7 (cont'd)

Jurisdiction	Company	Plan Term	Services Covered	Rate Escalation Provisions	Earnings Sharing Provisions	Case Reference
Current (cont'd)						
Australia/New Zealand (cont'd)						
Australia	CitiPower	2011-2015	Power distribution	Australian-Style Hybrid	Not reviewed	CitiPower Pty Distribution Determination 2011-2015; September 2012
Australia	Powercor	2011-2015	Power distribution	Australian-Style Hybrid	Not reviewed	Powercor Australia Ltd Distribution Determination 2011-2015; October 2012
Australia	Jemena Electricity Networks	2011-2015	Power distribution	Australian-Style Hybrid	Not reviewed	Jemena Electricity Networks (Victoria) Ltd Distribution Determination 2011-2015; September 2012
Australia	SP AusNet	2011-2015	Power distribution	Australian-Style Hybrid	Not reviewed	SPI Electricity Pty Ltd Distribution Determination 2011-2015; August 2013
Australia	United Energy Distribution	2011-2015	Power distribution	Australian-Style Hybrid	Not reviewed	United Energy Distribution Distribution Determination 2011-2015; September 2012
New Zealand	All but Orion Electric	2015-2020	Power distribution	Revenue Cap Index: CPI-0% for most companies	None	Project no. 14.07/14118; November 2014
New Zealand	All	2013-2017	Gas distribution	New Zealand-Style Hybrid	Not reviewed	Project no. 15.01/13199
New Zealand	All	2013-2017	Gas transmission	New Zealand-Style Hybrid	Not reviewed	Project no. 15.01/13199
Historic						
United States						
CA	Bear Valley Electric Service	2009-2012	Power distribution	Revenue Cap Stairstep	None	Decision 09-10-028; October 2009
CA	Pacific Gas & Electric	2011-2013	Gas & bundled power service	Revenue Cap Stairstep	None	Decision 11-05-018; May 2011
CA	Pacific Gas & Electric	2007-2010	Gas & bundled power service	Revenue Cap Stairstep	None	Decision 07-03-044; March 2007
CA	Pacific Gas & Electric	2004-2006	Gas & bundled power service	Revenue Cap Index	None	Decision 04-05-055; May 2004
CA	Pacific Gas & Electric	1993-1995	Gas & bundled power service	Revenue Cap Hybrid	None	Decision 92-12-057; December 1992
CA	Pacific Gas & Electric	1990-1992	Gas & bundled power service	Revenue Cap Hybrid	None	Decision 89-12-057; December 1989
CA	Pacific Gas & Electric	1987-1989	Gas & bundled power service	Revenue Cap Hybrid	None	Decision 86-12-092; December 1986
CA	Pacific Gas & Electric	1984-1986	Gas & bundled power service	Revenue Cap Hybrid	None	Decisions 83-12-068; December 1983 and 85-12-076; December 1985
CA	PacifiCorp	2007-2009, extended to 2010	Bundled power service	Price Cap Index	None	Decisions 06-12-011; December 2006 and 09-04-017; April 2009
CA	PacifiCorp	1994-1996	Bundled power service	Price Cap Index	None	Decision 93-12-106; December 1993
CA	PacifiCorp	1984-1987	Bundled power service	Revenue Cap Hybrid	None	Decisions 84-07-150; July 1984 and 85-12-076; December 1985
CA	San Diego Gas & Electric	2008-2011	Gas & bundled power service	Revenue Cap Stairstep	None	Decision 08-07-046; July 2008
CA	San Diego Gas & Electric	2005-2007	Gas & bundled power service	Revenue Cap Index	Sharing of overearnings only with deadband and multiple sharing bands	Decision 05-03-025; March 2005
CA	San Diego Gas and Electric	1999-2002	Gas & power distribution	Price Cap Index	Sharing of overearnings only above deadband with multiple sharing bands	Decision 99-05-030; May 1999

Table 7 (cont'd)

Jurisdiction	Company	Plan Term	Services Covered	Rate Escalation Provisions	Earnings Sharing Provisions	Case Reference
Historic (cont'd)						
United States (cont'd)						
CA	San Diego Gas & Electric	1994-1999	Gas & bundled power service	Revenue Cap Hybrid	Sharing of overearnings only with deadband and multiple sharing bands up to an earnings cap	Decision 94-08-023; August 1984
CA	San Diego Gas & Electric	1989-1993	Gas & bundled power service	Revenue Cap Hybrid	None	Decision 88-12-085; December 1988
CA	San Diego Gas & Electric	1986-1988	Gas & bundled power service	Revenue Cap Hybrid	None	Decision 85-12-108; December 1985
CA	Sierra Pacific Power	2009-2011, extended to 2012	Bundled power service	Price Cap Index	None	Decision 09-10-041; October 2009
CA	Sierra Pacific Power	1990-1992	Bundled power service	Revenue Cap Hybrid	None	Decision 90-07-060; July 1990
CA	Southern California Edison	2012-2014	Bundled power service	Revenue Cap Hybrid	None	Decision 12-11-051; November 2012
CA	Southern California Edison	2009-2011	Bundled power service	Revenue Cap Stairstep	None	Decision 09-03-025; March 2009
CA	Southern California Edison	2006-2008	Bundled power service	Revenue Cap Hybrid	None	Decision 06-05-016; May 2006
CA	Southern California Edison	2004-2006	Bundled power service	Revenue Cap Hybrid	None	Decision 04-07-022; July 2004
CA	Southern California Edison	1997-2001	Power distribution	Price Cap Index	Sharing of over/underearnings outside deadband with multiple sharing bands	Decision 96-09-092; September 1996
CA	Southern California Edison	1986-1991	Bundled power service	Revenue Cap Hybrid	None	Decision 85-12-076; December 1985
CA	Southern California Gas	2008-2011	Gas	Revenue Cap Stairstep	None	Decision 08-07-046; July 2008
CA	Southern California Gas	2005-2007	Gas	Revenue Cap Index	Sharing of overearnings only with deadband and multiple sharing bands	Decision 05-03-025; March 2005
CA	Southern California Gas	1998-2003	Gas	Revenue Cap Index	Sharing of over/underearnings outside deadband with multiple sharing bands	Decision 97-07-054; July 1997
CA	Southern California Gas	1990-1993	Gas	Revenue Cap Hybrid	None	Decision 90-01-016; January 1990
CA	Southern California Gas	1985-1989	Gas	Revenue Cap Hybrid	None	1984, 85-12-076; December 1985, and 87-05-027; May 1987
CA	Southwest Gas	2009-2013	Gas	Revenue Cap Stairstep	None	Decision 08-11-048; November 2008
CO	Public Service Company of Colorado	2012-2014	Bundled power service	Revenue Cap Stairstep	Sharing of overearnings only without deadband, multiple sharing bands up to earnings cap	Decision C12-0494
CT	Connecticut Light & Power	2004-2007	Power distribution	Revenue Cap Stairstep	Even sharing of overearning without deadband	Docket 03-07-02
CT	United Illuminating	2006-2008	Power distribution	Revenue Cap Stairstep	Even sharing of overearning without deadband	Docket 05-06-04
FL	Florida Power & Light	2006-2009	Bundled power service	Rate Freeze with exception for new generating facilities after they are in service and multiple capital and other cost trackers	None	Docket 050045-EI
FL	Progress Energy Florida	2006-2009	Bundled power service	Rate Freeze with 1 step to reflect generation brought in-service and multiple capital and other cost trackers	None	Docket 050078-EI
GA	Georgia Power	2011-2013	Bundled power service	Revenue Cap Stairstep: Rate increases permitted for DSM and major generation plant additions	Sharing of overearnings only with deadband	Docket 31958
IA	MidAmerican Energy	2001-2005, extended to 2013	Bundled power service	Rate Freeze with nuclear capital and other cost trackers	Sharing of overearnings only in multiple sharing bands, deadband not applicable due to no allowed ROE	Dockets RPU-01-3 and RPU-2012-0001
LA	Cleco Power	2009-2014	Bundled power service	Rate Freeze with capital cost tracker	Sharing of overearnings only with deadband up to earnings cap	Order U-30689
MA	Bay State Gas	2006-2015, terminated in 2009	Gas distribution	Price Cap Index	75-25 shareholders-ratepayers sharing around deadband	Docket DTE 05-27
MA	Berkshire Gas	February 2002-January 2012	Gas distribution	No adjustment until September 2004, then Price Cap Index	None	Docket D.T.E. 01-56

Table 7 (cont'd)

Jurisdiction	Company	Plan Term	Services Covered	Attrition Relief Mechanism	Earnings Sharing Provisions	Case Reference
Historic (cont'd)						
United States (cont'd)						
MA	Boston Gas (I)	1997-2001	Gas distribution	Price Cap Index	75-25 shareholders-ratepayers sharing around deadband	Docket D.P.U. 96-50-C (Phase I); May 1997
MA	Boston Gas (II)	2004-2013, Terminated in 2010	Gas distribution	Price Cap Index	75-25 shareholders-ratepayers sharing around deadband	Docket DTE 03-40
MA	Blackstone Gas	November 1, 2004 - October 31, 2009	Gas distribution	Price Cap Index	Even sharing of earnings above/below deadband	Docket D.T.E. 04-79
MA	Nstar	2006-2012	Power distribution	Price Cap Index	Deadband with 50-50 sharing of over and underearnings	Docket D.T.E. 05-85
ME	Bangor Gas	2000-2009, extended to 2012	Gas distribution	Price Cap Index	Even sharing of overearnings only. No allowed ROE established for company and no determination of a deadband.	Docket 970795; June 1998
ME	Bangor Hydro Electric (I)	1998-2000	Power distribution	Price Cap Index	50/50 sharing around deadband	Docket 97-116; March 1998
ME	Central Maine Power (I)	1995-1999	Bundled power service	Price Cap Index	Even sharing of earnings above/below deadband	Docket 92-345 Phase II; January 1995
ME	Central Maine Power (II)	2001-2007	Power distribution	Price Cap Index	50-50 sharing below deadband	Docket 99-666; November 2000
ME	Central Maine Power (III)	2009-2013	Power distribution	Price Cap Index: GDPPI - 1%, separate capital cost tracker for AMI	50-50 sharing above 11% ROE	Docket 2007-215
ME	Maine Natural Gas	2010-2012	Gas	Revenue Cap Stairstep with steps conditioned on company earnings	None	Docket 2009-67
NY	Brooklyn Union Gas	October 1, 1991 - September 30, 1994	Gas	Revenue Cap Stairstep	Sharing of overearnings only without deadband	Case 90-G-0981, Opinion 91-21; October 1991
NY	Brooklyn Union Gas	October 1, 1994 - September 30, 1997	Gas	Revenue Cap Stairstep	Sharing of overearnings only without deadband and multiple sharing bands	Case 93-G-0941, Opinion 94-22; October 1994
NY	Central Hudson Gas & Electric	2010-2013	Gas & power distribution	Revenue Cap Stairstep	Sharing of overearnings with deadband and multiple sharing bands	Case 09-E-0588
NY	Central Hudson Gas & Electric	July 1, 2006 - June 30, 2009	Gas & power distribution	Price Cap Stairstep	Sharing of overearnings only with deadband, multiple sharing bands up to earnings cap	Case 05-E-0934 & Case 05-G-0935; July 2006
NY	Consolidated Edison	2010-2013	Gas	Revenue Cap Stairstep	Sharing of overearnings only with deadband that varies annually and multiple sharing bands	Case 09-G-0795
NY	Consolidated Edison	2007-2010	Gas	Revenue Cap Stairstep	Even sharing of overearnings only above deadband, sharing threshold adjustable depending on work with DSM program administrator for first year only	Case 06-G-1332
NY	Consolidated Edison	October 1, 1994 - September 30, 1997	Gas	Revenue Cap Stairstep	Even sharing of overeearnings only above deadband	Case 93-G-0996, Opinion 94-2; October 1994
NY	Consolidated Edison	2010-2013	Power distribution	Revenue Cap Stairstep	Sharing of overearnings only above deadband with multiple sharing bands	Case 09-E-0428
NY	Consolidated Edison	April 1, 2005 - March 31, 2008	Power distribution	Price Cap Stairstep	Sharing of overearnings only with multiple bands. No allowed ROE approved.	Case 04-E-0572; March 2005
NY	Consolidated Edison	1992-1995	Bundled power service	Revenue Cap Stairstep	Even sharing of overearnings with varying allowed ROE and no deadband	Opinion 92-8
NY	Keyspan Energy Delivery - Long Island	2010-2012	Gas	Revenue Cap Stairstep	Sharing of overearnings only above deadband with multiple sharing bands, sharing threshold adjustable for good DSM performance	Case 06-G-1185
NY	Keyspan Energy Delivery - New York	2010-2012	Gas	Revenue Cap Stairstep	Sharing of overearnings only above deadband with multiple sharing bands, sharing threshold adjustable for good DSM performance	Case 06-G-1186
NY	Long Island Lighting Company	December 1, 1993-November 30, 1996	Gas	Revenue Cap Stairstep	Even sharing of overearnings only with deadband	Case 93-G-002, Opinion 93-23; December 1993
NY	Long Island Lighting Company	1992-1994	Bundled power service	Revenue Cap Stairstep	Even sharing of overearnings only without deadband	Opinion 92-8

Table 7 (cont'd)

Jurisdiction	Company	Plan Term	Services Covered	Attrition Relief Mechanism	Earnings Sharing Provisions	Case Reference
Historic (cont'd)						
United States (cont'd)						
NY	New York State Electric & Gas	2010-2013	Gas & power distribution	Revenue Cap Stairstep	Sharing of overearnings only with deadband that varies annually and multiple sharing bands	Case 09-E-0715
NY	New York State Electric & Gas	August 1, 1995 - July 31, 1998, Years 2 and 3 not implemented due to restructuring	Bundled power service	Revenue Cap Stairstep	Sharing of overearnings only with annually varying deadbands	Case 94-M-0349, Opinion 95-27; September 1995
NY	New York State Electric & Gas	December 1, 1993 - August 31, 1995	Gas & bundled power service	Revenue Cap Stairstep	Even sharing of overearnings only above deadband	Case 92-G-1086, Opinion 93-22; November 1993
NY	Niagara Mohawk	July 1, 1990 - December 31, 1992	Gas & bundled power service	Revenue Cap Stairstep	Sharing of overearnings only without deadband up to earnings cap	Case 29327, Opinion 89-37; June 1991
NY	Orange & Rockland Utilities	2009-2012	Gas	Revenue Cap Stairstep	Sharing of overearnings only beyond deadband and multiple sharing bands	Case 08-G-1398
NY	Orange & Rockland Utilities	November 1, 2006 - October 31, 2009	Gas	Price Cap Stairstep	Sharing of overearnings only beyond deadband and multiple sharing bands	Case 05-G-1494; October 2006
NY	Orange & Rockland Utilities	November 1, 2003- October 31, 2006	Gas	Price Cap Stairstep	Even sharing of overearnings only without deadband	Case 02-G-1553; October 2003
NY	Orange & Rockland Utilities	2012-2015	Power distribution	Revenue Cap Stairstep	Sharing of overearnings only with deadband and multiple bands	Case 11-E-0408
NY	Orange & Rockland Utilities	2008-2011	Power distribution	Revenue Cap Stairstep	Sharing of overearnings only above deadband with multiple sharing bands	Case 07-E-0949
NY	Orange & Rockland Utilities	1991-1993	Bundled power service	Revenue Cap Stairstep	Even sharing of overearnings above deadband	Case 89-E-175
NY	Rochester Gas & Electric	2010-2013	Gas & power distribution	Revenue Cap Stairstep	Sharing of overearnings only with deadband that varies annually and multiple sharing bands	Case 09-E-0717
NY	Rochester Gas & Electric	July 1, 1993 - June 30, 1996	Gas & bundled power service	Revenue Cap Stairstep	Earnings cap only	Case 92-G-0741, Opinion No. 93-19; August 1993
OH	AEP-Ohio	2012-2015	Power distribution	Rate Freeze supplemented by capital and other cost trackers	Company subject to Significantly Excessive Earnings Test conducted annually	Case No. 11-346-EL-SSO; August 2012
OH	Cincinnati Gas & Electric	2009-2011	Power generation	Price Cap Stairstep	Company subject to Significantly Excessive Earnings Test conducted annually	Case 08-920-EL-SSO
OR	PacifiCorp	1998-2001	Power distribution	Revenue Cap Index	Sharing of over/underearning outside deadband in multiple sharing bands	Order No. 98-191
US	All	2006-2011	Oil pipelines	Price Cap Index: PPI-Finished Goods + 1.3%	None	RM05-22-000
US	All	2001-2006	Oil pipelines	Price Cap Index: PPI-Finished Goods + 0%	None	RM00-11-000
US	All	1995-2001	Oil pipelines	Price Cap Index: PPI-Finished Goods - 1%	None	RM93-11-000
VT	Green Mountain Power	2007-2010	Bundled power service	Revenue Cap Stairstep	Earnings cap for overearnings above deadband; Multiple sharing bands for earnings apply if actual ROE below deadband (earnings floor of the deadband also applies)	Docket No. 7176
WA	Puget Sound Energy	1997-2001	Bundled power service	Price Cap Stairstep	None	Docket UE-960195
Australia/New Zealand						
Australia	Jemena Gas Networks	2010-2015	Gas distribution	Australia-Style Hybrid	Not reviewed	Access Arrangement Proposal for NSW Gas Networks, Final Decision; June 2010
Australia	All New South Wales distributors	2009-2014	Power distribution	Australia-Style Hybrid	Not reviewed	New South Wales Distribution Determination 2009-10 to 2013-14 Final Decision
Australia	ElectraNet	2008-2013	Power transmission	Australia-Style Hybrid	Not reviewed	Final Decision; April 2008
Australia	ElectraNet	2003-2008	Power transmission	Australia-Style Hybrid	Not reviewed	File No: C2001/1094
Australia	Powerlink	2007-2012	Power transmission	Australia-Style Hybrid	Not reviewed	Final Decision; June 2007

Table 7 (cont'd)

Jurisdiction	Company	Plan Term	Services Covered	Rate Escalation Provisions	Earnings Sharing Provisions	Case Reference
Historic (cont'd)						
Australia/New Zealand (cont'd)						
Australia	Powerlink	2002-2007	Power transmission	Australia-Style Hybrid	Not reviewed	File No: 2000/659
Australia	Snowy Mountains	1999-2004 (terminated in 2002 due to merger with Transgrid)	Electric transmission	Australia-Style Hybrid	Not reviewed	File No: C1999/62
Australia	SPI PowerNet	2003-2008	Power transmission	Australia-Style Hybrid	Not reviewed	File No: C2001/1093
Australia	Transend	2009-2014	Power transmission	Australia-Style Hybrid	Not reviewed	Transend Transmission Determination 2009/10-2013/14 (Final Decision)
Australia	Transend	2004-2009	Power transmission	Australia-Style Hybrid	Not reviewed	File No: C2001/1100
Australia	Transgrid	2009-2014	Electric transmission	Australia-Style Hybrid	Not reviewed	Transgrid Transmission Determination 2009/10-2013/14 (Final Decision)
Australia	Transgrid	2004-2009	Power transmission	Australia-Style Hybrid	Not reviewed	File No. M2003/287
Australia	Transgrid	1999-2004	Power transmission	Australia-Style Hybrid	Not reviewed	File No: CG98/118
Australia- New South Wales	Country Energy Gas	2006-2010	Gas distribution	Australia-Style Hybrid	Not reviewed	Revised Access Arrangement for Country Energy Gas Network, Final Decision; November 2005
Australia- New South Wales	AGL Gas Networks	1999-2004	Gas transmission & distribution	Australia-Style Hybrid	Not reviewed	Access Arrangement for AGL Gas Networks Limited, Final Decision; July 2000
Australia - New South Wales	All	2004-2009	Power distribution	Australia-Style Hybrid	Not reviewed	File No: S2004/138
Australia - New South Wales	All	1999-2004	Power distribution	Australia-Style Hybrid	Not reviewed	NEC Determination 99-1
Australia - Northern Territory	Power & Water	2000-2003	Power transmission & distribution	Australia-Style Hybrid	Not reviewed	Revenue Determinations document; June 2000
Australia - Northern Territory	Power & Water	2009-2014	Power transmission & distribution	Price Cap Index: CPI + 0.85%	Not reviewed	Final Determination Networks Pricing: 2009 Regulatory Reset; March 2009
Australia - Northern Territory	Power & Water	2004-2009	Power transmission & distribution	Price Cap Index: CPI - 2%	Not reviewed	Final Determination Networks Pricing: 2004 Regulatory Reset; February 2004
Australia -Victoria	All	2008-2012	Gas distribution	Australia-Style Hybrid	Not reviewed	Gas Access Arragement Review 2008-2012, Final Decision; March 2008
Australia -Victoria	All	2003-2007	Gas distribution	Australia-Style Hybrid	Not reviewed	Review of Gas Access Arrangements, Final Decision; October 2002
Australia -Victoria	All	2006-2010	Power distribution	Australia-Style Hybrid	Not reviewed	Electricity Distribution Price Review 2006-2010 (Final Decision Volume 1)
Australia -Victoria	All	2001-2005	Power distribution	Australia-Style Hybrid	Not reviewed	Electricity Distribution Price Determination 2001-2005 (Final Decision Volume 1)
New Zealand	All	2010-2015	Power distribution	Revenue Cap Index: CPI - 0%	None	Commerce Commission Initial Reset of the Default Price-Quality Path for Electricity Distribution Businesses Decisions Paper; November 2009

Table 7 (cont'd)

Jurisdiction	Company	Plan Term	Services Covered	Rate Escalation Provisions	Earnings Sharing Provisions	Case Reference
Historic (cont'd)						
Australia/New Zealand (cont'd)						
New Zealand	All	2004-2009	Power distribution	Revenue Cap Index: CPI - 0.86% (Average across firms)	None	Commerce Commission Regulation of Electricity Lines Businesses, Targeted Control Regime, Threshold Decisions; December 2003
Canada						
Alberta	Enmax	2007-2013	Power distribution	Price Cap Index: Input Price Index -1.2%	50-50 for excess earnings above deadband	Decision 2009-035
Alberta	Northwestern Utilities	1999-2002, reopened for 2001-2002	Gas distribution	Revenue Cap Stairstep; at reopener replaced with rate freeze	Sharing of earnings above/below deadband with multiple bands for overearnings; at reopener simplified to 50/50 sharing of overearnings with deadband	Decision U98060; March 1998 and Decision 2000-85; December 2000
Alberta	EPCOR	2002-2005, Terminated 12/31/2003	Power distribution	Price Cap Index	None	City of Edmonton Distribution Tariff Bylaw 12367; August 2000
Northwest Territory	Northland Utilities	2011-2013	Bundled power service	Revenue Cap Stairstep	None	Decision 17-2011; November 2011
Northwest Territory	Northland Utilities (Yellowknife)	2011-2013	Bundled power service	Revenue Cap Stairstep	None	Decision 13-2011; August 2011
Ontario	All Ontario Distributors	2010-2013	Power distribution	Price Cap Index: GDP IPI for Final Domestic Demand - (0.92% to 1.32% depending on company's annual performance in benchmarking studies)	None	EB-2007-0673; July 2008, September 2008, and January 2009
Ontario	All Ontario Distributors	2006-2009	Power distribution	Price Cap Index	None	EB-2006-0089; December 2006
Ontario	All Ontario Distributors	2000-2003	Power distribution	Price Cap Index	50-50 sharing of excess earnings without deadband	RP-1999-0034; January 2000
Ontario	Enbridge Gas Distribution	2008-2012	Gas distribution	Revenue Cap Index: GDP-IPI * 53%	50-50 sharing of excess earnings above deadband	EB-2007-0615; February 2008
Ontario	Union Gas	2008-2012	Gas distribution	Revenue Cap Index: GDP-IPI -1.82%	Sharing of overearnings only with deadband and multiple sharing bands	EB-2007-0606; January 2008
Ontario	Union Gas	2001-2003	Gas distribution	Price Cap Index	50-50 sharing around deadband	RP-1999-0017; July 2001
Great Britain						
Great Britain	All	2008-2013	Gas distribution	British-Style Hybrid	Not reviewed	Review- Final Proposals; Published December 2007
Great Britain	All	2002-2007, extended to 2008	Gas distribution	British-Style Hybrid	Not reviewed	"RPI - X @ 20." Ofgem Publication
Great Britain	All	2007-2012	Gas transmission	British-Style Hybrid	Not reviewed	Transmission Price Control Review; Published December 2006
Great Britain	All	2002-2007	Gas transmission	British-Style Hybrid	Not reviewed	"RPI - X @ 20." Ofgem Publication
Great Britain	All	1998-2002	Gas transmission & distribution	British-Style Hybrid	Not reviewed	Energy Law Journal Volume 23 No. 2 p.444
Great Britain	All	1994-1997	Gas transmission & distribution	British-Style Hybrid	Not reviewed	Energy Law Journal Volume 23 No. 2 p.444
Great Britain	All	1992-1994	Gas transmission & distribution	British-Style Hybrid	Not reviewed	Energy Law Journal Volume 23 No. 2 p.444
England & Wales	All	1995-2000	Power distribution	British-Style Hybrid	Not reviewed	"RPI - X @ 20." Ofgem Publication
Great Britain	All	2010-2015	Power distribution	British-Style Hybrid	Variances of cost from budgets shared though Information Quality Incentive Mechanism	Ofgem Distribution Price Control Review 5
Great Britain	All	2005-2010	Power distribution	British-Style Hybrid	Not reviewed	Ofgem Distribution Price Control Review 4

Table 7 (cont'd)

Jurisdiction	Company	Plan Term	Services Covered	Rate Escalation Provisions	Earnings Sharing Provisions	Case Reference
Historic (cont'd)						
Great Britain (cont'd)						
Great Britain	All	2000-2005	Power distribution	British-Style Hybrid	Not reviewed	"RPI - X @ 20." Ofgem Publication
England & Wales	National Grid	2001-2006, extended to 2007	Power transmission	British-Style Hybrid	Not reviewed	OECD Reviews of Regulatory Reform
England & Wales	National Grid	1997-2001	Power transmission	British-Style Hybrid	Not reviewed	"RPI - X @ 20." Ofgem Publication
England & Wales	National Grid	1993-1997	Power transmission	British-Style Hybrid	Not reviewed	Energy Law Journal Volume 23 No. 2 p.452
Great Britain	All	2007-2012	Power transmission	British-Style Hybrid	Not reviewed	Transmission Price Control Review; Published December 2006
Scotland	All	2000-2005, extended to 2007	Power transmission	British-Style Hybrid	Not reviewed	"RPI - X @ 20." Ofgem Publication
Scotland	All	1995-2000	Power transmission	British-Style Hybrid	Not reviewed	1995 Report by Monopolies and Mergers Commission

[1] Rate freezes without extensive supplemental funding from capital cost trackers are excluded from this table.

VI. Formula Rates

A cost of service formula rate plan ("FRP") is essentially a wide-scope cost tracker designed to help a utility's revenue track its cost of service. Earnings surpluses or deficits occur when revenue and cost are not balanced. FRPs have earnings true up mechanisms that adjust rates so that earnings variances are reduced or eliminated. Regulatory cost is contained by limiting review of costs and revenues.

The earnings true up mechanism plays a key role in an FRP. Some mechanisms compare the earned ROE to the target ROE and then calculate the rate adjustment needed to reduce the ROE variance. Others adjust rates for the difference between revenue and a pro forma cost of service calculated using a rate of return target. Both approaches can keep the utility whole for the time value of money.

Earning true up mechanisms often include a deadband in which variances don't trigger a rate adjustment. Once the variance exceeds the deadband, however, earnings true up mechanisms in FRPs commonly move the ROE all, or almost all, of the way to its regulated target without sharing earnings variances. This is an important distinction between the earnings true up mechanism of an FRP and the earnings *sharing* mechanisms found in some multiyear rate plans.

Formula rates do not always address major plant additions. In state-regulated FRPs for retail electric services, for instance, major investment programs are generally approved separately through such means as hearings on certificates of public convenience and necessity. The resultant cost is often recovered through a separate tracker.

Mechanisms are sometimes added to an FRP to encourage better operating performance. For example, escalation of revenue that compensates the utility for its O&M expenses may be limited by a formula tied to an inflation index. FRPs in several states that include Illinois and Mississippi contain a number of targeted performance incentive mechanisms.

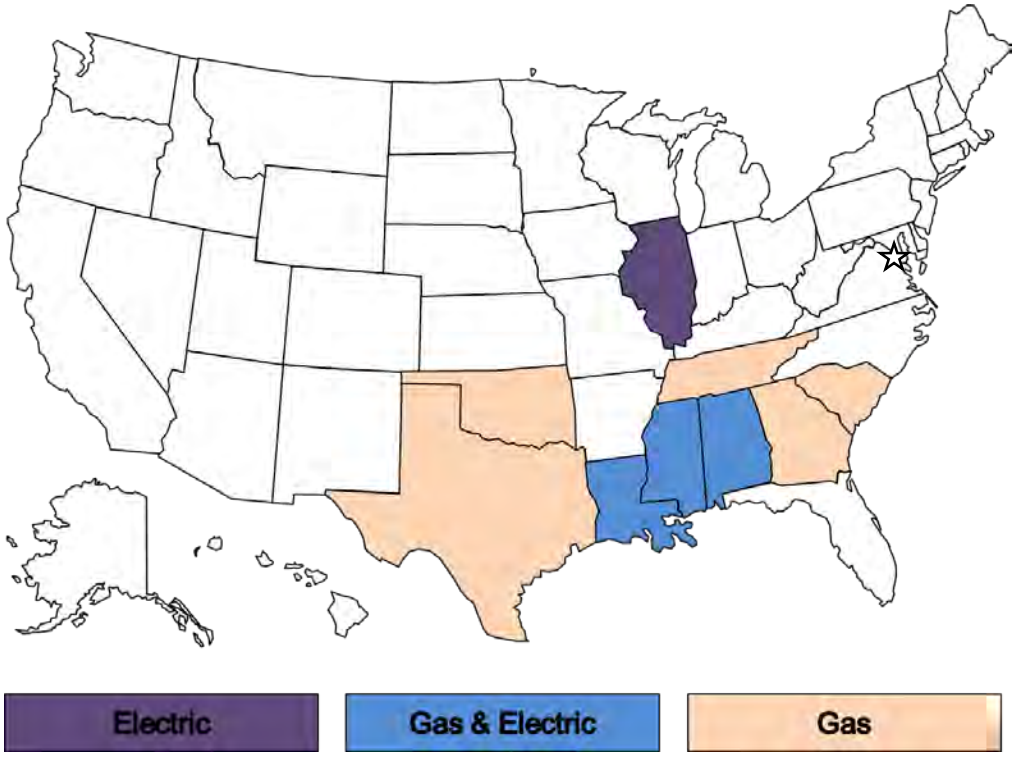
Formula rates have been used at the FERC and its predecessor agency to regulate interstate services of energy utilities for decades. Use of FRPs by the FERC was encouraged in the 1970s and early 1980s by rapid price inflation. Despite slower inflation in recent years, the FERC has made extensive use of formula rates for power transmission in an effort to simplify its daunting regulatory task and facilitate urgently needed investments.

Precedents for retail formula rates, which recover costs of generation and/or distribution, are listed in Table 8 and Figure 9.[10] It can be seen that FRPs for retail utility services are most common in the Southeast and South Central states. Alabama was an early innovator, approving "Rate Stabilization and Equalization"

[10] Some plans labeled as formula rates do not qualify for inclusion in this table and figure based on our definition. These usually take the form of ESMs that may or may not protect the utility from underearning.

plans for Alabama Power and Alabama Gas in the early 1980s.[11] Formula rates are now used to regulate electric utilities in Illinois, some gas and electric utilities in Louisiana and Mississippi, and some gas utilities in Georgia, Oklahoma, South Carolina, Tennessee, and Texas. Most of the recent approvals of formula rates have been for gas distribution, as this is one means to avoid the frequent rate cases that declining average use can trigger. However, formula rates were recently authorized legislatively for electric utilities in Arkansas.

Figure 9: Current Retail Formula Rate Precedents by State



[11] For further discussion of the Alabama FRP experience see Edison Electric Institute, *Case Study of Alabama Rate Stabilization and Equalization Mechanism*, June 2011.

Table 8

Retail Formula Rate Plan Precedents[1]

Jurisdiction	Company Name	Services	Plan Name	Plan Term	Case Reference
Current					
AL	Alabama Power	Bundled Power Service	Rate Stabilization & Equalization Factor (Rate RSE)	2013-open	Dockets 18117 and 18416 (August 2013)
AL	Alabama Gas	Gas	Rate Stabilization & Equalization Factor (Rate RSE)	2014-2018	Dockets 18406 and 18328 (December 2013)
AL	Mobile Gas Service	Gas	Rate Stabilization & Equalization Factor (Rate RSE)	2013-2017	Docket 28101 (August 2013)
GA	Atmos Energy	Gas	Georgia Rate Adjustment Mechanism (GRAM)	2012-open	Docket 34764 (December 2011)
IL	Ameren Illinois	Power Distribution	Rate Modernization Action Plan - Pricing (Rate MAP-P)	2011-2017, extended through 2019	Case 12-0001 (September 2012) and Public Act 098-1175
IL	Commonwealth Edison	Power Distribution	Rate Delivery Service Pricing and Performance (Rate DSPP)	2011-2017, extended through 2019	Case 11-0721 (May 2012) and Public Act 098-1175
LA	Atmos Energy - Louisiana Gas Service	Gas	Rate Stabilization Clause	2014-open	Docket U-32987 (June 2014)
LA	Atmos Energy - Trans Louisiana Gas	Gas	Rate Stabilization Clause	2014-open	Docket U-32987 (June 2014)
LA	Southwestern Electric Power	Electric	Formula Rate Plan	2013-2016	Docket U-32220 (July 2014)
MS	Atmos Energy Corp	Gas	Stable/Rate Rider	2011-present	Docket 05-UN-0503 (April 2011)
MS	Centerpoint Energy	Gas	Rate Regulation Adjustment Rider	2014-open	Docket 2014-UN-060 (May 2014)
MS	Entergy Mississippi	Bundled Power Service	Formula Rate Plan 6 (FRP-6)	2015-open	Docket 2014-UN-132 (December 2014)
MS	Mississippi Power	Bundled Power Service	Performance Evaluation Plan - 5 (PEP-5)	2010-open	Docket 2003-UN-0898 (November 2009)
OK	Centerpoint Energy Arkla	Gas	Performance Based Rate of Change Plan	2010-open	Cause PUD 201000030 (July 2010)
OK	Arkansas Oklahoma Gas	Gas	Performance Based Rate of Change Plan	2013-open	Cause PUD 201200236 (July 2013)
SC	Piedmont Gas	Gas	NA	2005-open	Docket 2005-125-G (September 2005)
SC	South Carolina Electric and Gas	Gas	NA	2005-open	Docket 2005-113-G (October 2005)
TN	Atmos Energy	Gas	Annual Review Mechanism	2015-open	Docket 14-00146 (May 2015)
TX	Centerpoint Energy-Texas Coast Division	Gas	Cost of Service Adjustment Clause	2008-open	Gas Utility Docket 9791 (October 2008)
TX	Atmos Energy-Mid Texas Division	Gas	Rate Review Mechanism	2013-2017	Various Resolutions/Ordinances across cities in service territory, including City of Fort Worth Ordinance 17989-02-2007
TX	Atmos Energy West Texas Division	Gas	Rate Review Mechanism	2014-open	Various Resolutions/Ordinances across cities in service territory including City of Tulia Ordinance 2014-03
TX	Texas Gas Service - Rio Grande Service Area	Gas	Cost of Service Adjustment	2012-open	Various Resolutions/Ordinances across cities in service territory
TX	Texas Gas Service - North Service Area	Gas	Cost of Service Adjustment Tariff	2009-open	Various Resolutions/Ordinances in service territory and Gas Utility Docket 9839 (April 2009)

Table 8 (cont'd)

Jurisdiction	Company Name	Services	Plan Name	Plan Term	Case Reference
Historic					
AL	Alabama Power	Bundled Power Service	Rate Stabilization & Equalization Factor (Rate RSE)	2006-2013	Dockets 18117 and 18416 (October 2005)
AL	Alabama Power	Bundled Power Service	Rate Stabilization & Equalization Factor (Rate RSE)	2002-2006	Dockets 18117 and 18416 (March 2002)
AL	Alabama Power	Bundled Power Service	Rate Stabilization & Equalization Factor (Rate RSE)	1998-2002	Dockets 18117 and 18416 (March 1998)
AL	Alabama Power	Bundled Power Service	Rate Stabilization & Equalization Factor (Rate RSE)	1990-1998	Dockets 18117 and 18416 (March 1990)
AL	Alabama Power	Bundled Power Service	Rate Stabilization & Equalization Factor (Rate RSE)	1985-1990	Dockets 18117 and 18416 (June 1985)
AL	Alabama Power	Bundled Power Service	Rate Stabilization & Equalization Factor (Rate RSE)	1982-1985	Dockets 18117 and 18416 (November 1982)
AL	Alabama Gas	Gas	Rate Stabilization & Equalization Factor (Rate RSE)	2008-2014, later changed to 2013	Dockets 18406 and 18328 (December 2007)
AL	Alabama Gas	Gas	Rate Stabilization & Equalization Factor (Rate RSE)	2002-2007	Dockets 18046 and 18328 (June 2002)
AL	Alabama Gas	Gas	Rate Stabilization & Equalization Factor (Rate RSE)	1996-2001	Dockets 18046 and 18328 (October 1996)
AL	Alabama Gas	Gas	Rate Stabilization & Equalization Factor (Rate RSE)	1991-1995	Dockets 18046 and 18328 (December 1990)
AL	Alabama Gas	Gas	Rate Stabilization & Equalization Factor (Rate RSE)	1987-1990	Dockets 18046 and 18328 (September 1987)
AL	Alabama Gas	Gas	Rate Stabilization & Equalization Factor (Rate RSE)	1985-1987	Dockets 18046 and 18328 (May 1985)
AL	Alabama Gas	Gas	Rate Stabilization & Equalization Factor (Rate RSE)	1983-1985	Dockets 18046 and 18328 (January 1983)
AL	Mobile Gas Service	Gas	Rate Stabilization & Equalization Factor (Rate RSE)	2009-2013	Docket 28101 (December 2009)
AL	Mobile Gas Service	Gas	Rate Stabilization & Equalization Factor (Rate RSE)	2005-2009	Docket 28101 (June 2005)
AL	Mobile Gas Service	Gas	Rate Stabilization & Equalization Factor (Rate RSE)	2001-2005	Docket 28101 (June 2002)
LA	Atmos Energy - Louisiana Gas Service	Gas	Rate Stabilization Plan	2006-2014	Docket U-21484 (May 2006)
LA	Atmos Energy - Louisiana Gas Service	Gas	Rate Stabilization Plan	2001-2003	Docket U-21484 (January 2001)
LA	Atmos Energy - Trans Louisiana Gas	Gas	Rate Stabilization Plan	2006-2014	Dockets U-28814 and U-28588 and U-28587(May 2006)
LA	Entergy New Orleans	Electric and Gas	Formula Rate Plan	2010-2012	Docket UD-08-03 (April 2009)
LA	Entergy New Orleans	Electric only	Formula Rate Plan	2004-2006	Docket UD-01-04 (May 2003)
MS	Atmos Energy Corp	Gas	Stable/Rate Rider	2009-2011	Docket 05-UN-0503 (December 2009)
MS	Atmos Energy Corp	Gas	Stable/Rate Rider	2006-2009	Docket 05-UN-0503 (October 2005)
MS	Atmos Energy Corp	Gas	Stable/Rate Rider	1992-2006	Docket 92-UA-0230 (September 1992)
MS	Centerpoint Energy	Gas	Rate Regulation Adjustment Rider	2012-2014	Docket 12-UN-139 (May 2012)

Table 8 (cont'd)

Jurisdiction	Company Name	Services	Plan Name	Plan Term	Case Reference
Historic (cont'd)					
MS	Centerpoint Energy Entex	Gas	Rate Regulation Adjustment Rider	2008-2012	Docket 07-UN-548 (December 2007)
MS	Centerpoint Energy Entex	Gas	Rate Regulation Adjustment Rider	1996-2007	Docket 96-UN-0202 (September 1996)
MS	Entergy Mississippi	Bundled Power Service	Formula Rate Plan 5 (FRP-5)	2010-2014	Docket 2009-UN-388 (March 2010)
MS	Entergy Mississippi	Bundled Power Service	Formula Rate Plan 1 (FRP-1)	1995	Docket 93-UA-0301 (March 1994)
MS	Mississippi Power	Bundled Power Service	Performance Evaluation Plan - 4A (PEP- 4A)	2009	Docket 06-UN-0511 (January 2009)
MS	Mississippi Power	Bundled Power Service	Performance Evaluation Plan - 4 (PEP-4)	2004-2009	Docket 03-UN-0898 (May 2004)
MS	Mississippi Power	Bundled Power Service	Performance Evaluation Plan - 3 (PEP-3)	2002-2004	Docket 01-UN-0826 (October 2002)
MS	Mississippi Power	Bundled Power Service	Performance Evaluation Plan - 2A (PEP-2A)	2001-2002	Docket 01-UN-0548 (December 2001)
MS	Mississippi Power	Bundled Power Service	Performance Evaluation Plan - 1A (PEP-1A)	1992-1993	Docket 92-UN-0059 (July 1992)
MS	Mississippi Power	Bundled Power Service	Performance Evaluation Plan - 1 (PEP-1)	1991-1992	Docket 90-UN-0287 (December 1990)
MS	Mississippi Power	Bundled Power Service	Performance Evaluation Plan	1986-1990	Cause PUD U-4761 (August 1986)
OK	Centerpoint Energy Arkla	Gas	Performance Based Rate of Change Plan	2008-2010	Cause PUD 200800062 (July 2008)
OK	Centerpoint Energy Arkla	Gas	Performance Based Rate of Change Plan	2004-2008	Cause PUD 200400187 (November 2004)
OK	Oklahoma Natural Gas	Gas	Performance Based Rate of Change Plan	2010-2014	Docket 200800348 (April 2009)
TX	Atmos Energy-Mid Texas Division	Gas	Rate Review Mechanism	2008 - varying end dates	Various Resolutions/Ordinances across cities in service territory, including City of Fort Worth Ordinance 17989-02-2008
TX	Atmos Energy West Texas Division	Gas	Rate Review Mechanism	2009 - conclusion of rate case to be filed on or before June 1, 2013	Various Resolutions/Ordinances across cities in service territory
TX	Centerpoint Energy - Beaumont East Texas Gas Division	Gas	Cost of Service Adjustment	2009-2011	Various Resolutions/Ordinances across cities in service territory
TX	Texas Gas Service - Rio Grande Service Area	Gas	Cost of Service Adjustment	2009-2011	Various Resolutions/Ordinances across cities in service territory

[1] Table excludes some mechanisms that do not conform to our FRP definition. Some of these are called formula rate plans.

VII. Marketing Flexibility

This is a new section, added since the last survey. We've added it because we (and EEI) believe that marketing flexibility is a growing, strategic issue for EEI members. Several trends in business conditions are driving the need for more flexibility. The growth of distributed energy resources, for example, is a competitive challenge but also brings new service opportunities related to the development of distributed energy assets (e.g., designing, financing, procuring, building, fueling, and maintaining). Grid modernization is providing new functional capabilities to the grid which also create new service opportunities.[12] Examples include new reliability, network management, and transaction management services. Residential and commercial customers also have a growing interest in plug-in electric vehicles, and all retail customers have shown an interest in green power packages that can be supplied from grid-accessed resources.

New services will tend to be optional services that all customers will not want. Customers must be able to decline them; and if they do, not to incur associated costs. Competitive alternatives will be available for many of these services, and customers may have special needs that are difficult to address with standard tariffs. Thus, utilities will need to be able to respond quickly to the market. They will often be price "takers," as opposed to price "makers."

To date, regulatory precedent allowing investor-owned electric utilities to offer many of these services has been limited. This chapter is, in effect, a place holder for expected future electricity precedent.

Why Electric Utilities Need Marketing Flexibility

Of course, electric utilities have always needed flexibility in some of the markets they serve:

- Utility assets have uses in markets other than those for retail electric services. Most notably, surplus generating capacity of VIEUs can be used for sales in bulk power markets. These markets are competitive and price-volatile. Land in transmission corridors can be well-suited for nurseries. Prices utilities charge in competitive markets like these are largely decontrolled. Margins earned in these markets are shared with customers of retail electric services.
- The demand of large-load retail customers is often sensitive to the rates and other terms of service utilities offer because these customers have power-intensive technologies and/or options to cost-competitively cogenerate or operate at alternative locations, or are economically marginal. Customers of this kind are especially important to vertically integrated utilities. Discounts or special contracts for such customers are traditionally allowed but often require specific approval. Commission reviews of special contracts can take months.

[12] For an overview of modernization, see: EPRI, *The Integrated Grid: Realizing the Full Value of Central and Distributed Energy Resources*, 2014.

Marketing Flexibility Remedies

Marketing flexibility runs the gamut from greater commission effort to approve new rates and services by traditional means to "light handed" regulation and outright decontrol. Light handed regulation typically takes the form of expedited approval of market offerings. These offerings may be subject to further scrutiny at a later date (e.g., in the next rate case).

Flexibility is most commonly granted for rates and services with certain characteristics. Light handed regulation of optional rates and services, for example, is based on the grounds that customers are protected by their freedom not to take the service, their continued access to service under standard tariffs, and the availability of alternatives in unregulated markets. Optional offerings include tariffs open to all qualifying customers, special contracts, and discretionary value-added services. Decontrol is typically permitted only for offerings to markets where vigorous competition reigns.

Marketing Flexibility Examples: Electric Utilities

Marketing flexibility is not extensive in the electric utility industry today but there are nonetheless notable examples such as the following.

- Four Florida electric utilities have "Commercial/Industrial Service Rider" ("CISR") tariffs that allow them to negotiate contract service agreements ("CSAs") that outline discounts on the base energy and/or demand charges for large load customers who can show that they have viable alternatives to utility-provided electric service.[13] The discounted rate must cover the incremental cost of service provision and provide a contribution to fixed costs. CSAs do not need commission approval but the commission has the option to conduct a prudence review of any signed contract.

- Duke Energy offers large North Carolina customers an optional Green Source Rider service. The program allows customers that have added at least 1 MW of new load since June 2012 to apply for an annual amount of renewable energy (and the associated renewable energy certificates) over a specific term (between 3-15 years). Customers may request a particular renewable resource in their application. Duke would then negotiate a purchased power agreement on behalf of the customer or attempt to source the energy from its own assets.

[13] Florida Public Service Commission (2014), Order Approving Commercial/Industrial Service Rider Tariff, Order No. PSC-14-0110-TRF-EI.

Marketing Flexibility in Other Regulated Industries

Regulators and electric utilities considering new forms of marketing flexibility can learn from other utility industries that have experienced technological change, increased competition, and/or complex and changing customer needs. We provide here brief overviews of experience in the telecommunications, gas distribution, gas transmission, and railroad industries.

Telecommunications

Local telephone companies (aka incumbent local exchange carriers or "ILECs") control the traditional distribution networks connecting residences and businesses. The "last mile" services they provide include the interconnection needed for long-distance, data, security, paging, and mobile telephone services as well as local telephone calling. ILECs have in the last 30 years confronted extensive competition, rapid technological change, and new marketing opportunities. Challenges they have faced have many parallels to those emerging for electric utilities.

The Federal Communications Commission ("FCC") regulates interstate access services of ILECs. Other ILEC services are regulated by state commissions. In the 1980s, ILECs were still regulated using cost-of-service regulation with complex reporting and compensation schemes. This was succeeded by multiyear rate plans, often called "price cap" plans since they capped rate escalation but permitted some discounts to encourage greater system use. Price caps were often escalated using inflation – X formulas where the X factor reflected an estimate of the telecommunication industry productivity trend. Prices were separately capped for several baskets of services. This insulated customers in each service basket from discounts offered to other baskets. Insulation was heightened by the infrequency (or elimination) of rate cases and the common lack of earnings sharing. The FCC instituted price caps for interstate access services of ILECs in the early 1990s. Price caps also became commonplace in state ILEC regulation.

Marketing flexibility for ILECs has been most relevant in the following two areas.

Competition in Traditional Service Markets Some services ILECs offered became subject to mounting competitive pressure that varied with the location where service was offered. For example, by the late 1990s, competitive access providers like MFS were constructing high-speed fiber optic networks connecting office buildings in metropolitan areas. These networks allowed businesses and long-distance carriers to connect to customers while bypassing ILEC data facilities. They could also be used to transmit voice traffic, avoiding ILEC voice access charges. High regulated prices were uncompetitive in high-traffic locations where facilities-based competitors entered the market. For services subject to competitive challenges, price cap plans in many states permitted discounts to standard tariffs within certain bands (e.g., rates could rise by 5% less than the price cap index) and/or subject to pricing floors that discouraged predation and cross-subsidization. In markets where pronounced competition could be demonstrated, ILEC rates were sometimes effectively decontrolled.

Innovative Services Technological change gave rise to innovative new services [e.g., Voicemail, Centrex and high-speed data (e.g., digital subscriber loop or "DSL")] which utilize essential network assets of ILECs

and cannot not practically be performed by affiliates.[14] Many of these services were deemed "information" services and were regulated by the FCC. Regulators ultimately permitted ILECs to provide a host of these services and allowed considerable pricing flexibility.

Gas Distribution

Natural gas distributors also need flexibility to address some markets that they serve. Like VIEUs, many large-load customers of gas distributors have price sensitive demands and special needs. Distributors have frequently obtained light handed regulation to respond to these challenges. Nicor Gas, for example, offers a contract service for customers taking delivery near interstate gas pipelines. Contracts are submitted to state regulators for informational purposes and are treated on a proprietary basis. Nicor has similar flexibility to enter into custom contracts with electric power generators. The Company must document to the regulator that revenues from such service exceed the incremental cost of service, thereby ensuring a positive contribution to fixed cost recovery.

Interstate Gas Transmission

Interstate pipeline companies need marketing flexibility for many reasons. Demand for a pipeline's services can be sensitive to the terms it offers due to competition from other pipelines, dual-fuel capabilities of large volume customers, the extreme variability of need for service, and other special needs. It is difficult to design standard tariffs that meet the needs of all customers. Pipelines also have their own needs, such as an interest in signing anchor shippers to long-term contracts before constructing new facilities. Since 1996, the FERC has engaged in light handed regulation of negotiated pipeline rates to individual customers who have recourse to service under a standard tariff. The FERC gives a quick turnaround to most requests for negotiated contracts. A sizable share of pipeline service is conducted under negotiated rates. A remarkable variety of rate designs have been employed.[15]

Railroads

In the railroad industry, MRPs were permitted under the terms of the Staggers Railroad Act of 1980. Railroads were given a freer hand to respond to competition from truckers, waterborne carriers, and other railroads. The railroads also used marketing flexibility to offer discounts to customers that reduced their cost by assembling their own unit trains and not requesting pickups or deliveries in remote locations.

MRPs are less common today in the railroad and telecom industries. However, marketing flexibility continues under new regulatory systems that share with MRPs the attribute of protecting core customers without linking a carrier's rates closely to its own cost. Railroads have recently used this flexibility to compete for traffic from new oil field developments.

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[14] Centrex service, which provided businesses features like call-waiting, auto attendant, voicemail, 4-digit extension dialing and conference calling, could also be sourced by purchasing or leasing a private branch exchange ("PBX"), a private network platform that enabled these features.

[15] See, for example, Comments of the Interstate Natural Gas Association of America in FERC Docket PLO2-6-000, September 2002.

VIII. Conclusions

Regulation of North American energy utilities is evolving to better meet the needs of utilities and their customers in a rapidly changing world. Innovation continues, while some older forms of Altreg such as multiyear rate plans are having a renaissance.

The variety of Altreg approaches that have been established reflects the varied circumstances of utilities. Some are vertically integrated, while others are more specialized wire companies. Capex needs and trends in average use vary greatly. Regulatory traditions also vary across the US and other advanced industrial countries.

No single Altreg approach is right for every situation. The availability of multiple remedies for the underlying challenges increases the chance that an approach has already been tried that would work well, with some adjustments, in new situations. Numerous precedents for an approach should raise confidence that it makes good sense under fairly common circumstances.

Taken together, the many innovations described in this survey can encourage utilities to achieve compensatory rates of return while making needed investments, improving efficiency, and developing more market-responsive rates and services. Regulation can be streamlined, and utilities can be encouraged to embrace cost-effective DERs. Regulators and stakeholders to regulation across the US should give priority attention to these options and consider which kinds of Altreg might work best in their situation.

MOODY'S INVESTORS SERVICE

SECTOR COMMENT

US utility sector upgrades driven by stable and transparent regulatory frameworks

Rate this Research

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- We recently upgraded most US investor-owned utilities and many of their holding companies due to our view that the US regulatory environment has improved over the past several years. Most of the companies placed on review for upgrade in November 2013[1] were upgraded in late January 2014, and most by one notch. Please see Appendix A for a list of companies that were upgraded.
- US regulated utilities appear financially secure, thanks to their suite of transparent and timely cost and investment recovery mechanisms. When compared with other regulatory environments in developed countries[2], the overall regulatory environment for US utilities has steadily improved over the past few years and is expected to remain supportive and constructive for at least the next 3-5 years.
- A more favorable regulatory environment allows US regulated utilities to generate relatively stable and predictable revenue and cash flow, which can support a material amount of leverage. But most US utilities maintain a conservative capital structure, where the ratios of debt to EBITDA and cash flow to debt hover in the 4.0x and 20% range, respectively. Key financial ratios are likely to decline over the next few years, as interest rates rise and tax payments increase with the expiration of bonus depreciation.
- US utilities own and operate enormous, capital intensive, long-lived critical infrastructure assets. They are often one of the larger companies residing in a particular state, they pay big property taxes and employ lots of people. The importance of utilities to state and local governments is not lost on elected officials, and utilities maintain very effective constituency outreach programs.
- Utilities have demonstrated strong, stable access to the capital markets. Utilities do not maintain high cash balances, but their committed credit facilities are typically syndicated across several banks and contain few, if any, borrowing constraints. However, a combination of significant capital investments and sizable shareholder dividends that are typically well beyond the cash generated from operations means that utilities are generally in a negative free cash flow position.
- A handful of companies placed on review in late 2013 were not upgraded. Some of the reasons include sizable non-utility businesses with higher business risk, or a large amount of debt at the holding company as a percentage of total consolidated debt. For a few issuers, ratings weren't upgraded because these companies were viewed as being appropriately positioned at their existing rating category, relative to their rated peers.

[1] See press release: Moody's places ratings of most US regulated utilities on review for upgrade, November 08,2013.

[2] For example: Australia, Canada, Japan, South Korea and the United Kingdom.

Supportive regulatory frameworks

Over the past few years, the US regulatory environment has been very supportive of utilities. We think this is partly a function of regulators acknowledging that their utility infrastructure needs a material amount of ongoing investment for maintenance, refurbishment and renovation purposes. Utility infrastructure is necessary to facilitate a growing economy, and since utility investments help create jobs, utilities have been able to garner support from both politicians and regulators to authorize prudently incurred investments in these critical assets. We also think regulators prefer to regulate financially healthy utilities. Recent legislation that helps utilities recover their costs and investments in a more timely manner are evidenced in Virginia, South Carolina, Florida and Illinois.

We think political risks are also manageable, in part, because elected officials are increasingly viewing their local utilities as a reliable source of investment into the local infrastructure. Investments bring jobs, and employment growth helps the economy. This is part of the "virtuous circle" for regulated utilities, and we see a few more years of continued smooth sailing, where elected officials, their regulators, consumer groups and utilities share a common understanding with respect to strengthening this infrastructure sector.

From a practical perspective, a few regulatory hot spots of contentiousness will flare up over our rating horizon, but it is unclear at this time as to which utilities might be affected. We have generally seen such situations result in outcomes that were difficult for utilities but not punitive, and they have generally been isolated incidents rather than a broad pandemic. As a result, we continue to keep an eye on the magnitude of rate increases, and how likely those rates can be absorbed by the service territory or market before consumers become intolerant, in order to identify utilities that are exceptions to the generally positive regulatory environment.

Stable and predictable financial profile

A transparent suite of timely recovery mechanisms helps utilities generate stable and predictable revenues and cash flows, which can support a material amount of leverage. But most US utilities maintain a relatively solid capital structure, where the ratios of debt to EBITDA and cash flow to debt hovers in the 4.0x and 20% range, respectively. Key financial ratios are likely to decline over the next few years, as interest rates rise and tax payments increase with the expiration of bonus depreciation.

In the table below, we illustrate the sector's financial stability by showing the historical medians for most of the companies included in our US utility rated universe. We show the 4-year (2009 – 2012) and 2-year (2011 – 2012) average medians by rating category. We also include the latest twelve months ended September 2013. In general, lower debt to EBITDA and dividend payout ratios correspond with higher credit ratings, as do higher cash flow to debt ratios. We note that A1 rated companies invest more heavily in their assets, relative to depreciation and amortization (D&A). Because we show these financial ratios by rating category, the rating category might include different kinds of companies included in our peer groups. For example, the Baa1 rating category might include parent holding companies (which also include hybrid integrated companies), vertically integrated, transmission and distribution, local gas distribution or transmission only companies.

EXHIBIT 1

US regulated utilities – selected financial ratios, by rating category (medians)

	Debt / EBITDA			CFO / debt			Dividend payout			Cap Ex / D&A		
Rating	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM
A1	2.7	2.8	3.0	31%	32%	25%	35%	33%	39%	2.4	2.7	2.7
A2	3.3	3.3	3.5	27%	26%	22%	67%	70%	64%	1.8	1.9	2.0
A3	3.9	4.0	4.0	22%	23%	22%	56%	67%	52%	2.1	1.9	2.2
Baa1	4.1	4.2	4.0	19%	20%	19%	61%	64%	52%	1.8	1.9	2.2
Baa2	4.3	4.3	4.5	17%	17%	17%	56%	56%	78%	1.7	1.9	2.1
Baa3	4.2	4.4	4.3	18%	17%	18%	120%	91%	99%	1.3	1.5	1.4

We also examined the broad peer group of utilities by sector classification. For example, we looked at the selected financial ratios for parent holding companies, vertically integrated utilities, transmission and distribution utilities and natural gas local distribution companies. We note that the financial ratios by sector classification means that both A3 and Baa3 rated companies might be included in the "Vertically Integrated" peer group and in other peer groups. We observe that the ratio of cash flow to debt is better for the utilities than it is for the parent holding companies[3].

EXHIBIT 2

US regulated utilities – selected financial ratios, by sector classification

		Debt / EBITDA			CFO / debt			Dividend payout			Cap Ex / D&A		
Sector		4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM
Holding companies	Median	4.5	4.7	4.4	18%	18%	17%	68%	69%	69%	2.3	2.3	2.5
	Total	4.1	4.3	4.2	19%	19%	18%	67%	73%	78%	2.0	2.1	2.1
LDC's	Median	4.0	4.0	4.1	24%	22%	22%	75%	70%	76%	2.0	2.2	3.1
	Total	3.5	3.5	3.4	26%	25%	23%	60%	61%	58%	2.1	2.3	2.5
T&D (electric or gas)	Median	4.0	3.7	4.2	21%	22%	20%	97%	88%	57%	1.6	1.9	1.5
	Total	3.7	3.7	3.7	22%	22%	20%	92%	86%	67%	1.5	1.8	1.9
Transmission	Median	2.3	2.3	2.5	37%	33%	26%	82%	92%	71%	5.7	6.4	6.4
	Total	3.9	3.9	4.1	20%	19%	16%	80%	83%	58%	4.7	5.3	5.5
Vertically Integrated	Median	3.7	3.7	3.7	22%	23%	20%	53%	59%	56%	2.0	2.0	2.1
	Total	3.6	3.6	3.6	23%	23%	23%	59%	64%	68%	2.1	2.1	2.1

[3] See Appendix A for a table of selected financial ratios by sector classification, by rating

Critical infrastructure assets

US utilities own and operate enormous, capital intensive, long-lived critical infrastructure assets. They are often cited as being one of the larger companies residing in a particular state, pay big property taxes and employ lots of people. The importance of utilities to state and local governments is not lost on elected officials, and utilities maintain very effective constituency outreach programs[4].

EXHIBIT 3

US regulated utilities – selected financial data, by rating category ($ billions)

	Revenues			EBITDA			CFO			Debt		
Rating	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM
Medians												
A1	$2.6	$2.7	$2.8	$0.8	$0.8	$0.8	$0.6	$0.7	$0.6	$2.1	$2.2	$2.4
A2	$1.6	$1.5	$1.4	$0.4	$0.5	$0.5	$0.4	$0.4	$0.4	$1.5	$1.6	$1.7
A3	$1.7	$1.7	$1.7	$0.4	$0.5	$0.5	$0.4	$0.4	$0.4	$1.7	$1.8	$1.9
Baa1	$1.6	$1.6	$1.6	$0.4	$0.4	$0.5	$0.3	$0.4	$0.4	$1.7	$1.8	$1.9
Baa2	$1.6	$1.6	$1.6	$0.8	$0.5	$0.5	$0.3	$0.4	$0.4	$2.0	$2.1	$2.3
Baa3	$1.7	$1.7	$1.6	$0.5	$0.5	$0.5	$0.4	$0.4	$0.4	$2.2	$2.2	$2.3
Total												
A1	$50.3	$50.2	$51.3	$15.8	$16.3	$17.5	$13.2	$13.7	$14.2	$50.7	$54.8	$58.3
A2	$86.4	$85.4	$86.6	$25.6	$27.1	$29.0	$22.2	$23.6	$22.8	$86.6	$92.0	$98.9
A3	$151.3	$154.0	$166.8	$47.5	$49.9	$54.2	$39.3	$42.5	$45.3	$187.3	$199.4	$221.6
Baa1	$468.5	$473.4	$499.6	$144.4	$150.8	$160.0	$117.3	$125.7	$130.9	$576.9	$610.6	$668.0
Baa2	$1.7	$1.6	$1.6	$32.7	$32.2	$40.4	$25.5	$26.9	$27.1	$125.1	$129.1	$135.8
Baa3	$5.4	$5.6	$5.6	$17.6	$18.8	$18.2	$1.7	$1.8	$1.8	$81.3	$89.6	$94.8

EXHIBIT 4

US regulated utilities – selected financial data, by sector classification ($ billions)

		Revenue			EBITDA			CFO			Total Debt		
Sector		4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM
Holding companies	Median	$4.0	$4.1	$4.5	$1.1	$1.1	$1.2	$0.9	$1.0	$0.9	$5.2	$5.3	$5.2
	Total	$337.4	$342.1	$358.4	$106.3	$109.7	$121.9	$84.7	$89.8	$92.1	$437.5	$467.0	$509.5
LDC's	Median	$0.7	$0.7	$0.6	$0.1	$0.2	$0.2	$0.1	$0.1	$0.1	$0.6	$0.6	$0.6
	Total	$26.8	$25.7	$26.0	$5.9	$6.3	$6.5	$5.4	$5.4	$5.1	$20.5	$22.0	$22.3
T&D (electric or gas)	Median	$1.4	$1.2	$1.1	$0.3	$0.4	$0.3	$0.3	$0.3	$0.3	$1.3	$1.3	$1.4
	Total	$74.7	$70.5	$67.3	$21.3	$21.8	$22.5	$16.8	$17.7	$16.5	$78.1	$80.0	$84.2
Transmission	Median	$0.3	$0.3	$0.3	$0.2	$0.2	$0.2	$0.1	$0.1	$0.1	$0.4	$0.5	$0.6
	Total	$2.0	$2.2	$2.5	$1.4	$1.5	$1.7	$1.1	$1.1	$1.2	$5.5	$6.0	$7.1
Vertically Integrated	Median	$1.7	$1.7	$1.7	$0.5	$0.5	$0.5	$0.4	$0.4	$0.4	$1.7	$1.8	$1.9
	Total	$195.3	$197.9	$202.7	$60.1	$62.9	$65.5	$49.2	$52.4	$53.6	$215.9	$227.7	$237.5

[4] See Appendix B for a table of selected financial data, by sector classification by rating

Strong, Stable access to capital

Our view of the supportive US utility regulatory environments resulted in several rating upgrades where companies attained an A2 rating from A3, or Baa2 from Baa3. Consistent with these long term rating changes, some utilities also achieved a change in their short-term commercial paper (CP) ratings. For more information on the linkage between long term ratings and short term ratings, please see Moody's Rating Symbols and Definitions.

EXHIBIT 5

Selected companies that received short-term commercial paper rating changes*

Name	Sector	Old Rating	New Rating	Rating Outlook	Short term Rating
Questar Corporation	Holdco	A3	A2	Stable	P-1 from P-2
Wisconsin Energy Corporation	Holdco	A3	A2	Stable	P-1 from P-2
DTE Gas Company	LDC	A3	A2	Stable	P-1 from P-2
Northern Illinois Gas Company	LDC	A3	A2	Stable	P-1 from P-2
Peoples Gas Light and Coke Company	LDC	A3	A2	Stable	P-1 from P-2
Consolidated Edison Company of New York, Inc.	T&D (electric or gas)	A3	A2	Stable	P-1 from P-2
PECO Energy Company	T&D (electric or gas)	A3	A2	Stable	P-1 from P-2
Public Service Electric and Gas Company	T&D (electric or gas)	A3	A2	Stable	P-1 from P-2
Atmos Energy Corporation	LDC	Baa1	A2	Stable	P-1 from P-2
DTE Electric Company	Vertically Integrated	A3	A2	Stable	P-1 from P-2
Northern States Power Company (Minnesota)	Vertically Integrated	A3	A2	Stable	P-1 from P-2
Northern States Power Company (Wisconsin)	Vertically Integrated	A3	A2	Stable	P-1 from P-2
Southern California Edison Company	Vertically Integrated	A3	A2	Stable	P-1 from P-2
Piedmont Natural Gas Company, Inc.	LDC	A3	A2	Stable	P-1 from P-2
South Jersey Gas Company	LDC	A3	A2	Stable	P-1 from P-2
Vectren Utility Holdings, Inc.	Vertically Integrated	A3	A2	Stable	P-1 from P-2
Virginia Electric and Power Company	Vertically Integrated	A3	A2	Stable	P-1 from P-2
Pinnacle West Capital Corporation	Holdco	Baa2	Baa1	Stable	P-2 from P-3
Ameren Corporation	Holdco	Baa3	Baa2	Stable	P-2 from P-3
NiSource Finance	Holdco	Baa3	Baa2	Stable	P-2 from P-3
Union Electric Company	Vertically Integrated	Baa2	Baa1	Stable	P-2 from P-3
Kansas City Power & Light Greater MO Op.	Vertically Integrated	Baa3	Baa2	Stable	P-2 from P-3

*Not all short-term ratings are listed here. Instead, we show a list of upgrades associated with the short term commercial paper rating. This list does not include utilities that may have had short-term ratings on industrial development bonds, such as Duke Indiana and Duke Carolinas. In Duke's case, both companies had their short-term IDB ratings upgraded (both VMIG and Prime ratings), but are not included on our list, but are available on the individual company's press releases.

Utility credit facilities are usually unsecured, so we tend to examine the few instances of secured revolving credits more closely . In many cases, security for credit facilities was initially granted when the utility incurred financial stress and/or was rated below investment grade. Similar to first mortgage bonds, secured credit facilities at the utility level are mostly viewed as having a materially lower risk of incurring any losses given a default. As a result, the costs and fees for secured credit facilities are typically lower than unsecured credit facilities, which regulators may view in a positive light, although we typically view utilities with secured credit facilities as possessing somewhat less financial flexibility.

One of the big credit positives that unsecured credit facilities provide utilities is the "ability" to raise capital or secure continued liquidity through a secured facility. This is a type of financial flexibility that can be useful for utilities experiencing a period of financial distress, since the security may be

granted in exchange for accommodations from lenders such as an increase in facility size, longer maturities, or easing of financial covenants or other terms.

EXHIBIT 6

Selected companies with secured credit facilities

Name	Sector	Old	New	Outlook	Comment
Avista Corp.	Vertically Integrated	Baa2	Baa1	Stable	Secured Revolver
Consumers Energy Company	Vertically Integrated	Baa1	A3	Stable	Secured Revolver
Oncor Electric Delivery Company LLC	T&D (electric or gas)	Baa3	Baa3	Stable	Secured Revolver
Puget Energy, Inc.	Holdco	Ba1	Baa3	Stable	Cross - Over / secured rev.
UNS Energy Corporation	Holdco	Baa3	Baa2	Stable	Secured Revolver
Westar Energy, Inc.	Holdco	Baa2	Baa1	Stable	Secured Revolver

Notable upgrades

Two companies were upgraded by 2-rating notches, Edison International (EIX: A3 stable) and Western Massachusetts Electric Company (WMECO: A3 stable). Prospectively, both companies are increasing the stability and predictability of their revenues and cash flows, because they are becoming more regulated.

EXHIBIT 7

Selected companies with 2 notch rating upgrades

Name	Sector	Old	New	Outlook
Atmos Energy Corporation	LDC	Baa1	A2	Stable
Edison International	Holdco	Baa2	A3	Stable
Western Massachusetts Electric Company	T&D (electric or gas)	Baa2	A3	Stable

For EIX, the increase in regulated revenues and cash flows (as a percentage of the total) will result from the divestiture of its risky non-utility businesses. In this case, EIX has benefitted because the former merchant generation operations at Edison Mission Energy (EME not rated) are no longer part of the consolidated entity, and we view the litigation risk from suits by EME creditors as manageable for EIX.

With the recent completion of a large transmission project in December 2013, WMECO is increasing the portion of its revenues derived from FERC-regulated transmission only assets. The FERC regulatory environment is viewed as being both transparent and predictable over the long term, with a very timely suite of cost recovery mechanisms and a reasonable assurance of a guaranteed return.

Four companies crossed over to the investment grade rating category from the non-investment grade category. Three are parent holding companies, all of which own solid investment grade utility operating subsidiaries.

EXHIBIT 8

Selected companies that crossed-over into investment grade from non-investment grade

Name	Sector	Old	New	Outlook
PNM Resources, Inc.	Holdco	Ba1	Baa3	Positive
Entergy Texas, Inc.	Vertically Integrated	Ba1	Baa3	Stable
Puget Energy, Inc.	Holdco	Ba1	Baa3	Stable
IPALCO	Holdco	Ba1	Baa3	Stable

For Entergy Texas Inc (ET: Baa3 stable), where we think Texas regulation is less favorable for non-ERCOT, vertically integrated utilities than they are on the unbundled transmission and distribution utilities, we see a steadily improving financial profile, including a sustainable production of cash flow to debt in the low-teen's, at a minimum. However, ET has the most most challenging regulatory relations of all the Texas utilities.

Puget Energy's (PE: Baa3 Stable)cross over to investment grade reflects an expectation for sustained improvement in the company's financials, due to supportive regulatory treatment. For example, the most recent rate case decision for its utility Puget Sound Energy, Inc. (PSE: Baa1, stable) by the Washington Utilities and Transportation Commission's (WUTC) allowance for a full electric and gas revenue decoupling mechanism and a series of predetermined annual delivery rate increases, including cost escalation factors.

Five issuers in two corporate families, Cleco Corporation (Cleco: Baa2, positive) and PNM Resources Inc. (PNM: Baa3, positive), continue to exhibit materially favorable regulatory or financial trends, reflected in the positive rating outlooks assigned at the conclusion of our review. For the remainder of the companies, stable rating outlooks were the norm.

EXHIBIT 9

Selected companies with positive rating outlooks

Name	Sector	Old	New	Outlook	Comment
Cleco Corporation	Holdco	Baa3	Baa2	Positive	
Cleco Power LLC	Vertically Integrated	Baa2	Baa1	Positive	
PNM Resources, Inc.	Holdco	Ba1	Baa3	Positive	Cross - Over
Texas-New Mexico Power Company	T&D (electric or gas)	Baa2	Baa1	Positive	
Public Service Company of New Mexico	Vertically Integrated	Baa3	Baa2	Positive	

For PNM, as soon as its San Juan Generating Station environmental compliance requirement is resolved, or close to it, and assuming financial metrics remain consistent with our expectations, additional rating upgrades could be considered. For Cleco, the positive outlooks reflect our expectation that Cleco Power LLC (CNL: Baa1, positive) will receive a constructive outcome on its latest regulatory filing, including the extension of its formula rate plan for another five-year period. This would follow the December 2013 approval received from the Louisiana Public Service Commission to transfer the Coughlin power plant to CLN.

EXHIBIT 10

Selected companies still on review for possible upgrade

Name	Sector	Old	New	Outlook	Comment
Brooklyn Union Gas Company	LDC	A3	A3	RUR – up	
Key Span Gas East Corp	LDC	A3	A3	RUR - up	
Niagara Mohawk Power Corp	T&D (electric or gas)	A3	A3	RUR – up	
New England Power Corp	T&D (electric or gas)	A3	A3	RUR - uP	

Companies not upgraded

For some holding companies with material non-utility businesses, rating upgrades were constrained. Our analysis was heavily influenced by the size, composition and strategy of those non-utility businesses. We widened the notching between some parent holding companies and their operating subsidiaries, especially if there was significant non-utility subsidiary debt or parent holding company debt. Negative rating consequences might also hold back the rating at the utility subsidiary, since parent holding company debt could be viewed as a proxy for utility subordinated debt or preferred stock.

As part of our review process, several corporate families are now characterized by a wider rating notching differential between the parent and one or more utility subsidiaries.

EXHIBIT 11

Parent holding companies with a three notch differential from one or more subsidiaries

Parent	Rating	Subsidiary	Rating	Notch differential
NextEra	Baa1	Florida Power & Light	A1	3
Sempra	Baa1	San Diego Gas & Electric	A1	3
Exelon Corp	Baa2	PECO Energy	A2	3
Dominion Resources	Baa2	VEPCO / DomGas	A2	3
PS Enterprises Group	Baa2	Public Service Electric & Gas	A2	3
Southern Company	Baa1	Alabama Power	A1	3
Integrys Energy	Baa1	Wisconsin Public Service	A1	3
Duquesne Light Holdgs.	Baa3	Duquesne Light Company	A3	3

In the table below, we show the utilities and holdcos that were placed on review for upgrade but were not upgraded. For these companies, ratings were confirmed at their existing rating categories[5].

EXHIBIT 12

Selected companies that were not upgraded

Name	Sector	Old	New	Outlook	Summary Rationale
American Transmission Company LLC	Transmission	A1	A1	Stable	Credit supportive FERC regulation already incorporated
Madison Gas and Electric Company	Vertically Integrated	A1	A1	Stable	Credit supportive regulation already incorporated
NSTAR Electric Company	T&D (electric or gas)	A2	A2	Stable	Credit supportive regulation already incorporated
International Transmission Company	Transmission	A3	A3	Stable	Credit supportive FERC regulation already incorporated
ITC Midwest LLC	Transmission	A3	A3	Stable	Credit supportive FERC regulation already incorporated
Michigan Electric Transmission Company, LLC	Transmission	A3	A3	Stable	Credit supportive FERC regulation already incorporated
Otter Tail Power Company	Vertically Integrated	A3	A3	Stable	Supportive regulation already incorporated
Integrys Energy Group, Inc.	Holdco	Baa1	Baa1	Stable	Non-utility business / Holdco debt
ITC Great Plains LLC	Transmission	Baa1	Baa1	Stable	Credit supportive FERC regulation already incorporated
Hawaiian Electric Company, Inc.	Vertically Integrated	Baa1	Baa1	Stable	Declining metrics, higher leverage
Duke Energy Kentucky, Inc.	Vertically Integrated	Baa1	Baa1	Stable	Declining metrics, higher leverage
Dominion Resources Inc.	Holdco	Baa2	Baa2	Stable	Non-utility business / Holdco debt
Hawaiian Electric Industries, Inc.	Holdco	Baa2	Baa2	Stable	Declining metrics, higher leverage
LG&E and KU Energy LLC	Holdco	Baa2	Baa2	Stable	Holdco debt
Bay State Gas Company	LDC	Baa2	Baa2	Stable	Supportive regulation already incorporated

[5] See Appendix C for a table of selected companies that were not placed on review for upgrade on 8 November 2013.

EXHIBIT 12

Selected companies that were not upgraded

Name	Sector	Old	New	Outlook	Summary Rationale
ITC Holdings Corp.	Transmission	Baa2	Baa2	Stable	Credit supportive FERC regulation already incorporated
Entergy Arkansas, Inc.	Vertically Integrated	Baa2	Baa2	Stable	Supportive regulation already incorporated
Kentucky Power Company	Vertically Integrated	Baa2	Baa2	Stable	Supportive regulation already incorporated
Duquesne Light Holdings, Inc.	Holdco	Baa3	Baa3	Stable	Non-utility business / Holdco debt
Pepco Holdings, Inc.	Holdco	Baa3	Baa3	Stable	Holdco debt
PPL Corporation	Holdco	Baa3	Baa3	Stable	Holdco debt
Atlantic City Electric Company	T&D (electric or gas)	Baa2	Baa2	Stable	Supportive regulation already incorporated

For a few companies, such as Madison Gas and Electric Company (MG&E: A1, stable) and NSTAR Electric Company (NSTAR Electric: A2, stable), their ratings already captured our view about the credit supportiveness of their regulatory environment and they exhibit prospective financials that are commensurate with their rating category. Their ratings also compare well with similarly rated utilities that operate in commensurately sized metro areas. The same can be said for Otter Tail Power Company (OTP: A3, stable), where we confirmed the utility at A3 and upgraded the parent holding company Otter Tail Corporation (OTC: Baa2, stable) to Baa2, thus narrowing the notching differential between the parent and the subsidiary.

The FERC regulated transmission companies, namely American Transmission Company LLC (ATC: A, stable) and ITC Holdings Corp. (ITC: Baa2, stable) and its operating subsidiaries, were not upgraded because the credit supportive FERC regulatory framework is already sufficiently incorporated into our credit analysis. Moreover, unlike most state regulatory jurisdictions, which are improving, we see the FERC maintaining a relatively steady level of supportiveness, which is high.

We summarize the rationale behind our rating confirmations for the rest of the companies in the pages that follow.

American Transmission Company (A1, stable)

The rating confirmation for American Transmission Company (ATC) reflects our view of the supportive regulatory framework of the FERC. We believe ATC's A1 issuer rating is well positioned reflecting the relatively stable and predictable cash flows supported by a federal regulatory framework governed by the FERC that promotes a tariff framework that allows timely recovery of operating and investment costs. The rating also considers ATC's low business risk profile, which is characterized by limited exposure to demand volatility and solid market position. The rating is constrained by ATC's small size, lack of geographic diversification, financial metrics that are weak for the rating but mitigated by the favorable FERC regulatory framework and the funding requirements associated with the company's significant capital expenditure program.

Our view of the supportive federal regulatory framework governed by the FERC is balanced against the current Section 206 complaint filed against the regional rate used by Transmission Owners in the Midcontinent Independent System Operator, Inc. (MISO) in November 2013. To date, FERC has taken no action on this complaint, which the TOs have filed a motion to dismiss. While it is too early in the process to determine the ultimate credit impact of any final outcome from the Section 206 complaint on ATC, we believe the final resolution of a similar Section 206 complaint filed at FERC currently being litigated against TOs in the New England ISO will provide some clarity on how similar cases will be treated going forward as to FERC's policies on these matters. We expect a final resolution by the FERC on the New England Section 206 complaint by the second quarter of 2014.

Given that ATC's credit metrics are expected to continue to be weak for its rating, ongoing favorable regulatory support provided by the FERC regulatory construct represents an essential factor in ATC's ability to maintain its financial strength.

ITC Holdings Corp (Baa2, stable) & subsidiaries

The rating confirmation for ITC Holdings Corp (ITC) and its subsidiaries reflects our view of the supportive regulatory framework of the FERC. We believe ITC Holdings' Baa2 senior unsecured rating is well positioned reflecting the relatively stable and predictable cash flows provided by its electric transmission operating subsidiaries and a solid market position. The Baa2 rating is constrained by the significant amount of debt maintained at the parent level and consolidated credit metrics that are weak for the rating but mitigated by the favorable FERC regulatory framework. The rating also considers the significant capital expenditure program currently being undertaken at ITC Holdings' operating subsidiaries.

Our view of the supportive federal regulatory framework governed by the FERC is balanced against the current Section 206 complaint filed against the regional rate used by Transmission Owners in the MISO including ITC's MISO-based subsidiaries (ITC Transmission, METC and ITC Midwest) in November 2013. To date, FERC has taken no action on this complaint, which the TOs have filed a motion to dismiss. While it is too early in the process to determine the ultimate credit impact of any final outcome from the Section 206 complaint on ITC's MISO-based subsidiaries, we believe the final resolution of a similar Section 206 complaint filed at FERC currently being litigated against the TOs in the New England ISO will provide some clarity on how similar cases will be treated going forward as to FERC's policies on these matters. We expect a final resolution by the FERC on the New England Section 206 complaint by the second quarter of 2014. Given that ITC's credit metrics are expected to continue to be weak for its rating, ongoing favorable regulatory support provided by the FERC regulatory construct represents an essential factor in ITC's ability to maintain its financial strength.

The ratings of ITC's subsidiaries reflect the same supportive FERC regulatory framework that provides a robust set of timely recovery mechanisms and healthy returns resulting in strong credit metrics. However, ITC's subsidiary ratings are constrained by the significant leverage at its parent, ITC Holdings, Corp. ITC has historically issued debt at the parent level to finance acquisitions, which accounts for approximately 70% of total parent level debt, as well as to finance equity infusions to its transmission subsidiaries. This holdco/opco financing approach used within the industry creates a benefit of double leverage by having higher equity ratios at the utility subsidiaries. As of September 30, 2013, parent level debt represented approximately 54% of ITC's consolidated debt. ITC has indicated it expects to continue funding its operations with internally generated cash, revolving credit facilities and long-term debt at the operating subsidiaries and parent as necessary.

Madison Gas &Electric Company (A1, stable)

The rating confirmation of MG&E's rating reflects our view that the utility already capture the regulatory environment in Wisconsin as above average relative to its integrated utility peers. The rating further acknowledges that MG&E's credit metrics have historically been strong for the rating category but are expected to soften as the company funds its near term capital expenditure program with a mix of internally generated funds and incremental debt, but should remain in line with comparable A1 rated utilities. Finally, the rating captures MG&E's comparatively small and concentrated service territory relative to the other utilities in the same rating category.

NSTAR Electric Company (A2, stable)

The rating confirmation of NSTAR Electric reflects our view that the regulatory environment in Massachusetts is slightly above average for T&D utilities, and those associated benefits have already been incorporated with NSTAR's current rating. The rating further acknowledges that NSTAR Electric's credit metrics are commensurate with the mid range of the A-rating category and that it compares well relative to other A2-rated transmission and distribution peers operating in a single metro area. It also captures that NSTAR Electric has a standalone $450 million committed credit facility and that the utility's historical ability to report significant amounts of positive free cash flow has diminished in recent years.

Otter Tail Power Company (A3, stable)

The rating confirmation of OTP reflects the overall credit supportive regulatory environments which the utility currently operates; a robust suite of recovery mechanisms that provide timely recovery of prudent costs and investments; and reasonably diverse service territory spread across three states. The rating also factors in the expected slight decline in financial metrics due to the current substantial capex program to grow rate base, including sizeable investments in transmission assets, as well as the continued pressure from material upstream dividend distributions to help the parent meet its somewhat aggressive dividend policy.

Duke Energy Kentucky, Inc (Baa1, stable)

The rating confirmation of Duke Energy Kentucky, Inc. reflects adequate but declining financial metrics, increasing capital expenditures, and anticipated higher debt levels that offset the generally credit supportive regulatory environment in Kentucky. The utility's cash flow pre-working capital to debt ratio has fallen from the 25% range in 2011 and prior years to the 20% range more recently, and is likely to fall into the high teens as debt levels rise. The utility has not filed for a rate increase in several years and has no immediate plans to file a base rate case. Duke Energy Kentucky Inc's small size and status as a subsidiary of Baa1 rated Duke Energy Ohio, which was not placed on review for upgrade in November, are also rating constraints.

Hawaiian Electric Industries, Inc. (Baa2, stable) and utility subsidiary

The rating confirmation of Hawaiian Electric Company, Inc. (HECO: Baa1, stable) reflects a weak financial profile. The ratings of Hawaiian Electric Industries, Inc (HEI: Baa2, stable)) at current levels reflect the relatively stable earnings and cash flow historically provided by both the vertically integrated utility businesses at HECO and the stable banking operations at American Savings Bank. The ratings also recognize the challenges at HECO and its subsidiaries, which have some of the highest retail electric rates in the country. The utility operations face heavy pressure from regulators and stakeholders to reduce rates and dependence on fuel oil. While rate reduction initiatives involving infrastructure improvements and new generation may present investment opportunities for the utilities, they also present the potential for under-recovery. HEI projects $2.9 billion of capital expenditures at the utilities over the next five years, which is sizable compared with the total authorized rate base of $2.2 billion. HECO benefits from a robust suite of regulatory mechanisms to mitigate this risk, including the revenue adjustment mechanism (RAM), which allows for rate base additions in between rate cases. The banking subsidiary, which provides about one-third of operating income to HEI, is managing well through the housing downturn and the low net interest margin environment.

Integrys Energy Group (Baa1, stable)

The confirmation of Integrys Energy Group's (Integrys: Baa1, stable) rating takes into consideration the company's sizable non-regulated energy marketing business, currently making up about 10-15% of consolidated earnings as well as the substantial amount of debt held at the parent. Today's rating action assumes Integrys' management will keep holding company debt around 30% of consolidated debt, while maintaining the size of its unregulated segment at current levels. It further assumes that management would take necessary actions to address any deterioration in its business risk profile if required in the future.

Bay State Gas Company (Baa2, stable)

The rating confirmation of Bay State Gas Company (Bay State: Baa2, stable) reflects the inter-company relationship with its parent, NiSource. This intercompany relationship constrains Bay State's rating at the parent rating level because Bay State's debt is being guaranteed by its Baa2 rated parent.

Dominion Resources Inc. (Baa2 stable)

The rating confirmation of Dominion Resources Inc (Dominion: Baa2, stable) reflects high leverage at the parent holding company. We also see weak near term cash flow generation at the non-utilities businesses; a sustained period of high capital investments, much of which is associated with a risky, multi-year construction program to construct an LNG export terminal (which will also create some asset concentration risk), and; a more welcoming stance towards corporate financial engineering, which contribute to a more complex capital structure and a net reduction of financial flexibility.

Duquesne Light Holdings, Inc (Baa3, stable)

The rating confirmation of Duquesne Light Holdings, Inc (DLH: Baa3, stable)) reflects the high level of parent company debt and unregulated operations which do not benefit from our more favorable view of the US regulatory environment.

Pepco Holdings Inc. (Baa3, stable) and subsidiary

The rating confirmation of Pepco Holdings Inc.'s (PHI: Baa3, stable) reflects meaningful parent company debt and an aggressive dividend payout policy primarily funded through incremental debt issuances prevented upward movement in its rating.

Despite generally improving regulatory environments across the US, Atlantic City Electric Company's (ACE: Baa2, stable) regulatory construct has not benefitted from similar developments. For instance, unlike the majority of its sister utilities, ACE does have access to a decoupling mechanism that would improve the predictability of its earnings by eliminating fluctuations based on weather and changes in customer usage patterns. Furthermore, ACE continues to wrestle with significant lag in its earnings which keep the company's financial metrics squarely in the mid-Baa range.

Kentucky Power Company (Baa2, stable)

The rating confirmation of Kentucky Power Company (KEPCO: Baa2, stable) reflects the high leverage, a large capital expenditure program and weak financial metrics. The settlement outcome of last October clears the path to complete the transfer of the Mitchell Plant (including considerations of potential greenhouse initiatives), and the conversion of the Big Sandy Unit 1 to natural gas. KEPCO'S financial metrics for LTM third-quarter 2013, are reasonably within the range for the rating

category. However, on a forward looking basis, a large capital expenditure program and increased leverage will contribute to weaker financial metrics such as CFO pre-WC to debt averaging between 12-14% and CFO pre WC – Div to debt between 9-11%.

Entergy Arkansas, Inc. (Baa2, stable)

The rating confirmation of Entergy Arkansas Inc. (EA: Baa2, stable) reflects less favorable rate case outcomes in May 2010 and December 2013. Arkansas operates under traditional rate of return regulation rather than the more credit supportive formula rate plans in place in Louisiana and Mississippi, where Entergy's other large subsidiaries operate. The rate of return regulation contributes to regulatory lag at EA. Under Arkansas regulation, the test year is either fully historical or 6 months historical and 6 months projected. However, there are fuel and certain other riders that help offset some aspects of the lag.

LTM third-quarter 2013 metrics are consistent with that of fiscal year end 2012, with Cash Flow Interest Coverage of 4.5x and CFO pre-WC to debt of 13%. According to Moody's adjusted projections, EA will be able to maintain appropriate metrics for the rating, including CFO pre-WC to debt, and CFO pre-WC – Div to debt of around 16% and 14% respectively.

PPL Corporation (Baa3, stable)

The rating confirmation of PPL Corporation (PPL: Baa3, stable) reflects the upgrades of its US regulated utilities, which represent 31% of consolidated earnings, but these upgrades were not sufficient to shift PPL's consolidated credit profile as their financial metrics remain weak for its rating category. LKE did not receive an upgrade because of the high debt level at LKE relative to the consolidated LKE. Moreover, because there is free movement of cash between PPL and LKE, PPL has a constraining effect on LKE's ratings.

Appendix A: Selected utility sector rating changes

Name	Sector	Old	New	Outlook
AES Corporation, (The)	HoldCo	Ba3	Ba3	Stable
Indianapolis Power & Light Company	Integrated	Baa2	Baa1	Stable
IPALCO Enterprises, Inc.	HoldCo	Ba1	Baa3	Stable
AGL Resources Inc.	HoldCo	Baa1	A3	Stable
AGL Resources Inc.	HoldCo	Baa1	A3	Stable
Atlanta Gas Light Company	LDC	A3	A2	Stable
Northern Illinois Gas	LDC	A3	A2	Stable
Pivotal Utility Holdings	LDC	A3	A2	Stable
ALLETE, Inc.	Integrated	Baa1	A3	Stable
Superior Water, Light and Power Company	Integrated	Baa1	A3	Stable
Alliant Energy Corporation	HoldCo	Baa1	A3	Stable
Wisconsin Power and Light Company	Integrated	A2	A1	Stable
Ameren Corporation	HoldCo	Baa3	Baa2	Stable
Ameren Illinois Company	T&D	Baa2	Baa1	Stable
Union Electric Company	Integrated	Baa2	Baa1	Stable
American Electric Power Company, Inc.	HoldCo	Baa2	Baa1	Stable
AEP Texas Central Company	T&D	Baa2	Baa1	Stable
AEP Texas North Company	T&D	Baa2	Baa1	Stable
Appalachian Power Company	Integrated	Baa2	Baa1	Stable
Indiana Michigan Power Company	Integrated	Baa2	Baa1	Stable
Public Service Company of Oklahoma	Integrated	Baa1	A3	Stable
Southwestern Electric Power Company	Integrated	Baa3	Baa2	Stable
Atmos Energy Corporation	LDC	Baa1	A2	Stable
Avista Corp.	Integrated	Baa2	Baa1	Stable
MidAmerican Energy Holdings Co.	HoldCo	Baa1	A3	Stable
MidAmerican Energy Company	Integrated	A2	A1	Stable
MidAmerican Funding, LLC	HoldCo	A3	A2	Stable
PacifiCorp	Integrated	Baa1	A3	Stable
NV Energy Inc.	HoldCo	Baa3	Baa2	Stable
Nevada Power Company	Integrated	Baa2	Baa1	Stable
Sierra Pacific Power Company	Integrated	Baa2	Baa1	Stable
Black Hills Corporation	HoldCo	Baa2	Baa1	Stable
Black Hills Power, Inc.	Integrated	Baa1	A3	Stable
CenterPoint Energy, Inc.	HoldCo	Baa2	Baa1	Stable
CenterPoint Energy Houston Electric, LLC	T&D	Baa1	A3	Stable

Name	Sector	Old	New	Outlook
CH Energy Group, Inc.	HoldCo	not rated		
Central Hudson Gas & Electric Corporation	T&D	A3	A2	Stable
Cleco Corporation	HoldCo	Baa3	Baa2	Positive
Cleco Power LLC	Integrated	Baa2	Baa1	Positive
CMS Energy Corporation	HoldCo	Baa3	Baa2	Stable
Consumers Energy Company	Integrated	Baa1	A3	Stable
Consolidated Edison, Inc.	HoldCo	Baa1	A3	Stable
Consolidated Edison Company of New York, Inc.	T&D	A3	A2	Stable
Orange and Rockland Utilities, Inc.	T&D	Baa1	A3	Stable
Dominion Resources Inc.	HoldCo	Baa2	Baa2	Stable
Dominion Gas Holdings	LDC	A3	A2	Stable
Virginia Electric and Power Company	Integrated	A3	A2	Stable
DTE Energy Company	HoldCo	Baa1	A3	Stable
DTE Electric Company	Integrated	A3	A2	Stable
DTE Gas Company	LDC	A3	A2	Stable
Duke Energy Corporation	HoldCo	A3	Baa1	Stable
Duke Energy Carolinas, LLC	Integrated	A2	A1	Stable
Duke Energy Florida, Inc.	Integrated	Baa1	A3	Stable
Duke Energy Indiana, Inc.	Integrated	A3	A2	Stable
Duke Energy Progress, Inc.	Integrated	A2	A1	Stable
Progress Energy, Inc.	HoldCo	Baa2	Baa1	Stable
Duquesne Light Holdings, Inc.	HoldCo	Baa3	Baa3	Stable
Duquesne Light Company	T&D	Baa1	A3	Stable
Edison International	HoldCo	Baa2	A3	Stable
Southern California Edison Company	Integrated	A3	A2	Stable
El Paso Electric Company	Integrated	Baa2	Baa1	Stable
Empire District Electric Company (The)	Integrated	Baa2	Baa1	Stable
Portland General Electric Company	Integrated	Baa1	A3	Stable
Entergy Corporation	HoldCo	Baa3	Baa3	Stable
Entergy Gulf States Louisiana, LLC	Integrated	Baa2	Baa1	Stable
Entergy Louisiana, LLC	Integrated	Baa2	Baa1	Stable
Entergy Mississippi, Inc.	Integrated	Baa3	Baa2	Stable
Entergy Texas, Inc.	Integrated	Ba1	Baa3	Stable

Name	Sector	Old	New	Outlook
Exelon Corporation	HoldCo	Baa2	Baa2	Stable
Baltimore Gas and Electric Company	T&D	Baa1	A3	Stable
Commonwealth Edison Company	T&D	Baa2	Baa1	Stable
PECO Energy Company	T&D	A3	A2	Stable
Great Plains Energy Incorporated	HoldCo	Baa3	Baa2	Stable
Kansas City Power & Light Company	Integrated	Baa2	Baa1	Stable
Kansas City Power & Light Greater MO Oper	Integrated	Baa3	Baa2	Stable
Iberdrola S.A.	HoldCo	Baa1	Baa1	Negative
Central Maine Power Company	T&D	Baa1	A3	Stable
New York State Electric and Gas Corporation	T&D	Baa1	A3	Stable
Rochester Gas & Electric Corporation	T&D	Baa2	Baa1	Stable
IDACORP, Inc.	HoldCo	Baa2	Baa1	Stable
Idaho Power Company	Integrated	Baa1	A3	Stable
Integrys Energy Group, Inc.	HoldCo	Baa1	Baa1	Stable
North Shore Gas Company	LDC	A3	A2	Stable
Peoples Gas Light and Coke Company	LDC	A3	A2	Stable
Wisconsin Public Service Corporation	Integrated	A2	A1	Stable
Laclede Group, Inc. (The)	LDC	Baa2	Baa1	Stable
Laclede Gas Company	LDC	Baa1	A3	Stable
LDC HOLDINGS LLC	HoldCo	not rated		
PNG Companies LLC	LDC	Baa3	Baa2	Stable
New Jersey Resources Corp	HoldCo	not rated		
New Jersey Natural Gas Company	LDC	Aa3	Aa2	Stable
NextEra Energy, Inc.	HoldCo	Baa1	Baa1	Stable
Florida Power & Light Company	Integrated	A2	A1	Stable
NiSource Inc.	HoldCo	(P)Ba2 (preferred)	(P)Ba1 (preferred)	Stable
NiSource Finance	HoldCo	Baa3	Baa2	Stable
Northern Indiana Public Service Company	Integrated	Baa2	Baa1	Stable
Northeast Utilities	HoldCo	Baa1	Baa1	Stable
Connecticut Light and Power Company	T&D	Baa2	Baa1	Stable
Public Service Company of New Hampshire	Integrated	Baa2	Baa1	Stable
Western Massachusetts Electric Company	T&D	Baa2	A3	Stable
Yankee Gas Services Company	LDC	Baa2	Baa1	Stable
NorthWestern Corporation	Integrated	Baa1	A3	Stable

Name	Sector	Old	New	Outlook
OGE Energy Corp.	HoldCo	Baa1	A3	Stable
Oklahoma Gas & Electric Company	Integrated	A2	A1	Stable
Otter Tail Corporation	HoldCo	Baa3	Baa2	Stable
Pepco Holdings, Inc.	HoldCo	Baa3	Baa3	Stable
Delmarva Power & Light Company	T&D	Baa2	Baa1	Stable
Potomac Electric Power Company	T&D	Baa2	Baa1	Stable
Piedmont Natural Gas Company, Inc.	LDC	A3	A2	Stable
Pinnacle West Capital Corporation	HoldCo	Baa2	Baa1	Stable
Arizona Public Service Company	Integrated	Baa1	A3	Stable
PNM Resources, Inc.	HoldCo	Ba1	Baa3	Positive
Public Service Company of New Mexico	Integrated	Baa3	Baa2	Positive
Texas-New Mexico Power Company	T&D	Baa2	Baa1	Positive
PPL Corporation	HoldCo	Baa3	Baa3	Stable
Kentucky Utilities Co.	Integrated	Baa1	A3	Stable
Louisville Gas & Electric	Integrated	Baa1	A3	Stable
PPL Electric Utilities Corporation	T&D	Baa2	Baa1	Stable
Public Service Enterprise Group Incorporated	HoldCo	(P)Baa2	(P)Baa2	Stable
Public Service Electric and Gas Company	T&D	A3	A2	Stable
Puget Energy, Inc.	HoldCo	Ba1	Baa3	Stable
Puget Sound Energy, Inc.	Integrated	Baa2	Baa1	Stable
Questar Corporation	HoldCo	A3	A2	Stable
Questar Gas Company	LDC	A3	A2	Stable
SEMCO Energy, Inc.	LDC	Baa2	Baa1	Stable
Sempra Energy	HoldCo	Baa1	Baa1	Stable
San Diego Gas & Electric Company	Integrated	A2	A1	Stable
Southern California Gas Company	LDC	A2	A1	Stable
SourceGas Holdings LLC	HoldCo	not rated		
SourceGas LLC	LDC	Baa3	Baa2	Stable
South Jersey Industries Inc	HoldCo	not rated		
South Jersey Gas Company	LDC	A3	A2	Stable
Southern Company (The)	HoldCo	Baa1	Baa1	Stable
Alabama Power Company	Integrated	A2	A1	Stable
Gulf Power Company	Integrated	A3	A2	Stable

Name	Sector	Old	New	Outlook
Southwest Gas Corporation	LDC	Baa1	A3	Stable
TECO Energy, Inc.	HoldCo	Baa2	Baa1	Stable
Tampa Electric Company	Integrated	A3	A2	Stable
UGI Corporation	HoldCo	not rated		
UGI Utilities, Inc.	LDC	A3	A2	Stable
UIL Holdings Corporation	HoldCo	Baa3	Baa2	Stable
Berkshire Gas Company	LDC	Baa2	Baa1	Stable
Connecticut Natural Gas Corporation	LDC	Baa1	A3	Stable
Southern Connecticut Gas Company	LDC	Baa2	Baa1	Stable
United Illuminating Company	T&D	Baa2	Baa1	Stable
UNS Energy Corporation	HoldCo	Baa3	Baa2	Stable
Tucson Electric Power Company	Integrated	Baa2	Baa1	Stable
UNS Electric, Inc.	Integrated	Baa2	Baa1	Stable
UNS Gas, Inc.	LDC	Baa2	Baa1	Stable
Vectren Utility Holdings, Inc.	HoldCo	A3	A2	Stable
Indiana Gas Company, Inc.	LDC	A3	A2	Stable
Southern Indiana Gas & Electric Company	Integrated	A3	A2	Stable
Westar Energy, Inc.	HoldCo	Baa2	Baa1	Stable
WGL Holdings, Inc.	HoldCo	no long term rating		
Washington Gas Light Company	LDC	A2	A1	Stable
Wisconsin Energy Corporation	HoldCo	A3	A2	Stable
Wisconsin Electric Power Company	Integrated	A2	A1	Stable
Wisconsin Gas LLC	LDC	A2	A1	Stable
Xcel Energy Inc.	HoldCo	Baa1	A3	Stable
Northern States Power Company (Minnesota)	Integrated	A3	A2	Stable
Northern States Power Company (Wisconsin)	Integrated	A3	A2	Stable
Public Service Company of Colorado	Integrated	Baa1	A3	Stable
Southwestern Public Service Company	Integrated	Baa2	Baa1	Stable

Appendix B: Selected financial ratios – by sector classification, by rating

		Debt / EBITDA			CFO / debt			Dividend payout			Cap Ex / D&A		
Name		4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM
Holding companies	Median	4.3	4.3	3.8	21%	22%	23%	51%	60%	62%	2.7	2.8	2.7
A2 and A3 rated	Total	4.1	4.2	4.3	21%	20%	19%	56%	59%	60%	2.2	2.2	2.2
Holding companies	Median	4.6	5.0	3.8	19%	15%	18%	66%	71%	59%	1.7	1.8	1.5
Baa1 rated	Total	4.1	4.2	4.4	19%	19%	18%	65%	65%	74%	2.2	2.3	2.2
Holding companies	Median	5.4	5.3	5.2	14%	15%	16%	71%	79%	110%	2.0	2.0	1.9
Baa2 ad lower rated	Total	4.1	4.3	3.9	19%	19%	17%	83%	99%	103%	1.7	1.9	2.0
LDC's	Median	3.9	3.8	3.8	24%	23%	19%	71%	78%	79%	1.9	2.3	2.4
A - rated	Total	3.3	3.3	3.4	27%	26%	23%	63%	65%	58%	2.0	2.3	2.6
LDC's	Median	3.8	3.9	3.4	26%	21%	26%	82%	76%	74%	1.7	1.9	2.0
Baa1 and Baa2 rated	Total	4.0	4.0	3.3	23%	21%	23%	42%	39%	52%	2.3	2.0	2.1
T&D (electric or gas)	Median	2.9	2.8	2.7	27%	30%	26%	60%	67%	37%	1.7	2.0	1.8
A - rated	Total	3.5	3.5	3.6	24%	26%	22%	67%	67%	57%	1.8	2.0	2.1
T&D (electric or gas)	Median	5.0	4.6	4.3	16%	16%	16%	72%	69%	55%	1.9	2.0	2.3
Baa1 rated	Total	3.9	3.8	3.8	21%	20%	18%	98%	89%	66%	1.6	1.8	2.1
T&D (electric or gas)	Median	3.6	4.1	4.5	21%	18%	19%	155%	141%	87%	1.0	1.0	1.0
Baa2 and lower rated	Total	3.6	3.7	3.8	20%	20%	20%	133%	127%	95%	1.2	1.4	1.3
Transmission	Median	2.3	2.3	2.5	37%	33%	26%	82%	92%	71%	5.7	6.4	6.4
	Total	3.9	3.9	4.1	20%	19%	16%	80%	83%	58%	4.7	5.3	5.5
Vertically Integrated	Median	3.6	3.7	4.1	25%	25%	17%	29%	29%	33%	2.0	1.9	1.8
A1 rated	Total	3.1	3.2	3.2	27%	26%	25%	45%	46%	63%	2.3	2.4	2.0
Vertically Integrated	Median	3.6	3.6	3.7	22%	20%	18%	76%	80%	61%	2.2	2.2	2.2
A2 rated	Total	3.2	3.2	3.1	27%	26%	25%	57%	58%	51%	2.2	2.1	2.1
Vertically Integrated	Median	3.9	4.0	4.0	22%	22%	20%	50%	64%	48%	2.1	1.9	2.2
A3 rated	Total	3.8	3.8	3.8	22%	23%	23%	66%	84%	71%	2.0	1.9	2.1
Vertically Integrated	Median	3.8	3.9	4.2	18%	18%	17%	69%	74%	73%	1.8	1.8	2.1
Baa1 rated	Total	4.2	4.1	4.5	19%	19%	19%	67%	70%	103%	1.9	2.0	2.2
Vertically Integrated	Median	5.8	5.7	5.4	14%	16%	17%	55%	47%	74%	2.1	1.9	2.1
Baa2 and lower rated	Total	4.4	4.3	4.0	16%	18%	17%	65%	46%	65%	2.3	2.4	2.4

Appendix C: Selected financial data – by sector classification, by rating

		Revenue			EBITDA			CFO			Total Debt		
Name		4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM	4-yr avg	2-yr avg	LTM
Holding companies	Median	$4.0	$4.1	$4.5	$1.1	$1.2	$1.4	$1.0	$1.2	$1.2	$4.9	$5.3	$5.2
A2 and A3 rated	Total	$90.5	$92.4	$103.7	$28.6	$30.2	$34.0	$24.1	$25.8	$27.9	$117.6	$126.9	$147.2
Holding companies	Median	$5.9	$5.5	$7.2	$1.6	$1.7	$2.4	$1.3	$1.2	$1.7	$7.3	$8.6	$9.2
Baa1 rated	Total	$111.0	$111.0	$114.9	$35.3	$36.5	$37.5	$27.5	$29.3	$29.7	$145.7	$153.8	$163.4
Holding companies	Median	$3.2	$3.2	$3.1	$1.0	$1.0	$1.0	$0.7	$0.8	$0.8	$5.1	$5.3	$5.1
Baa2 ad lower rated	Total	$135.9	$138.7	$139.8	$42.3	$43.0	$50.4	$33.0	$34.7	$34.5	$174.2	$186.3	$198.8
LDC's	Median	$0.9	$0.9	$0.8	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.7	$0.8	$0.8
A - rated	Total	$19.0	$18.6	$18.7	$4.5	$4.9	$5.1	$4.1	$4.3	$4.0	$14.9	$16.4	$17.7
LDC's	Median	$0.4	$0.4	$0.4	$0.1	$0.1	$0.1	$0.1	$0.1	$0.1	$0.3	$0.3	$0.3
Baa1 and Baa2 rated	Total	$7.7	$7.1	$7.4	$1.4	$1.4	$1.4	$1.3	$1.2	$1.0	$5.6	$5.6	$4.6
T&D (electric or gas)	Median	$1.7	$1.6	$1.6	$0.6	$0.6	$0.7	$0.5	$0.5	$0.5	$1.7	$1.8	$1.8
A - rated	Total	$27.4	$25.8	$25.3	$7.9	$8.1	$8.5	$6.5	$7.2	$6.6	$27.4	$28.3	$30.7
T&D (electric or gas)	Median	$1.3	$1.2	$1.2	$0.3	$0.4	$0.4	$0.3	$0.3	$0.3	$1.6	$1.7	$1.8
Baa1 rated	Total	$31.4	$30.4	$28.3	$8.2	$8.6	$9.0	$6.7	$6.6	$6.1	$32.1	$32.8	$34.2
T&D (electric or gas)	Median	$1.3	$1.1	$0.9	$0.4	$0.3	$0.3	$0.3	$0.2	$0.3	$1.3	$1.3	$1.4
Baa2 and lower rated	Total	$16.0	$14.4	$13.7	$5.2	$5.1	$5.1	$3.6	$3.8	$3.8	$18.6	$18.9	$19.3
Transmission	Median	$0.3	$0.3	$0.3	$0.2	$0.2	$0.2	$0.1	$0.1	$0.1	$0.4	$0.5	$0.6
	Total	$2.0	$2.2	$2.5	$1.4	$1.5	$1.7	$1.1	$1.1	$1.2	$5.5	$6.0	$7.1
Vertically Integrated	Median	$3.4	$3.5	$3.7	$1.0	$1.1	$1.2	$0.9	$1.0	$0.8	$3.7	$4.1	$4.8
A1 rated	Total	$39.7	$39.7	$40.7	$13.0	$13.5	$14.7	$10.9	$11.2	$11.7	$40.2	$43.2	$46.6
Vertically Integrated	Median	$3.3	$3.3	$3.3	$0.9	$0.9	$1.0	$0.7	$0.7	$0.6	$3.2	$3.4	$3.6
A2 rated	Total	$40.1	$40.7	$42.4	$12.8	$13.7	$14.9	$11.0	$11.3	$11.5	$40.8	$43.6	$46.8
Vertically Integrated	Median	$1.7	$1.7	$1.7	$0.4	$0.5	$0.5	$0.4	$0.4	$0.4	$1.7	$1.8	$1.9
A3 rated	Total	$66.4	$67.2	$68.6	$20.3	$21.0	$21.5	$16.6	$18.2	$18.8	$76.1	$79.2	$80.9
Vertically Integrated	Median	$1.5	$1.5	$1.6	$0.4	$0.4	$0.4	$0.3	$0.3	$0.3	$1.5	$1.6	$1.7
Baa1 rated	Total	$36.8	$37.7	$38.0	$10.5	$11.1	$10.6	$8.2	$8.9	$8.9	$43.6	$45.8	$47.7
Vertically Integrated	Median	$1.2	$1.2	$1.3	$0.3	$0.3	$0.3	$0.2	$0.3	$0.3	$1.6	$1.6	$1.6
Baa2 and lower rated	Total	$12.3	$12.5	$12.9	$3.5	$3.7	$3.9	$2.5	$2.8	$2.6	$15.2	$15.8	$15.6

Appendix D: Companies not placed on review for upgrade

Name	Sector	Old	New	Outlook	Comment
Northwest Natural Gas Company	LDC	A3	A3	Negative	Not placed on review on November 8
Public Service Co. of North Carolina, Inc.	LDC	A3	A3	Stable	Not placed on review on November 8
Georgia Power Company	Vertically Integrated	A3	A3	Stable	Not placed on review on November 8
Pacific Gas & Electric Company	Vertically Integrated	A3	A3	Stable	Not placed on review on November 8
Interstate Power and Light Company	Vertically Integrated	A3	A3	Stable	Not placed on review on November 8
Oncor Electric Delivery Company LLC	T&D (electric or gas)	Ba2	Ba2	Stable	Not placed on review on November 8
DPL Inc.	Holdco	Ba2	Ba2	Stable	Not placed on review on November 8
Entergy New Orleans, Inc.	Vertically Integrated	Ba2	Ba2	Stable	Not placed on review on November 8
NextEra Energy, Inc.	Holdco	Baa1	Baa1	Stable	Not placed on review on November 8
PG&E Corporation	Holdco	Baa1	Baa1	Stable	Not placed on review on November 8
Sempra Energy	Holdco	Baa1	Baa1	Stable	Not placed on review on November 8
Southern Company (The)	Holdco	Baa1	Baa1	Stable	Not placed on review on November 8
Duke Energy Ohio, Inc.	T&D (electric or gas)	Baa1	Baa1	Stable	Not placed on review on November 8
Monongahela Power Company	T&D (electric or gas)	Baa1	Baa1	Stable	Not placed on review on November 8
Ohio Power Company	T&D (electric or gas)	Baa1	Baa1	Stable	Not placed on review on November 8
Mississippi Power Company	Vertically Integrated	Baa1	Baa1	Stable	Not placed on review on November 8
Exelon Corporation	Holdco	Baa2	Baa2	Stable	Not placed on review on November 8
Public Service Enterprise Group Incorporated	Holdco	Baa2	Baa2	Stable	Not placed on review on November 8
CenterPoint Energy Resources Corp.	LDC	Baa2	Baa2	Stable	Not placed on review on November 8
Jersey Central Power & Light Company	T&D (electric or gas)	Baa2	Baa2	Negative	Not placed on review on November 8
Metropolitan Edison Company	T&D (electric or gas)	Baa2	Baa2	Stable	Not placed on review on November 8
Ohio Edison Company	T&D (electric or gas)	Baa2	Baa2	Stable	Not placed on review on November 8
Pennsylvania Electric Company	T&D (electric or gas)	Baa2	Baa2	Stable	Not placed on review on November 8
Pennsylvania Power Company	T&D (electric or gas)	Baa2	Baa2	Stable	Not placed on review on November 8
South Carolina Electric & Gas Company	Vertically Integrated	Baa2	Baa2	Stable	Not placed on review on November 8
Entergy Corporation	Holdco	Baa3	Baa3	Stable	Not placed on review on November 8
FirstEnergy Corp.	Holdco	Baa3	Baa3	Negative	Not placed on review on November 8
SCANA Corporation	Holdco	Baa3	Baa3	Stable	Not placed on review on November 8
Cleveland Electric Illuminating Company (The)	T&D (electric or gas)	Baa3	Baa3	Stable	Not placed on review on November 8
Dayton Power & Light Company	T&D (electric or gas)	Baa3	Baa3	Stable	Not placed on review on November 8
Potomac Edison Company (The)	T&D (electric or gas)	Baa3	Baa3	Stable	Not placed on review on November 8
Toledo Edison Company	T&D (electric or gas)	Baa3	Baa3	Stable	Not placed on review on November 8

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Rating Action: Moody's changes outlooks on 25 US regulated utilities prir impacted by tax reform

Global Credit Research - 19 Jan 2018

New York, January 19, 2018 -- Moody's Investors Service, ("Moody's") has changed the rating outlooks to negative from stable for 24 regulated utilities and utility holding companies; and to stable from positive fo utility holding company in the United States. The short-term and long-term ratings for all 25 companies we affirmed.

RATINGS RATIONALE

"Today's action primarily applies to companies that already have limited cushion in their rating for deteriorat in financial performance, and will be incrementally impacted by changes in the tax law and where we now expect key credit metrics to be lower for longer," said Jim Hempstead, a Managing Director at Moody's. "Utilities will work closely with state regulators to try to mitigate the negative impact of tax reform and in some cases the may seek to refine their corporate financial policies. Where successful, their rating outlooks could revert to stable."

Tax reform is credit negative for US regulated utilities because the 21% statutory tax rate reduces cas collected from customers, while the loss of bonus depreciation reduces tax deferrals, all else being equal. Moody's calculates that the recent changes in tax laws will dilute a utility's ratio of cash flow before chan working capital to debt by approximately 150 - 250 basis points, on average, depending to some degree on size of the company's capital expenditure programs. From a leverage perspective, Moody's estimates that de to total capitalization ratios will increase, based on the lower value of deferred tax liabilities.

The change in outlook to negative from stable for the 24 companies affected by the rating action primarily reflects the incremental cash flow shortfall caused by tax reform on projected financial metrics that were already weak, or were expected to become weak, given the existing rating for those companies. The negat outlook also considers the uncertainty over the timing of any regulatory actions or other changes to corporate finance polices made to offset the financial impact.

The change in outlook to stable from positive for American Electric Power Company, Inc. (AEP, Baa1 stable reflects Moody's calculations that the projected ratio of cash flow before changes in working capital to debt, incorporating the effects of tax reform, will remain in the mid-teens range. At this level, Moody's believes AEP Baa1 rating is appropriate.

The vast majority of US regulated utilities, however, continue to maintain stable rating outlooks. We do not expect the cash flow reduction associated with tax reform to materially impact their credit profiles because sufficient cushion exists within projected financial metrics for their current ratings. Nonetheless, further ac could occur on a company specific basis.

Over the next 12 to 18 months, Moody's will continue to monitor the financial impact of tax reform on each company, including its regulatory approach to rate treatment and any changes to corporate finance strategies. This will include balance sheet changes due to the classification of excess deferred tax liabilities as a regulatory liability and the magnitude of any amounts to be refunded to customers. If the financial impact of ta reform is more severe than Moody's initial estimates or the companies fail to materially mitigate any weaknesses in their financial profiles, the ratings could be downgraded.

That said, Moody's expects that most utilities will attempt to manage any negative financial implications of reform through regulatory channels. Corporate financial policies could also change. These actions taken by utilities will be incorporated into the credit analysis on a prospective basis. As a result, it is conceivable th some companies will sufficiently defend their credit profiles. If these companies, it is possible for the outl to return to stable.

Potential regulatory offsets to tax-related cash leakage include: accelerated cost recovery of certain regulatory assets or future investment; changes to the equity layer or allowed ROEs, rate base, and other actions. Changes to corporate financial policies could include changes to capitalization, the financing of future

investments, dividend growth, or others. Some of these corporate measures could have a more immedia boost to projected metrics than certain regulatory provisions, which take time to approve and implemer

Outlook Actions:

..Issuer: American Electric Power Company, Inc.

....Outlook, Changed To Stable From Positive

..Issuer: Avista Corp.

....Outlook, Changed To Negative From Stable

..Issuer: Avista Corp. Capital II

....Outlook, Changed To Negative From Stable

..Issuer: Duke Energy Corporation

....Outlook, Changed To Negative From Stable

..Issuer: Entergy Corporation

....Outlook, Changed To Negative From Stable

..Issuer: New Jersey Natural Gas Company

....Outlook, Changed To Negative From Stable

..Issuer: Northwest Natural Gas Company

....Outlook, Changed To Negative From Stable

..Issuer: ONE Gas, Inc

....Outlook, Changed To Negative From Stable

..Issuer: Piedmont Natural Gas Company, Inc.

....Outlook, Changed To Negative From Stable

..Issuer: Public Service Company of Oklahoma

....Outlook, Changed To Negative From Stable

..Issuer: Questar Gas Company

....Outlook, Changed To Negative From Stable

..Issuer: South Jersey Gas Company

....Outlook, Changed To Negative From Stable

..Issuer: Alabama Power Capital Trust V

....Outlook, Changed To Negative From Stable

..Issuer: Alabama Power Company

....Outlook, Changed To Negative From Stable

..Issuer: Southern Company (The)

....Outlook, Changed To Negative From Stable

..Issuer: Southern Elect Generating Co

....Outlook, Changed To Negative From Stable

..Issuer: Southwestern Public Service Company

....Outlook, Changed To Negative From Stable

..Issuer: Wisconsin Gas LLC

....Outlook, Changed To Negative From Stable

..Issuer: American Water Capital Corp.

....Outlook, Changed To Negative From Stable

Issuer: American Water Works Company, Inc.

....Outlook, Changed To Negative From Stable

Outlook Actions:

..Issuer: Consolidated Edison Company of New York, Inc.

....Outlook, Changed To Negative From Stable

..Issuer: Consolidated Edison, Inc.

....Outlook, Changed To Negative From Stable

..Issuer: Orange and Rockland Utilities, Inc.

....Outlook, Changed To Negative From Stable

..Issuer: Brooklyn Union Gas Company, The

....Outlook, Changed To Negative From Stable

..Issuer: KeySpan Gas East Corporation

....Outlook, Changed To Negative From Stable

Affirmations:

..Issuer: American Electric Power Company, Inc.

.... Commercial Paper, Affirmed P-2

....Senior Unsecured Shelf, Affirmed (P)Baa1

....Junior Subordinated Shelf, Affirmed (P)Baa2

....Senior Unsecured Regular Bond/Debenture, Affirmed Baa1

..Issuer: Avista Corp.

.... Issuer Rating, Affirmed Baa1

....Senior Secured First Mortgage Bonds, Affirmed A2

....Underlying Senior Secured First Mortgage Bonds, Affirmed A2

....Senior Secured Medium-Term Note Program, Affirmed (P)A2

....Senior Secured Regular Bond/Debenture, Affirmed A2

....Senior Unsecured Medium-Term Note Program, Affirmed (P)Baa1

..Issuer: Avista Corp. Capital II

....Pref. Stock Preferred Stock, Affirmed Baa2

..Issuer: Duke Energy Corporation

.... Issuer Rating, Affirmed Baa1

....Junior Subordinated Regular Bond/Debenture, Affirmed Baa2

....Senior Unsecured Shelf, Affirmed (P)Baa1

....Senior Unsecured Bank Credit Facility, Affirmed Baa1

....Senior Unsecured Commercial Paper, Affirmed P-2

....Senior Unsecured Regular Bond/Debenture, Affirmed Baa1

..Issuer: Entergy Corporation

.... Issuer Rating, Affirmed Baa2

....Senior Unsecured Commercial Paper, Affirmed P-2

....Senior Unsecured Regular Bond/Debenture, Affirmed Baa2

....Senior Unsecured Shelf, Affirmed (P)Baa2

..Issuer: New Jersey Natural Gas Company

.... Commercial Paper, Affirmed P-1

..Issuer: Northwest Natural Gas Company

.... Commercial Paper, Affirmed P-2

....Senior Secured Medium-Term Note Program, Affirmed (P)A1

....Senior Unsecured Medium-Term Note Program, Affirmed (P)A3

....Senior Secured Shelf, Affirmed (P)A1

....Senior Unsecured Shelf, Affirmed (P)A3

....Preferred Shelf, Affirmed (P)Baa2

....Senior Secured First Mortgage Bonds, Affirmed A1

....Senior Secured Regular Bond/Debenture, Affirmed A1

..Issuer: ONE Gas, Inc

....Senior Unsecured Commercial Paper, Affirmed P-1

....Senior Unsecured Regular Bond/Debenture, Affirmed A2

..Issuer: Piedmont Natural Gas Company, Inc.

....Senior Unsecured Commercial Paper, Affirmed P-1

....Senior Unsecured Regular Bond/Debenture, Affirmed A2

..Issuer: Public Service Company of Oklahoma

.... Issuer Rating, Affirmed A3

....Senior Unsecured Regular Bond/Debenture, Affirmed A3

..Issuer: Questar Gas Company

....Senior Unsecured Commercial Paper, Affirmed P-1

....Senior Unsecured Medium-Term Note Program, Affirmed (P)A2

....Senior Unsecured Regular Bond/Debenture, Affirmed A2

..Issuer: Alabama Power Capital Trust V

....Pref. Stock Preferred Stock, Affirmed A2

..Issuer: Alabama Power Company

.... Commercial Paper, Affirmed P-1

.... Issuer Rating, Affirmed A1

....Senior Unsecured Shelf, Affirmed (P)A1

....Preferred Shelf, Affirmed (P)A3

....Preference Shelf, Affirmed (P)A3

....Pref. Stock Preferred Stock, Affirmed A3

....Senior Unsecured Bank Credit Facility, Affirmed A1

....Senior Unsecured Commercial Paper, Affirmed P-1

....Senior Unsecured Regular Bond/Debenture, Affirmed A1

..Issuer: Columbia (Town of) AL, Industrial Dev. Board

....Senior Unsecured Revenue Bonds, Affirmed A1

....Senior Unsecured Revenue Bonds, Affirmed VMIG 1

..Issuer: Eutaw (City of) AL, Industrial Dev. Board

....Senior Unsecured Revenue Bonds, Affirmed A1

....Senior Unsecured Revenue Bonds, Affirmed VMIG 1

..Issuer: Mobile (City of) AL, I.D.B.

....Senior Unsecured Revenue Bonds, Affirmed A1

....Senior Unsecured Revenue Bonds, Affirmed VMIG 1

..Issuer: Walker County Econ & Ind Dev Authority

....Senior Unsecured Revenue Bonds, Affirmed A1

....Senior Unsecured Revenue Bonds, Affirmed VMIG 1

..Issuer: West Jefferson (Town of) AL, Devel. Bd.

....Senior Unsecured Revenue Bonds, Affirmed A1

....Senior Unsecured Revenue Bonds, Affirmed VMIG 1

..Issuer: Wilsonville (Town of) AL, I.D.B.

....Senior Unsecured Revenue Bonds, Affirmed A1

....Senior Unsecured Revenue Bonds, Affirmed VMIG 1

....Underlying Senior Unsecured Revenue Bonds, Affirmed A1

..Issuer: South Jersey Gas Company

.... Issuer Rating, Affirmed A2

....Senior Secured First Mortgage Bonds, Affirmed Aa3

....Senior Secured Medium-Term Note Program, Affirmed (P)Aa3

....Senior Secured Regular Bond/Debenture, Affirmed Aa3

....Senior Unsecured Commercial Paper, Affirmed P-1

..Issuer: New Jersey Economic Development Authority

....Senior Secured Revenue Bonds, Affirmed Aa3

....Underlying Senior Secured Revenue Bonds, Affirmed Aa3

....Senior Secured Revenue Bonds, Affirmed Aa2

....Underlying Senior Secured Revenue Bonds, Affirmed Aa2

..Issuer: Southern Company (The)

.... Commercial Paper, Affirmed P-2

....Junior Subordinated Regular Bond/Debenture, Affirmed Baa3

....Senior Unsecured Shelf, Affirmed (P)Baa2

....Junior Subordinated Shelf, Affirmed (P)Baa3

....Senior Unsecured Bank Credit Facility, Affirmed Baa2

....Senior Unsecured Regular Bond/Debenture, Affirmed Baa2

..Issuer: Southern Elect Generating Co

.... Issuer Rating, Affirmed A2

....Senior Unsecured Regular Bond/Debenture, Affirmed A1

..Issuer: Southwestern Public Service Company

.... Issuer Rating, Affirmed Baa1

....Senior Secured Shelf, Affirmed (P)A2

....Senior Unsecured Shelf, Affirmed (P)Baa1

....Senior Secured First Mortgage Bonds, Affirmed A2

....Senior Unsecured Bank Credit Facility, Affirmed Baa1

....Senior Unsecured Commercial Paper, Affirmed P-2

....Senior Unsecured Regular Bond/Debenture, Affirmed Baa1

..Issuer: Wisconsin Gas LLC

.... Commercial Paper, Affirmed P-1

....Senior Unsecured Regular Bond/Debenture, Affirmed A2

..Issuer: American Water Capital Corp.

.... Issuer Rating, Affirmed A3

....Senior Unsecured Shelf, Affirmed (P)A3

....Senior Unsecured Commercial Paper, Affirmed P-2

....Senior Unsecured Regular Bond/Debenture, Affirmed A3

..Issuer: American Water Works Company, Inc.

.... Issuer Rating, Affirmed A3

..Issuer: Berks County Industrial Development Auth., PA

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: California Pollution Control Financing Auth.

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: Illinois Development Finance Authority

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: Illinois Finance Authority

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: Indiana Finance Authority

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: MARICOPA COUNTY INDUSTRIAL DEVELOPMENT AUTHORITY,AZ

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: Northampton County I.D.F.A., PA

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: Owen (County of) KY

....Senior Unsecured Revenue Bonds, Affirmed A3

.Issuer: Consolidated Edison Company of New York, Inc.

.... Issuer Rating, Affirmed A2

....Senior Unsecured Shelf, Affirmed (P)A2

....Subordinate Shelf, Affirmed (P)A3

....Preferred Shelf, Affirmed (P)Baa1

....Senior Unsecured Commercial Paper, Affirmed P-1

....Senior Unsecured Regular Bond/Debenture, Affirmed A2

....Underlying Senior Unsecured Regular Bond/Debenture, Affirmed A2

..Issuer: New York State Energy Research & Dev. Auth.

....Senior Unsecured Revenue Bonds, Affirmed A2

....Underlying Senior Unsecured Revenue Bonds, Affirmed A2

..Issuer: New York State Research & Development Auth.

....Senior Unsecured Revenue Bonds, Affirmed A2

....Underlying Senior Unsecured Revenue Bonds, Affirmed A2

..Issuer: Consolidated Edison, Inc.

.... Issuer Rating, Affirmed A3

....Senior Unsecured Shelf, Affirmed (P)A3

....Senior Unsecured Commercial Paper, Affirmed P-2

....Senior Unsecured Regular Bond/Debenture, Affirmed A3

..Issuer: Orange and Rockland Utilities, Inc.

.... Issuer Rating, Affirmed A3

....Senior Unsecured Commercial Paper, Affirmed P-2

....Senior Unsecured Regular Bond/Debenture, Affirmed A3

..Issuer: Brooklyn Union Gas Company, The

....LT Issuer Rating, Affirmed A2

....Senior Unsecured Regular Bond/Debenture, Affirmed A2

..Issuer: New York State Energy Research & Dev Auth.

....Backed LT IRB/PC Insured, Affirmed A2

...Underlying LT IRB/PC, Affirmed A2

Issuer: KeySpan Gas East Corporation

....LT Issuer Rating, Affirmed A2

....Senior Unsecured Regular Bond/Debenture, Affirmed A2

The principal methodology used in rating Public Service Company of Oklahoma, Southwestern Public Servic Company, Southern Company (The), Alabama Power Company, Alabama Power Capital Trust V, South Elect Generating Co, South Jersey Gas Company, Wisconsin Gas LLC, American Electric Power Company Inc., Duke Energy Corporation, Piedmont Natural Gas Company, Inc., Avista Corp., Avista Corp. Capital II, ONE Gas, Inc, New Jersey Natural Gas Company, Northwest Natural Gas Company, Questar Gas Compar Entergy Corporation, Consolidated Edison, Inc., Consolidated Edison Company of New York, Inc., Brooklyn Union Gas Company, The, KeySpan Gas East Corporation, and Orange and Rockland Utilities, Inc. was Regulated Electric and Gas Utilities published in June 2017. The principal methodology used in rating American Water Works Company, Inc. and American Water Capital Corp. was Regulated Water Utilities published in December 2015. Please see the Rating Methodologies page on www.moodys.com for a copy these methodologies.

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Regulated Utilities - US

Tax reform is credit negative for sector, but impact varies by company

The wide-ranging tax legislation passed by the US Congress on December 20, 2017 cut the statutory corporate tax rate to 21% from 35%. The legislation was broadly credit positive for corporate cash flows but for regulated investor-owned utilities, which include electric, gas and water utilities, the effect was the opposite.

» **The legislation is credit negative for investor-owned utilities.** A lower tax rate will reduce the difference between the amount that utilities collect from rate payers to cover taxes and their payments to tax authorities, reducing cash flow.

» **Tax reform is neutral for earnings but negative for cash flow.** Utilities collect revenue based on book tax but cash tax is much lower. A lower tax rate lowers revenue, while loss of bonus depreciation increases cash tax.

» **Cash flow to debt ratio could decline by 150-250 basis points.** We estimate that regulated utilities could experience a decline in the ratio of cash flow from operations pre-working capital to debt (CFO pre-WC/debt) of 150 bps to 250 bps, assuming no corrective action is taken.

» **Utilities with weaker than expected financials are most affected.** The potential for lower cash flows hurts the credit profile of numerous regulated utilities that already have weakening financial projections. Major holding companies affected include American Electric Power Company (AEP, Baa1 stable), Consolidated Edison, Inc. (ConEd A3 negative), Dominion Energy (Dominion, Baa2 negative), Duke Energy Corporation (Duke, Baa1 negative), Entergy Corporation (Entergy, Baa2 negative) and The Southern Company (Southern, Baa2 negative).

» **Most utilities are still well positioned within their credit profiles.**The vast majority of utilities and their holding companies are well positioned within their credit profiles thanks to supportive regulatory relationships and a capital structure balanced between both debt and equity.

Tax reform negatively affects utility cash flows

For the investor-owned utilities sector, the 2017 tax reform legislation will have an overall negative credit impact on regulated operating companies and their holding companies. Moody's calculates that the recent changes in tax laws will dilute a utility's ratio of cash flow before changes in working capital to debt by approximately 150-250 basis points on average, depending to some degree on the size of the company's capital expenditure program.

Although the regulated utility sector is carved out in terms of the treatment of interest deductibility and expensing of capital expenditures, from an earnings perspective the effect on regulated entities is neutral because savings on the lower tax expense are passed on to their customers, as required by regulation. However, from a cash flow perspective, the legislation is credit negative.

Investor-owned utilities' rates, revenue and profits are heavily regulated. The rate regulators allow utilities to charge customers based on a cost-plus model, with tax expense being one of the pass-through items. In practice, regulated utilities collect revenues from customers based on book tax expense but typically pay much less tax in cash. Under the new tax regime, utilities will collect less revenue associated with tax expenses and pay out more cash tax, squeezing its cash flows.

With the lower tax rate and the loss of bonus depreciation treatment, utility cash flows will be negatively affected by three tax dynamics:

1. A fall in the tax rate means that regulated entities will collect less revenue from customers for the purpose of tax expense compensation. Going to a tax rate of 21% from 35% represents about a 40% fall in revenue collection related to tax expense. Although this revenue is ultimately paid out as an expense, under the new law utilities will lose the timing benefit, thereby reducing cash that may have been carried over many years.
2. The loss of bonus depreciation treatment means that most utilities will start paying cash tax in 2019 or 2020, earlier than under the current tax law. The loss of bonus depreciation treatment means that utilities can claim less in depreciation expenses and will therefore have higher taxable income. We still expect utilities to pay little or no cash tax in 2018 because most have significant accumulated net operating losses driven by past claims of bonus depreciation.
3. Lowering the tax rate also means that utilities will have over-collected for tax expense in the past because they charged for future tax expense, assuming a 35% tax rate. As utilities refund the excess collection to customers, it will reduce cash flows, likely spread out over the remaining life of the assets associated with the depreciation.

Significant credit deterioration for many utilities

Since the tax reform was passed at the end of last year, numerous utilities will experience a weakening in their credit profiles because of declining financial metrics (see Exhibit 1). Major holding companies affected include AEP, ConEd, Dominion, Duke, Entergy and Southern.

Exhibit 1

Utilities with weakened, or weakening, financial profiles due to tax reform

Company	Senior Unsecured Rating	CFO pre-WC / Debt 3-yr Avg as of 3Q17	CFO Pre-WC / Debt 2018-2019[1]	Downgrade Guidance
Holding Companies				
Consolidated Edison, Inc.	A3 / Negative	21.2%	15-18%	18%
American Electric Power Company, Inc.	Baa1 / Stable	20.8%	15-17%	15%
Duke Energy Corporation	Baa1 / Negative	14.7%	13-15%	15%
Dominion Energy, Inc.	Baa2 / Negative	12.9%	12-15%	15%
Entergy Corporation	Baa2 / Negative	18.0%	13-15%	15%
Southern Company (The)	Baa2 / Negative	13.8%	13-15%	15%
Vertically Integrated				
Alabama Power Company	A1 / Negative	25.7%	20-22%	22%
Public Service Company of Oklahoma	A3 / Negative	18.2%	15-18%	19%
Avista Corp.	Baa1 / Negative	20.6%	15-17%	17%
Southwestern Public Service Company	Baa1 / Negative	22.2%	16-18%	18%
Local Distribution Companies				
New Jersey Natural Gas Company	Aa2 / Negative[2]	25.3%	17-20%	20%
Brooklyn Union Gas Company, The	A2 / Negative	12.2%	14-17%	17%
KeySpan Gas East Corporation	A2 / Negative	15.8%	15-18%	17%
Piedmont Natural Gas Company, Inc.	A2 / Negative	20.9%	14-17%	17%
ONE Gas, Inc	A2 / Negative	22.0%	16-19%	20%
South Jersey Gas Company	A2 / Negative	18.1%	15-17%	20%
Wisconsin Gas LLC	A2 / Negative	25.5%	16-19%	19%
Questar Gas Company	A2 / Negative	22.2%	17-20%	20%
Northwest Natural Gas Company	A3 / Negative	18.3%	14-17%	16%
Transmission & Distribution				
Consolidated Edison Company of New York, Inc.	A2 / Negative	21.7%	19-21%	20%
Orange and Rockland Utilities, Inc.	A3 / Negative	19.8%	15-17%	17%
Water				
American Water Works Company, Inc.[3]	A3 / Negative	17.2%	14-16%	15%

[1] 2018-2019 Moody's estimates are pro forma for tax reform and do not incorporate current rate plan collection at 35%.
[2] Senior Secured Rating.
[3] The Regulated Water Utilities Methodology uses FFO to net debt as a key cash flow metric.
Source: Moody's Investors Service

Tax reform mainly affects companies that already had limited cushion in their credit profile. The tax reform usually resulted in a further 150-250 bps drop in CFO pre-WC/debt.

Moody's expects that most utilities will attempt to manage any negative financial implications of tax reform through regulatory channels. Corporate financial policies could also change. The actions taken by utilities will be incorporated into our credit analysis on a prospective basis. It is conceivable that some companies will sufficiently defend their credit profiles.

In practice, we believe that most companies will actively manage their cash flow to debt ratios by issuing more equity or obtaining relief by working through regulatory channels. For example, to offset a decline in cash flow, utilities could propose to regulators additional investments that benefit customers or accelerate recovery of regulatory assets. Some of the corporate measures could have

a more immediate boost to projected metrics than certain regulatory provisions, which may take time to approve and implement. They could also propose to increase the equity layer in rates or the level of the authorized return on equity. In these cases, a cooperative regulatory relationship matters most for a given utility.

The majority of US regulated utilities and utility holding companies continue to maintain stable credit profiles despite weakening financials. Some of the larger holding companies in this category include PPL Corp. (Baa2 stable), Fortis Inc. (Baa3 stable) and Xcel Energy, Inc. (A3 stable) and Alliant Energy Corporation (Baa1 stable). We did not take action on NiSource, Inc. (Baa2 stable), despite the fact that they are weakly positioned even before the tax reform, because we believe that the management will address their financial ratios sufficiently in a timely manner to strengthen their credit profile.

Several companies were already on negative outlook or on review for downgrade before the effects of tax reform occurred, including Emera Inc. (Baa3 negative), Georgia Power Company (A3 negative), NorthWestern Corporation (Baa1 negative), OGE Energy Corp (A3 negative), SCANA Corporation (SCANA, Baa3 RUR-down), Sempra Energy (Baa1 negative), WEC Energy Group, Inc. (A3 negative), and WGL Holdings, Inc. (A3 negative).

Company-specific comments

All companies below have had their outlooks revised to negative due to the recent tax reform, except AEP, whose outlook was revised to stable from positive.

American Electric Power

AEP will continue to produce CFO pre-WC to debt in the mid-teens range, incorporating the effects of tax reform.

AEP could strengthen its credit profile if there are credit supportive regulatory actions at the state level to mitigate the impact of tax reform, or if there is a change in AEP's corporate finance policies such that cash-flow credit metrics could be sustained near their recent levels, in the high-teens range.

AEP could weaken its credit profile if a more contentious regulatory environment were to develop in any of its key jurisdictions; if ongoing capital investments cannot be recovered on a timely basis; or if recent tax reform or other developments cause a sustained deterioration in financial metrics—if, for example, the ratio of CFO pre-WC to debt were to remain below 15%.

American Water Works Company, Inc.

American Water Work Company, Inc.'s (American Water, A3 negative) cash flow to debt metrics were already expected to decline due to debt-funded growth and dividends over the next five years. Now, in the absence of any corrective action, the incremental deterioration in metrics due to tax reform could affect its credit quality.

American Water's debt is expected to increase due to its $8.0-$8.6 billion 5-year capital program, dividend growth approaching 10% and no additional equity issuance through 2022. Following the company's 11 December guidance call, we project funds from operations (FFO) to net debt ratios will decline from current levels. Using LTM 3Q17 as a base, we project that FFO to net debt will fall from 17% to 16% over the next couple of years. Losing an estimated $150 million of cash flow to deferred taxes, as a result of tax reform, will further pressure FFO to net debt to around 15%, a level that we have highlighted as potentially affecting the company's credit profile.

American Water's credit profile could be maintained if its FFO to net debt and RCF to net debt were to stabilize around 16% and 11%, respectively, and without an increase in parent debt levels (currently at around 23% of consolidated debt).

Avista Corp.

Avista Corp. (Avista, Baa1 negative) has over the last few years maintained steady credit metrics with CFO pre-WC to debt consistently in the 18-20% range. However, deferred income taxes have constituted a significant portion of Avista's operating cash flow, about a third in 2016. Further, Avista has experienced delays with its Washington rate case, presenting uncertainty around the utility's regulatory relationships and future financial profile.

The negative outlook reflects the expected reduced contribution of deferred taxes to operating cash flow and regulatory uncertainty related to the Washington rate case. We expect weaker credit metrics going forward, with CFO pre-WC to debt falling to or below the

17%, which would represent a significant credit deterioration in the absence of actions to mitigate tax reform impacts and without adequate regulatory relief in Washington.

In addition, Avista's credit profile would be negatively affected by any indication that it would be required to support Hydro One Ltd.'s (not rated) acquisition debt. The credit profile could be stabilized if Avista receives sufficient regulatory relief and if state-level regulatory and corporate financial actions are taken to offset the negative tax reform impact such that CFO pre-WC to debt remains consistently at or above 18%.

Brooklyn Union Gas Company

Brooklyn Union Gas Company (KEDNY, A2 negative) has been weakly positioned against our guidance for several years, with CFO pre-WC to debt of 13.7% in the year to March 2017 and 7.9% in the year to March 2016, compared with guidance in the mid to high teens.

Since deferred taxes represented 18% of KEDNY's CFO pre-WC in the year to March 2017, we expect that the lower corporate tax rate will translate into a lower revenue requirement, making it more difficult for the company to maintain its current credit profile in absent of significant mitigating actions or relief offered by the New York Public Service Commission (NYPSC). The credit profile could be maintained if the National Grid Plc (Baa1 stable) chose to reduce leverage at KEDNY or if the NYPSC allowed the company to offset the customer benefit of the lower tax rate with some other allowances.

Consolidated Edison, Inc.

Consolidated Edison Company of New York's (CECONY, A2 negative) is Consolidated Edison's principle subsidiary and contributed about 90% of consolidated cash flows. Deferred taxes have represented nearly 20% of CECONY CFO over the past three years; therefore the tax rate reduction to 21% will reduce this deferred tax benefit and CECONY's cash flow generation over the next several years. While the utility is expected to maintain relatively stable financial metrics, such as CFO to debt at around 20%, in the remaining two years of its current rate plan, we expect tax reform will have negative cash flow implications over the longer term, all else being equal.

When normalizing CECONY's cash flow for the new tax law, we see the potential for the company to generate CFO pre-WC to debt in the high-teens range on an ongoing basis. This reflects a 21% tax rate, reduced revenue requirement, low cash tax payments and normalized refunds of excess deferred tax liabilities to customers.

We see uncertainty over the amount and pace of any "unprotected" deferred tax liability refunds that CECONY may be required to pay, over the nature and timing of customer benefits and over the potential to offset cash flow leakage with some other cash-generative measure. The NYPSC is investigating methods of approaching the tax reform and we expect increasing clarity in the coming months.

Dominion Energy, Inc.

Dominion's (Baa2 negative) CFO pre-WC to debt ratios have been weak for its rating since 2012, for which we had expected an upward trend to begin in 2018. However, the impact of tax reform will offset the improvement we expected, as the utility base of the company will have less deferred tax benefit to boost cash flow. We see a risk that CFO pre-WC to debt will remain around 14% until that time.

The acquisition of SCANA would keep Dominion's metrics lower for longer, since they will have sizeable customer credits. SCANA has its own cash leakage from tax reform, and incremental debt is to be issued in the SCANA family.

Duke Energy Corporation

Duke's consolidated cash flow credit metrics are currently weakly positioned and likely to be incrementally pressured by tax reform. We currently expect the company's CFO pre-WC to debt ratio will remain below 15% through 2019 without assuming any action to counter the effects of the tax reform.

The company's credit profile could be strengthened if Duke achieves credit supportive outcomes in its current rate proceedings and if it is able to mitigate the cash-flow impact of tax reform through regulatory treatment or financial policies such that it can sustain a ratio of CFO pre-WC to debt above 15%, for example. In the longer term, a ratio of CFO pre-WC to debt closer to 20% could result in a material improvement in the credit profile.

Duke's credit profile could weaken if there were a deterioration in the regulatory relationship at one or more of its key utility subsidiaries; if recent tax reform or other developments cause the ratio of CFO pre-working capital to debt to remain below 15% for an extended period; or if parent company debt levels rise above 35% of total Moody's adjusted consolidated debt for an extended period.

Entergy Corporation

Entergy's (Baa2 negative) CFO pre-WC to debt through LTM was 15%, which is on the low end of the financial range expected for its credit profile. We consistently normalize Entergy's cash flow for variability in tax payments and deferred tax contributions to CFO. However, recent federal tax reform has brought incremental risks to the company's financial profile.

The primary risk relates to the revaluation of deferred tax liabilities and ensuing customer refunds for the excess amounts collected. At 30 September 2017, Entergy had roughly $7.5 billion of deferred tax liabilities on its balance sheet, which we estimate will fall to around $4.5 billion under a 21% tax rate. The $3.0 billion of excess deferred taxes will likely be refunded to customer. However, the timing and source of financing of this refund is uncertain. This carries the risk of reducing cash flow beyond our typical sensitivities and increasing the funding needs of the consolidated entity.

Keyspan Gas East Corporation

Deferred taxes have been a strong contributor to Keyspan Gas East Corporation's (KEDLI, A2 negative) CFO pre-WC to debt ratio, accounting for 22% of CFO pre-WC in 2017. The lowering of the corporate tax rate and the attendant decline in cash-flow will result in credit deterioration for KEDLI in the absence of any mitigating action by the company or additional allowances offered by the NYPSC.

The company's credit profile could be maintained if the National Grid group chose to reduce leverage at KEDLI or if the NYPSC chose to offset the customer benefit of the lower tax rate with some other allowances.

New Jersey Natural Gas Company

New Jersey Natural Gas's (NJNG, Aa2 secured rating, negative) metrics are projected to weaken because of the expected funding of its capital plans primarily with debt, compounded by the estimated cash flow impact of tax reform. The lower projected cash flows combined with increasing absolute debt levels will result in CFO pre-WC/debt to range in the 18% to 19% range over the next two years.

NJNG's credit profile could weaken if there is a significant deterioration in NJNG's business profile, in its regulatory environment or an increase in regulatory lag. The profile could also be negatively affected if NJNG reports CFO pre-WC to debt below 20% for an extended period of time. NJNG's credit profile could be strengthened by demonstrated consistency in the company's current regulatory framework or if there are mitigating regulatory actions or corporate fiscal policies such that its CFO pre-WC to debt ratio is maintained above 20%.

Northwest Natural Gas Company

Northwest Natural Gas Company's (A3 negative) current financial profile is strong, with CFO pre-WC to debt around 19% through 30 September 2017. However, the combination of tax reform impacts to deferred tax cash flow and rate relief needed through a general rate case could reduce this metric to below 16% over the next two years.

The company has a rate case filing currently outstanding with the Oregon Public Utility Commission and could receive the necessary rate relief to maintain cash flow to debt ratios in the high-teen's range, which would support its current credit profile.

ONE Gas, Inc.

We expect the ONE Gas, Inc.'s (A2 negative) already weak cash flow to debt ratios will further deteriorate with the reduction in the corporate tax rate and the loss of bonus depreciation. We anticipate that its CFO pre-W/C to debt will be in the 17%-18% range without any offsetting action.

The credit profile could improve if regulatory actions are taken at the state level to mitigate the cash flow impact of tax reform and if the company makes changes to its corporate financial policies such that financial metrics improve, including a CFO pre-WC to debt ratio consistently at or above 22%.

ONE Gas' credit profile could weaken if CFO pre-WC to debt is sustained below 20%; if there is a significant decline in the support provided by the utility's regulators; or if the company pursues an aggressive dividend payout policy as it executes its elevated capital program.

Piedmont Natural Gas Company

We expect that tax reform legislation will pressure Piedmont Natural Gas Company's (Piedmont, A2 negative) financial metrics, which in the absence of mitigation measures could adversely affect Piedmont's ability to maintain CFO pre-WC to debt ratio above 17%.

Piedmont's credit profile could be stabilized if the company is able to mitigate the cash flow impacts of tax reform through regulatory treatment or financial policies. For example, if the company is able to sustain a ratio of CFO pre-WC near 20%. In the longer term, a ratio of CFO pre-WC to debt above 23% could also boost credit quality.

Piedomont's credit profile could weaken if there were to be a significant deterioration in the company's regulatory environments, or if recent tax reform or other developments cause the ratio of CFO pre-WC to debt ratio to remain below 17% for an extended period.

Public Service Company of Oklahoma

Public Service Company of Oklahoma's (PSO, A3 negative) historically strong financial metrics have been negatively impacted by a combination of lower load growth, elevated capital expenditures for environmental compliance and increased regulatory lag. We expect that tax reform will add downward pressure on the utility's cash flow credit metrics. We anticipate the company's CFO pre-WC to debt ratio will remain below 19%, which is weak for PSO's current credit quality.

PSO's credit profile would stabilize if there were to be an increase in cash flow or a reduction in leverage, or if the company is able to mitigate the cash flow impact of tax reform such that we could expect key financial credit metrics to strengthen with, for example, a ratio of CFO pre-WC to debt remaining in the low 20% range. In the longer term, a ratio of CFO pre-WC to debt sustained above 25% could boost the profile.

PSO's credit profile could weaken if the regulatory environment took a more adversarial tone; if there were a significant increase in capital or operating expenditures that were not able to be recovered on a timely basis; or if key financial credit metrics exhibited a sustained deterioration over a period of time–for example, a ratio of CFO pre-WC to debt remaining below 19%.

Questar Gas Company

Questar Gas Company's (Questar Gas, A2 negative) financial profile is expected to decline amid a rate freeze through 2020. While the company will continue to recover costs through decoupling and infrastructure riders, we see cash flow to debt metrics declining from 22% through LTM 3Q17 to the high-teens range because of increasing debt and a lack of general rate increases. We expect that cash leakage from tax reform impacts will be implemented at the end of this rate freeze, which will reduce cash that Questar Gas collects from customers and will keep the company's cash flow to debt metrics lower for longer.

South Jersey Gas Company

South Jersey Gas Company's (South Jersey Gas, A2 negative) debt coverage metrics have weakened over the last few years in part due to a significant increase in environmental remediation costs. The negative outlook is based on our expectation that South Jersey Gas' already weak credit metrics will be sustained in the mid-to-high teens as a result of the negative cash flow impact of tax reform.

South Jersey Gas' credit profile can be maintained with further improvements in regulatory transparency and if state-level regulatory or corporate financial policy actions are taken to alleviate the negative impacts of tax reform such that CFO pre-WC to debt is maintained at or above 22% on a consistent basis.

The credit profile would be negatively affected if CFO pre-WC to debt remains below 20% on a sustained basis; if there is pressure to support debt incurred by the parent to acquire Elizabethtown Gas and Elkton Gas; if South Jersey Gas' regulatory jurisdiction becomes less credit supportive; or if the company and its affiliates fail to maintain adequate liquidity across the utility family.

The Southern Company

Tax reform will pressure Southern's financial metrics. Absent mitigation measures, it will hinder Southern's ability to maintain CFO pre-working capital to debt at or above 15%.

Southern's credit profile would be strengthened if there are credit supportive regulatory actions at the state level to mitigate the impact of tax reform, or if parent level debt is reduced or cash flow coverage metrics improve materially, including CFO pre-WC to debt in the high teens to 20%.

Southern's credit profile is heavily dependent on the credit quality of the Alabama Power Company (A1 negative), Georgia Power Company (A3 negative) and Southern Company Gas/Southern Company Gas Capital (Baa1 stable) subsidiaries. It could also suffer if there are additional delays or cost increases at the Vogtle nuclear project, or if recent tax reform legislation or other developments cause consolidated coverage metrics to show a sustained decline, including CFO pre-WC to debt below 15%.

Southwestern Public Service Company

Southwestern Public Service Company (SPS, Baa1 negative) faces lower financial metrics because of tax reform as well as a deteriorating regulatory environment in New Mexico. The company's CFO pre-WC to debt ratio has been 20% or above in the past few years, but we estimate that CFO pre-WC to debt will fall below 18% without any corrective action. SPS' parent company Xcel Energy has indicated that it plans to work directly with regulators of their operating utilities to offset the cash-flow impact of tax reform, including the potential for a higher equity layer, a higher authorized return on equity and accelerated recovery of regulatory assets. SPS' credit profile would strengthen if the company succeeds in bolstering its CFO pre-WC to debt ratio to above 20% on completion of its material capital program.

Wisconsin Gas LLC

Wisconsin Gas LLC's (A2 negative) CFO pre-WC to debt metric has averaged around 25% in the past three years, but tax reform could cause it to decline to 16% to 19%. We believe that Wisconsin Gas has a reasonable chance of receiving regulatory support because Wisconsin Public Service Commission approved the company filing a plan for accelerated recovery of regulatory assets for Wisconsin Electric Power Company (A2 stable), Wisconsin Gas' sister company, to offset the effect of tax reform.

Moody's related publications

» Corporate tax cut is credit positive, while effects of other provisions vary by sector (21 December 2017)

» Trump Tax Blueprint Would Raise US Debt, But Be Credit Positive for Many Sectors (9 May 2017)

» Tax Reform Likely to Increase Credit Risk, Impact Dependent on Regulatory Response (15 March 2017)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

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U.S. Tax Reform: For Utilities' Credit Quality, Challenges Abound

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U.S. Tax Reform: For Utilities' Credit Quality, Challenges Abound

*(**Editor's Note:** This article is part of a series addressing the potential credit implications of U.S. tax reform on corporate, infrastructure, financial services, and U.S. public finance entities.)*

The recently enacted federal tax package will provide a modest economic uplift according to S&P Global economists (see "A Tax Package For The New Year: Its Impact On U.S. GDP Growth," Jan. 8, 2018), and it will be beneficial for the credit quality of most corporate issuers (see "U.S. Tax Reform: An Overall (But Uneven) Benefit For U.S. Corporate Credit Quality," Dec. 18, 2017). But what does it mean for the S&P Global Ratings' ratings on U.S. utilities and their holding companies?

The main features of the corporate tax package are a lower tax rate, more favorable treatment of earnings repatriated from overseas, a move from a worldwide tax system to a territory-based tax system, immediate expensing of capital investment, and limits on the deductibility of interest expense. For U.S. utilities and for most utility holding companies that have mainly domestic operations, foreign earnings repatriation and the taxation approach to those earnings are a non-issue. However, the tax package has important implications for utilities mostly because of rate regulation, but also since special provisions in the tax legislation for regulated utilities regarding interest deductibility and capex expensing distinguish them from most of corporate America.

Overview

- While most of corporate America is bullish about the new tax regime, we believe the effect on creditworthiness of regulated utilities and their holding companies could be negative.
- The effect will depend on the reaction of utility regulators and, ultimately, the utility companies after the regulators have acted.
- The lower statutory corporate tax rate will eventually benefit ratepayers, not utilities. The degree of benefit or burden to holding companies will depend on each company's tax position and will suffer from the benefit at the utility subsidiaries going to ratepayers.
- The accelerated deductibility of capital expenditures is not available to utilities, and the loss of that kind of stimulus is negative for cash flow.
- Few U.S. utility holding companies will be affected by foreign earnings or the deemed repatriation of previously untaxed foreign earnings.
- Limits on the deductibility of interest expense have little effect, as utilities are exempt and holding companies can participate in that exemption.

Credit Implications Vary For U.S. Utilities

The reality for U.S. utilities and utility holding companies is that they have historically used the tax code as a source of cash flow through the interactions of tax accounting, regulatory accounting, and as opportunities to defer cash taxes from economic stimulus provisions. The attractiveness of tax credits for specific types of investments for companies

with such reliable earnings profiles has long been apparent. One reason we have relied more on after-tax credit metrics using funds from operations (FFO) as a base instead of pretax measures like EBITDA is that the former captured the true cash flow of a utility better than the latter. As we have noted in the past, utilities are susceptible to weakening FFO-based credit metrics in the absence of bonus depreciation or other economic stimulus built into the tax code.

We will address the three primary areas of tax reform for utilities in turn. Early analysis suggests that utility and holding company credit quality could be marginally and negatively affected by the new tax code, but for most issuers the magnitude will be mild enough to allow them, if so desired, to offset the effect enough to preserve ratings. Much will depend on the regulatory response. For companies skirting the edge of our financial risk profile requirements, the path to ratings stability will be trickier and steeper. Our approach as the impact of the corporate tax package unfolds will be measured:

- Taxes, as accounting and ratemaking matters, are extremely complex and will require some time for issuers and regulators to fully understand the implications, especially at the holding company level. As we observe the decisions made by each company and update our models, we will allow sufficient time for companies to react to the changes.
- To the extent tax reform has some one-time, up-front effect on earnings or prompts write-offs, we are likely to look past that and concentrate on the ongoing, forward-looking impact on credit metrics.
- Each company's tax situation is unique, as is the regulatory environments in which they operate. While we see a general effect of tax reform, ultimately the rating impact will be issuer-specific and will depend on the details of its tax positions at both the utility and holding company, the regulatory response to the new tax code, and how the company responds to those two things in its future financial policy.
- The impact will almost certainly differ between a holding company and its utilities. Holding companies do not directly share the same tax attributes as their utility subsidiaries and are the actual entity that pays taxes on a consolidated basis. Utilities are almost uniformly treated as stand-alone entities by regulators when calculating the revenues needed to cover the cost of service. Changes in things like corporate tax rates can therefore have decidedly different effects on the unregulated parent and the regulated subsidiary. Since our rating methodology is primarily focused on the entire group, the impact of tax reform on the holding companies is going to be the most impactful on the ratings within the group for most issuers. Although there may be no rating implications, we may revise the stand-alone credit profiles (SACP) of a holding company's utility subsidiaries that we do not consider insulated. And the ratings on utilities and other subsidiaries that differ from the parent due to insulation or a lesser group status could also be directly affected.

The Influence Of Key U.S. Tax Reform Provisions On U.S. Regulated Utilities and Holding Companies

Tax provision	Benefit or burden?	Primary relevance to utilities or holding companies?	Effect
Lower corporate tax rate	Burden	Both	For utilities, revenue requirement is reduced. The benefit of lower rate is passed onto ratepayers. Holding companies lose the cash flow from the difference between statutory rate and their effective tax rate.
Loss of accelerated deductibility of capital expenditures	Burden	Both	Utilities are exempted and therefore lose the opportunity to gain cash flow from tax-based stimulus. Effect on holding companies depends on mix of utility and non-utility operations.
Elimination of tax on foreign earnings and upon repatriation going forward	Benefit	Holding company	Limited to the few that have overseas investments.
Deemed tax on previously earned profits held overseas	Burden (limited to eight years)	Holding company	Limited to the few that have overseas investments.

The Influence Of Key U.S. Tax Reform Provisions On U.S. Regulated Utilities and Holding Companies (cont.)

Tax provision	Benefit or burden?	Primary relevance to utilities or holding companies?	Effect
Limit on interest deduction	Benefit	Both	Utilities not burdened (exempted). Holding companies are not burdened to the extent they can allocate a portion of their debt to utility operations, but the allocation method is unclear.

Source S&P Global Ratings.

Lower tax rates

The central feature of the corporate tax package is a lower tax rate. The current 35% statutory tax rate is now 21%, and that move has various ratemaking consequences for utilities. For most utilities, rates charged to customers reflect the statutory rate. Any unpaid deferred taxes over the years have been accrued for eventual return to ratepayers, and in the mean time are a low-cost source of capital in the mechanics of ratemaking. The new, lower statutory rate means (1) rates must be lowered to reflect the new rate, and (2) the excess deferred tax balance created by the difference in tax rates must be returned to ratepayers. The speed at which it is returned will be determined by the regulator with potentially significant negative cash flow effects. Normalization rules will restrict the regulators, but some of the deferred tax difference will not be protected by the transition rules and could be tapped earlier to reduce rates. Regulators will also be mindful of the higher future costs associated with rapid reversal of deferred taxes, as they have been a low-cost source of capital to the benefit of ratepayers that must be replaced with some combination of debt and equity if erased too quickly.

Both of those tasks will be handled by the regulator, with the timing and result affected by the utility's strategy and relationship with its regulators. That strategy, and the utility's ability to manage the process and outcome, are crucial factors in determining the impact on ratings coming out of tax reform. The challenge is that regulators think about and set rates primarily on earnings, not cash flow. To the extent that tax reform leads to lower cash flows, which we think will be the case in most instances, we will look for the utility to make a case for countervailing steps to offset some or all of the diminished cash flow. A stronger capital structure, using the extra revenues related to the difference between the 21% and 35% tax rates to support greater rate-base investment or rate recovery of other expenses such as unfunded pension obligations or nuclear decommissioning funds, or some combination of these could sustain or lessen the impact on credit metrics.

At the parent companies, which often have a mix of regulated and unregulated companies, the effect of lower tax rates could be more mixed and will depend greatly on each company's particular circumstance. They rarely pay anything close to the statutory rate due to careful tax planning. An important focus is on those holding companies that have significant non-utility operations. How to allocate parent debt between utility and non-utility operations is an unresolved issue (see next section), but overall many investments and activities on the non-utility side have been driven by tax considerations. A holding company's tax characteristics, including such things as net operating loss carryovers and unused tax credits, affect how much in actual taxes they're paying now. Lower tax rates will slow the realization of those and other tax benefits, and that could pressure credit metrics when combined with any negative cash-flow effects at the utility level.

Interest expense deductibility

The second big aspect of tax reform for utilities is interest deductibility. U.S. utilities and utility holding companies are typically more leveraged than their counterparts elsewhere in corporate ratings, so the loss or limit on deducting interest for tax purposes would have been more impactful for utilities. The new tax package offers a special carve-out that allows utilities to fully deduct all interest expense and holding companies to allocate a portion of the interest on parent debt associated with their utilities to qualify for a deduction as well. The manner of that allocation is still somewhat imprecise, and greater clarity is expected when the Treasury Department implements the legislation.

Loss of bonus depreciation or other tax stimulus

The preservation of most interest deductibility for the capital-intensive, more-levered utilities and utility holding companies came at a price. In exchange for this treatment, utilities forego the opportunity to participate in the stimulus feature of tax reform, full expensing of capital spending at least for the next five years. With the absence of any bonus depreciation provisions for utilities, a powerful generator of cash flow will now cease that, in combination with the lower tax rate, will have very real consequences for cash-based credit metrics. Utilities however have been modifying their capital spending plans over the past few years to factor in phasing out of bonus depreciation. We noted in a commentary many years ago (see "How Will Bonus Depreciation Affect The Credit Quality of U.S. Electric Utilities?" May 9, 2011) that the loss of bonus depreciation could result in two to three percentage-point reductions in a typical FFO-to-debt calculation. Now that the time of no tax stimulus in the tax code has come to pass, utilities will have to grapple with this lack of cash flow from tax timing differences. While the lower statutory rate would have diminished the power of this cash-flow source anyway, its absence will make the challenge more acute, especially for those issuers that are already edging toward ratings downgrade FFO-to-debt triggers.

Utilities' Response To The New Tax Laws May Help Preserve Credit Quality

The impact of tax reform on utilities is likely to be negative to varying degrees depending on a company's tax position going into 2018, how its regulators react, and how the company reacts in return. It is negative for credit quality because the combination of a lower tax rate and the loss of stimulus provisions related to bonus depreciation or full expensing of capital spending will create headwinds in operating cash-flow generation capabilities as customer rates are lowered in response to the new tax code. The impact could be sharpened or softened by regulators depending on how much they want to lower utility rates immediately instead of using some of the lower revenue requirement from tax reform to allow the utility to retain the cash for infrastructure investment or other expenses. Regulators must also recognize that tax reform is a strain on utility credit quality, and we expect companies to request stronger capital structures and other means to offset some of the negative impact.

Finally, if the regulatory response does not adequately compensate for the lower cash flows, we will look to the issuers, especially at the holding company level, to take steps to protect credit metrics if necessary. Some deterioration in the ability to deduct interest expense could occur at the parent, making debt there relatively more expensive. More equity may make sense and be necessary to protect ratings if financial metrics are already under pressure and regulators are aggressive in lowering customer rates. It will probably take the remainder of this year to fully assess the financial impact on each issuer from the change in tax liabilities, the regulatory response, and the company's ultimate response.

We have already witnessed differing responses. We revised our outlook to negative on PNM Resources Inc. and its subsidiaries on Jan. 16 after a Public Service Co. of New Mexico rate case decision incorporated tax savings with no offsetting measures taken to alleviate the weaker cash flows. It remains to be seen whether PNM will eventually do so, especially as it is facing other regulatory headwinds. On the other hand, FirstEnergy Corp. issued $1.62 billion of mandatory convertible stock and $850 million of common equity on Jan. 22 and explicitly referenced the need to support its credit metrics in the face of the new tax code in announcing the move. That is exactly the kind of proactive financial management that we will be looking for to fortify credit quality and promote ratings stability.

Related Criteria And Research

Related Research

- FirstEnergy Corp.'s Convertible Preferred Stock Issuance Rated 'BB'; Other Ratings Affirmed, Jan. 22, 2018
- PNM Resources Inc. And Subs Outlooks Revised To Negative On New Mexico Regulatory Order, Effects Of New U.S. Tax Code, Jan. 16, 2018
- A Tax Package For The New Year: Its Impact On U.S. GDP Growth, Jan. 8, 2018
- U.S. Tax Reform: An Overall (But Uneven) Benefit For U.S. Corporate Credit Quality, Dec. 18, 2017
- How Will Bonus Depreciation Affect The Credit Quality of U.S. Electric Utilities? May 9, 2011

Tax Reform Impact on the U.S. Utilities, Power & Gas Sector

Tax Reform Creates Near-Term Credit Pressure for Regulated Utilities and Holding Companies

Regulatory Support Key to Mitigating Downward Migration in Ratings

Near-Term Pressure on Credit Metrics: The Tax Cuts and Jobs Act signed into law on Dec. 22, 2017 has negative credit implications for regulated utilities and utility holding companies over the short to medium term. A reduction in customer bills to reflect lower federal income taxes and return of excess accumulated deferred income taxes (ADIT) is expected to lower revenues and FFO across the sector. Absent mitigating strategies on the regulatory front, this is expected to lead to weaker credit metrics and negative rating actions for issuers with limited headroom to absorb the leverage creep.

Significant Hit to FFO: To analyse the impact of the tax reform bill across our utility coverage, Fitch Ratings studied a sample of 140 regulated operating subsidiaries and utility holding companies. We estimate that regulated utility subsidiaries will, on average, see an approximately 6% reduction in net revenues if tax changes are reflected in customer bills right away. Fitch has assumed that a substantial portion of the excess ADIT will be returned to customers over the life of the utility property. The lower revenue translates to an approximately 15% reduction in FFO that drives an approximately 45 basis point increase in FFO-adjusted leverage across our sample.

Regulatory Response and Financial Policy Key: State regulators have begun to examine the impact of tax reform on regulated utilities in their states. While most state regulators will seek to provide some sort of rate relief to customers, they may be open to a negotiated outcome that also preserves the creditworthiness of the utilities. Management actions to defend their credit profiles are also important in assessing the future rating trajectory of an issuer. Overall, Fitch expects rating actions to be limited and on a case-by-case basis. Holding companies are more vulnerable given the elevated leverage profile for many, driven by past debt-funded acquisitions.

Longer-Term Positive: Over a longer-term perspective, Fitch views tax reform as modestly positive for utilities. The sector retained the deductibility of interest expense, which would have otherwise significantly impacted cost of capital for this capital-intensive sector. The exemption from 100% capex expensing is also welcome news for the sector, which has seen years of bonus depreciation inflate ADIT, which is netted from the rate base in most state regulatory jurisdictions. The excess ADIT will be recorded as a regulatory liability, which will amortize over time, leading to rate base and earnings growth. Finally, the reduction in federal income taxes lowers cost of service to customers, providing utilities headroom to increase rates for capital investments.

In this report, Fitch Ratings addresses the following frequently asked questions from investors:

- How does tax reform affect regulated utilities?
- What is the impact of tax reform on utility holding companies and nonregulated businesses?
- What is the magnitude of FFO reduction and leverage increase for the sector?
- Does Fitch expect to take widespread rating actions driven by tax law changes?
- Which issuers does Fitch consider most at risk for negative rating actions?

How Does Tax Reform Affect Regulated Utilities?

The Tax Cuts and Jobs Act has negative credit implications for the regulated utilities and several utility holding companies over the short to medium term. A reduction in customer bills to reflect lower federal income taxes and return of excess ADIT to customers is expected to lower revenues and FFO across the sector. Absent mitigating strategies on the regulatory front, this is expected to lead to weaker credit metrics and negative rating actions for those issuers that have limited headroom to absorb the leverage creep. The end of bonus depreciation or the "interest-free loan" from the federal government and reduced FFO at a time when capex budgets are elevated will necessitate greater reliance on equity and debt funding for the utility subsidiaries. This could lead to higher costs of capital for the sector, especially if regulators require an immediate reduction in customer bills to reflect the tax law changes.

It is important to note that the negative impact on cash flows and leverage metrics is primarily being driven by timing-related differences. Due to availability of 100% and 50% bonus depreciation on qualified property in recent years, most utilities have not been paying cash taxes and have seen a sharp buildup in ADIT. This situation would have reversed over time, and our financial forecasts did reflect a hit to FFO for most utilities as they returned to full cash taxpaying status by 2020–2021. With tax reform, utilities cannot claim bonus depreciation anymore, the ADIT has to be recalculated at the new 21% rate, the future ADIT also builds at the 21% rate, and the excess ADIT has to be refunded to customers, leading to lower FFO expectation compared to prior Fitch estimates. Since federal income taxes are included in a utility's cost of service, this is typically a straight pass-through cost. With most utilities not paying cash taxes, the reduction in revenue requirement due to lower federal taxes does not have an equivalent offset. Hence, past bonus depreciation benefits have exacerbated the situation for utilities, leading to unanticipated near-term pressure on FFO.

Over a longer-term perspective, Fitch views tax reform as modestly positive for utilities. The sector retained the deductibility of interest expense, which would have otherwise significantly impacted cost of capital for this capital-intensive sector. The exemption from 100% capex expensing is also welcome news for the sector, which has seen years of bonus depreciation benefits supress rate base (for most states, ADIT reduces the rate base on which a utility earns a return). Finally, the reduction in federal income taxes lowers cost of service to customers, providing utilities headroom to increase rates for capital investments. Fitch estimates that electric utility customers could, on average, see approximately 3%–5% reduction in their bills due to tax law changes.

What Is the Impact of Tax Reform on Utility Holding Companies and Nonregulated Businesses?

At the holding company level, the reduction in utility subsidiaries' cash flows will weaken the consolidated cash flow profile, leading to higher leverage unless mitigated by holdco debt reduction. In addition, there continues to be limited clarity surrounding the deductibility of holding company interest, in particular the methodology to allocate consolidated interest expense between regulated and nonregulated businesses. Until resolved, these issues will continue to weigh on the financial policies of holding companies.

There is no ambiguity in how interest expense will be treated for regulated and nonregulated entities. Regulated subsidiaries will be able to fully deduct interest expense for tax purposes, and nonregulated businesses, similar to other corporations, will be subject to the 30% of EBITDA limitation (which changes to 30% of EBIT in 2022). Calculating interest deductibility for holding companies gets complicated. For holdcos such as NextEra Energy, Inc., which has distinct regulated and nonregulated debt issuing entities, the analysis is straightforward. However, for other holdcos such as Dominion Energy, Inc., which issues debt for nonregulated businesses at the holdco level, or even for holdcos such as Exelon Corporation and FirstEnergy Corporation, which issue debt at their nonregulated entities, it is not clear how the consolidated interest expense will be allocated between regulated and nonregulated businesses. Several managements we spoke to seem to believe that asset-based allocation, such as that used for allocation of interest for foreign corporations, will be applicable. As a broader issue, we are most concerned with allocation of holdco interest expense to regulated businesses to claim full deductibility of interest expense, since regulated subsidiaries already meet their prescribed capital structure. We expect uncertainty to prevail until the U.S. Treasury department issues guidance in this regard.

For nonregulated businesses, the reduction in federal income taxes is positive because the benefit accrues straight to the bottom line. Fitch expects renewable business to be negatively impacted since the federal renewable tax credits are less valuable at the lower tax rate, thus making renewable economics less favorable. Fitch also expects less tax equity to be available as a source of financing, which is likely to hit the small renewable developers disproportionately. In this regard, solar developers may be more significantly impacted than wind developers due to the large upfront solar investment tax credit (ITC) that needs to be absorbed versus a 10-year life of wind production tax credits (PTCs). A lower tax rate also lowers the net present value of accumulated renewable tax credits and accumulated net operating losses by extending the time period over which these will be used.

What Is the Magnitude of FFO Reduction and Leverage Increase for the Sector?

We have analyzed the cash flow impact for the sector while admitting that tax and accounting nuances overlaid by the complexity of regulatory accounting makes the exercise challenging. After analyzing a sample of 140 regulated operating subsidiaries and utility holding companies, we estimate that regulated utility subsidiaries will, on average, see an approximately 6% reduction in net revenues if the tax reform changes are reflected in rates right away. This reduction in revenues translates to an approximately 15% reduction in FFO and an approximately 45 basis point increase in FFO-adjusted leverage across our sample.

Key inputs and assumptions incorporated in our analysis include:

- **Immediate reduction in customer bills to reflect the cut in federal tax rate to 21% from 35%:** Under cost-of-service regulation, federal and state income taxes are treated as an expense that is recoverable in regulatory tariffs. The reduction in federal income tax rate will lower the income tax expense, thus leading to lower revenue requirement for a regulated utility. As highlighted above, due to prior bonus depreciation benefits, most utilities are not paying cash taxes. As a result, immediate reduction in customer bills to reflect the lower revenue requirement will lead to lower FFO.
- **95% of ADIT, as reported on LTM basis, was assumed to be protected:** Based on our survey of regulated utilities, it appears a vast majority of the ADIT reported on the balance sheet pertain to public utility property and arise from accelerated federal tax depreciation and investment tax credits on that property, and, therefore, are protected by IRS normalization requirements. As a rough rule of thumb for our sample, we assumed that 95% of ADIT is protected and 5% unprotected, while recognizing that actual amounts may vary by utility.
- **Return of the excess protected ADIT over 30 years and excess unprotected ADIT over five years:** Section 203(e) of the Tax Reform Act of 1986, also known as the Average Rate Assumption Method (ARAM), provided for the reduction in protected ADIT due to the reduction in the tax rate to be spread over the life of the related property. Fitch has assumed that similar ARAM will be applicable for the Tax Cuts and Jobs Act, which seems consistent with the approach that most utilities are taking. The average life of utility property varies by utility, but 30 years serves as a good approximation. The return of unprotected ADIT is not subject to IRS normalization rules and, hence, will be subject to discretion of the regulators. While the regulatory approach with respect to unprotected ADIT varied across states in 1986, for the purpose of our exercise, we have assumed that regulators will require excess unprotected ADIT to be returned to customers over a five-year period.
- **Net PPE-based allocation methodology for holding company interest:** For the purpose of our exercise, we have allocated the consolidated interest expense between regulated and nonregulated businesses using net PPE as a proxy.
- **No adjustments made for bonus depreciation:** We have not made adjustments for the loss in bonus depreciation for years 2018 and 2019 (versus prior benefits at 40% and 30% for property placed in service in 2018 and 2019, respectively). The negative impact will be partially offset by bonus depreciation on capex incurred until Sept. 29, 2017 for property placed in service in 2018.

Does Fitch Expect to Take Widespread Rating Actions Driven by Tax Law Changes?

Fitch's rating actions will be guided by both the regulatory and management responses. A majority of states have opened dockets or requested all utilities in the state to submit an analysis on the implications of the tax reform. While regulators will be keen to provide some sort of rate relief for customers, such actions could take many forms and vary in time frame. Some jurisdictions may be open to a negotiated outcome that focuses more on benefits of rate stability and creditworthy utilities rather than immediate rate reductions. In the former, many tools could be employed, including the following:

- Deferral of lower tax expense to use as an offset to expected future rate increases either from the recovery of regulatory deferrals or rate base growth
- Return of excess unprotected ADIT over a longer-term horizon
- Increase in authorized equity ratio and/or return on equity
- Accelerated depreciation on some assets
- Lower capex

The time frame for regulatory action is an important consideration and will be varied. Some jurisdictions have asked for tax savings to be returned to customers immediately, thereby creating a decline in cash flow on day one. Some jurisdictions have directed utilities to segregate the effect of lower taxes to consider in future ratemaking procedures, and therefore result in no near-term change to cash flow. Some companies are in the middle of multiyear rate plans or rate settlements that do not provide for changes in tax rate, while other rate arrangements have incorporated mechanisms for lower taxes. Lastly, managements' responses to defend their credit profiles in the face of prospective lower cash flow will be key. If Fitch sees a credible path for credit metrics to be restored commensurate with the existing rating level, no rating actions may be warranted.

Holding companies are more vulnerable to negative rating actions given the elevated leverage profile for many, driven by past debt-funded acquisitions. The cash flow profile of holdcos will be weaker than prior expectations due to regulated utility subsidiaries bearing the brunt of tax law changes, leading to lower cash tax and possibly lower dividend distributions to parent holding companies. Moreover, funding needs at regulated subsidiaries will increase with the elimination of bonus depreciation. Conversely, the nonregulated subsidiaries will benefit from tax reform, which will be positive for parent holding companies.

Which Issuers Does Fitch Consider Most at Risk for Negative Rating Actions?

Issuers with limited headroom at the current rating level that are close to their negative rating triggers as established by Fitch are more vulnerable to negative rating actions. The most susceptible issuers are those that already have a Negative Outlook or are on Negative Rating Watch.

Key Rating Triggers for Select Issuers on Negative Outlook or Rating Watch

Issuer	IDR	Outlook/ Watch	Pre-Tax Reform FFO-Adjusted Leverage 2018F (x)	Key Downgrade Trigger	Key Upgrade Trigger
DTE Energy Co.	BBB+	Negative Outlook	4.6	Material delays associated with permitting and constructing the NEXUS pipeline, along with FFO-adjusted leverage sustaining > 4.5x.	Sustained FFO-adjusted leverage to 4.0x or better.
Duke Energy Corp.	BBB+	Negative Outlook	5.4	Inability to recover coal ash costs and sustained FFO-adjusted leverage > 5.1x by 2019.	Unlikely in medium term.
Georgia Power Co.	A	Negative Rating Watch	4.4	Proceeding with construction of new nuclear units while retaining material exposure to further costs and schedule overruns, and FFO-adjusted leverage > 4.3x on a sustained basis.	Unlikely in medium term.
SCANA Corp.	BB+	Negative Rating Watch	8.1	Material unrecoverable costs for the abandoned new nuclear project, constrained liquidity and adjusted debt/EBITDAR > 5.5x.	Constructive resolution of the stranded new nuclear project and adjusted debt/EBITDAR < 4.5x.
Southern Company	A–	Negative Rating Watch	5.2	Downgrade of Georgia Power Co. and FFO-adjusted leverage sustaining > 4.7x by 2019.	Unlikely in medium term.
WGL Holdings, Inc.	A–	Negative Rating Watch	4.2	Ownership by a weaker parent after acquisition is completed, and FFO-adjusted leverage > 4.0x.	Unlikely in medium term.

Source: Fitch.

Related Research

Fitch 2018 Outlook: U.S. Utilities, Power & Gas (Supportive Regulation and Low Commodity Costs Support Stable Outlook) (November 2017)
U.S. Utility Parent Companies Handbook (A Detailed Review of Utility Parent Companies — Third Edition) (November 2017)
U.S. Competitive Generators Handbook (A Detailed Review of Competitive Generation Companies) (October 2017)
U.S. Regulated Utility Parent Holding Companies Peer Comparison (October 2017)
U.S. Integrated Electric Utilities Handbook (A Detailed Review of Integrated Electric Utilities) (August 2017)
U.S. Transmission and Distribution Utilities Handbook (Detailed Review of Electric and Gas T&D Utilities — Third Edition) (May 2017)

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MOODY'S
INVESTORS SERVICE

Announcement: Moody's changes the US regulated utility sector outlook t negative from stable

18 Jun 2018

Key financial credit ratios have declined over the past 12 months, and are expected further through 2019 before stabilizing and recovering

New York, June 18, 2018 -- Moody's Investors Service ("Moody's") has changed the fundamental sector outlook for the US regulated electric and gas utility industry to negative from stable. The change in outlook primarily reflects a degradation in key financial credit ratios, specifically the ratio of cash flow from operations to debt, funds from operations (FFO) to debt and retained cash flow to debt, as well as debt leverage ratios. The change in outlook also reflects uncertainty with respect to the timing and extent of potential changes in regulatory recovery provisions, authorized returns and equity layers or settlements by individual companies in response to lower cash flow.

"Regulated utilities will be exposed to a higher level of financial risk for the next 12 to 18 months" said Ryan Wobbrock, Vice President -- Senior Analyst. "For utility holding companies, the consolidated ratio of FFO to debt has been on a steady decline, from 19% in 2013 to 17% at year-end 2017, and we expect it to decline further toward 15% through 2019."

The change in fundamental sector outlook reflects a declining financial trend, which is a function of higher holding company debt levels incurred in the last few years and a lower deferred tax contribution to cash flow going forward due to tax reform. In aggregating sector financials, Moody's examined 42 of the largest US gas & power holding companies with at least 10 years of historical financial data.

To mitigate this declining financial trend, several holding companies are taking defensive measures in 2018 to strengthen their balance sheets. On average, however, we expect debt to capitalization ratios to stay around 54% (up from 49% in 2016), large capital spending plans to persist, and dividend growth to increase at-the same time that FFO is falling. This trend will keep debt to EBITDA at a ten year high level of around 5.0x for the next several years.

"With respect to financial mitigation measures, we see more activity in the pursuit of regulatory cost recovery relief than we do with management teams executing material changes to financial policies," said Wobbrock. "Thus far, there has been no discernible adjustments to dividend policies and most utilities continue to incorporate a heavy reliance on debt financing for their sizable negative free cash flow funding needs."

Management teams' defensive efforts and a few initial signs of supportive regulatory responses to tax reform are important first steps in addressing the sector's increased financial risk. However, we believe that it will take longer than 12 -18 months for the sector to exhibit a material financial improvement from these actions.

The fundamental sector outlook could return to stable if Moody's expects that the sector's financial profile will stabilize at today's lower levels, with consolidated FFO to debt metrics remaining at 15%. A positive outlook could be considered if we expect a recovery in key cash flow metrics where consolidated cash flow starts to improve by roughly 15%-20% or the ratio of consolidated FFO to debt indicates a return to the 17%-19% range.

The fundamentals sector outlook could stay negative if the key cash flow metrics continue to decline, or if there are signs that a more contentious regulatory environment is emerging. A more contentious regulatory environment is one where litigation is the preferred path of regulatory proceeding (instead of settlements), or where the suite of authorized recovery mechanisms begins to become more limited. Lower authorized returns on equity do not, by themselves, signal a weakening regulatory relationship.

US utilities continue to be viewed as critical infrastructure assets, which means they have a roughly 3x lower probability of default than their non-financial corporate peers. From a liquidity perspective, Moody's incorporates a view that US investor owned regulated electric and gas utilities will maintain unfettered access to the capital markets. In addition, Moody's continues to view regulated utilities as defensive investment alternative in the event of a wide-spread, short-duration financial market shock. These factors provide

sector with a strong, investment grade credit profile, which continues to be the case, notwithstanding the negative sector outlook.

The report, "Regulated Utilities -- US: 2019 outlook shifts to negative due to weaker cash flows, continued leverage," is available to Moody's subscribers at

https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_1128302

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MOODY'S INVESTORS SERVICE

CREDIT OPINION
27 October 2017

Update

Rate this Research

RATINGS

Louisville Gas & Electric Company

Domicile	Louisville, Kentucky, United States
Long Term Rating	A3
Type	LT Issuer Rating
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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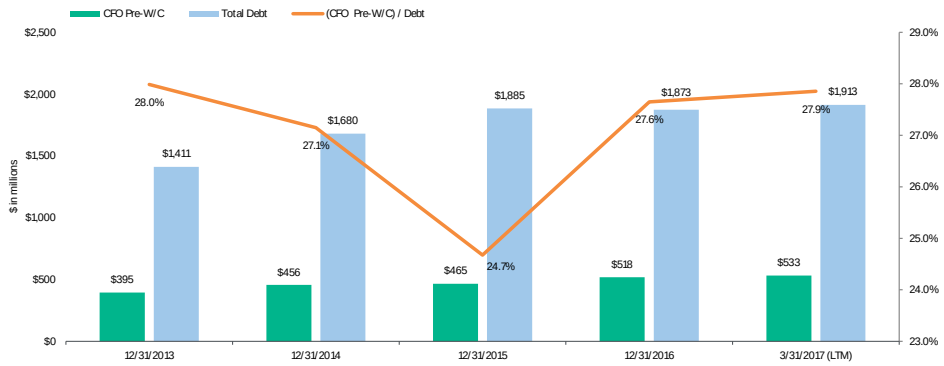
Louisville Gas & Electric Company

Update to credit analysis

Summary

Louisville Gas & Electric Company's (LG&E, A3 stable) credit strengths includes its stable financial performance and the credit supportive Kentucky regulatory environment under which it operates. These are slightly offset, in part, by a large capital expenditure program and, to a lesser extent, a lack of fuel and geographic diversity.

Exhibit 1
Historical CFO Pre-WC, Total Debt, and CFO Pre-WC to Debt



Source: Moody's Financial Metrics

Credit Strengths

» Supportive regulatory environment in Kentucky

» Strong and stable financial metrics

Credit Challenges

» Large capital expenditure program

» High coal concentration in its generation fuel mix

Rating Outlook

LG&E's stable outlook reflects its supportive regulatory environment in Kentucky and stable financial performance. Also, it incorporates in our expectation that LG&E's credit metrics remain stable.

Factors that Could Lead to an Upgrade

It is unlikely that LG&E's rating will be upgraded in the near-term, given its large upcoming capital expenditure program and funding needs. However, ratings could be upgraded if the company received more favorable regulatory recovery mechanisms for non-environmental related capital expenditures and maintained its cash flow from operation before changes in working capital (CFO Pre-WC) to debt ratio at 26% or above on a sustained basis.

Factors that Could Lead to a Downgrade

LG&E's ratings could be downgraded should there be any materially unfavorable regulatory developments or unanticipated changes are made to the regulatory compact that currently provides for timely recovery of costs, resulting in the company's CFO pre-WC to debt declining below 20% for an extended period of time.

Key Indicators

Exhibit 2

KEY INDICATORS [1]

Louisville Gas & Electric Company -Private

	12/31/2013	12/31/2014	12/31/2015	12/31/2016	6/30/2017(L)
CFO pre-WC + Interest / Interest	11.9x	10.1x	8.8x	8.0x	8.1x
CFO pre-WC / Debt	28.0%	27.1%	24.7%	27.6%	27.9%
CFO pre-WC – Dividends / Debt	21.0%	20.5%	18.4%	20.8%	18.0%
Debt / Capitalization	35.7%	37.0%	37.5%	35.3%	35.6%

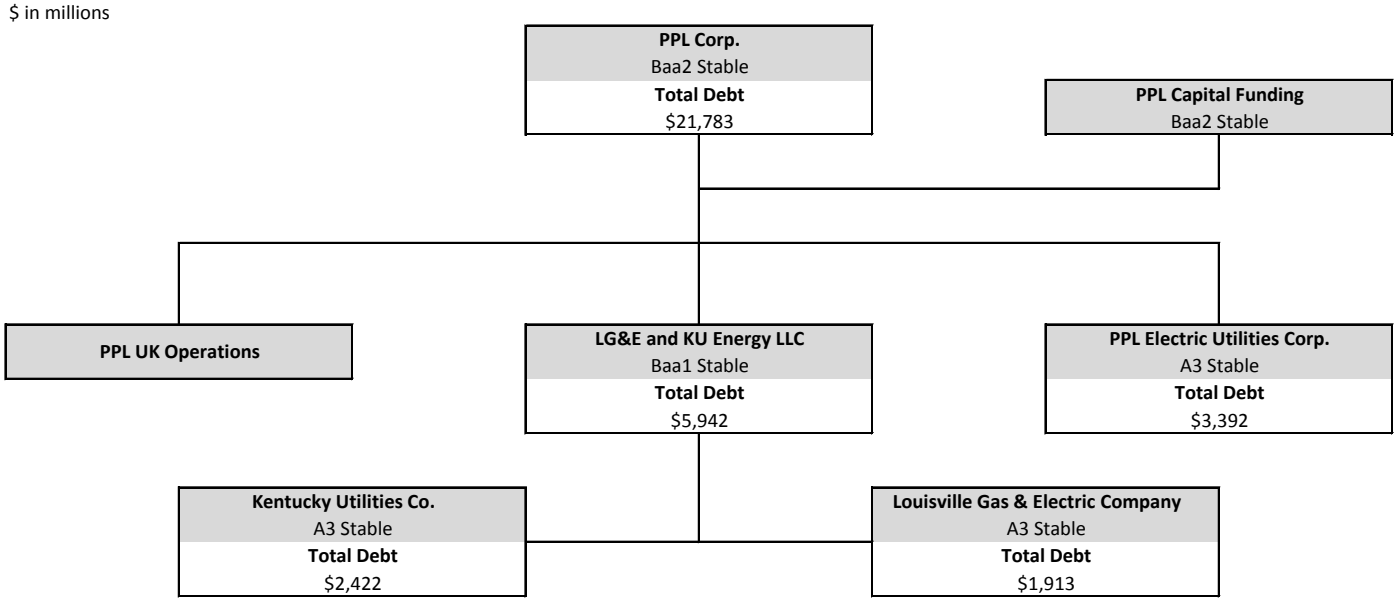
[1]All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Source: Moody's Financial Metrics™
Source: Moody's Financial Metrics

Profile

Louisville Gas and Electric Company (LG&E, A3 stable) is a regulated public utility engaged in the generation, transmission and distribution of electricity and the storage, distribution and sale of natural gas in Kentucky. It provides electricity to approximately 407,000 customers in Louisville and adjacent areas and delivers natural gas service to approximately 324,000 customers in its electric service area and eight additional counties in Kentucky. LG&E's service area covers approximately 700 square miles.

LG&E is a wholly-owned subsidiary of LG&E and KU Energy LLC (LKE, Baa1 stable). LG&E and its affiliate, Kentucky Utilities (KU, A3 stable), are the two main operating entities of LKE. LKE, in turn, is wholly owned by PPL Corporation (PPL, Baa2 stable), a utility holding company headquartered in Allentown, PA.

Exhibit 3
Organizational Structure
As of 30 June 2017
$ in millions



Total debt is based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
Source: Moody's Financial Metrics, company

Detailed Credit Considerations

- Supportive regulatory environment provides timely cost recovery

We consider the Kentucky Public Service Commission (KPSC) to be supportive of long-term credit quality and note that it has approved various tracker mechanisms that provide for timely cost recovery outside of a rate case, shortening regulatory lag. LG&E's tracker mechanisms include a Fuel Adjustment Clause (FAC), an Environmental Cost Recovery Surcharge (ECR), a Gas Supply Clause (GSC), a Gas Line Tracker (GLT) and a Demand-Side Management (DSM) Cost Recovery Mechanism. LG&E does not have a decoupling mechanism in place, which subjects LG&E's net revenue to weather volatilities. The lack of a decoupling mechanism is less of an issue for non-weather related demand fluctuations because LG&E has the DSM mechanism.

LG&E's last general rate case concluded in June 2017 when its case was settled. In the settlement, LG&E agreed to electric and gas revenue increases of $57.1 million and $6.8 million, respectively. The settlement provided for a 9.7% return on equity (ROE) but did not specify the allowed equity capitalization. In its order, the KSPC excluded the recovery of certain costs for funding employee retirement plans. Prior to the settlement sent before the commission, LG&E agreed to withdraw its request to recover costs related to its Advanced Meter System Project reducing its revenue requirement by about $5.9 million. The withdrawal of its request to recover those costs does not preclude LG&E from asking the commission to consider cost recovery in the future.

In January 2016, LG&E and affiliate utility Kentucky Utilities (KU, A3 stable) submitted applications to the KPSC, requesting the ECR rate treatment for projects related to the US Environmental Protection Agency's (EPA) regulations addressing the handling of coal and combustion by-products and MATS (mercury and air toxics standards). In August 2016, the KPSC approved the settlement and authorized a 9.8% ROE for the projects. However, on 23 June 2017, the KPSC also lowered the authorized ROE to 9.7% for all of LG&E's and KU's existing approved ECR plans and projects. Effective August 2017, the lower ROE replaces the previously authorized ROE for approved ECR projects. The company expects that this change will have a low impact on 2017.

- High capital expenditure planned over the next five years

LG&E's 2017-2021 capital expenditure plan is estimated to be $2.7 billion compared to $2.6 billion spent between 2012 and 2016. Of the $2.7 billion planned capital expenditure, approximately $645 million will be related to its environmental investments. The total estimated amount represents about 54% of the company's net book value of property, plant and equipment, which stood at about $5 billion at the end of the second quarter of 2017.

We expect the potential disallowance risk associated with large capital expenditures to be meaningfully moderated by Kentucky's supportive regulatory environment, especially regarding the environmental expenditures through the ECR. The KPSC is also authorized to grant return on construction work in progress (CWIP) in rate case proceedings, a credit positive. Moreover, the ECR minimizes regulatory lag for investments associated with complying with the Clean Air Act compliance and coal combustion waste and by-product environmental requirements. The terms of the ECR allows LG&E to receive the return of and a return on the investment starting two months after making the investment. This is more credit supportive compared to the traditional process where there would be longer regulatory lag due to the length of the construction period plus the rate case proceeding.

- High reliance on coal as fuel for generation

LG&E's current generation fuel mix is heavily biased towards coal. Of its 2.9 GW of generating capacity, 2.1 GW (71%) is coal-fired, which provides the majority (87%) of the electricity generation output. The remaining 29% of the generating capacity is comprised mainly of gas- or oil- fired facilities. LG&E's fuel mix improved over the last two years with the addition of a new gas-fired combined-cycle power plant. In June 2015, the 640-MW gas plant at Cane Run started its commercial operations, replacing a retired coal-fired plant at Cane Run.

The fuel concentration in coal is credit negative. However, the risk associated with coal is mostly mitigated by Kentucky's support of the coal industry. This support is evidenced by the passage of the ECR, which provides the company with credit supportive terms and cost recovery for its investments in coal-related environmental expenditures. Kentucky is also one of the 30 states that filed lawsuits to overturn the Clean Power Plan (CPP), which the Supreme Court stayed on 9 February 2016. LG&E has decided not to incorporate its CPP spending in its current capital plan as the issue continues to be litigated.

- Stable financial profile supports robust capital expenditure

LG&E's financial metrics have been strong. As of 30 June 2017, CFO pre-WC to debt was 27.9% for the last twelve months (LTM) and averaged 27% for the past three years. Total debt to capitalization was 35.6% for the last twelve months and averaged 37% for the past three years. We expect LG&E's financial metrics to remain at similar levels over the next few years as it benefits from the extension of bonus depreciation tax credit while the large capital expenditure program continues. Also, we expect the pace of the cash flow from operations to keep up with the investment as a result of the various rider mechanisms that are in place and of the latest rate case outcome.

Liquidity Analysis

LG&E's short-term rating is P-2 and we expect LG&E to maintain adequate liquidity over the next 12-18 months.

LG&E has a $500 million syndicated credit facility maturing in January 2022. As of 30 June 2017, after accounting for all commercial paper and letter of credits issued, LG&E had $293 million of the revolving facility available. For the past twelve months ending June 2017, LG&E had negative free cash flow of $95 million, which is likely to remain negative in coming years given its large capital expenditure program. LG&E's next debt maturity is $300 million of Secured Notes maturing in 2025.

LG&E and KU Energy LLC (LKE, Baa1 stable), the intermediate parent company of LG&E, manages the liquidity of its Kentucky utility operations on a consolidated basis. In addition to the credit facility at LG&E, LKE and KU have separate stand-alone revolving credit facilities. LKE has its own $75 million of syndicated credit facility that expires in October 2018. KU has a $400 million syndicated credit facility expiring in January 2022 and a $198 million letter of credit facility expiring in October 2020. Each facility contains a financial covenant requiring the companies' debt to total capitalization not to exceed 70%. All entities were in compliance as of 30 June 2017.

Rating Methodology and Scorecard Factors

Exhibit 4

Rating Factors				
Louisville Gas & Electric Company -Private				
Regulated Electric and Gas Utilities Industry Grid [1][2]	Current LTM 6/30/2017		Moody's 12-18 Month Forward View As of Date Published [3]	
Factor 1 : Regulatory Framework (25%)	**Measure**	**Score**	**Measure**	**Score**
a) Legislative and Judicial Underpinnings of the Regulatory Framework	A	A	A	A
b) Consistency and Predictability of Regulation	A	A	A	A
Factor 2 : Ability to Recover Costs and Earn Returns (25%)				
a) Timeliness of Recovery of Operating and Capital Costs	Baa	Baa	Baa	Baa
b) Sufficiency of Rates and Returns	A	A	A	A
Factor 3 : Diversification (10%)				
a) Market Position	Baa	Baa	Baa	Baa
b) Generation and Fuel Diversity	Baa	Baa	Baa	Baa
Factor 4 : Financial Strength (40%)				
a) CFO pre-WC + Interest / Interest (3 Year Avg)	8.7x	Aaa	7x - 9x	Aaa
b) CFO pre-WC / Debt (3 Year Avg)	27.5%	A	28% - 32%	Aa
c) CFO pre-WC – Dividends / Debt (3 Year Avg)	19.9%	A	21% - 25%	A
d) Debt / Capitalization (3 Year Avg)	36.0%	A	33% - 37%	A
Rating:				
Grid-Indicated Rating Before Notching Adjustment		A2		A2
HoldCo Structural Subordination Notching			0	0
a) Indicated Rating from Grid		A2		A2
b) Actual Rating Assigned		A3		A3

[1]All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
[2]As of 6/30/2017(L)
[3]This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.
Source: Moody's Financial Metrics

Ratings

Exhibit 5

Category	Moody's Rating
LOUISVILLE GAS & ELECTRIC COMPANY	
Outlook	Stable
Issuer Rating	A3
Bkd LT IRB/PC	A1
Senior Secured	A1
Sr Unsec Bank Credit Facility	A3
Commercial Paper	P-2
Bkd Other Short Term	P-2
ULT PARENT: PPL CORPORATION	
Outlook	Stable
Issuer Rating	Baa2
PARENT: LG&E AND KU ENERGY LLC	
Outlook	Stable
Issuer Rating	Baa1
Senior Unsecured	Baa1

Source: Moody's Investors Service

REPORT NUMBER 1096379

MOODY'S INVESTORS SERVICE

CREDIT OPINION
27 October 2017

Update

Rate this Research

RATINGS

Kentucky Utilities Co.

Domicile	Lexington, Kentucky, United States
Long Term Rating	A3
Type	LT Issuer Rating
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

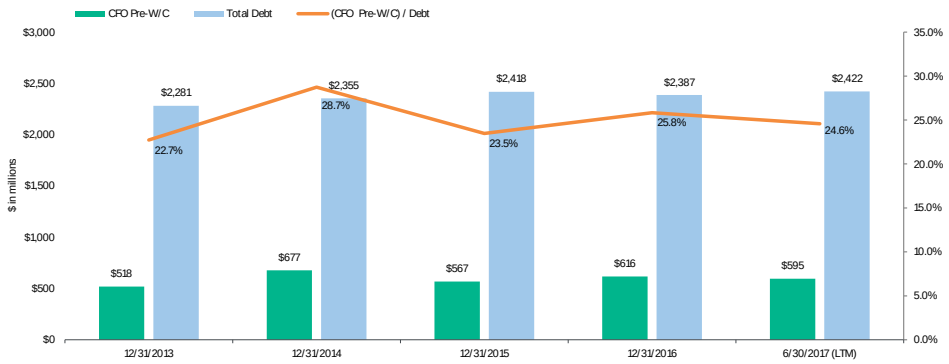
Kentucky Utilities Co.

Update to credit analysis

Summary

Kentucky Utilities' (KU, A3 stable) credit strengths includes its stable financial performance and the credit supportive regulatory environments in Kentucky and Virginia where it operates. However, these are slightly offset, in part, by a large multiple year capital expenditure program and, to a lesser extent, a lack of fuel and geographic diversity.

Exhibit 1
Historical CFO Pre-WC, Total Debt and CFO Pre-WC to Debt



Source: Moody's Financial Metrics

Credit Strengths

» Supportive regulatory environment in Kentucky and Virginia

» Strong and stable financial metrics

Credit Challenges

» Large capital expenditure program over the next five years

» High coal concentration in its generation fuel mix

Rating Outlook

KU's stable outlook reflects its supportive regulatory environments and consistent financial performance. Also, it incorporates the expectation that KU's credit metrics will be maintained around low 20%.

Factors that Could Lead to an Upgrade

It is unlikely that KU's rating will be upgraded while the company executes on its large capital investment program. However, ratings could be upgraded if the company receives more favorable regulatory recovery mechanisms for non-environmental related capital expenditures or maintains its cash flow from operations before changes in working capital (CFO Pre-WC) to debt ratio at 26% or above on a sustained basis.

Factors that Could Lead to a Downgrade

KU's ratings could be downgraded should the company experience materially unfavorable regulatory developments or unanticipated changes are made to the regulatory compact that currently provides for timely recovery of costs. A downgrade could also be considered if CFO pre-WC to debt declines below 20% for an extended period of time.

Key Indicators

Exhibit 2

KEY INDICATORS [1]

Kentucky Utilities Co. -Private

	12/31/2013	12/31/2014	12/31/2015	12/31/2016	6/30/2017(L)
CFO pre-WC + Interest / Interest	8.2x	9.6x	7.8x	7.3x	7.0x
CFO pre-WC / Debt	22.7%	28.7%	23.5%	25.8%	24.6%
CFO pre-WC – Dividends / Debt	17.3%	22.5%	17.1%	15.4%	14.5%
Debt / Capitalization	38.1%	36.6%	35.8%	34.7%	34.6%

[1]All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Source: Moody's Financial Metrics™
Source: Moody's Financial Metrics

Profile

Kentucky Utilities (KU, A3 stable) is a regulated public utility engaged in the generation, transmission and distribution of electricity. KU provides electric service to approximately 521,000 customers in Kentucky and 28,000 customers in Virginia. Its service territory covers approximately 4,800 square miles.

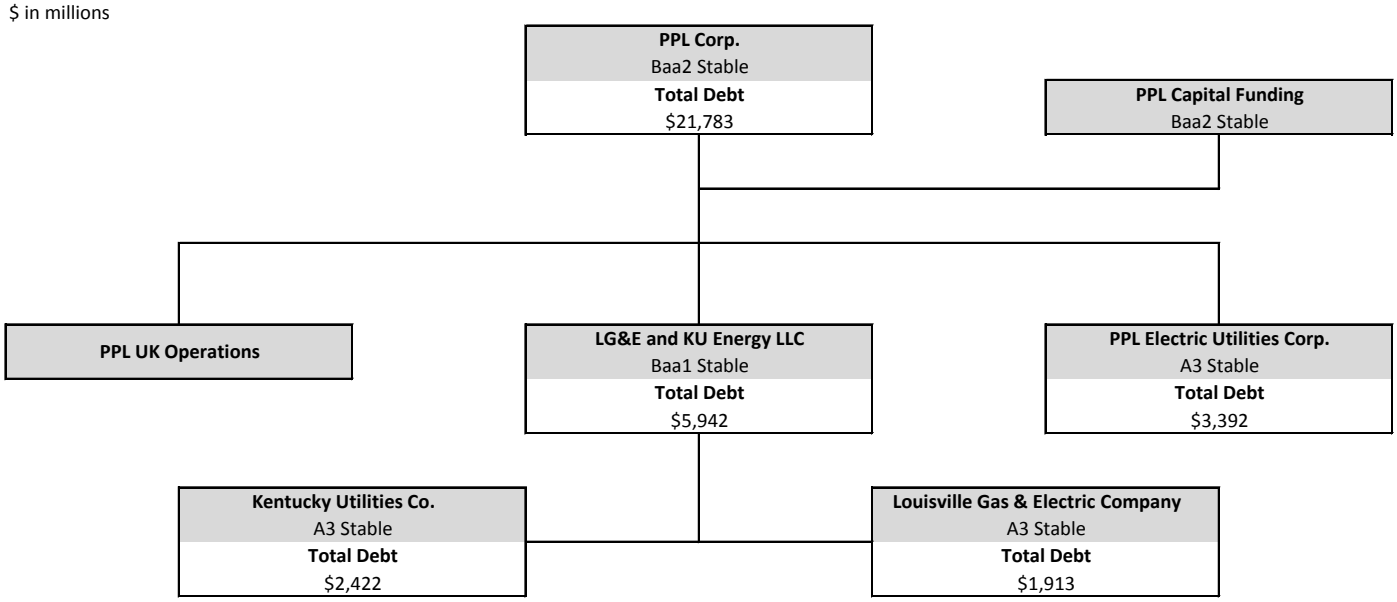
KU is a wholly-owned subsidiary of LG&E and KU Energy LLC (LKE, Baa1 stable). KU and its affiliate, Louisville Gas and Electric Company (LG&E, A3 stable), are the two main operating entities of LKE. LKE, in turn, is wholly owned by PPL Corporation (PPL, Baa2 stable), a utility holding company headquartered in Allentown, PA.

Exhibit 3

Organization Structure

As of 30 June 2017

$ in millions



Total debt is based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

Source: Moody's Financial Metrics, company

Detailed Credit Considerations

- Supportive regulatory environments provide for timely investment cost recovery

We consider the Kentucky Public Service Commission (KPSC) to be supportive of long term credit quality. For example, the KPSC has approved various tracker mechanisms, allowing timely cost recovery for utility investments outside of a rate case. KU's tracker mechanisms include a Fuel Adjustment Clause (FAC), an Environmental Cost Recovery Surcharge (ECR) and a Demand-Side Management (DSM) Cost Recovery Mechanism. KU does not have a decoupling mechanism in place, which subjects KU's net revenue to weather volatilities. The lack of a decoupling mechanism is less of an issue for non-weather related demand fluctuations because KU has the DSM mechanism.

The last general rate case in Kentucky concluded in June 2017 when a settlement was reached and approved. In the settlement, KU was authorized a $51.6 million electric revenue increase. The settlement provided for a 9.7% return on equity (ROE) but did not specify the allowed equity capitalization. In its order, the KSPC excluded the recovery of certain costs for funding employee retirement plans. Prior to the settlement sent before the commission, KU agreed to withdraw its request to recover costs related to its Advanced Meter System Project reducing its revenue requirement by about $6.3 million. The withdrawal of its request to recover those costs does not preclude KU from asking the commission to consider cost recovery in the future.

In January 2016, KU and affiliate utility Louisville Gas & Electric Company (LG&E, A3 stable) submitted applications to the KPSC, requesting ECR rate treatment for projects related to the EPA's regulations addressing the handling of coal and combustion by products and MATS (mercury and air toxics standards). In August 2016, the KPSC approved the settlement and authorized a 9.8% ROE for the projects. However, on 23 June 2017, the KPSC lowered the authorized ROE to 9.7% for all of LG&E's and KU's existing approved ECR plans and projects. Effective August 2017 the lower ROE replaces the previously authorized ROE for approved ECR projects.

In September 2017, KU filed a rate case with the Virginia State Corporation Commission (SCC). In its rate case filing KU is requesting an approximate $6.7 million increase in base rates based on a 10.42% ROE and a 53.85% equity layer. The primary reason for the filing is to recover costs related to environmental compliance. A final decision is expected by June 2018 with new rates effective in July 2018.

- Large capital expenditure planned over the next five years

KU's total capital expenditures over the next five years are estimated to be $2.7 billion, with $789 million related to environmental investments. Between 2012 and 2016, KU's total capital expenditure was approximately $2.8 billion. The total projected capital expenditure represents about 41% of KU's net book value of property, plant and equipment, which was about $6.6 billion at the end of the second quarter of 2017.

We expect the regulatory lag related to KU's large capital expenditures to be meaningfully moderated by Kentucky's supportive regulatory environment, especially regarding the environmental expenditures through the ECR. The KPSC is also authorized to grant return on construction work in progress (CWIP) in rate case proceedings, a credit positive. Moreover, the ECR minimizes any regulatory lag for investments associated with complying with the Clean Air Act compliance and coal combustion waste and by-product environmental requirements. The terms of the ECR allow KU to receive a return on and of investments two months after the capital is deployed. We view this to be credit supportive compared to the traditional rate-making process where there would be longer regulatory lag due to the length of the construction period and subsequent rate case proceeding.

- Stable financial profile

KU's financial metrics have been consistently strong. As of 30 June 2017, CFO pre-WC to debt was 24.6% for the last twelve months (LTM) and 25.2% on average for the past three years. Its LTM debt to capitalization ratio was 35% and 35.2% on average over the past three years. We expect KU's financial metrics to remain stable as it continues to benefit from the extension of bonus depreciation through its large capital expenditure program.

- High reliance on coal as fuel for generation

KU's current generation capacity heavily relies on coal. Of its 5.1 GW of generating capacity, 3.1 GW (61%) is coal-fired, which provides the majority (77%) of the electricity generation output. The remaining 39% of the generating capacity is comprised mainly of gas- or oil-fired facilities. KU's generation fuel mix became more diversified when a new gas-fired power plant replaced its older coal-fired

power plants. When Cane Run 7, a new 640 MW power plant, became operational in June 2015, it replaced three older coal-fired plants which had a combined generating capacity of 555 MW.

Fuel concentration, especially in coal, is normally considered to be a significant credit negative. However, we do not view KU's high reliance on coal to be as negative as some other companies because the state of Kentucky is very supportive of the coal industry. This support is evidenced by the ECR, which provides the company with credit supportive terms for its investments in coal-related environmental expenditures. Kentucky is also one of the states that filed lawsuits to overturn the Clean Power Plan (CPP), which the Supreme Court stayed on 9 February 2016. Both KU and LG&E have decided not to incorporate their CPP spending in their current capital plan as the issue continues to be litigated.

Liquidity Analysis

KU's short-term rating is P-2 and we expect the utility to maintain adequate liquidity over the next 12-18 months.

KU has a $400 million syndicated credit facility expiring in January 2022 and a $198 million letter of credit facility expiring in October 2020. As of 30 June 2017, KU had issued $51 million of commercial paper and had $349 million of unused capacity under its syndicated credit facility. Its $198 million of letter of credit facility was fully used. For the LTM ending 30 June 2017, KU had negative free cash flow of $19 million which is likely to remain negative in coming years given its large capital expenditure program. KU's next debt maturity is $500 million of Secured Notes maturing in 2020.

LG&E and KU Energy (LKE, Baa1 stable), the intermediate parent company of KU, manages the liquidity of its utility operations through its two subsidiaries on a consolidated basis, although each utility has a separate credit facility. Also, LKE has a $75 million syndicated credit facility that expires in October 2018 and LG&E has a $500 million syndicated credit facility maturing in January 2022. As of 30 June 2017, LKE had the entire $75 million available and LG&E had $293 million available. Each facility contains a financial covenant requiring that the companies' debt to total capitalization not exceed 70%. All entities were in compliance as of 30 June 2017.

Rating Methodology and Scorecard Factors

Exhibit 4

Rating Factors				
Kentucky Utilities Co. -Private				
Regulated Electric and Gas Utilities Industry Grid [1][2]	Current LTM 6/30/2017		Moody's 12-18 Month Forward View As of Date Published [3]	
Factor 1 : Regulatory Framework (25%)	**Measure**	**Score**	**Measure**	**Score**
a) Legislative and Judicial Underpinnings of the Regulatory Framework	A	A	A	A
b) Consistency and Predictability of Regulation	A	A	A	A
Factor 2 : Ability to Recover Costs and Earn Returns (25%)				
a) Timeliness of Recovery of Operating and Capital Costs	Baa	Baa	Baa	Baa
b) Sufficiency of Rates and Returns	A	A	A	A
Factor 3 : Diversification (10%)				
a) Market Position	Baa	Baa	Baa	Baa
b) Generation and Fuel Diversity	Baa	Baa	Baa	Baa
Factor 4 : Financial Strength (40%)				
a) CFO pre-WC + Interest / Interest (3 Year Avg)	7.8x	Aa	6x - 8x	Aa
b) CFO pre-WC / Debt (3 Year Avg)	25.2%	A	24% - 28%	A
c) CFO pre-WC – Dividends / Debt (3 Year Avg)	17.3%	A	17% - 21%	A
d) Debt / Capitalization (3 Year Avg)	35.2%	A	33% - 37%	A
Rating:				
Grid-Indicated Rating Before Notching Adjustment		A2		A2
HoldCo Structural Subordination Notching			0	0
a) Indicated Rating from Grid		A2		A2
b) Actual Rating Assigned		A3		A3

[1]All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
[2]As of 6/30/2017(L)
[3]This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.
Source: Moody's Financial Metrics

Ratings

Exhibit 5

Category	Moody's Rating
KENTUCKY UTILITIES CO.	
Outlook	Stable
Issuer Rating	A3
Bkd LT IRB/PC	A1
Senior Secured	A1
Sr Unsec Bank Credit Facility	A3
Commercial Paper	P-2
Bkd Other Short Term	P-2
ULT PARENT: PPL CORPORATION	
Outlook	Stable
Issuer Rating	Baa2
PARENT: LG&E AND KU ENERGY LLC	
Outlook	Stable
Issuer Rating	Baa1
Senior Unsecured	Baa1

Source: Moody's Investors Service

REPORT NUMBER 1096368

S&P Global
Ratings

RatingsDirect®

Summary:

Louisville Gas & Electric Co.

Primary Credit Analyst:
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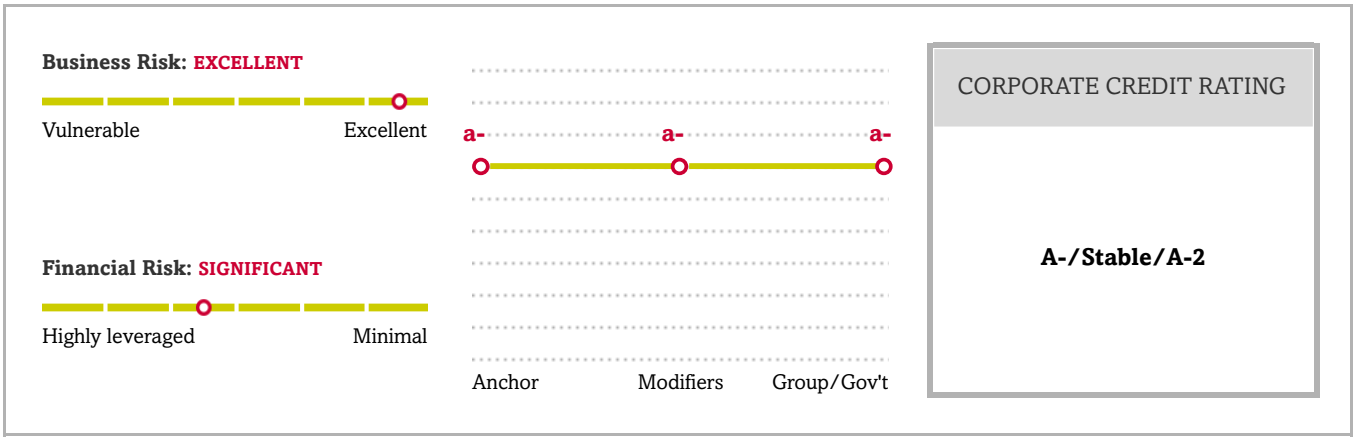
Summary:

Louisville Gas & Electric Co.



Rationale

Business Risk: Excellent	Financial Risk: Significant
• Vertically integrated electric and natural gas distribution utility. • Operates under a generally constructive and credit-supportive regulatory framework in Kentucky. • Limited service territory and midsized customer base.	• Core credit ratios support a significant financial risk profile assessment using moderate financial benchmarks compared to the typical corporate issuer. • Elevated capital expenditure program, with focus on distribution infrastructure investment and environmental compliance spending, leading to negative discretionary cash flow. • Balanced capital structure supports overall credit profile.

Outlook: Stable

The stable rating outlook on Louisville, Ky.-based Louisville Gas & Electric Co. (LG&E) reflects the rating outlook on its parent, PPL Corp. (PPL), because S&P Global Ratings views LG&E as a core subsidiary of its parent.

The stable outlook on PPL is based on the company's excellent business risk profile that we view at the upper end of the range and significant financial risk profile, which is at the lower end of the range. Under our base-case scenario we expect that funds from operations (FFO) to debt will range from 13%-14% while debt to EBITDA will remain elevated at over 5x.

Downside scenario

We could lower the ratings on PPL and its subsidiaries, including LG&E, if core credit ratios weaken such that FFO to debt is below 13% on a consistent basis over the next 12 to 18 months, while maintaining the current level of business risk.

Upside scenario

Given our assessment of business risk and our base-case scenario for financial performance, we do not anticipate higher ratings during the outlook period. However, higher ratings would largely depend on PPL achieving FFO to debt of more than 18% on a consistent basis over the next 12 to 18 months, while maintaining the current level of business risk.

Our Base-Case Scenario

Assumptions

- Gross margin growth is primarily driven by anticipated base rate increases and the timely recovery of planned environmental compliance costs.
- Elevated capital spending of about $600 million annually for the next few years, mainly for distribution infrastructure investment and upgrading generation to comply with environmental regulations.
- Discretionary cash flow to remain negative due to higher capital expenditures and dividends.
- All debt maturities are refinanced.

Key Metrics

	2016A	2017E	2018E
FFO/debt (%)	25.5	21-23	21-23
Debt/EBITDA (x)	3.4	About 3.5	About 3.5

A--Actual. E—Estimate. FFO—Funds from operations.

Company Description

LG&E operates in and around Louisville, Ky., where it provides electricity service to 400,000 customers and natural-gas distribution service to 320,000 customers.

Business Risk: Excellent

We assess LG&E's business risk profile based primarily on the company's regulated integrated electric utility and natural gas distribution operations under the generally constructive regulatory framework in Kentucky.

LG&E has limited scale, scope, and diversity, serving a customer base of about 400,000 electric and about 320,000 natural gas customers in Louisville. The customer base consists largely of residential and commercial customers, insulating the company from fluctuations in demand and providing stability to the company's cash flows. Our assessment also accounts for the modest operating diversity of the company due to its electric and natural gas operations.

The company has about 3,000 megawatts (MW) of generation capacity, which has higher operating risk than transmission and distribution (T&D) operations. The company has been upgrading its coal-fired generation plants to comply with environmental regulations. While the capital costs of these upgrades are significant, spending can be recovered through an environmental cost recovery mechanism, which limits regulatory lag and is supportive of the credit profile. Under the regulation of the Kentucky Public Service Commission (PSC), the company benefits from other mechanisms such as a gas line tracker and a pass-through fuel cost mechanism. These mechanisms increase the stability of the company's returns.

Moreover, the company's low-cost coal-fired generation and efficient operations contribute to overall competitive rates for customers.

Financial Risk: Significant

Under our base-case scenario, we project that LG&E's FFO to debt will range from 21%-23% and debt to EBITDA will remain about 3.5x. Over the next few years, we expect credit measures to benefit from the company's use of regulatory mechanisms to recover its invested capital. Our assessment also includes recently approved rate case outcomes that increased electric rates by about $57 million and gas rates by about $7 million.

We assess LG&E's financial risk profile as significant using moderate financial benchmarks compared to the typical corporate issuer, accounting for the company's low-risk regulated electric T&D and natural gas distribution operations, which are partially offset by relatively higher-risk regulated generation.

Liquidity: Adequate

We assess LG&E's liquidity as adequate to cover its needs over the next 12 months. We expect that the company's liquidity sources will exceed its uses by 1.1x or more, the minimum threshold for this designation under our criteria and that the company will also meet our other requirements for such a designation.

We view LG&E as having well-established and solid bank relationships, the ability to absorb high-impact, low-probability events without the need for refinancing, and a satisfactory standing in credit markets.

Additionally, we expect that LG&E's liquidity will benefit from stable cash flow generation, a $500 million revolving credit facility, sufficient liquidity support provided by the parent to meet ongoing needs, and manageable debt maturities over the next few years.

Principal Liquidity Sources	Principal Liquidity Uses
• Minimal cash balance assumed; • Revolving credit facility of $500 million; and • Cash FFO of about $550 million.	• Debt maturities of about $200 million; • Maintenance capital expenditure of about $550 million; and • Common stock dividends of about $145 million.

Group Influence

We assess LG&E as a core subsidiary of parent PPL Corp. because it is highly unlikely to be sold, is integral to the group's overall strategy, possesses significant management commitment, is a major contributor to the group, and is closely linked to the parent's reputation. Moreover, there are no meaningful insulation measures in place that protect LG&E from its parent. As a result, the issuer credit rating on LG&E is 'A-', in line with the group credit profile of 'a-'.

Ratings Score Snapshot

Corporate Credit Rating

A-/Stable/A-2

Business risk: Excellent

- **Country risk:** Very low
- **Industry risk:** Very low
- **Competitive position:** Excellent

Financial risk: Significant

- **Cash flow/Leverage:** Significant

Anchor: a-

Modifiers

- **Diversification/Portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Adequate (no impact)
- **Management and governance:** Satisfactory (no impact)
- **Comparable rating analysis:** Neutral (no impact)

Stand-alone credit profile : a-

- **Group credit profile:** a-
- **Entity status within group:** Core (no impact)

Issue Ratings

The short-term rating on LG&E is A-2, based on our issuer credit rating of 'A-'.

Recovery Analysis

LG&E's first-mortgage bonds benefit from a first-priority lien on substantially all of the utility's real property owned or subsequently acquired. Collateral coverage of over 1.5x supports a recovery rating of '1+' and an issue rating one notch above the issuer credit rating.

Related Criteria

- Criteria - Corporates - General: Reflecting Subordination Risk In Corporate Issue Ratings, Sept. 21, 2017
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology, Nov. 19, 2013
- Criteria - Corporates - Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- General Criteria: Group Rating Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- Criteria - Corporates - Utilities: Collateral Coverage And Issue Notching Rules For '1+' And '1' Recovery Ratings On Senior Bonds Secured By Utility Real Property, Feb. 14, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009
- Criteria - Insurance - General: Hybrid Capital Handbook: September 2008 Edition, Sept. 15, 2008

Business And Financial Risk Matrix

Business Risk Profile	Financial Risk Profile					
	Minimal	Modest	Intermediate	**Significant**	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	**a-**	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

S&P Global
Ratings

RatingsDirect®

Summary:

Kentucky Utilities Co.

Primary Credit Analyst:
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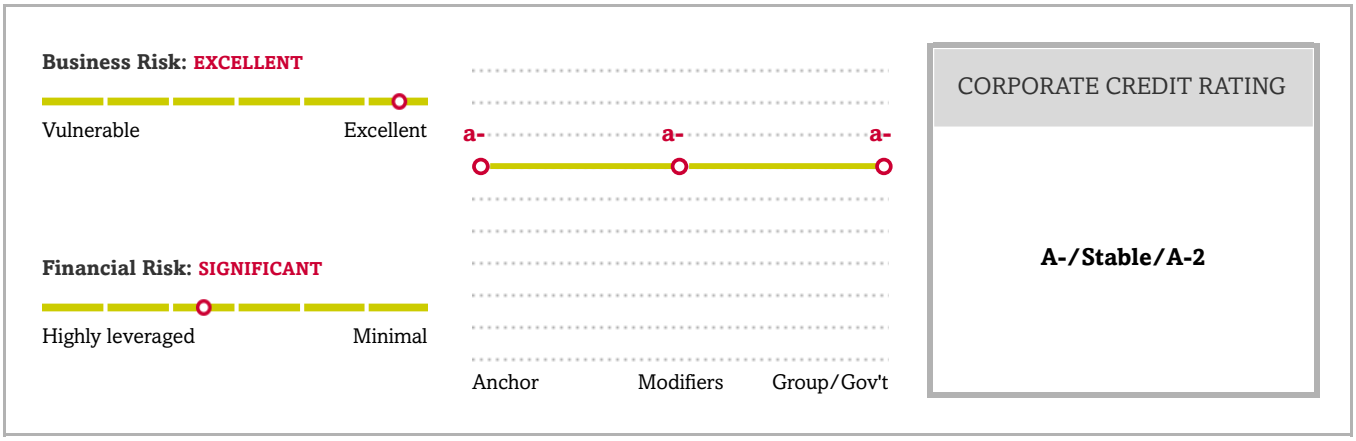
Summary:

Kentucky Utilities Co.



Rationale

Business Risk: Excellent	Financial Risk: Significant
• Regulated and vertically integrated electric utility. • Operates under a generally constructive and credit-supportive regulatory framework in Kentucky. • Limited geographic diversity and relatively small customer base. • Material exposure to coal-fired generation results in some operating and environmental risk.	• Core credit ratios support the assessment of a significant financial risk profile using moderate financial benchmarks compared to the typical corporate issuer. • Balanced capital structure supports overall credit profile. • Capital expenditures, primarily driven by environmental spending, leading to negative discretionary cash flows.

Outlook: Stable

The stable rating outlook on Kentucky Utilities Co. (KU) reflects S&P Global Ratings' outlook on its parent, PPL Corp. (PPL), because KU is viewed as a core subsidiary of its parent.

The stable outlook on PPL is based on the company's excellent business risk profile that we view at the upper end of the range and significant financial risk profile, which is at the lower end of the range. Under our base case scenario we expect that funds from operations (FFO) to debt will range from 13%-14% while debt to EBITDA will remain elevated at over 5x.

Downside scenario

We could lower the ratings on PPL and its subsidiaries, including KU, if core credit ratios weaken such that FFO to debt is below 13% on a consistent basis over the next 12 to 18 months, while maintaining the current level of business

risk.

Upside scenario

Given our assessment of business risk and our base-case scenario for financial performance, we do not anticipate higher ratings on PPL and its subsidiaries during the outlook period. However, higher ratings would largely depend on PPL achieving FFO to debt of more than 18% on a consistent basis over the next 12 to 18 months, while maintaining the current level of business risk.

Our Base-Case Scenario

Assumptions	Key Metrics

- Gross margin growth primarily benefits from anticipated base-rate increases and the timely recovery of planned environmental compliance costs.
- Elevated capital spending of about $550 million to $650 million per year through 2019 mainly for upgrading generation to meet environmental regulations and investment on transmission and distribution infrastructure.
- All debt maturities are refinanced.

	2016A	2017E	2018E
FFO to debt (%)	23.8	21-23	20-22
Debt to EBITDA (x)	3.4	About 3.5	About 3.5

A--Actual. E—Estimate. FFO—Funds from operations.

Company Description

KU is a vertically integrated electric utility providing service to about 550,000 customers mostly in Kentucky.

Business Risk: Excellent

We assess KU's business risk profile based on the company's regulated integrated utility operations under a generally constructive regulatory framework in Kentucky that provides for timely recovery of approved capital expenditures.

KU lacks scale and geographic diversity since it operates mainly in the state of Kentucky with some operations in Virginia. The customer mix is mostly residential and commercial, which insulates the company from fluctuations in electricity demand and results in relatively stable cash flows.

The company has generation capacity of about 5,000 megawatts (MW). Because much of the generation is coal-fired, the company has been upgrading its plants to comply with environmental regulations. However, the company can recover the costs for these upgrades through an environmental cost recovery mechanism, which limits regulatory lag and is supportive of the credit profile. Under the regulation of the Kentucky Public Service Commission (PSC), the company benefits from other recovery mechanisms such as a pass-through fuel cost and a purchased power cost recovery rider. These mechanisms increase the stability of the company's returns. Moreover, the company's low-cost,

coal-fired generation and efficient operations contribute to the overall competitive rates for customers.

Financial Risk: Significant

Under our base-case scenario, we project that KU's FFO to debt will range from 20%-23% and debt to EBITDA will remain about 3.5x. Over the next few years, we expect credit measures to benefit from the use of regulatory mechanisms to recover its invested capital cost. Our assessment also includes a recently approved base-rate increase of about $50 million.

We assess KU's financial risk profile as significant using moderate financial benchmarks compared to the typical corporate issuer, accounting for the company's low-risk regulated electric transmission and distribution operations, which are partially offset by relatively higher-risk regulated generation.

Liquidity: Adequate

We assess KU's liquidity as adequate to cover its needs over the next 12 months. We expect that the company's liquidity sources will exceed its uses by 1.1x or more, the minimum threshold for this designation under our criteria and that the company will also meet our other requirements for such a designation.

We view KU as having well-established and solid bank relationships, the ability to absorb high-impact, low-probability events without the need for refinancing, and a satisfactory standing in credit markets.

Additionally, we expect that KU's liquidity will benefit from stable cash flow generation, a $400 million revolving credit facility, sufficient liquidity support provided by the parent to meet ongoing needs, and manageable debt maturities over the next few years.

Principal Liquidity Sources	Principal Liquidity Uses
• Minimal cash balance assumed; • Revolving credit facility of $400 million; and • Cash FFO of $660 million-$665 million.	• Debt maturities of about $50 million; • Capital expenditure of $600 million; and • Common stock dividends of about $265 million to $270 million.

Group Influence

KU is subject to our group rating methodology criteria. We assess KU as a core subsidiary of parent PPL Corp. because it is highly unlikely to be sold, is integral to the group's overall strategy, possesses significant management commitment, is a significant contributor to the group, and is closely linked to the parent's reputation. Moreover, there are no meaningful insulation measures in place that protect KU from its parent. As a result, the issuer credit rating on KU is 'A-', in line with PPL's group credit profile of 'a-'.

Ratings Score Snapshot

Corporate Credit Rating

A-/Stable/A-2

Business risk: Excellent

- **Country risk:** Very low
- **Industry risk:** Very low
- **Competitive position:** Strong

Financial risk: Significant

- **Cash flow/Leverage:** Significant

Anchor: a-

Modifiers

- **Diversification/Portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Adequate (no impact)
- **Management and governance:** Satisfactory (no impact)
- **Comparable rating analysis:** Neutral (no impact)

Stand-alone credit profile : a-

- **Group credit profile:** a-
- **Entity status within group:** Core (no impact)

Issue Ratings

The short-term rating on KU is 'A-2', based on the issuer credit rating of 'A-'.

Recovery Analysis

KU's first-mortgage bonds benefit from a first-priority lien on substantially all of the utility's real property owned or subsequently acquired. Collateral coverage of over 1.5x supports a recovery rating of '1+' and an issue rating one notch above the issuer credit rating.

Related Criteria

- Criteria - Corporates - General: Reflecting Subordination Risk In Corporate Issue Ratings, Sept. 21, 2017

- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology, Nov. 19, 2013
- Criteria - Corporates - Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- General Criteria: Group Rating Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- Criteria - Corporates - Utilities: Collateral Coverage And Issue Notching Rules For '1+' And '1' Recovery Ratings On Senior Bonds Secured By Utility Real Property, Feb. 14, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009
- Criteria - Insurance - General: Hybrid Capital Handbook: September 2008 Edition, Sept. 15, 2008

Business And Financial Risk Matrix

	Financial Risk Profile					
Business Risk Profile	Minimal	Modest	Intermediate	**Significant**	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	**a-**	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

WHEN THE FED YIELDS
DYNAMICS AND IMPACT OF U.S. RATE RISE

MAY 2015

BLACKROCK®

BLACKROCK
INVESTMENT
INSTITUTE




Ewen Cameron Watt (TOP LEFT)
Global Chief Investment Strategist, BlackRock Investment Institute

Russ Koesterich (TOP RIGHT)
Global Chief Investment Strategist, BlackRock Investment Institute

Rick Rieder (BOTTOM LEFT)
Chief Investment Officer, BlackRock Fundamental Fixed Income

Jean Boivin (BOTTOM RIGHT)
Deputy Chief Investment Strategist, BlackRock Investment Institute

What Is Inside

Summary

The U.S. labor market is strengthening , inflation appears to have troughed and financial markets are looking frothy. What happens when the Federal Reserve (Fed) finally yields to this reality and raises short-term interest rates? Our portfolio managers in April debated the powerful, often conflicting forces shaping the Fed's decision and the U.S. yield curve. Here are our main conclusions:

- We expect the Fed to raise short-term interest rates in 2015—but probably not before September. Technological advances are set to keep dampening wage growth and inflation, reducing the need for the Fed to raise short-term rates as quickly and as high as in past tightening cycles.
- The longer the Fed waits, the greater the risk of asset price bubbles—and subsequent crashes. Years of easy money have inflated asset valuations and encouraged look-alike yield-seeking trades. We would prefer to see the Fed depart from its zero interest rate policy (ZIRP) sooner rather than later.
- A glut of excess bank reserves and the rise of non-bank financing mean the Fed's traditional tools for targeting short-term rates have lost their potency. Overnight reverse repurchase agreements are part of the new playbook. We expect the Fed's plan for ending zero rates to work, but do not rule out hiccups.
- The impact of any U.S. rate hikes on long-maturity bonds is crucial. We suspect the Fed would prefer to see a gentle upward parallel shift in the yield curve, yet it has only a limited ability to influence longer-term rates. We detail how the absence of a steady buyer in the U.S. Treasury market will start to be felt in 2016.
- We see the yield curve flattening a bit more over time due to strong investor demand for long-term bonds. Demand for high-quality liquid fixed income assets from regulated asset owners alone (think insurers and central banks) is set to outstrip net issuance to the tune of $3.5 trillion in 2015 and $2.3 trillion next year.
- The forces anchoring bond yields lower are here to stay—and their effects could last longer than people think. Yet yields may have fallen too far. Bonds today offer little reward for the risk of even modestly higher interest rates or inflation. A less predictable Fed, rising bond and equity correlations and a rebound in eurozone growth could trigger yield spikes.
- Asset markets show rising correlations and low return for risk, our quantitative research suggests. We see correlations rising further as the Fed raises rates. We are now entering a period when both bonds and stocks could decline together. Poor trading liquidity could temporarily magnify any moves.
- Overseas demand should underpin overall demand for U.S. fixed income, especially given negative nominal yields in much of Europe. Credit spreads look attractive—on a relative basis. U.S. inflation-linked debt should deliver better returns than nominal government bonds in the long run, we think, even if inflation only rises moderately.
- Low-beta global equity sectors such as utilities and consumer staples have become bond proxies and look to be the biggest losers when U.S. yields rise. Cyclical sectors such as financials, technology and energy are potential winners.
- Angst about Fed rate rises, a rising U.S. dollar and poor liquidity could roil emerging markets (EM). Yet EM dollar debt looks attractive given a global dearth of high-yielding assets. EM equities look cheap, but many companies are poor stewards of capital. We generally like economies with strong reform momentum.

Timing of Rate Rise

The Fed is ending years of zero rates—at a time when other major central banks are going the opposite way (more than 20 central banks have cut rates so far this year). This is an unusual situation. The impact of the start of the rate-hiking cycle is underappreciated, we believe. Complacency is high among many asset owners who have benefited from the greatest carry trade in history, the $5 trillion-plus expansion in central bank balance sheets since 2008. We are in uncharted territory.

Current U.S. wage and inflation data bear limited resemblance to conditions at the start of the three most recent Fed tightening cycles. There are good reasons for this: The impact of a weak post-crisis recovery and technological advances have depressed both. Yet the unemployment rate stands at a similar level as in 2004—the last time the central bank started hiking rates. See the first row of the table below.

Central banks have dominated markets by buying up long-duration, high-quality liquid assets in return for cash.

The resulting shortage of high-quality assets has lowered corporate bond yields and, in turn, encouraged equity shortages created by debt-funded buybacks and mergers. Private equity and real estate valuations are soaring on overheated markets and easy credit. There is only limited diversification available when the quantitative easing (QE) tide has floated so many boats.

U.S. Treasuries trade at historically low yields and offer almost no term premium (compensation for the risk that interest rates rise faster than expected; see pages 8–9). Yet they look like great value compared with German bunds. See the table's second row. Credit spreads are not pricey on a relative basis versus the past (the third row).

Earnings yields of major stock indexes are at similar levels to previous hiking cycles, except that Japanese equities currently offer better value than in the 1990s (the fourth row). Other markets give very different readings. The dollar has rallied much more in the past 12 months in anticipation of the Fed's tightening—and given loose monetary policies elsewhere. Oil prices in the past year have seen a slide more precipitous than any year since the 1980s.

THIS TIME FEELS DIFFERENT

Economic and Market Indicators at Start of Rate Hiking Cycles, 1994–2015

	1994	1999	2004	May 21, 2013 "Taper Tantrum"	2015
ECONOMICS					
U.S. Unemployment	6.6%	4.3%	5.6%	7.5%	5.5%
Core PCE Inflation	2.3%	1.4%	2%	1.3%	1.4%
Hourly Earnings Growth	2.8%	3.7%	2%	1.9%	1.8%
GOVERNMENT BONDS					
U.S. 10-year Yield	5.7%	5.8%	4.7%	1.9%	2%
Yield Curve (10-year minus two-year)	160	25	212	171	143
Term Premium	2.1%	1.4%	2%	0.4%	-0.1%
U.S. 10-year Spread vs. Bunds	-6	159	37	55	179
CREDIT AND EM BOND SPREADS					
U.S. Investment Grade	67	107	93	122	121
U.S. High Yield	329	458	402	418	437
Emerging Market Dollar Debt	—	1,013	496	285	376
EQUITY VALUATION (EARNINGS YIELD)					
S&P 500	6.8%	4.2%	6.2%	7.3%	5.8%
Eurostoxx	5.4%	4.8%	8.2%	8.6%	6%
MSCI Emerging Markets	4.7%	5.3%	11.3%	9.9%	8%
Japan Topix	1.5%	1.8%	5.9%	6.6%	6.5%
U.S. DOLLAR AND COMMODITIES					
U.S. Dollar Index (12-month change)	2%	2%	-5%	3%	20%
Oil Price (12-month change)	-22%	9%	38%	3%	-43%

Sources: BlackRock Investment Institute, Thomson Reuters, JP Morgan, Barclays and MSCI, April 28, 2015. Notes: Yield curve and spreads are in basis points. Historical yields are not indicative of future levels.

ZERO IS THE WRONG NUMBER

The Fed has a window of opportunity to raise interest rates. Markets are pretty stable, U.S. employment is growing at a steady clip, and other central banks—led by the Bank of Japan (BoJ) and European Central Bank (ECB)—are flooding global markets with liquidity. The BlackRock U.S. Employment Index—our gauge of 10 key labor market indicators—has risen back to pre-crisis levels. See the chart on the right.

All of our index's subcomponents have turned positive this year. Its momentum has slowed a bit recently, yet non-farm payrolls (the largest component of our index) have been growing at the fastest 12-month pace since 2006. The Fed funds rate stood at 6% back then, versus zero today.

To be sure, inflation today is much lower than in 2006. Yet zero is the wrong number for short-term rates, we believe. Giving regular doses of morphine to a patient who is no longer in much pain is a health hazard and a waste of medical supplies.

Zero may also be a dangerous number. The Fed's highly accommodative monetary policy has inflated asset values across global markets. The longer the Fed leaves its target rate at zero, the greater the chance of asset price bubbles—and eventual crashes. Modest rate rises would merely take U.S. monetary policy to very stimulative, down from ultra-stimulative.

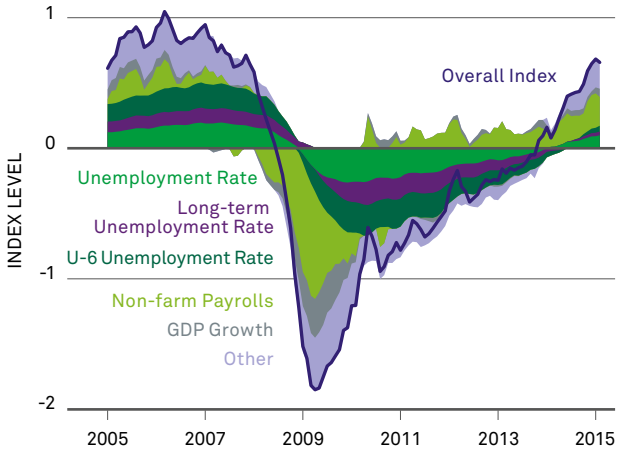
Fed Chair Janet Yellen's *modus operandi* appears to involve flagging a tightening measure—and then soon soothing markets with the message easy monetary policies are here to stay. This probably reflects a legitimate fear that long-term interest rates could snap back sharply when the Fed changes gears, undermining the economic recovery. The Fed has always said its stance depends upon the strength of economic data. Yet it appears to be moving the goal posts:

1. **Old story:** The data would need to be very weak to prevent us from hiking.
2. **New story:** The data must to be strong enough to justify hiking.

Markets have picked up on this subtle but important shift. Fed funds futures currently point to a mere 8% chance of a June rate hike (versus over 60% back in December 2014)—and have fully priced in a rate rise by year end. We do not rule out a rate hike in June but think a September liftoff is more likely.

BACK TO WORK

BlackRock U.S. Employment Index, 2005–2015



Source: BlackRock Investment Institute, March 2015. Notes: Other includes household employment, hires rate, quits rate, openings rate and the vacancy-to-unemployment ratio. The U-6 unemployment rate includes those who are seeking full-time work but have settled for a part-time job, as well as those who are not actively looking for work but have indicated they want a job.

The U.S. economy is once again underperforming expectations (as it has in the first quarter of the past five years). The Fed, therefore, has stated it wants to see two things before it is ready to push the launch button:

1. Solid jobs growth: The U.S. economy has generated an average of 260,000 jobs per month over the past year. Jobs growth has been pretty steady (despite a March blip)—and it is hard to see this trend changing any time soon. This argues for raising the short-term rate sooner rather than later.
2. A trough in inflation: Falling oil prices and the strong U.S. dollar have dampened headline consumer price index (CPI) inflation—and have even dragged long-term inflation expectations lower (these expectations have overshot, in our view; see page 12). The Fed's preferred core inflation gauge—personal consumption expenditures (PCE)—stood at just 1.4% in March. This is well below the central bank's 2% target.

The Fed has said it does not expect to see inflation hit its target before raising rates. The effects of an aging population and rapid technological innovation are suppressing inflation and nominal growth, as detailed in *Interpreting Innovation* of September 2014. Goods prices have been stagnant over the past five years, dragging overall inflation lower.

"The Fed keeps employing emergency policy settings—at a time when there is no longer an emergency."

— **Bob Miller**
Head of Multi-Sector and Rates, BlackRock Americas Fixed Income

Hike Mechanics

Ending the zero interest rate policy should be pretty straightforward. Or should it? The Fed is unusual among global central banks in that it does not set a policy rate. Instead, the central bank targets a range for short-term lending in the interbank market, the Fed funds rate.

The Fed used to guide markets toward its targeted funds rate by adjusting the supply of reserves in the banking system. To raise interest rates, it would drain reserves from the system by selling securities.

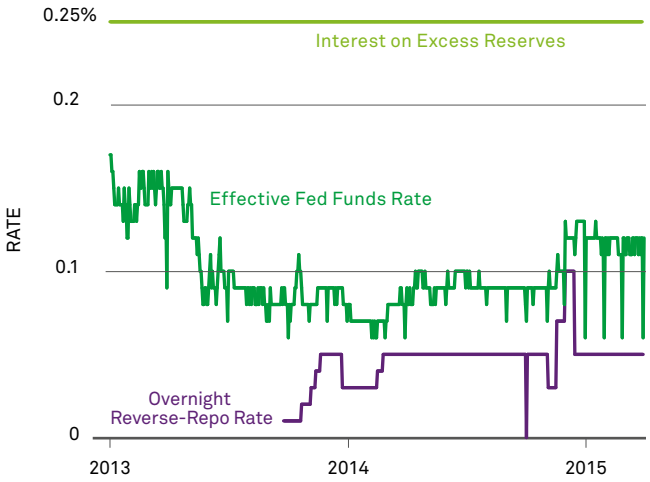
The problem: Excess reserves in the U.S. banking system—the amount of cash banks keep in hand above and beyond regulatory requirements—have swollen to around $2.6 trillion. (The Fed bought many of its securities under QE from commercial banks, which opted to park the proceeds at the Fed instead of lending them.) As a result, the Fed has introduced two new measures:

1. **Interest on excess reserves (IOER):** The Fed started paying interest on banks' excess reserves in 2008, at a rate of 0.25% a year. This was supposed to act as a floor for short-term rates by reducing the incentive for banks to lend at rates below IOER. Yet in practice, the level has looked more like a ceiling. The reason: Non-bank financial institutions such as money market funds have no access to IOER. These institutions also have a glut of cash—and have been investing it in short-term U.S. Treasuries, pushing short-term rates below the Fed's target.
2. **Overnight reverse repos:** These overnight reverse repurchase agreements enable the Fed to offer interest to non-bank financial institutions. Here is how it works: The Fed sells a security to these institutions, taking in cash and thereby draining liquidity from the system. It then agrees to buy it back a day later at a slightly higher price. The annualized reverse repo rate currently stands at five basis points. This tool now acts as the true floor for interest rates.

The Fed expects the effective Fed funds rate—a weighted average rate of overnight lending between banks—to drift in a "corridor" between the reverse repo rate and IOER. The system has worked since the introduction of the reverse repo program in September 2013. See the chart on the right.

THREADING THE NEEDLE

Key U.S. Short-Term Interest Rates, 2013–2015

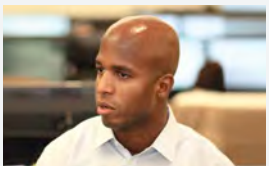


Sources: BlackRock Investment Institute, Bloomberg and New York Fed, April 2015.

Will the Fed be effective in using these tools to lift the short-term rate and tighten monetary conditions? It depends on what the Fed's goals are:

1. Stabilization of the Fed funds rate. This is definitely doable, in our view, with some hiccups along the way.
2. Anchoring the short end of the yield curve. The Fed should have no trouble focusing the market's attention on one of the rates, and defining that rate as a floor or a ceiling.
3. Influencing the shape of the entire yield curve. This objective is the most important for both the economy and markets. Yet it is the trickiest to control through the Fed funds rate (see pages 6–7).

To control short-term rates, the Fed will likely have to lift its $300 billion daily cap on reverse repos. This is not ideal: The central bank limited the facility to avoid becoming the go-to safe house in times of market stress. If this fails, the Fed could sell short-dated Treasuries. How much is in its coffers? Some $400 billion matures by the end of 2017. If the Fed were to start selling these securities, short-term rates should rise. Yet this would suggest the Fed's master plan has failed. Short-term yields could spike as market participants rush to get ahead of the Fed sales. This, in turn, could pressure rates up the yield curve.



"Unconventional monetary policy calls for an unconventional exit."

— **Terry Simpson**
Global Investment Strategist, BlackRock Investment Institute

After Liftoff

A fixation on the timing of the Fed's first rate hike risks missing the big picture. What matters more is the pace and trajectory of rate rises after liftoff. We are on a long journey. The important thing is keeping in mind the destination, not obsessing about whether we will make a left or right turn at the next intersection depending on the traffic. Markets are pricing in a gentle climb, with interest rate futures currently pointing to a rise of just 0.7% in short term rates in the year after September. Two key points:

- Even if market participants agree the Fed will tighten at a gentle pace, there are many possible paths from zero.
- A steady and well-telegraphed monetary tightening may not prevent an initial snap back in yields, the International Monetary Fund warns in its latest *Global Financial Stability Report*. A sudden rise of one percentage point in U.S. Treasury yields is "quite conceivable" as the Fed's first rate hike approaches, it says. The long period of low rates has extended the U.S. bond market's duration, or sensitivity to moves in short-term interest rates. The duration of the Barclays U.S. Aggregate Bond Index now stands at 5.5 years versus 4.3 in 2007.

An even more important question: What happens to the U.S. yield curve once the Fed successfully lifts short-term rates? This question really falls into two parts:

1. What does the Fed want to happen? It would like to see the entire curve shift upward (gently), we think. A steeper yield curve, by contrast, would drive up mortgage rates and could torpedo the economic recovery. This would undo much of the Fed's post-crisis work: Its purchases of U.S. Treasuries and mortgage-backed securities were aimed at lowering long-term rates to spur mortgage lending and reduce the cost of credit for businesses and households.
2. What actually happens to the yield curve after liftoff? Any snap back in the term or inflation risk premia (see pages 8–9) could lead to a temporary steepening. Yet our best guess is a gentle flattening over time as the entire curve shifts upward. Why? Long-end yields are capped by a shortage of supply of high-quality bonds, insatiable demand and lower yields in other developed countries.

LAW OF SUPPLY AND DEMAND

Supply and Demand of Global Fixed Income, 2015–2017

	2015	2016	2017
SUPPLY ($ trillions)			
Government Bonds	-$0.5	$1	$4
Other Bonds	$1.5	$1.5	$1.8
Supply	**$1**	**$2.5**	**$5.8**
DEMAND ($ trillions)			
Regulated Asset Owners	$4.5	$4.8	$5
Shortfall	**$3.5**	**$2.3**	**-$0.8**

Source: BlackRock Investment Institute, April 2015.
Note: Forecasts are BlackRock estimates.

Demand from regulated asset owners alone (insurers, central banks, pension funds and banks) is set to outstrip the total global supply of high-quality, liquid fixed income in 2015 and 2016, we estimate. (Demand for bonds is relatively inelastic, yet supply is on the decline; see page 7.) The situation flips in 2017, when we expect a big rise in the net supply of sovereign debt as the ECB and BoJ exit QE. See the table above.

Regulated asset owners fall into two broad categories:

1. "Price-insensitive" buyers such as insurers and reserve managers. They hold $40 trillion-plus in high-quality, liquid fixed income assets, we estimate. These asset owners have annual reinvestment needs of some $4 trillion—and have little choice but to keep plowing it into bonds.
2. "Price-sensitive" asset owners such as pension funds and banks. This group holds $20 trillion-plus of top-rated fixed income, we estimate. These buyers need to buy bonds for regulatory purposes (pension fund defeasement and bank capital requirements) but have a little more leeway to wait for attractive prices. They have annual reinvestment needs of at least $500 billion.

Many regulated asset owners suffer from a duration mismatch. Eurozone insurers tend to have liabilities (future payouts) with a longer duration than their assets. As yields fall, they must scramble to buy even more long-term bonds to keep the duration mismatch from widening further. This is a bit like a dog chasing its tail, according to *research* by the Bank for International Settlements published in April.

"Neither the Fed nor markets should be confused: There is no such thing as an immaculate tightening. There are powerful, conflicting forces."

— **Peter Fisher**
Senior Director, BlackRock Investment Institute

FINANCIAL CURIOSITY

Bidding up the price of long-dated bonds only ends up extending the duration of insurers' liabilities further. The risk? The more the term premium gets depressed, the greater the potential snap-back when the decline is reversed (see pages 8–10).

From whom will the regulated asset owners buy? Answer: return-seeking investors such as mutual funds and sovereign wealth funds. This price-sensitive group holds over $50 trillion of high-quality liquid fixed income, we estimate.

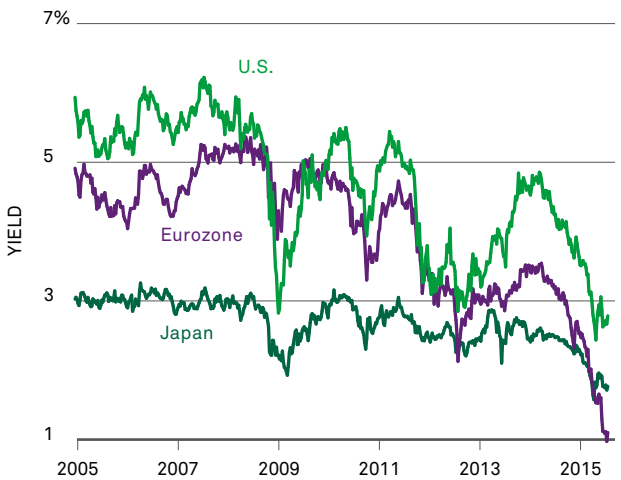
Markets expect this resulting dynamic to last for a long time. 10-year forwards on 10-year U.S. swap rates currently trade at 2.8%, implying a rise in yields of just 0.8% over the next decade. That is just eight basis points a year! See the chart below. And markets are pricing in a dire outlook for the eurozone and Japan, with 10-year forwards below 2% a decade from now. This makes little sense (unless you believe these economies will suffer permanent stagnation). Nominal bond yields should, in theory, track nominal economic growth rates in the long run. That would imply long-term yields closer to 4%-5% in the U.S. and 3% in the eurozone.

Government bond investors have a high probability of loss at this time. Bonds of a dozen or so eurozone countries come with negative yields. And the ones that do provide a paltry income can quickly turn into loss-making investments. The act of *paying* a government for lending it money deserves prime shelf space in the cabinet of financial curiosities.

Muted supply is another factor keeping yields low. Fiscal austerity means budget deficits are coming down around the world, curbing governments' need to issue debt.

VERY LOW FOR VERY LONG

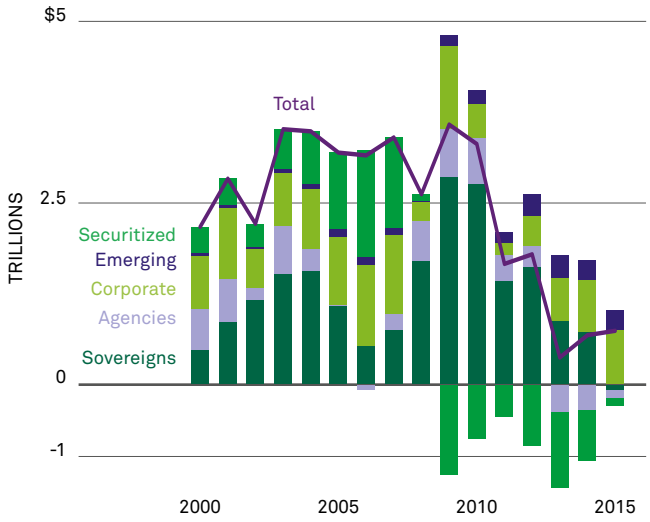
10-Year Forward 10-Year Swap Rates, 2005–2015



Sources: BlackRock Investment Institute and Thomson Reuters, April 28, 2015.

WANTED: BONDS

Developed Market Net Bond Issuance, 2000–2015



Sources: BlackRock Investment Institute and Morgan Stanley, March 2015.
Notes: The bars reflect fixed income issuance in the U.S., eurozone, Japan and U.K. Issuance is net of central bank purchases. Securitized products include covered bonds.

IN SHORT SUPPLY

Issuance of sovereign debt (net of central bank purchases) is expected to be negative in 2015—the first time on record. See the chart above. Corporate issuance is already at highs and unlikely to come to the rescue, we think. Companies raising debt to buy back shares could trigger ratings downgrades, impairing their ability to issue debt in the future. And the rise of asset-light business models (the sharing economy) means fewer corporations need to tap the debt markets.

Global sovereign bonds have become a single bet on duration, as seen in the long-term convergence of yields across countries. Demand for U.S. Treasuries is underpinned by overseas investors. Treasuries look attractive from a European and Japanese perspective. Japanese Government Bonds (JGBs) have long yielded next to nothing, driving domestic investors with yield targets to buy foreign bonds. The ECB's asset purchases have triggered a collapse even in the yields of riskier sovereign credits. Portuguese 10-year sovereign debt now yields less than equivalent U.S. Treasuries. We expect the ECB's fire hose of liquidity to support eurozone bonds. Yet valuations are getting disconnected from fundamentals, and we are wary of chasing yields lower.

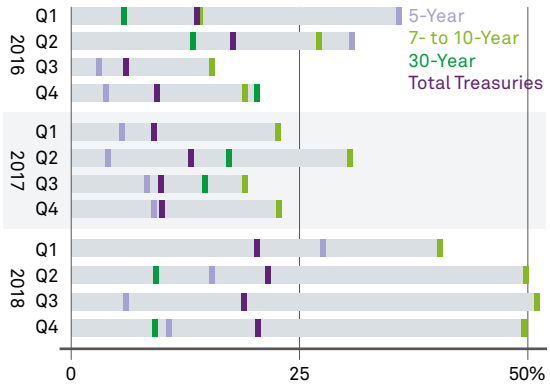
Bottom line: Exiting a long period of zero interest rates is tricky and a bit unsettling. Some of us feel like the informed citizens of Pompeii around 79 AD: We are grateful for the lovely sea views but worry about the volcano in the background.

UNDOING QE

The Fed's full exit from QE is another factor that could affect the shape of the yield curve. The Fed ended its monthly buying of U.S. Treasuries and mortgages in October 2014. Yet it still re-invests the proceeds of all maturing securities on its balance sheet. This does not matter this year: A paltry $3 billion, or 0.07% of the Fed's Treasury holdings, matures in the remainder of 2015, Fed data show. Yet roughly one-third of the Fed's U.S. Treasury portfolio, or $785 billion, comes due by the end of 2018. See the chart below.

RUNNING OFF

Run-Off of Fed Treasury Holdings as Share of Issuance



Sources: BlackRock Investment Institute and New York Fed, April 2015.
Note: The analysis assumes current issuance trends.

The Fed has said it will stop (or start phasing out) reinvesting when it raises the Fed funds rate. We expect it to keep re-investing for three months after liftoff—and then "taper" re-investments in U.S. Treasuries to zero over several months. It likely will keep re-investing maturing mortgage securities for the time being to avoid derailing a U.S. housing recovery.

Where will the Fed's absence be felt most acutely?

1. The Fed's maturing five-year Treasuries are equivalent to a whopping 35% of gross issuance in the first half of 2016.
2. The Fed's maturing seven- to 10-year Treasuries equal half the gross issuance starting in 2018.

Letting these bonds run off represents an additional tightening of monetary policy—a dynamic that may well have greater impact on financial markets than the ending of ZIRP in the short run.

Yield Breakdown

Bond yields around the world are eerily low. U.S. long-term yields are near record lows, Japanese 10-year government bonds yield just 0.3% and eurozone yields hover near zero or have actually gone negative in short- and medium-term maturities (there are reports of home owners suing their banks to get interest on their mortgages).

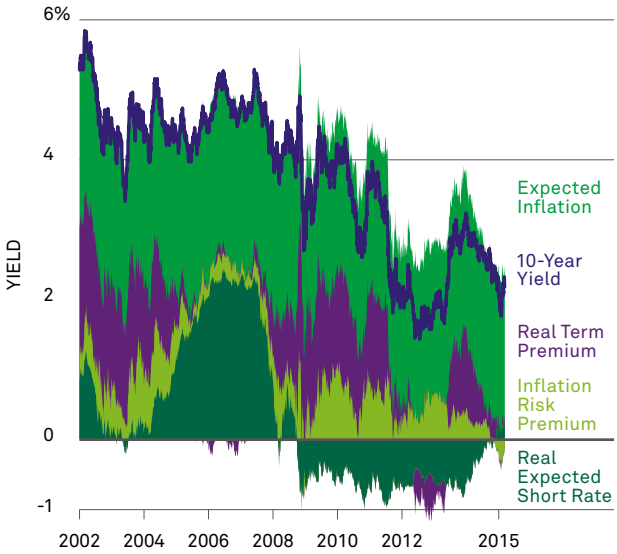
Why is this so? We break down the 10-year U.S. Treasury yield into four components to help answer this question: Expected inflation, the real expected short rate, the inflation risk premium and the real term premium.

Expected inflation: Nominal bond yields must compensate investors for the expected loss in purchasing power due to inflation. Expected inflation as measured by Goldman Sachs has been the largest component of the 10-year yield over the past decade or so, yet it has remained relatively steady. See the green shaded area in the chart below.

Real expected short rate: This reflects market expectations for the Fed's policy path over the coming year. It was stuck in a range of -50 to -100 basis points from the financial crisis through 2012, as the Fed flooded markets with liquidity. It has been on an upswing since the "taper tantrum" in 2013 (a yield spike caused by the Fed's announcing a tapering of its asset purchases). The current reading reflects expectations that the Fed will soon normalize policy (gently).

WHO STOLE MY TERM PREMIUM?

Breakdown of 10-Year U.S. Treasury Yield, 2002–2015



Sources: BlackRock Investment Institute, Goldman Sachs and U.S. Federal Reserve, March 2015. Note: The chart is based on Federal Reserve estimates of the term premium and Goldman Sachs estimates of expected inflation and the inflation risk premium.

PREMIUM PUZZLE AND REAL RIDDLE

The remaining two components of the 10-year yield make up the nominal term premium. A compression in the term premium has been the key contributor to the decline in 10-year yields since 2013. We break down this premium into two parts: the inflation risk premium (shaded light-green in the chart on page 8) and the real term premium (purple). Some observations on each:

Inflation risk premium: Bond holders typically demand an additional premium to compensate them for the risk that their inflation expectations may be wrong. This inflation risk premium has historically swung between zero and 1%—but recently dipped below zero. This is an oddity that we think will adjust itself.

The decline in U.S. yields is reflected by a compression of the inflation risk premium by about 0.75% over the past two years. Today's negative inflation risk premium is puzzling—the uncertainty around expected inflation does not appear lower than usual, a *recent paper* from the Cleveland Fed shows. In fact, we believe inflation risks may be growing. Potential upside and downside shocks over the next decade include:

- Further swings in the price of oil and other key commodities.
- The risk of unintended or unwanted market reactions to central banks exiting their unconventional monetary policies.
- Signs some central banks are feeling more relaxed about overshooting their inflation targets, while others (the Bank of Canada, for example) are making noise about the benefits of raising their inflation targets.

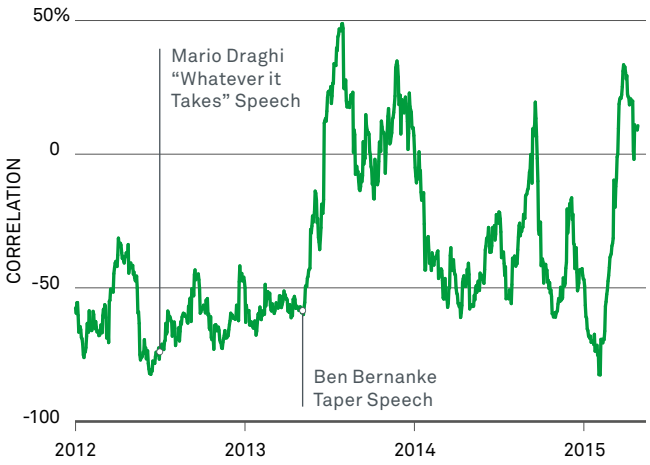
Real term premium: Holders of long-term bonds also need to be compensated for the risk that real interest rates will rise by more than expected in the future. The real term premium has flipped in and out of negative territory in the past couple of years. It rose to as high as 1.3% during the taper tantrum and then started a rapid decent that put it in negative territory this year.

There are good reasons to believe the real term premium could take off from today's depressed levels. QE compressed the term premium by sparking an appetite for yield and encouraging investors to pile into look-alike trades. Low premium levels have often been followed by sharp reversals. What could bring this about?

A change in the Fed's policy path could trigger such an upward movement, possibly steepening the yield curve for a while. And the gravitational pull of rock-bottom eurozone interest rates' dragging global bond yields lower may be waning. Eurozone yields appear to have fallen by more than the ECB's program of bond purchases justifies (even allowing for asset shortages).

COUNT ON CORRELATION

Global Equity and U.S. Treasury Return Correlation, 2012–2015



Sources: BlackRock Investment Institute, MSCI and Thomson Reuters, April 28, 2015.
Note: The line shows the 30-day rolling correlation between MSCI World Equity Index and U.S. 10-year Treasury returns.

Today's low term premium partly reflects muted volatility in yields. Yet Fed policy is becoming more unpredictable with the end of zero rates. This will likely result in more volatility.

The correlation between equity and bond returns has been mostly negative since the financial crisis. Bonds have been handy portfolio diversifiers, rallying when equities fall. Investors have been willing to trade off some of the usual premium for term risk in exchange for this hedging value. Yet correlations between equities and bonds have risen sharply in 2015—and are now positive again. See the chart above. This could act like an amplifier for the term premium.

It is not just bonds and equities starting to move in lock step. Markets overall are characterized by rising correlations and relatively low returns for risk, our quantitative research shows.

Poor trading liquidity plays into this. The situation is acute in corporate bonds, but even many equities suffer from transactional limits, as detailed in *The Liquidity Challenge* of June 2014. Illiquidity runs the risk of magnifying market moves, as highlighted in *A Disappearing Act* of May 2014.

Conclusion: One might be excused for thinking today's low rates are caused by expectations the Fed will tighten at a gentle pace and end at a historically low level. Yet the recent dive in 10-year U.S. Treasury yields is best explained by the collapse in the inflation risk and term premia. Structural forces such as technological innovation mean these risk premia are likely to settle at lower levels than in the past. Yet they appear to have overshot to the downside. Yields could spike—even if the Fed tightens steadily and predictably.

WHAT-IFS AND THEN-WHATS

It pays to be prepared. This is why our Risk and Quantitative Analysis group works with portfolio managers to create economic and financial scenarios—and to assess their likely impact on our portfolios and segments of global financial markets. Recent analyses have focused on the effects of oil price changes, China's economic trajectory and the ECB's kicking off bond purchases.

The table below gives a flavor of how we approach global monetary policy outcomes. It outlines three scenarios that could influence the Fed's next move and highlights the likely market impact for each (without getting into the nitty-gritty of expected performance in each asset class).

The *Global Stagnation* scenario assumes a failure by the ECB and BoJ to revive their economies as well as other geopolitical and economic headwinds. This should keep the Fed on hold for longer than markets currently expect. The result is not great for most markets, except for government bonds, in this scenario.

The *U.S. Growth as Expected* scenario has U.S. growth shrugging off temporary setbacks and plodding ahead. The Fed raises short-term rates as expected. This would boost most asset classes with the main exceptions of short-term bonds and gold.

The *Rapid U.S. Rate Rises* scenario has the Fed playing catch-up to strong economic data. This would hit most asset prices except for a strengthening U.S. dollar, we think. U.S. assets would generally outperform other geographies.

CONTINGENCY PLANNING

BlackRock Economic and Market Scenarios, 2015

	Global Stagnation	U.S. Growth as Expected	Rapid U.S. Rate Rises
Description	Global growth disappoints and/or markets lose confidence in central banks using quantitative easing to jumpstart economies.	The U.S. economy stays on a recovery track, shaking off weakness induced by a severe winter and port strike.	"Taper tantrum" redux. Fed rate hikes spook the markets and trigger a sell-off in (richly valued) risk assets.
Key Ingredients	▸ The Fed delays rate hikes. Failure of eurozone and Japanese monetary policy leads to a loss of confidence in central bank action. ▸ Geopolitical risks in peripheral Europe and/or Russia flare up. China slowdown dampens global demand.	▸ The Fed tightens in a well-telegraphed move amid a U.S. labor market recovery and signs that disinflation has bottomed. ▸ Robust GDP growth creates a positive feedback loop, reinforcing the Fed's decision to continue raising rates.	▸ The Fed embarks on a series of rate hikes in the face of strong U.S. economic data. ▸ Subdued global growth expectations and short-term worries around liquidity result in a "knee-jerk" reaction to the Fed tightening by the markets.
Global Equities	⊖ ▸ Japan and eurozone underperform the U.S. ▸ Defensive stocks outperform pro-growth (consumer discretionary) and rate-sensitive (financials) sectors.	⊕ ▸ EM stocks and momentum strategies underperform. ▸ Cyclical sectors such as financials outperform defensives.	⊖ ▸ Bond proxies (utilities) underperform sectors benefiting from higher rates (financials). ▸ Global equities fall, but the U.S. outperforms Europe.
Government Debt	⊕ A flight to quality draws buyers to long maturity debt.	⊖ U.S. short-term rates move up. Yield-hungry investors cap any yield rises of long-dated bonds.	⊖ U.S. short-term rates spike, the dollar rallies and the yield curve flattens.
Credit	⊖ Credit spreads widen significantly.	⊕ Credit spreads narrow a bit (and stay there). U.S. leads the rally.	⊖ Market overreaction causes a sell-off in credit. Spreads widen.

Source: BlackRock Investment Institute, April 2015.

Market Impact

QE has created asset shortages. This is feeding an appetite for lower-quality bonds, bond-like equities, real estate and private equity. Leverage is rising. The longer this lasts, the riskier. A sell-off triggered by an unwinding of leverage and magnified by poor liquidity could sink many boats.

Think of it as a fruit market. A couple of people are buying up all the apples every day, irrespective of price. Other shoppers rush to buy pears, oranges and guavas to meet their vitamin C needs. Prices rise to record levels. Then one day the apple buyers disappear. The result: a rapid resetting of prices.

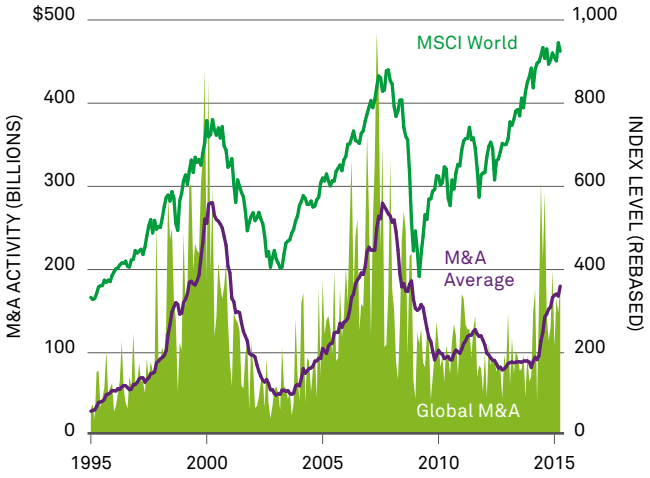
How close are we to this scenario? Our "bubblemeter" (see *Squeezing Out More Juice* of December 2013) is no longer flashing red, but is on the rise again. Our gauge's numerator—a measure of corporate leverage—has been climbing since 2012. The denominator (equity market volatility), however, has modestly rebounded.

A boom in mergers and acquisitions (M&A) is underway. M&A peaks have in the past coincided with equity downturns. See the chart to the right. Yet M&A activity today (by value) is still roughly 35% below past highs in 2000 and 2007.

What happens to global financial markets when the Fed tightens the liquidity spigot? The past may be an imperfect guide because monetary stimulus has been way off the pre-financial crisis chart. The history of the past three U.S. rate hiking cycles is worth a quick review. See the chart below.

BUYING AT THE HIGH

Global Monthly M&A Activity and Equity Prices, 1995–2015



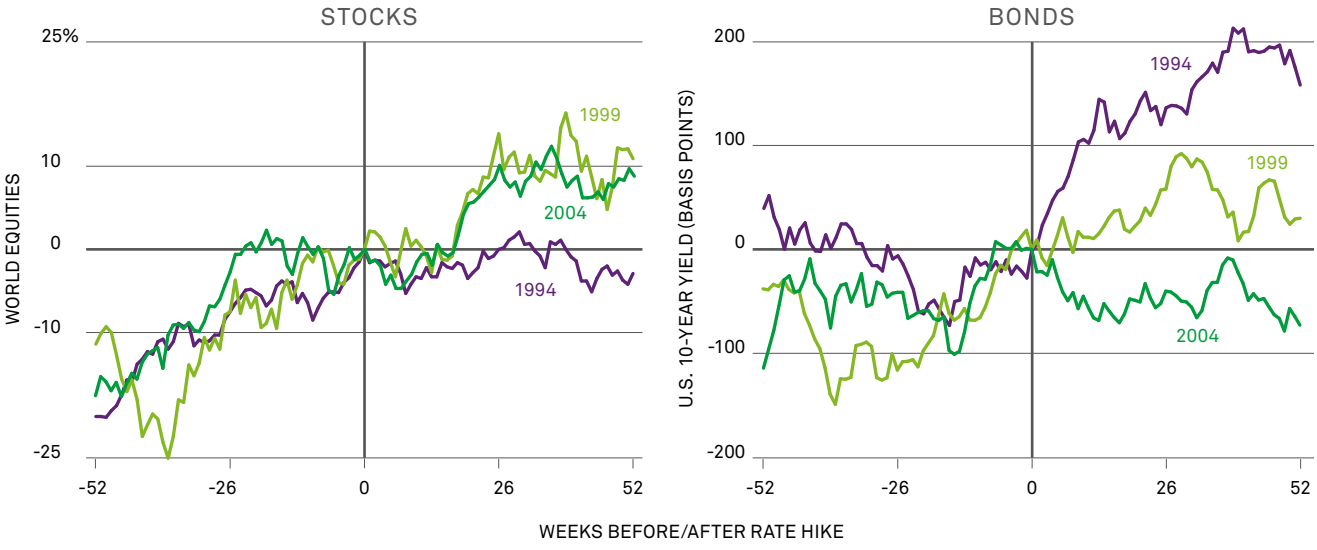
Sources: BlackRock Investment Institute, Thomson Reuters and MSCI, April 2015.
Notes: M&A activity is based on the monthly enterprise value of announced deals for publicly listed targets, including spin-offs. The M&A average is a 12-week trailing measure.

U.S. bond yields rose in both 1994 and 1999, with most of the movement coming after the Fed's first hike. The biggest bond sell-off was in 1994, when the Fed surprised markets by hiking rates much faster than expected.

Global equities performed well in the year ahead of the first rate rise in a tightening cycle—and extended those gains in the year thereafter (except in 1994). Bottom line: Equities performed well before and after the rate hike when the pace of tightening was steady and/or predictable (1999 or 2004).

FEARING THE FED?

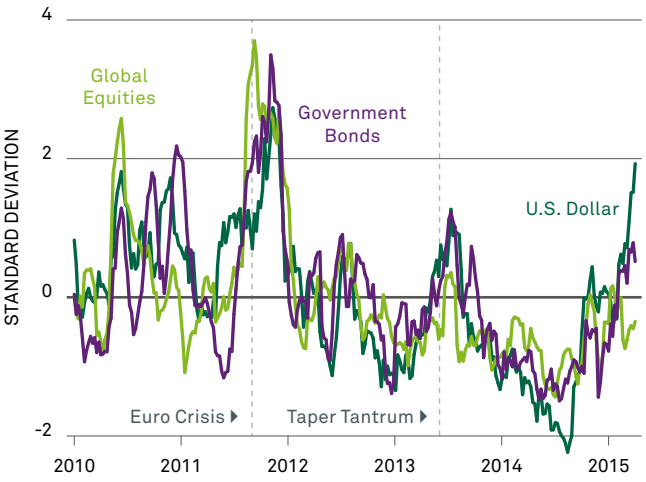
Returns of Stocks and Bonds Around First Fed Rate Hike



Sources: BlackRock Investment Institute and Thomson Reuters, April 2015.
Notes: Charts are rebased to zero on the day of the first rate rise in a cycle. World equities are represented by the MSCI World Index; U.S. bonds are 10-year U.S. Treasuries.

A HISTORY OF VOLATILITY

Asset Volatility, 2010–2015



Sources: BlackRock Investment Institute and Thomson Reuters, April 2015. Notes: The chart shows the level of volatility versus the period average in standard deviations. Government bonds are based on an average of U.S., German, U.K. and Japanese 10-year bond returns. Global equities are based on the MSCI World Index. The U.S. dollar is based on the DXY Index.

VOLATILITY ALERT

There are plenty of caveats. The S&P 500 Index, for example, has fallen a median 8% after a rate rise coincided with a turn in the business cycle (13 episodes since the 1950s), our research shows. The sell-offs typically have been short-lived (about two months). The reason: increased uncertainty rooted in the withdrawal of excess liquidity. Even in cases when the Fed flagged the move well in advance, U.S. equities have shown a knee-jerk reaction to the first hike in a cycle. The move in *real* interest rates is key, we find. When inflation stabilizes and real rates do not move much, equities have historically been resilient.

We believe financial market volatility will rise further. Currencies have grabbed the volatility lead so far in 2015. See the chart above. We expect bonds and equities to follow. It is not so much the *level* of volatility that matters; it is the upward *change* in volatility that matters today. Why? In the (near) zero-rate world, many asset owners have taken on more risk. Markets where gains have been driven by rapid multiple expansion (rather than earnings growth) look most vulnerable to corrections. It would not take much volatility for the momentum of popular trades such as U.S. biotech shares and bond-like equities to reverse course.

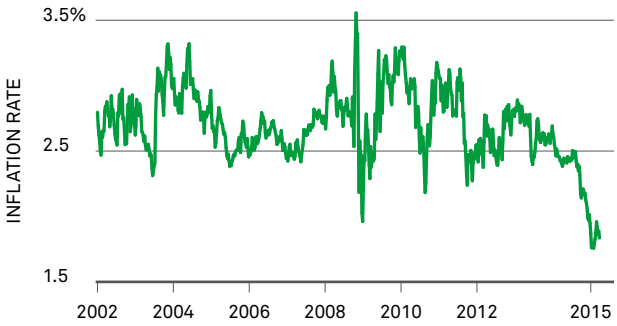
TANTALIZING TIPS

We have already outlined why we currently see little long-term value in nominal government bonds. Long-term Treasury Inflation Protected Securities (TIPS) and other inflation-linked debt are likely to deliver better returns, even if inflation only rises moderately from today's depressed expectations.

Breakeven inflation rates (a market-implied measure of inflation expectations and the inflation risk premium) have collapsed over the past two years. The plunge in five-year/five-year breakevens (the Fed's favorite measure), is more severe than that seen at the height of the global financial crisis in late 2008. See the chart below. The market looks to have overreacted.

WITHER INFLATION

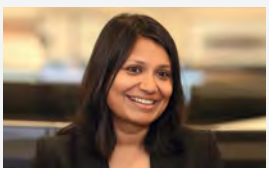
U.S. Five-Year/Five-Year Breakeven Inflation Rate, 2002–2015



Source: U.S. Federal Reserve, April 2015. Notes: The breakeven inflation rate is a market-based measure of expected inflation and the inflation risk premium derived from five-year U.S. Treasury bonds and five-year inflation indexed Treasuries. The value reflects inflation expectations five years from now for the following five years.

TIPS are pricing in an average CPI rate of just 1.8% over the coming decade, compared with 2.3% over the past 10 years (a period that included the worst financial crisis since the Great Depression). The Fed's favored inflation measure—core PCE—typically runs 0.35% below CPI inflation. This means the market sees core PCE stuck at 1.45% over the next decade, far below the central bank's 2% target. The market is effectively predicting a consistent failure in Fed policy until 2025.

The implication: Core PCE only has to average above 1.45% (a low bar) over the next decade for 10-year TIPS to outperform nominal Treasuries. If inflation were to exceed the Fed's target, hedged TIPS (buying TIPS while simultaneously selling equivalent Treasuries) would be a home run.



"We have seen a trough in inflation for now; we are beginning to see some anecdotal evidence of wage pressures."

— **Gargi Chaudhuri**
Portfolio Manager,
Inflation-Linked Bond Portfolios, Americas

CREDIT CONUNDRUM

The Fed's tightening has the potential to threaten the dynamics supporting U.S. credit markets: domestic growth momentum and the global hunt for yield. It could also lay bare fault lines: poor liquidity, rising corporate leverage, deteriorating underwriting standards and high (absolute) valuations. Now is a time for increasing credit quality, boosting liquidity and reducing risk in credit portfolios, we believe.

What about high yield? The Fed's impact will depend upon its effect on economic growth expectations, we believe. Some observations from previous tightening cycles:

- 1994: A big spike in 10-year bond yields lowered growth expectations. This led to a rise in high yield bond default expectations, hurting the sector.
- 2004: Rate hikes had little impact on 10-year yields, and growth expectations held steady. Ditto for default rates—and the performance of high yield bonds.

The caveat: We have never before exited ZIRP. It is difficult to separate the signal from the noise when drawing conclusions from a few previous tightening cycles. What is different today? A long period of low interest rates has triggered huge inflows into high yield bonds, making the sector more sensitive to movements in short-term rates. This is particularly true for lower-quality credits such as CCC-rated bonds, we believe.

The U.S. high yield benchmark index currently offers a higher premium above U.S. Treasuries than at the start of past tightening cycles, as the table on page 3 shows. A bloodbath in energy issuers (15% of the index) has made the segment look more reasonable.

EQUITIES EXPLAINED

Low-beta sectors such as utilities and telecoms have done well since the crisis, outperforming the MSCI World Index by a cumulative 15%, our research shows. Lower volatility and higher returns! What is not to like? Yet this has made these stocks momentum trades—and vulnerable to any rate rise. Their stable cash flows become less valuable when rates move up, as detailed in *Risk and Resilience* of September 2013.

Utilities, in particular, are sensitive to rate rises. Their correlation with daily changes in the 10-year U.S. Treasury yield has been the highest of any sector in recent history. Whenever yields rise, global utilities tend to significantly underperform global equities. See the right bar in the chart to the right. This was true even before the financial crisis, as the chart shows. (See the dot within the bar.)

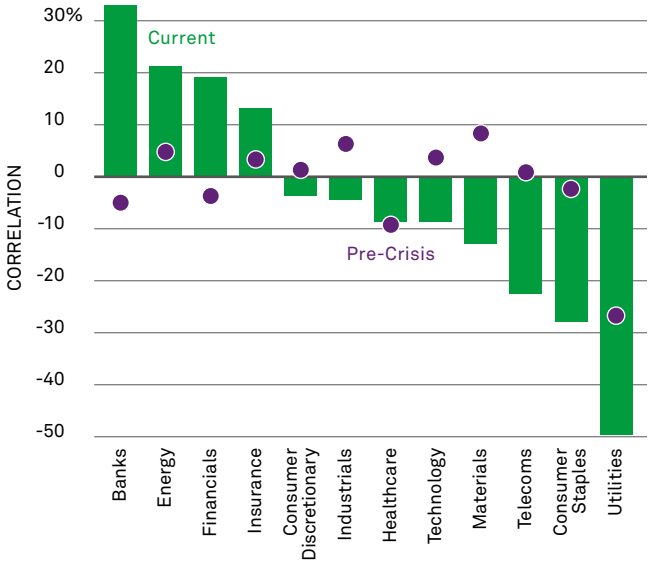
The key change? All sectors appear a lot more sensitive to interest rate changes these days.

The correlation with yield changes hovered around zero for all sectors except utilities in the period 2005 to 2007, as the chart shows. Correlations have recently increased, however, indicating the Fed's policy has been driving sector performance. Consumer staples and telecoms have now joined utilities as bond proxies. Global financials currently offer a mirror image of utilities. The sector usually outperforms when yields rise. See the left bar in the chart below. The outperformance has been even more stark for U.S. financials. Why? Even a small rise in interest rates could deliver a big boost to bank earnings. We will detail our views on the effect of the Fed's tightening on U.S. equities in *Market Perspectives* of May 2015.

European and Japanese equities should be resilient in the face of U.S. rate hikes. We see the ECB and BoJ pressing on with QE, lending support to eurozone and Japanese bond proxies. A rising U.S. dollar (and weak euro and yen) boosts the earnings of European and Japanese cyclicals. Japanese companies have found religion. Buybacks and dividend rises are becoming more common. At the same time, domestic pension funds are re-allocating from domestic bonds to equities. Result: sizeable domestic investor demand for the first time in 30 years or so. In Europe, we like cyclical sectors such as autos. These benefit from the weak euro and a rebound in domestic demand from depressed levels. Yet the continent's equities are no longer dirt-cheap.

FEELING SENSITIVE

Global Sector Correlation With U.S. 10-Year Yield Changes, 2015



Sources: BlackRock Investment Institute, Thomson Reuters and MSCI, April 2015.
Notes: Correlations are based on MSCI sector performance versus MSCI World and changes in the 10-year U.S. Treasury yield over a 150-day window. Pre-crisis is an average of 2005–2008 values.

Emerging Markets

The Fed's moves and the path of the U.S. dollar have always loomed large in EM economies. This appears to be playing out again. Unusually, most EM assets have been in the global financial markets' dumpster—even *before* the Fed has started to tighten. The taper tantrum triggered a sell-off in EM debt and currencies in mid-2013, hitting countries with large current account deficits particularly hard.

The U.S. dollar has since risen by 17% on a trade-weighted basis. This is challenging for countries and companies that have feasted on cheap U.S. dollar debt. The strengthening dollar has depressed (dollar-denominated) commodities prices, hurting exporters of raw materials. The depreciating euro and yen have made eurozone and Japanese goods more competitive against high-end EM manufacturers.

Yet many EM economies have a lot more financial firepower to weather the storm this time: piles of foreign currency reserves, domestic savings pools to balance any foreign selling, healthy fiscal balances and investment grade ratings. See our interactive *EM Marker* for details.

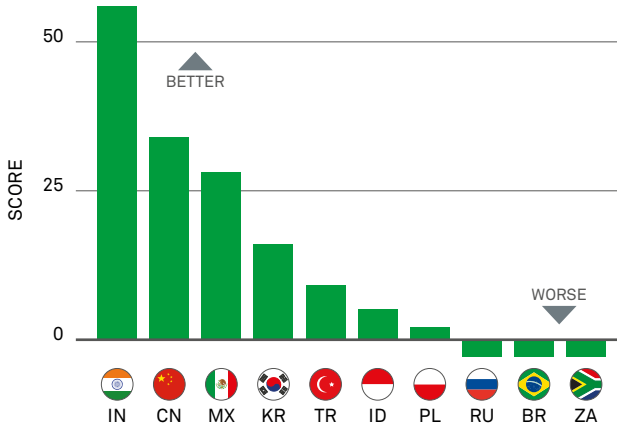
And traditional export markets are on a gentle upswing. Japan and Europe are slowly growing, boosted by depreciating currencies and QE. The U.S. economy is a relative outperformer. EM locomotive China is slowing, but growth is coming off a much larger base. All major economies stand to benefit from lower oil prices, as detailed in *Concentrated Pain, Widespread Gain* of February 2015.

Our overarching theme in EM investing is differentiation, as EM economies are developing at very different speeds (some appear to be going in reverse, actually). That said, angst over the Fed's tightening is likely to affect the asset class at times (with plenty of out- and underperformance between countries, sectors and strategies).

We favor Asian fixed income due to solid credit fundamentals, attractive valuations and economic reform momentum. India and China lead in perceived progress on structural reforms. See the chart above. We also like selected Eastern European countries such as Poland. These "satellites of love" orbiting the ECB benefit as eurozone investors search for alternatives to negative yields at home.

RANKING REFORMERS

Emerging Market Structural Reform Index, 2014



Sources: BlackRock Investment Institute and Citigroup, December 2014. Note: Scores are based on Citigroup economists' survey on structural reform progress.

HARD CURRENCY RULES

U.S. dollar-denominated EM debt looks especially attractive as a result. Average yields are twice those of U.S. Treasuries, and much sovereign EM debt carries an investment grade rating. Around 64% of the J.P. Morgan hard currency EM sovereign bond index is investment grade, versus 40% a decade ago.

Country selection is critical. We expect credit ratings to drift lower in 2015 on the back of slower economic growth and falling commodity prices. Venezuela, Russia and Brazil have been among the biggest losers—yet big falls in asset prices mean investors in these countries are now better compensated for the risks.

Local-currency EM debt is a riskier bet. These bonds offer nice diversification potential, but a rising U.S. dollar (mirrored by falling EM currencies) threatens to erode their attractive yields. Emerging economies with current account deficits and a reliance on dollar funding would be most vulnerable to Fed rate hikes, we believe.

Investors should consider currency hedges when venturing into local markets, as detailed in *Headache or Opportunity?* of September 2014. This is because monetary policy in many EM countries is in clear easing mode and the U.S. dollar rally appears to have legs.

"The underperformance of the asset class in recent years can be explained by the lack of export growth momentum."

— **Gerardo Rodriguez**
Portfolio Manager,
BlackRock Emerging Market Allocation Fund

CORPORATE CHALLENGES

What happens to EM corporate debt when the Fed finally lifts rates? The answer depends on the time frame:

Short term: Expect an increase in volatility, exacerbated by poor liquidity. Some countries lack a stable base of domestic buyers and we fear many foreign buyers are "investment tourists" ready to bail at the first sign of trouble. Higher volatility could impair the functioning of capital markets, but we expect any such hiccups to be temporary.

Medium to long-term: Fundamental credit risks are the key to performance. The rising U.S. dollar poses a risk to countries and companies dependent on external funding. Companies headquartered in emerging markets have binged on cheap debt in recent years. They raised a record gross $371 billion in 2014, according to J.P. Morgan, up almost fourfold from 2005 levels.

The mountain of dollar-denominated EM corporate debt has increased as a share of GDP, but is still at relatively low levels. China's corporate dollar debt has jumped 15-fold from 2009 levels, for example. Yet the total outstanding makes up a paltry 2% of GDP, according to J.P. Morgan. Corporate dollar debt makes up 10% of GDP in Latin America, however.

The good news: Many EM corporates have been cutting capital expenditures (due to falling commodity prices and lower oil exploration) and will have less need to issue debt in the future. Relatively muted supply and yield-seeking investor demand should underpin the market. Rapid capital markets development and growing financing needs for infrastructure and social spending are likely to boost domestic demand for yielding assets. We see two caveats:

1. Many companies have a currency mismatch: revenues in local currency, but debt-servicing costs in U.S. dollars. Currency depreciation can cause financial mayhem. Telecoms, media and domestic airlines are the biggest potential losers in the EM world. There will be a handful of winners: Companies in IT services, pulp and paper, sugar, steelmaking and infrastructure often have dollar revenues, but costs in local currencies.
2. Many EM companies are poor stewards of capital. What happens if you raise debt, fail to earn a return and are faced with rising servicing costs? You hit a wall.

EXAMINING EM EQUITIES

EM equities closed out 2014 with a fourth straight year of underperforming developed markets. We could see them do better this year if strong economic data give the Fed confidence to raise U.S. rates. U.S. growth is good news for export-oriented EM economies, removes a drag on performance (the lack of export growth momentum) and could boost investor risk appetite in an increasingly interlinked world.

Our India equities team, for example, notes the country's benchmark index has generated average quarterly returns of 8.3% in the five periods of rising U.S. rates in the last two decades (outperforming both the S&P 500 and EM indexes). We believe history is likely to repeat itself here and in other EM equities markets. Valuations look attractive and currency weakness is an added booster.

CURRENT ACCOUNTING

EM equities in countries with steepening yield curves tend to outperform those with flattening curves, our equities quants find. We suspect the reasons include easy funding for companies and an expectation of future growth as expressed by higher long rates. High short-term rates sometimes point to high inflation and/or a brewing currency crisis.

We use current account trends as a risk factor in the short term for this strategy. The performance of the "Fragile Five" (Brazil, India, Indonesia, South Africa and Turkey) in 2013, for example, shows emerging markets with gaping current account deficits can plummet in the face of funding fears.

Yet the story changes completely in the long run: Countries with high current account deficits tend to outperform others, we find. The reason? They tend to face more pressure to enact structural reforms and are a bit like value stocks—they have a lot of upside due to low investor expectations.

Similarly, countries with the weakest currencies far outperform others in the long run, Credit Suisse's *2014 Global Investment Returns Yearbook* shows. A weak currency often forces necessary economic adjustments. Investors demand higher risk premia as a result. Cases in point so far in 2015: The Indonesian and Indian stock markets (also boosted by reform momentum after electing new leaders in 2014).

"We don't see a repeat of the taper tantrum as EM economies and currencies have adjusted. But U.S. policy normalization is also unlikely to push the EM boat forward."

— **Sergio Trigo Paz**
Head,
BlackRock EM Fixed Income

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https://www.wsj.com/articles/trumps-fiscal-plans-feds-asset-unwinding-could-fuel-rate-rise-1494175037

THE OUTLOOK

Trump's Fiscal Plans, Fed's Asset Unwinding Could Fuel Rate Rise

After years of high deficits and demand for Treasurys, bond market looks set for a reversal

President Donald Trump's ideas for tax and spending plans could lead to wider budget deficits significantly, at precisely the moment the Fed is getting out of the market. PHOTO: CHERISS MAY/NURPHOTO/ZUMA PRESS

By Josh Zumbrun
Updated May 7, 2017 12:40 p.m. ET

Two of the most powerful economic forces in Washington could be aligning in coming years to put considerable upward pressure on long-term interest rates.

President Donald Trump is flirting with tax and spending plans that could widen the budget deficit, just as the Fed flirts with plans to shrink its $4.5 trillion portfolio of bond and other holdings. Larger deficits could mean that the supply of U.S. Treasury securities hitting the markets is rising just as demand for these securities diminishes with the Fed unwinding.

More supply and less demand tends to mean lower prices, and with bonds, lower prices mean higher yields and interest rates.

"The bond market is about to get hit all at once," said Stephen Stanley, chief economist of Amherst Pierpont Securities.

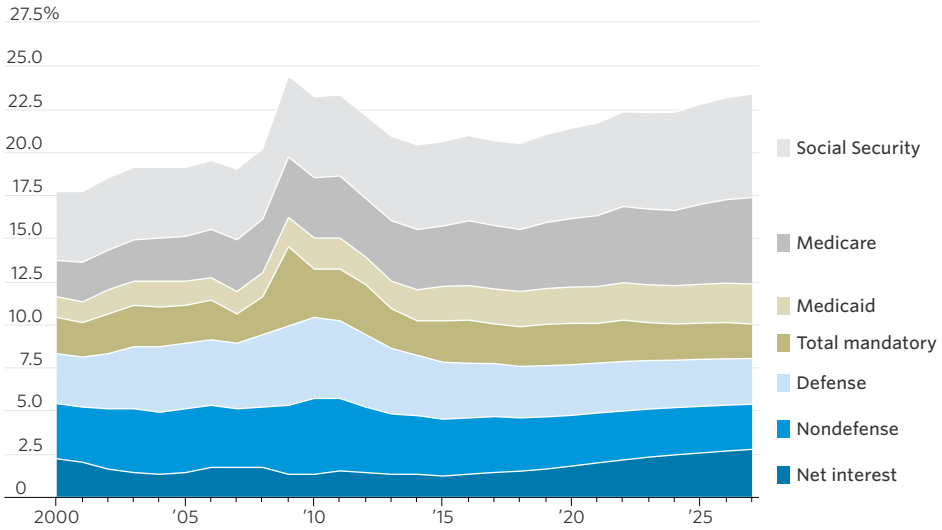
This will be a remarkable reversal.

The U.S. deficit exploded during the 2007-09 recession as tax receipts collapsed. In 2009, the deficit topped $1 trillion for the first time in history. It began to narrow but remained over $1 trillion from 2010 to 2012, as tax collections remained depressed from the era of high joblessness, and as President Barack Obama enacted an $800 billion stimulus plan.

During that era of high deficits, demand soared world-wide for the safety of U.S. government bonds. The Treasury also had a big buyer for its debt in the form of the Fed,

Government spending is on the rise...

Spending as a share of GDP



Note: Figures for 2017-2027 are forecasts.
Source: Congressional Budget Office

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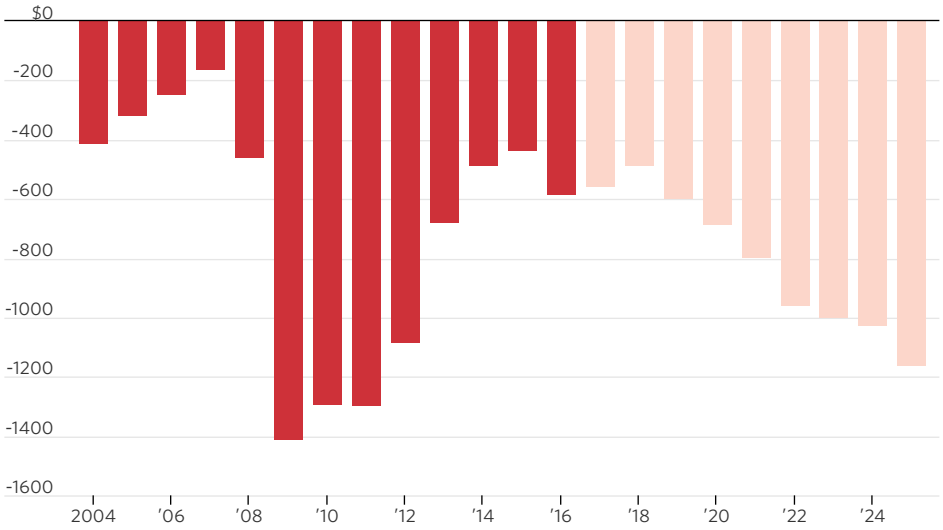
...the deficit is expected to quickly climb...

Annual deficit, in billions



Note: Figures for 2017-2027 are forecasts.
Source: Congressional Budget Office

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which began purchasing billions of dollars a month worth of Treasury securities in March 2009, under the program that became known as "quantitative easing," or QE.

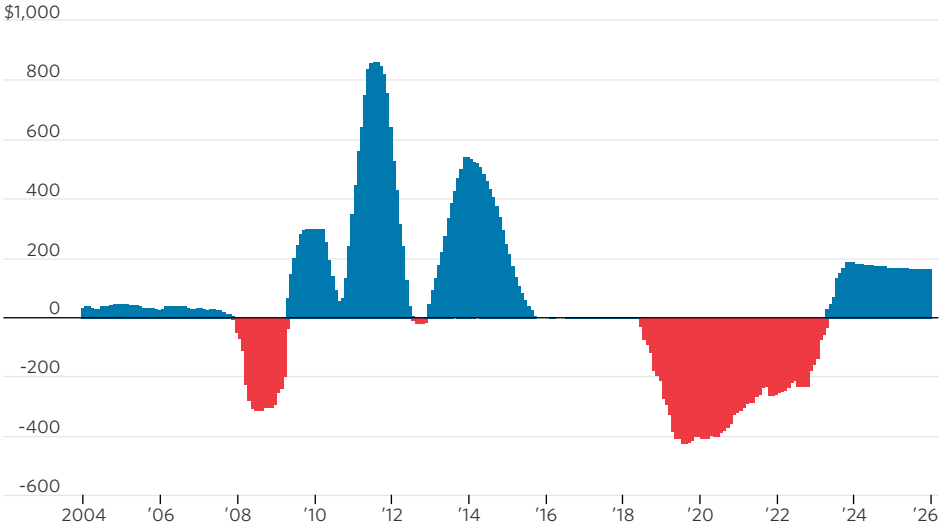
Though not intended to finance the deficit, the Fed's first QE program sucked in $300 billion of Treasury debt. The second program, launched in 2010, added another $600 billion of Treasurys. In the third round of QE, from 2012 to 2014, the Fed added another $800 billion. Deficits eventually started narrowing, thanks to a reduction in crisis-era spending and new caps on spending combined with rising tax revenue.

Now the tide is poised to turn.

The Congressional Budget Office projects deficits will reach $1 trillion again by 2023 under current law. This owes largely to the baby boom generation, born in the years after World War II, hitting retirement en masse and claiming Social Security and Medicare benefits. Medicaid and Medicare spending are set to rise to 7.3% of gross domestic product over the next decade, from 5.8% now, according to CBO estimates. Social Security is set to rise to 6% of GDP from 5%. Mr. Trump has said he doesn't plan to

...just as the Fed is expected to exit the Treasury market.

Annual change in Fed's portfolio of Treasuries, in billions



Note: Figures for 2017-2027 are forecasts.
Source: Federal Reserve

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alter these entitlements.

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Some plans, such as for tax cuts, could widen deficits. The University of Chicago regularly polls leading academic economists on important public policy issues. Asked this month if Mr. Trump's tax plan would pay for itself through higher economic growth, not one respondent thought that it would. Instead, it could force the Treasury to issue significantly more debt.

"Absent offsetting tax increases, it would be a fiscal disaster," said David Autor, the Massachusetts Institute of Technology economist.

One estimate from the Penn Wharton Budget Model, which calculates the effects of tax plans, estimates the current version of Mr. Trump's tax plan would increase U.S. debt by 31% more than current policy.

This could all happen at precisely the moment the Fed is getting out of the market. Since its large-scale bond-buying program ended in 2014, the Federal Reserve has continued to buy new Treasury securities when its existing holdings mature.

Fed officials are eager to move away from these crisis-era policies and are considering allowing their bondholdings to mature later this year, without being replaced. That will leave about $400 billion of debt hitting the market as it rolls off the Fed balance sheet, according to a Fed estimate.

"We will have to see the specifics of the Fed's implementation of balance-sheet reduction, but all indications are that they will be very cautious and gradual," said Roberto Perli, a former Fed economist and partner at Cornerstone Macro. "If true, that should reassure markets and reduce the odds of any tantrums."

Treasury Secretary Steven Mnuchin and his staff are already considering how to handle the challenge of raising large amounts of debt. Last week, the Treasury sought the counsel of its Borrowing Advisory Committee, composed of major Wall Street bond market participants.

The committee cautioned that under plausible scenarios, the Treasury might have to more than double the amount of debt it auctions for 10-year and 30-year bonds.

Right now the market seems unperturbed by all of this. Yields on 10-year Treasury notes, at 2.35%, aren't far from historic lows, held down by a range of forces including low inflation and global demand for safe assets. Most forecasters have long expected rates to rise, and been embarrassed by those forecasts when interest rates stayed stuck in a rut. But the market risks becoming complacent about the idea that the old logic of low rates will last forever.

Write to Josh Zumbrun at Josh.Zumbrun@wsj.com

Appeared in the May. 08, 2017, print edition as 'Fiscal Plans Could Fuel Rate Surge.'

WP-17
McKenzie
Page 1 of 4

Rising Interest Rates Make Life Tough for Utilities

Mark Vickery
September 08, 2017

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Though utility companies are among the safest investment bets, they have their share of weaknesses. Regulatory burdens, weather variation and increased debt loads are major concerns. While the Trump administration is expected to lower the industry's regulatory burden, an even bigger issue is the interest rate backdrop.

The Fed raised interest rates for three consecutive quarters (December 2016, March 2017 and June 2017), which is a drag for rate-sensitive sectors like Utilities. Making things worse, the Fed might hike interest rates again in December, if economic conditions remain conducive.

Let's look into the factors which might deter investors from investing in the utility space.

Hide Full Article

for maintaining an uninterrupted supply of basic amenities like electricity, fresh water and gas.

Utilities generate funds from operations which are to some extent used to meet their capital requirements. But these funds are mostly used for dividend payouts. They take recourse to external sources of financing to meet their capital requirements.

We believe that a rising interest rate environment could add to the woes of utility operators, as it will increase cost of capital, restraining their ability to pay consistent dividends. We suggest that investors take note of outstanding debts and current ratio, both of which indicate the company's ability to meet its debt obligations.

Weather a Headwind

Weather plays a vital role in driving demand for utility services. A normal winter and summer season assure higher demand for utility services. However, a milder winter and a cooler summer results in lower demand for utility services.

The Electric Reliability Council of Texas (ERCOT) in its recent release announced that since Hurricane Harvey hit the land, demand for electricity in Texas dropped to 20,000 megawatts (MW) per day, down from typical August demand of 44,000 MW, primarily due to structural damage and cooler temperature in the affected region.

We believe that the drop in demand, power outages and structural damage will impact the third-quarter earnings goal of American Electric Power (AEP - Free Report) , CenterPoint Energy Inc. (CNP - Free Report) and Entergy Corporation (ETR - Free Report) , having operations in the region.

Hurricane Irma, a Category Five storm currently progressing toward Florida, could cause vast damage to utility infrastructure.

Competition with Bonds

These reliable dividend payers are in competition with bonds as an investment option. The ongoing increase in interest rates will definitely make bonds with its yields another attractive investment option for risk-averse investors, driving them away from the utility space.

The Fed has increased the interest rate three times in the last three quarters, which will raise the cost of capital for the utilities and might adversely impact its ability to carry on with dividend payment and share buyback, making the high interest-bearing bonds a more alluring option for investors.

Safe But Limited Growth Potential

Investment in these highly regulated defensive utilities is considered safe. Even though utilities pay regular dividends and go for buybacks, the scope of capital appreciation is quite limited for investors in this space. Share prices in this sector do not jump the way they do in the technology sector, so the returns are never dramatic.

Utilities to Avoid for the Time Being

We presently recommend investors to stay away from the following utilities having an unfavorable Zacks Rank. The other metrics also indicate that these utilities are not profitable investment options now.

Westar Energy currently has a Zacks Rank #4 (Sell). It saw an average negative surprise of 7.75% for the last four quarters. The Zacks Consensus Estimate for 2017 earnings per share declined 0.4% in the last 90 days to $2.50. Westar has lost 9.3% year to date versus 10.2% rally of the Zacks Electric Power industry it belongs to.

Global Water Resources Inc. (GWRS - Free Report) saw an average negative surprise of 50% for the last four quarters. The Zacks Consensus Estimate for 2017 earnings per share has decreased 36.4% over the last 90 days to 7 cents. The company currently has a Zacks Rank #4. Global Water Resources stock has gained 3.4% year to date, much lower than Zacks Water Supply industry's gain of 10.3%.

Bottom Line

We believe that focus on clean energy is going to be at the top of the utility companies agenda in the coming years. We expect utilities to take advantage of

the shale boom in the United States and falling prices to develop power plants based on natural gas and renewable source of energy. Combined-cycle natural gas power plants not only help to lower pollution but also result in energy efficiency.

We expect President Trump's view on climate change and plans to abandon the Paris agreement to be support fossil fuel-based companies and help them survive the ongoing challenges. A makeover in the utility space is already underway, but the decision to repeal the Clean Power Plan will help the utilities continue with the coal-fired units for longer than previously expected. The crucial question is, will the ongoing hike in interest rate offset the benefits of a favorable decision of the new administration?

4 Surprising Tech Stocks to Keep an Eye On

Tech stocks have been a major force behind the market's record highs, but picking the best ones to buy can be tough. There's a simple way to invest in the success of the entire sector. Zacks has just released a Special Report revealing one thing tech companies literally cannot function without. More importantly, it reveals 4 top stocks set to skyrocket on increasing demand for these devices. I encourage you to get the report now – before the next wave of innovations really takes off.

See Stocks Now>>

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THE WALL STREET JOURNAL.
U.S. EDITION

Investors Appear Ready to Heed More Hawkish Fed

By Ben Eisen

361 words
22 September 2017
The Wall Street Journal
J
B11
English

If **investors** doubted the Federal Reserve's seriousness about lifting rates, they are starting **to** believe now.

And that could shake up **investors** , reordering winners and losers in the stock market.

Central bankers surprised some **investors** Wednesday by signaling that they still plan **to** go ahead with another interest-rate increase before the year is out. The Fed's summary of economic projections showed all but four officials were on board with at least one more increase this year.

"Fed communications suggest a more hawkish path of policy actions despite the dovish tone and careful wording of the Fed chair's comments," said David Kelly, chief global strategist at J.P. Morgan Asset Management.

Chances of one or more additional rate increases before the year is out shifted as a result, according **to** federal-funds futures data tracked by CME Group. The probability had been just about 50-50 before the Fed statement, but jumped **to** almost 78% Thursday. Treasury yields also edged higher.

The market moves suggest that **investors** are taking the prospect of a more hawkish Fed seriously, and that could affect **investors** across the market. Long-term yields may push higher as short-term rates rise and the Fed trims the size of its balance sheet. The central bank's plan **to** do the latter was rolled out on Wednesday as well.

That could help financial stocks, which tend **to** rally alongside long-term rates because it increases the difference between what a bank pays **to** borrow and what it charges **to** lend money. S&P 500 financial stocks climbed 0.8% over the past two sessions, outperforming the broader index's 0.2% fall.

Utilities stocks tend **to** get hurt by rising rates because they pay out high dividends that look less attractive relative **to** bonds when yields rise. S&P utilities stocks fell 0.9% over two sessions.

Investors could decide not **to** play along with the Fed's more hawkish mantra at any time, but for now the prospect of higher rates is rippling through markets.

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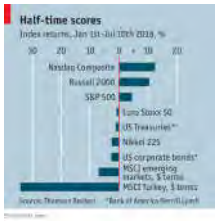
The Economist

Buttonwood

Even stockmarket bulls are more cautious than at the start of the year

Will being a bear save you money as well as make you sound clever?

Print edition | Finance and economics Jul 12th 2018



BEARS sound clever; bulls make money. This piece of financial acumen, imparted by a trader to a colleague, is hard to beat for brevity. It also makes a good point. There is something about market pessimism that endows bears with an aura of wisdom that is not always deserved. The cautious sound clever because they appear to have weighed the odds. Optimists seem heedless by comparison. Yet it is only by taking on risk that investors can hope to make money.

So it is telling that even bulls are now sounding cautious. The economy and stockmarket in America have had a good run, after all. The expansion, which started in 2009, is now the second-longest on record. Unemployment is low. The Federal Reserve is hawkish. This mix tends to kill a bull market sooner rather than later. The question is how much further stocks can rise. Is there still time for bulls to make money? Or will being a bear save you money as well as make you sound clever?

In this debate, each side has a distinctive way of looking at things. Put crudely, the pessimists believe that markets drive the economy. In their view, near-zero interest rates and quantitative easing, or QE, pushed investors out of government bonds and into risky assets. Now that such policies are reversing, stocks and corporate bonds are vulnerable—and so is the economy. The optimists, by contrast, believe that markets are led by the economy. Only when it shows weakness, and profits slump, is it time to get out.

At the start of 2018 the optimists had the better case. Then, for a while, things looked more balanced, with the pattern of returns providing ammunition for both sides (see chart). Now, though the most recent data favour the optimists, they seem to be losing conviction. The strength of the bearish case suggests that, when the market turns, it will be dramatic.

Consider the pessimists' case. If markets lead the economy, notes Matt King of Citigroup, trouble can strike suddenly. In this view, the sell-off in emerging markets and jitters in the rich world, such as the sudden drop in American stocks in February and turbulence in Italy in May, have a common cause. For David Bowers, of Absolute Strategy Research, they indicate a "rolling liquidity crisis" caused by tighter Fed policy. He sees the steep falls in the shares of big banks in Europe and China as another worrying sign.

Does the body rule the mind?

The optimists see things differently. Th` the broad American stockmarket has

BUSINESS NEWS FEBRUARY 7, 2018 / 4:16 PM / 5 MONTHS AGO

Gundlach: Market unwind will be 'turbulent,' not over in a few days

Jennifer Ablan 2 MIN READ

NEW YORK (Reuters) - Jeffrey Gundlach, chief executive of Doubleline Capital, said on Wednesday that the "low rate-low volatility" market environment went on for so long that now "the unwind will be turbulent and not over in a couple of days."

Jeffrey Gundlach, Chief Executive Officer, DoubleLine Capital LP., speaks at the Sohn Investment Conference in New York City, U.S. May 4, 2016. REUTERS/Brendan McDermid

Gundlach, who is known as the Wall Street bond king, told Reuters that bitcoin was the "lead horse" of risk assets and its recent plunge has had a cascading effect on other risk assets.

Gundlach had correctly predicted that if the 10-year U.S. Treasury note yield went above 2.63 percent, U.S. stock investors would be spooked.

"Clearly, the market gets shaky when the 10-year hits 2.85 percent," Gundlach said. "Just look at this week, and today. Makes one consider what could be coming if 10s push over 3 and 30s (30-year Treasury bond) over 3.22 percent."

The 10-year yield is currently trading around 2.83 percent. Gundlach said it is "hard to love bonds at even a 3 percent" yield. "Rising interest rates are a problem and the U.S. is in debt and there is massive bond supply," Gundlach said.

Los Angeles-based DoubleLine oversees $118 billion in assets under management, as of December 2017.

Reporting by Jennifer Ablan; Editing by Tom Brown

Our Standards: The Thomson Reuters Trust Principles.

WORLD NEWS JULY 11, 2018 / 4:43 PM / UPDATED 12 MINUTES AGO

UK PM May praises 'dearest friend' U.S. as Trump questions her Brexit plans

Powell Suggests Fed to Go Ahead With Rate Hikes Despite Market Turmoil

By Rich Miller and Christopher Condon
February 13, 2018, 11:37 AM CST

New Fed chair says he's also alert to financial stability risk

Powell's comments first in public since stock market shakeout

0:02

The Most 'Boring Man' in Washington Steps in as Fed Chair

Federal Reserve Chairman Jerome Powell suggested that the U.S. central bank would push ahead with gradual interest-rate increases even as it remains on the lookout for threats to the financial system in the wake of the recent stock market rout.

"We are in the process of gradually normalizing both interest rate policy and our balance sheet," he said Tuesday in the text of his ceremonial swearing-in speech in Washington, adding, "We will remain alert to any developing risks to financial stability."

They were Powell's first public comments since financial markets last week suffered their most severe bout of volatility in years, partly on concern that rising wages might spur inflation and prod the Fed into faster rate hikes.

While the new Fed chairman didn't specifically mention the steep fall in share prices, other central bank officials have played down its impact on the economy and the financial system.

Federal Reserve Bank of New York President William Dudley last week called the share shakeout "small potatoes," while Cleveland Fed President Loretta Mester said on Tuesday that the turmoil hadn't affected her economic outlook or her support for further interest-rate hikes.

"If economic conditions evolve as expected, we'll need to make some further increases in interest rates this year and next year, at a pace similar to last year's" when the Fed raised rates three times, she said in a speech in Dayton, Ohio.

Rate-hike projections from December FOMC meeting

In their last quarterly projection in December, Fed officials penciled in three rate hikes for this year, according to the median forecast in their so-called dot plot. They tacitly reiterated that view at their Jan. 30-31 meeting, when they said they expected "further gradual increases in the federal funds rate."

Powell's comments on Tuesday "were consistent with the message" in January, said Michael Feroli, chief U.S. economist at JPMorgan Chase & Co. in New York. They're "in a process of raising rates and not close to the finish line."

Investors see a quarter percentage point hike at the central bank's next policy-making meeting on March 20-21 as a virtual certainty, according to pricing in federal funds futures.

Powell said the Fed had made "great progress in moving much closer" to its goals of full employment and stable prices since he joined the central bank as a governor in 2012.

Unemployment is down to 4.1 percent, from 8.2 percent back then. Inflation though remains below the Fed's 2 percent target, standing at 1.7 percent in December.

"Today, the global economy is recovering strongly for the first time in a decade," Powell said.

He said the Fed was moving to normalize monetary policy "with a view to extending the recovery and sustaining the pursuit of our objectives."

The 8-1/2-year-plus upswing is already the third longest on record, although it has also been the slowest in more than 65 years, averaging annual growth of just 2.2 percent.

Powell pledged to preserve the essential improvements made in financial regulation since the 2007-09 crisis while seeking to make sure the Fed's approach is as efficient as possible

"The financial system is incomparably stronger and safer, with much higher capital and liquidity, better risk management, and other improvements," he said.

He also promised to "continue to pursue ways to improve transparency both in monetary policy and in regulation."

Once revered for its policy-making prowess, the central bank has come in for increasing congressional criticism since the financial crisis, with some Republican lawmakers calling for stepped-up oversight of its monetary policy actions.

"We listen to feedback and give serious consideration to the possibility that we might be getting something wrong," Powell said. "There is great value in having thoughtful, well-informed critics."

Bloomberg Markets: Jamie Dimon Warns of 5% Treasury Yields

By
Cormac Mullen
and
Joanna Ossinger
August 5, 2018, 8:07 PM CDT Updated on August 6, 2018, 2:19 AM CDT

- JPMorgan CEO sees potential for 10-year yield to reach 5%
- Says current bull market could run for 2 or 3 more years

Not content with a previous warning investors should brace for U.S. yields of 4 percent, Jamie Dimon went one further at the weekend, suggesting 5 percent was a distinct possibility.

The JPMorgan Chase & Co. chief executive officer said Saturday people should be prepared to deal with the benchmark 10-year bond yield at 5 percent or higher.

"I think rates should be 4 percent today," Dimon said Saturday at the Aspen Institute's 25th Annual Summer Celebration Gala. "You better be prepared to deal with rates 5 percent or higher - it's a higher probability than most people think."

The 3 percent level is still providing stiff resistance for the 10-year Treasury yield this year. It briefly rose through the mark last week before falling back for the fourth time this year. That's despite a U.S. jobless rate below 4 percent, economic growth above 4 percent, and a rare surge in late-cycle government borrowing.

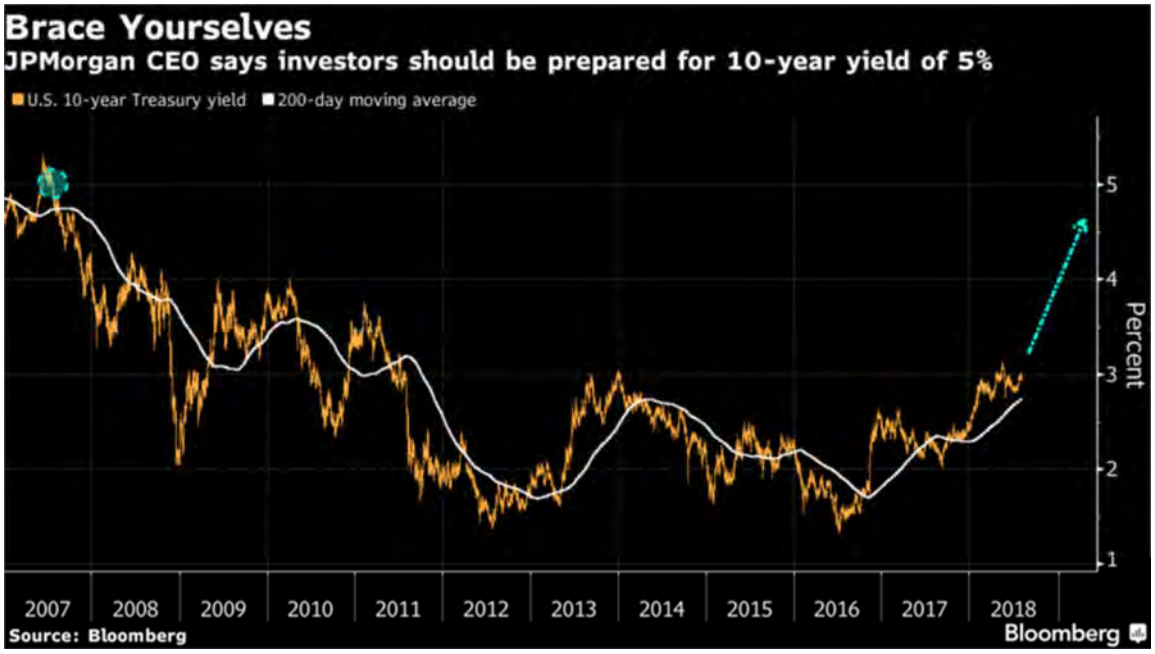
Unease about the length of the economic cycle may be behind the stalled rise in yields. "The market is starting to look beyond the 2020 time-frame and pricing in some recession risk," said Tom Garretson, U.S. fixed-income portfolio strategist at RBC Wealth Management.

Inflation Gauge

In addition, concerns about rising prices appear to be ebbing. In the U.S., the 5-year break-even rate, a gauge of inflation expectations, has fallen to just under 2 percent, down from this year's high of almost 2.2 percent.

Still, Dimon remained positive on the outlook for financial markets.

The current bull market could "actually go for 2 or 3 more years" because the economy is still doing quite well and markets usually turn right before the economy, he said.



Cyber attacks are "probably the biggest risk" to the U.S. today, though banks are quite well protected, Dimon said.

"We're very, very protected," he said.

The JPMorgan CEO reiterated comments made last year on Bitcoin, calling cryptocurrencies a "scam" and saying he had "no interest" in the world's largest digital currency. He suggested governments may move to shut down the currencies, because of an inability to control them.

Dimon had urged investors to prepare for higher rates in an interview in May, given the possibility growth and inflation could prove fast enough to prompt the Federal Reserve to hike more than anticipated, and the increase in financing by the U.S. Treasury.

— With assistance by Emily Barrett, and Wes Goodman

Consensus Forecasts Of U.S. Interest Rates And Key Assumptions[1]

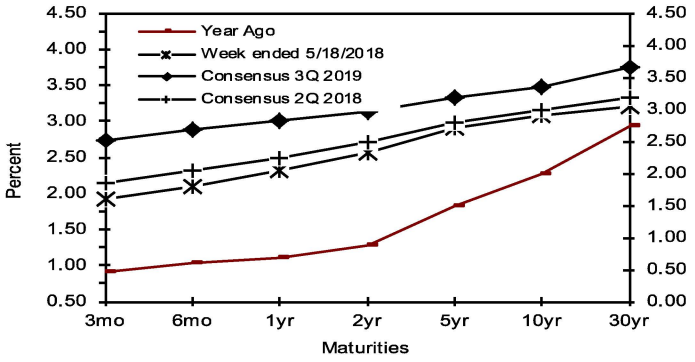
Interest Rates	History: Average For Week Ending May 18	May 11	May 4	Apr. 27	Average For Month Apr.	Mar.	Feb.	Latest Qtr 1Q 2018	Consensus Forecasts-Quarterly Avg. 2Q 2018	3Q 2018	4Q 2018	1Q 2019	2Q 2019	3Q 2019
Federal Funds Rate	1.70	1.70	1.70	1.70	1.69	1.49	1.42	1.44	**1.7**	**2.0**	**2.2**	**2.4**	**2.6**	**2.8**
Prime Rate	4.75	4.75	4.75	4.75	4.75	4.75	4.50	4.58	**4.8**	**5.0**	**5.2**	**5.4**	**5.6**	**5.8**
LIBOR, 3-mo.	2.33	2.35	2.36	2.36	2.35	2.16	1.84	1.91	**2.3**	**2.4**	**2.6**	**2.8**	**3.0**	**3.1**
Commercial Paper, 1-mo.	1.81	1.79	1.85	1.82	1.82	1.76	1.52	1.59	**1.8**	**2.1**	**2.3**	**2.5**	**2.7**	**2.9**
Treasury bill, 3-mo.	1.92	1.89	1.85	1.85	1.79	1.72	1.56	1.57	**1.9**	**2.0**	**2.2**	**2.4**	**2.6**	**2.7**
Treasury bill, 6-mo.	2.09	2.05	2.03	2.03	1.98	1.91	1.76	1.76	**2.0**	**2.2**	**2.4**	**2.6**	**2.7**	**2.9**
Treasury bill, 1 yr.	2.31	2.27	2.24	2.25	2.15	2.06	1.94	1.93	**2.2**	**2.4**	**2.6**	**2.7**	**2.9**	**3.0**
Treasury note, 2 yr.	2.57	2.52	2.50	2.49	2.38	2.27	2.16	2.15	**2.5**	**2.6**	**2.8**	**2.9**	**3.0**	**3.1**
Treasury note, 5 yr.	2.91	2.82	2.79	2.82	2.70	2.63	2.59	2.53	**2.8**	**2.9**	**3.0**	**3.1**	**3.2**	**3.3**
Treasury note, 10 yr.	3.07	2.97	2.96	2.99	2.86	2.85	2.84	2.75	**3.0**	**3.1**	**3.2**	**3.3**	**3.4**	**3.5**
Treasury note, 30 yr.	3.20	3.13	3.12	3.17	3.07	3.10	3.11	3.02	**3.2**	**3.3**	**3.4**	**3.5**	**3.7**	**3.8**
Corporate Aaa bond	4.16	4.11	4.10	4.11	3.99	3.98	3.91	3.86	**4.1**	**4.3**	**4.4**	**4.6**	**4.7**	**4.8**
Corporate Baa bond	4.83	4.78	4.75	4.73	4.61	4.59	4.47	4.43	**4.8**	**5.0**	**5.2**	**5.3**	**5.5**	**5.6**
State & Local bonds	3.64	3.63	3.67	3.69	3.64	3.61	3.57	3.53	**3.8**	**3.9**	**4.0**	**4.2**	**4.3**	**4.4**
Home mortgage rate	4.66	4.61	4.55	4.55	4.47	4.44	4.33	4.27	**4.6**	**4.7**	**4.8**	**4.9**	**5.1**	**5.1**

Key Assumptions	History: 2Q 2016	3Q 2016	4Q 2016	1Q 2017	2Q 2017	3Q 2017	4Q 2017	1Q 2018	Consensus Forecasts-Quarterly 2Q 2018	3Q 2018	4Q 2018	1Q 2019	2Q 2019	3Q 2019
Major Currency Index	89.6	90.3	93.7	94.4	93.0	88.3	88.9	86.1	**87.3**	**87.6**	**87.3**	**87.0**	**87.0**	**87.1**
Real GDP	2.2	2.8	1.8	1.2	3.1	3.2	2.9	2.3	**3.2**	**3.0**	**2.8**	**2.4**	**2.4**	**2.2**
GDP Price Index	2.4	1.4	2.0	2.0	1.0	2.1	2.3	2.0	**2.1**	**2.2**	**2.1**	**2.2**	**2.2**	**2.2**
Consumer Price Index	2.7	1.8	2.7	3.0	0.1	2.1	3.3	3.5	**2.2**	**2.5**	**2.1**	**2.2**	**2.2**	**2.3**

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index and Consumer Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity; State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; LIBOR quotes from Intercontinental Exchange. All interest rate data is sourced from Haver Analytics. Historical data for Fed's Major Currency Index is from FRSR H.10. Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS).

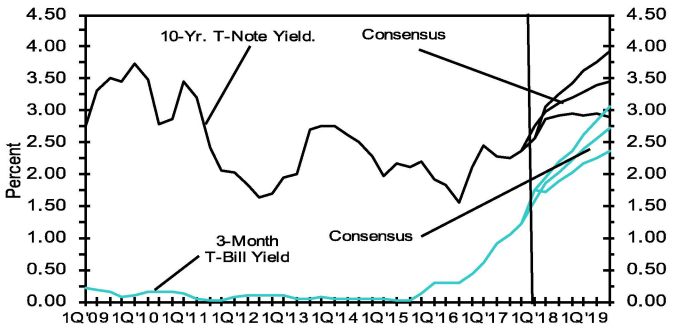
U.S. Treasury Yield Curve

Week ended May 18, 2018 and Year Ago vs.
2Q 2018 and 3Q 2019 Consensus Forecasts



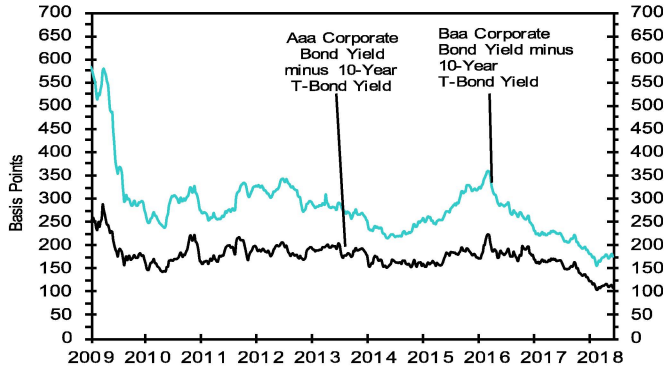
U.S. 3-Mo. T-Bills & 10-Yr. T-Note Yield

(Quarterly Average)



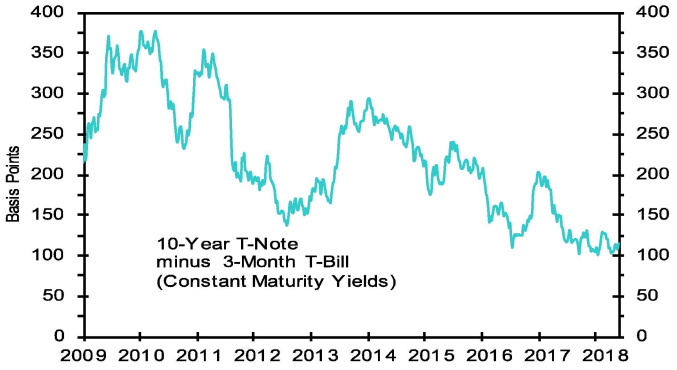
Corporate Bond Spreads

As of week ended May 18, 2018



U.S. Treasury Yield Curve

As of week May 18, 2018



Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2020 through 2024 and averages for the five-year periods 2020-2024 and 2025-2029. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

		Average For The Year					Five-Year Averages	
Interest Rates		**2020**	**2021**	**2022**	**2023**	**2024**	**2020-2024**	**2025-2029**
1. Federal Funds Rate	**CONSENSUS**	**3.0**	**3.0**	**3.0**	**3.0**	**3.0**	**3.0**	**3.0**
	Top 10 Average	3.5	3.6	3.6	3.5	3.5	3.5	3.5
	Bottom 10 Average	2.6	2.5	2.4	2.4	2.6	2.5	2.6
2. Prime Rate	**CONSENSUS**	**6.1**	**6.0**	**6.0**	**6.0**	**6.1**	**6.0**	**6.0**
	Top 10 Average	6.5	6.6	6.6	6.5	6.5	6.6	6.5
	Bottom 10 Average	5.6	5.5	5.4	5.5	5.6	5.5	5.6
3. LIBOR, 3-Mo.	**CONSENSUS**	**3.3**	**3.3**	**3.3**	**3.3**	**3.4**	**3.3**	**3.3**
	Top 10 Average	3.7	3.9	4.0	3.9	3.9	3.9	3.8
	Bottom 10 Average	2.9	2.8	2.7	2.7	2.9	2.8	2.9
4. Commercial Paper, 1-Mo.	**CONSENSUS**	**3.1**	**3.2**	**3.1**	**3.1**	**3.2**	**3.1**	**3.2**
	Top 10 Average	3.5	3.7	3.7	3.7	3.7	3.6	3.6
	Bottom 10 Average	2.7	2.6	2.6	2.6	2.7	2.6	2.7
5. Treasury Bill Yield, 3-Mo.	**CONSENSUS**	**3.0**	**3.0**	**2.9**	**2.9**	**3.0**	**3.0**	**3.0**
	Top 10 Average	3.5	3.6	3.6	3.5	3.6	3.5	3.5
	Bottom 10 Average	2.5	2.4	2.4	2.4	2.5	2.4	2.5
6. Treasury Bill Yield, 6-Mo.	**CONSENSUS**	**3.1**	**3.1**	**3.1**	**3.1**	**3.2**	**3.1**	**3.2**
	Top 10 Average	3.6	3.7	3.7	3.7	3.7	3.7	3.7
	Bottom 10 Average	2.7	2.6	2.5	2.5	2.7	2.6	2.7
7. Treasury Bill Yield, 1-Yr.	**CONSENSUS**	**3.2**	**3.3**	**3.2**	**3.2**	**3.3**	**3.2**	**3.3**
	Top 10 Average	3.7	3.8	3.8	3.8	3.8	3.8	3.9
	Bottom 10 Average	2.8	2.7	2.6	2.7	2.8	2.7	2.8
8. Treasury Note Yield, 2-Yr.	**CONSENSUS**	**3.4**	**3.4**	**3.4**	**3.4**	**3.4**	**3.4**	**3.5**
	Top 10 Average	3.9	4.0	4.0	3.8	4.0	3.9	4.1
	Bottom 10 Average	2.9	2.9	2.8	2.8	2.9	2.8	2.9
10. Treasury Note Yield, 5-Yr.	**CONSENSUS**	**3.6**	**3.6**	**3.6**	**3.6**	**3.7**	**3.6**	**3.8**
	Top 10 Average	4.0	4.1	4.1	4.1	4.2	4.1	4.4
	Bottom 10 Average	3.2	3.2	3.0	3.1	3.2	3.1	3.2
11. Treasury Note Yield, 10-Yr.	**CONSENSUS**	**3.8**	**3.8**	**3.8**	**3.8**	**3.8**	**3.8**	**3.9**
	Top 10 Average	4.3	4.3	4.4	4.3	4.4	4.3	4.5
	Bottom 10 Average	3.3	3.3	3.2	3.2	3.3	3.2	3.4
12. Treasury Bond Yield, 30-Yr.	**CONSENSUS**	**4.1**	**4.2**	**4.2**	**4.2**	**4.2**	**4.2**	**4.4**
	Top 10 Average	4.7	4.7	4.7	4.8	4.8	4.7	5.0
	Bottom 10 Average	3.6	3.6	3.6	3.6	3.7	3.6	3.7
13. Corporate Aaa Bond Yield	**CONSENSUS**	**5.2**	**5.2**	**5.2**	**5.3**	**5.4**	**5.3**	**5.4**
	Top 10 Average	5.7	5.8	5.9	6.0	6.0	5.9	6.0
	Bottom 10 Average	4.7	4.7	4.6	4.6	4.7	4.6	4.7
13. Corporate Baa Bond Yield	**CONSENSUS**	**6.0**	**6.0**	**6.0**	**6.1**	**6.2**	**6.1**	**6.3**
	Top 10 Average	6.6	6.8	6.9	7.0	7.0	6.9	7.0
	Bottom 10 Average	5.3	5.3	5.3	5.3	5.4	5.3	5.4
14. State & Local Bonds Yield	**CONSENSUS**	**4.6**	**4.5**	**4.5**	**4.5**	**4.6**	**4.5**	**4.6**
	Top 10 Average	5.1	5.1	5.1	5.1	5.1	5.1	5.2
	Bottom 10 Average	4.0	3.9	3.9	4.0	4.1	4.0	4.1
15. Home Mortgage Rate	**CONSENSUS**	**5.4**	**5.4**	**5.4**	**5.4**	**5.5**	**5.4**	**5.6**
	Top 10 Average	5.8	5.9	6.0	6.0	6.0	6.0	6.1
	Bottom 10 Average	4.9	4.9	4.8	4.8	4.9	4.9	5.0
A. FRB - Major Currency Index	**CONSENSUS**	**89.6**	**89.4**	**89.6**	**90.0**	**90.1**	**89.7**	**90.4**
	Top 10 Average	94.3	94.6	94.5	94.5	94.5	94.5	94.8
	Bottom 10 Average	84.6	84.0	84.3	85.4	85.6	84.8	85.9
		Year-Over-Year, % Change					Five-Year Averages	
		2020	**2021**	**2022**	**2023**	**2024**	**2020-2024**	**2025-2029**
B. Real GDP	**CONSENSUS**	**1.9**	**1.9**	**2.0**	**2.1**	**2.1**	**2.0**	**2.1**
	Top 10 Average	2.4	2.4	2.4	2.4	2.5	2.4	2.4
	Bottom 10 Average	1.5	1.3	1.5	1.8	1.8	1.6	1.8
C. GDP Chained Price Index	**CONSENSUS**	**2.2**	**2.2**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**
	Top 10 Average	2.4	2.4	2.3	2.2	2.3	2.3	2.2
	Bottom 10 Average	2.0	2.0	2.0	1.9	2.0	2.0	2.0
D. Consumer Price Index	**CONSENSUS**	**2.3**	**2.3**	**2.3**	**2.2**	**2.2**	**2.3**	**2.2**
	Top 10 Average	2.7	2.6	2.5	2.4	2.5	2.5	2.4
	Bottom 10 Average	1.9	2.0	2.1	2.0	2.0	2.0	2.1

EMERA INC. TSE-EMA.TO

RECENT PRICE 40.74 | P/E RATIO 16.2 (32.1 / 16.0) | RELATIVE P/E RATIO 0.84 | DIV'D YLD 5.5% | VALUE LINE

TIMELINESS 3 Lowered 1/26/18
SAFETY 2 Raised 12/23/16
TECHNICAL 3 Lowered 3/2/18
BETA .60 (1.00 = Market)

2021-23 PROJECTIONS

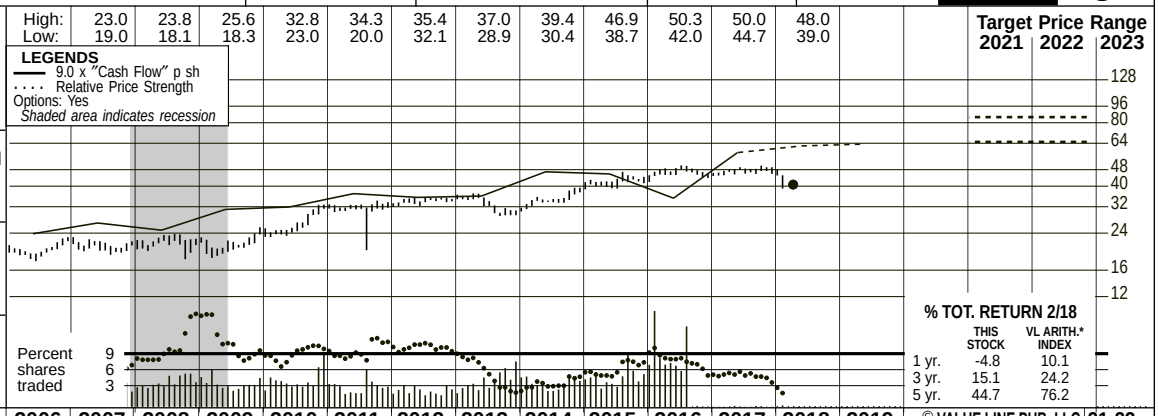
	Price	Gain	Ann'l Total Return
High	85	(+110%)	*24%*
Low	65	(+60%)	*16%*

Insider Decisions

	M	J	J	A	S	O	N	D	J
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	2Q2017	3Q2017	4Q2017
to Buy	2	2	5
to Sell	0	2	1
Hld's(000)	890	1994	3629



2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
11.38	11.37	10.42	10.61	10.51	12.02	11.87	12.75	13.55	16.81	15.72	16.78	20.67	18.95	20.36	27.22	***30.85***	***30.75***	Revenues per sh [E]	***35.35***
1.96	2.37	2.38	2.52	2.65	2.98	2.75	3.45	3.54	4.11	3.93	4.00	5.20	5.09	3.90	6.43	***6.90***	***7.05***	"Cash Flow" per sh	***8.45***
.84	1.16	1.14	1.10	1.12	1.32	1.26	1.52	1.65	1.97	1.76	1.64	2.82	2.71	1.32	2.74	***2.75***	***2.90***	Earnings per sh [A]	***4.20***
.86	.86	.88	.89	.89	.90	.97	1.03	1.16	1.31	1.36	1.41	1.48	1.66	2.00	2.13	***2.28***	***2.44***	Div'ds Decl'd per sh [C]	***3.00***
1.02	1.12	1.39	1.17	1.75	2.26	4.86	2.89	4.60	3.93	3.41	2.42	3.02	2.51	4.91	6.68	***6.50***	***6.20***	Cap'l Spending per sh	***4.90***
12.36	12.12	12.28	12.41	12.69	12.20	13.78	13.31	14.16	11.80	12.60	15.68	18.60	23.71	28.55	34.49	***34.60***	***34.30***	Book Value per sh [B]	***34.80***
107.80	108.26	108.87	110.10	110.93	111.47	112.21	112.98	114.62	122.83	130.98	132.89	143.78	147.21	210.02	228.77	***230.00***	***234.00***	Common Shs Outst'g [D]	***246.00***
19.8	14.4	15.9	17.2	18.0	15.7	17.2	14.0	16.1	16.2	19.4	20.1	12.3	15.5	35.2	17.2	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	***18.0***
1.08	.82	.84	.92	.97	.83	1.04	.93	1.02	1.02	1.23	1.13	.65	.78	1.85	.86			Relative P/E Ratio	***1.00***
5.2%	5.1%	4.9%	4.7%	4.4%	4.3%	4.5%	4.8%	4.4%	4.1%	4.0%	4.3%	4.3%	4.0%	4.3%	4.5%			Avg Ann'l Div'd Yield	***4.0%***
1331.9	1440.2	1553.7	2064.4	2058.6	2230.2	2971.9	2789.3	4277.0	6226.0	***7100***	***7200***	Revenues ($mill)	***8700***
39.4%	40.8%	38.5%	30.5%	33.5%	34.5%	35.7%	30.8%	26.8%	35.5%	***32.0%***	***32.5%***	Operating Margin	***34.0%***
165.0	214.2	214.9	263.2	294.4	313.6	341.5	352.2	593.0	856.0	***925***	***950***	Depreciation ($mill)	***1025***
144.1	175.7	194.2	247.7	231.9	236.8	432.9	427.5	255.0	619.0	***670***	***715***	Net Profit ($mill)	***1070***
28.6%	21.7%	--	--	--	14.5%	20.1%	17.0%	17.0%	***24.8%***	***21.0%***	***20.0%***	Income Tax Rate	***20.0%***
10.8%	12.2%	12.5%	12.0%	11.3%	10.6%	14.6%	15.3%	6.0%	9.9%	***9.5%***	***9.9%***	Net Profit Margin	***12.3%***
d198.3	d88.5	92.2	191.6	d68.0	d368.6	312.0	514.3	d1213	d1420	***d1450***	***d1450***	Working Cap'l ($mill)	***d725***
2159.2	2454.9	3141.9	3273.5	3201.1	3363.7	3660.3	3750.8	14268	13140	***13075***	***13000***	Long-Term Debt ($mill)	***12700***
1681.2	1503.5	1773.6	1599.2	2050.4	2608.2	3398.8	4200.1	6704.0	7181	***7950***	***8025***	Shr. Equity ($mill)	***8550***
5.3%	6.1%	5.7%	6.9%	6.4%	5.5%	7.4%	6.7%	2.8%	***4.5%***	***5.0%***	***5.0%***	Return on Total Cap'l	***7.0%***
8.6%	11.7%	10.9%	15.5%	11.3%	9.1%	12.7%	10.2%	4.5%	7.8%	***8.5%***	***9.0%***	Return on Shr. Equity	***12.5%***
2.3%	4.0%	3.6%	5.8%	3.2%	1.5%	7.4%	4.5%	NMF	1.8%	***1.5%***	***1.5%***	Retained to Com Eq	***3.5%***
75%	66%	70%	66%	77%	87%	55%	63%	124%	78%	***82%***	***84%***	All Div'ds to Net Prof	***71%***

CAPITAL STRUCTURE as of 12/31/17
Total Debt $15122 mill. **Due in 5 Yrs** $2000.0 mill.
LT Debt $13140 mill. **LT Interest** $710.0 mill.
(Total int. coverage:2.0x)
(62% of Cap'l)
Leases, Uncapitalized Annual rentals $31.2 mill.

Pension Assets-12/16 $2208.0 mill
Oblig. $2607.0 mill
Pfd Stock $710.0 mill. **Pfd Div'ds** $28.0 mill.

Common Stock 228,770,000 shs.

MARKET CAP: $9.3 billion (Large Cap)

CURRENT POSITION ($MILL.)	2015	2016	12/31/17
Cash Assets	1073.4	404	438
Receivables	578.1	1014	1083
Inventory (Avg Cst)	314.3	472	418
Other	629.8	621	587
Current Assets	2595.6	2511	2526
Accts Payable	394.2	1242	1161
Debt Due	289.9	1437	1982
Other	1397.2	1045	803
Current Liab.	2081.3	3724	3946

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '14-'16 to '21-'23
Revenues	6.5%	7.0%	*8.5%*
"Cash Flow"	6.5%	5.0%	*7.5%*
Earnings	7.5%	6.0%	*8.5%*
Dividends	7.0%	8.0%	*8.5%*
Book Value	6.5%	12.5%	*3.0%*

Calendar	QUARTERLY REVENUES ($ mill.) [E] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	900.3	537.0	654.0	698.0	2789.3
2016	877.0	499.4	1387.0	1513.6	4277.0
2017	1857	1469	1427	1473	6226
2018	***1900***	***1700***	***1775***	***1725***	***7100***
2019	***1925***	***1725***	***1800***	***1750***	***7200***

Calendar	EARNINGS PER SHARE [AE] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1.09	.07	.24	1.31	2.71
2016	.30	1.38	d.52	.34	1.32
2017	1.48	.47	.38	.41	2.74
2018	***.80***	***.60***	***.70***	***.65***	***2.75***
2019	***.83***	***.63***	***.74***	***.70***	***2.90***

Calendar	QUARTERLY DIVIDENDS PAID [CE] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.362	.362	.363	.388	1.48
2015	.388	.40	.40	.475	1.66
2016	.475	.475	.5225	.5225	2.00
2017	.5225	.5225	.5225	.565	2.13
2018	.565				

BUSINESS: Emera Inc. is geographically diverse energy and services company. It invests in electricity generation, transmission, and distribution, as well as gas transportation and utility energy services. Also provices energy marketing, trading, and other energy-related mgmt. services. Has investments throughout North America, and in four Caribbean countries. Acquired TECO Energy 7/16. Serves approximately 2,500,000 customers in Florida (45%), New Mexico (22%), Nova Scotia (22%), Maine, and the island of Barbados. Has approximately 7,400 employees. President and CEO: Chris Huskilson. Chairman: Jackie Sheppard. Inc.: Nova Scotia, Canada. Address: 1223 Lower Water St., Halifax, Canada NS B3J 3S8. Telephone: (902) 428-6112. Internet: www.emera.com.

Emera closed out 2017 on an up note. Excluding a one-time $317 million tax revaluation expense, share net came in at $0.41, versus $0.34 in the previous year. The increase was due to a full-year contribution from Florida and New Mexico operations (acquired in 2016), and higher contributions from its Maritime Link and Labrador Island Link investments.

The Emera Florida and New Mexico segment will likely remain the key performance driver in 2018. Adjusted net income for the division rose 27% in the December quarter, to $80 million, accounting for 58% of the company total. Further gains are likely this year, driven by higher base revenues related to completion of the Polk Power Station expansion project, as well as customer and load growth. Altogether, management looks for segment earnings to rise about 10% this year.

The company continues to make good progress on its various project initiatives. The Maritime Link connecting Newfoundland and Nova Scotia with two 170-kilometer subsea cables began commercial operation in January. Meanwhile, the Labrador Island Link is slated to come into service in the second quarter. Elsewhere, Emera started work on its 600 megawatt solar base rate project in Florida. The first 150 mws should be installed and commissioned this year, resulting in a $30 million U.S. revenue increase. Another 450 mw are slated for 2019 through 2021, and the company is actively pursuing additional solar projects.

U.S. tax reform will weigh on 2018 earnings growth. Management looks for earnings to be clipped by $25 million to $30 million due to the tax effect on U.S.-denominated debt. Management is looking at a number of alternatives to minimize the earnings impact going forward. Altogether, we've trimmed our 2018 share-earnings estimate by $0.20, to $2.75. At the same time, we are introducing our 2019 call at $2.90.

These shares have long-term appeal. The combination of above-average 3- to 5-year appreciation potential and a good yield, along with an attractive risk profile (Safety 2, Stock Price Stability 100), should be of particular interest to conservative, buy-and-hold investors.

Mario Ferro *March 23, 2018*

(A) Diluted earnings. 2016 earnings do not sum due to change in share count. Excludes non-recurring charge: 2017: $1.47. Next earnings report due early May.
(B) Incl. intangibles. In 2017, $5.8 bill., or $25.37 per share. **(C)** Common div. historically paid in the middle of Feb., May, August, and Nov.
(D) In millions.
(E) All data in Canadian dollars.

Company's Financial Strength	B+
Stock's Price Stability	100
Price Growth Persistence	50
Earnings Predictability	55

Emera Incorporated

Recommendation[as of June 22, 2017]: **HOLD**

Risk Evaluation: LOW **Price:** 48.86 [Jun 23, 2017 close] **Trading Currency:** CAD **Country:** Canada

GICS Sector: Utilities
GICS Industry: Electric Utilities
S&P Capital IQ Quality Ranking: A

Business Summary: Emera Incorporated, an energy and services company, through its subsidiaries, engages in the generation, transmission, and distribution of electricity to various customers.

Quantitative Model Drivers

[as of June 22, 2017]

Recommendation: **HOLD**

Valuation	Neutral
Quality	Neutral
Growth	Neutral
Street Sentiment	Neutral
Price Momentum	Neutral

Price Performance

Risk Evaluation : LOW

Asset/Market Size Risk	Low
Financial Leverage Risk	High
Price Volatility Risk	Low
Liquidity Risk	Low

Relative Strength vs Index
40-Week Mov. Avg.
Volume Below Avg. Above Avg.

As Reported Earnings vs Previous Year Up Down No Change
Quantitative Ranking

Total Return[%CAGR]	YTD	1Yr	3Yr	5Yr
TSX:EMA	10.1	9.9	17.5	12.8
Peer Average	4.5	17.6	10.8	6.6
S&P/TSX Composite Index	0.3	11.2	3.1	9.1

Quantitative Rankings: SB = Strong Buy, H = Hold, SS = Strong Sell
Past performance is not an indication of future performance and should not be relied upon as such.

Model Ranking Commentary

- TSX: EMA's HOLD recommendation is based on its score from CFRA's quantitative model for Canada.
- Valuation and Quality model sub-categories are the largest positive and negative drivers, respectively, of the HOLD recommendation.
- Valuation includes factors such as price to earnings, price to cash flow, and enterprise value to book value.
- Quality includes factors that consider profitability, cash flow generation, operating efficiency, and earnings quality.
- TSX: EMA's overall score ranked in the 43rd percentile of all stocks in the model universe [1 = best and 100 = worst].

Key Statistics

Market Cap [Mln of USD]	7,780
52-Wk Range [CAD]	43.76 - 50.19
Value of CAD 10K Invested 5 Yrs ago	18,347
Beta vs S&P/TSX Composite Index	-0.35
Common Shares Outstanding[Mln]	211.05
Average Daily Volume [Mln]	0.504
Insider Ownership[%]	0.11

Dividend Data

Currency: CAD

		5Yr Low		5Yr Hi
Indicated Rate/ Share	2.09			
Yield [%]	4.3	3.7		5.0
Payout Ratio [%]	77.6	52.3		151.1

Payment Details

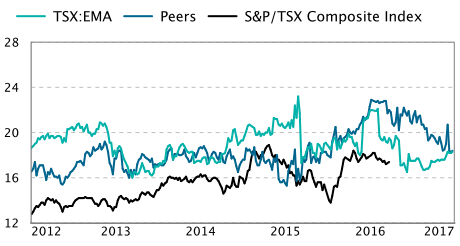
Amount [CAD]	Ex Div Date	Record Date	Payment Date
0.523	Apr 27	May 1	May 15, 2017
0.523	Jan 30	Feb 1	Feb 15, 2017
0.523	Oct 28	Nov 1	Nov 15, 2016
0.523	Jul 20	Jul 22	Aug 15, 2016

Compound Annual Growth Rates

Revenue - %CAGR	1Yr	3Yr	5Yr
Company	89.3	25.8	20.4
Peer Average	10.4	9.3	10.2
S&P/TSX Composite Index	5.6	1.7	2.5
Operating EPS - %CAGR			
Company	72.5	22.0	17.6
Peer Average	15.8	2.9	4.7
S&P/TSX Composite Index	19.1	-0.2	0.2

5 year P/E Ratio Comparisons [forward 12-month EPS estimates]

Current	
TSX:EMA	18.3
Peer Average	18.4
S&P/TSX Composite Index	17.5
5-Year Average	
TSX:EMA	18.9
Peer Average	18.3
S&P/TSX Composite Index	15.6



Emera Incorporated

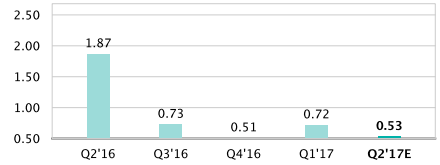
Recommendation[as of June 22, 2017]: **HOLD**

Risk Evaluation: LOW **Price:** 48.86 (Jun 23, 2017 close) **Trading Currency:** CAD **Country:** Canada

Earnings Per Share and Revenues (Millions CAD, except per share)

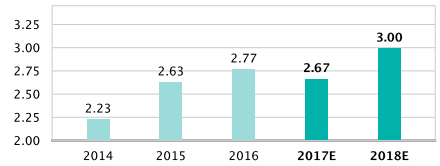
Fiscal year ends Dec 31. Next earnings report expected: Mid Aug.

EPS Quarterly - Actual & Estimated



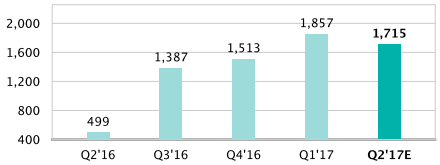
	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17E
%Yr.-Yr Chg.	NM	NM	-36.3	-22.6	**-71.5**
% EPS Surprise	NM	26.5	-13.5	-1.1	**-**
No. of Analysts	9	10	11	12	**9**

EPS Annual - Actual & Estimated



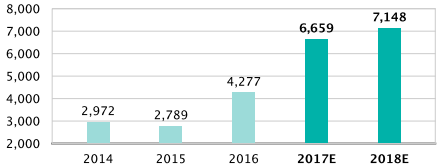
	2014	2015	2016	2017E	2018E
%Yr.-Yr Chg.	13.8	17.9	5.3	**-3.7**	**12.3**
Forward P/E	-	-	-	**18.3**	**16.3**
No. of Analysts	6	7	14	**13**	**14**

Revenues Quarterly - Actual & Estimated



	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17E
%Yr.-Yr Chg.	-7.1	NM	NM	NM	**NM**

Revenues Annual - Actual & Estimated



	2014	2015	2016	2017E	2018E
%Yr.-Yr Chg.	35.1	-6.1	53.3	**55.7**	**7.3**

Note: EPS & Revenues in graphs above may represent analyst-adjusted actuals and estimates and therefore may not match numbers in the financial data presentation below.

Key Profitability Ratios

	2012	2013	2014	2015	2016	LTM
% Operating Margin	16.8	18.4	22.8	20.4	15.1	18.2
Peer Average	*22.4*	*21.3*	*20.9*	*22.1*	*23.8*	*24.6*
% Net Margin	11.9	11.4	15.4	16.2	6.2	10.1
Peer Average	*11.4*	*13.2*	*10.3*	*10.5*	*11.8*	*11.9*
% Return on Capital	3.8	3.9	5.7	4.2	2.5	3.8
Peer Average	*4.2*	*4.6*	*4.3*	*4.6*	*4.4*	*4.7*
% Cash Flow to Sales	19.3	25.3	25.9	24.2	24.6	19.7
Peer Average	*30.0*	*28.4*	*27.7*	*27.5*	*30.2*	*28.0*

Key Valuation Ratios

	2012	2013	2014	2015	2016	Current
Fwrd P/E - High	20.7	21.0	20.3	22.8	22.5	18.3
Fwrd P/E - Low	17.7	16.0	16.9	17.9	16.8	
Peer Average	*18.6*	*18.2*	*19.7*	*18.1*	*21.1*	*18.4*
Prc/Tang Book - High	3.7	3.8	2.8	2.7	2.6	NM
Prc/Tang Book - Low	2.9	2.5	2.1	2.2	2.2	
Peer Average	*3.0*	*3.0*	*3.0*	*2.8*	*2.6*	*2.4*
Avg EV/EBITDA	13.2	12.3	11.8	10.7	13.4	15.0
Peer Average	*11.2*	*11.6*	*12.1*	*12.8*	*12.8*	*12.4*

Income Statement, Cash Flow and Balance Sheet Data (Millions CAD, except per share)

Fiscal Year Ending: Dec. 31 .

	2010	2011	2012	2013	2014	2015	2016	LTM#
Revenue	1,606	2,064	2,059	2,230	2,939	2,789	4,277	5,257
Operating Income	323	319	347	409	671	568	644	955
Net Income	194	248	232	237	433	427	255	523
Capital Expenditures	536	483	446	321	434	427	1,031	1,249
Capital Expend to Revenue	33.4%	23.4%	21.7%	14.4%	14.8%	15.3%	24.1%	23.8%
Earnings Per Share	1.65	1.97	1.76	1.64	2.82	2.71	1.32	2.63
Dividends Per Share	1.16	1.31	1.36	1.41	1.48	1.66	2.00	2.04
Dividend Payout Ratio	70%	66%	77%	86%	52%	61%	151%	78%
Tangible Book Value Per Share	8.41	9.40	10.32	13.31	16.23	21.92	-1.04	0.27
Cash and Short Term Investments	7	77	87	101	221	1,073	404	255
Long Term Debt	3,115	3,280	3,264	3,364	3,660	4,416	14,276	14,273
Total Debt	3,208	3,526	3,721	4,133	4,014	4,706	15,713	15,753
Common Equity	1,230	1,453	1,659	2,094	2,689	3,491	5,995	6,221
Long Term Debt/Capital	66%	61%	54%	48%	47%	49%	63%	63%

Source: S&P Global Market Intelligence

#LTM Last 12 months ended Mar 31,2017.For balance sheet items, data is as of Mar 31,2017.

Note: Data may be restated; before results of discontinued operations/special items. Per share data adjusted for stock dividends as of ex-dividend date.

NA = Not Available. NM = Not Meaningful.

Emera Incorporated

Recommendation[as of June 22, 2017]: **HOLD**

Risk Evaluation: LOW **Price:** 48.86 (Jun 23, 2017 close) **Trading Currency:** CAD **Country:** Canada

Peer Group Comparison

Peer Group	Stock Symbol	Stk.Mkt.Cap [Mln USD]	Recent Stock Price[CAD]	52 Week Low/High[CAD]	Beta	Dividend Yield[%]	Fwrd P/E	P/B Ratio	S&P Capital IQ Ranking [1]	Return On Revenue[%]	Return On Equity[%]	LTD to Cap[%]
Emera Incorporated	**TSX:EMA**	**7,780**	**48.86**	**43.76/50.19**	**-0.35**	**4.3**	**18.3**	**NM**	**Hold**	**10.1**	**10.3**	**62.6**
Alliant Energy Corporation	NYSE:LNT	9,443	54.94	46.23/55.92	-0.28	3.0	20.5	2.4	★★★	11.3	9.8	49.5
AltaGas Ltd.	TSX:ALA	3,855	30.02	29.54/35.55	0.16	7.0	29.9	2.5	Hold	8.1	4.0	37.4
Canadian Utilities Limited	TSX:CU	8,541	42.01	34.83/42.27	-0.29	3.4	18.0	2.6	Strong Buy	18.8	12.6	54.8
Companhia Paranaense de Energia - COPEL	BOVESPA:CPLE6	1,763	9.856	9.530/15.030	NA	4.4	7.0	0.7	NA	9.2	8.3	25.2
Eletropaulo Metropolitana Eletricidade de São Paulo S.A.	BOVESPA:ELPL4	628.6	4.884	3.159/6.307	NA	1.1	27.1	NM	NA	NM	0.1	40.7
Fortis Inc.	TSX:FTS	14,648	46.67	39.58/46.93	-0.38	3.4	18.1	62.2	Hold	11.7	6.7	52.5
Hydro One Limited	TSX:H	10,534	23.45	22.06/26.80	NA	3.8	18.4	1.6	Hold	10.8	7.1	47.4
Power Grid Corporation of India Limited	BSE:532898	16,708	4.233	3.144/4.418	NA	2.1	12.0	2.2	NA	29.0	16.1	68.4
Public Joint-Stock Company Federal Grid Company of Unified Energy System	MISX:FEES	3,531	0.0037	0.0031/0.0058	NA	8.6	NA	0.3	NA	22.8	8.3	23.7
TransCanada Corporation	TSX:TRP	40,974	62.35	56.44/65.24	0.11	4.0	21.5	15.1	★★★★	6.8	3.0	58.0

[1] Quantitative Rankings : Strong Buy , Buy , Hold , Sell , Strong Sell ; Qualitative Rankings[STARS] : ***** = Strong Buy , **** = Buy , *** = Hold , ** = Sell , * = Strong Sell

Rankings are not predictive of future performance. For full definitions of Rankings, see the glossary section of this report.

Note: Peer Group selection is performed using CFRA's proprietary peer ranking system. Peers are selected based on factors such as similarity of analyst coverage, industry, size, and region. The subject company is ranked against a universe of companies [the "Universe"] which has been compiled by CFRA and consists of a list of companies with similar characteristics, but may not include all the companies within the same industry and/or that engage in the same line of business. The subject company and some of the companies in the Peer Group may be ranked by two different ranking systems. For the purpose of the overall ranking/recommendation, the subject company is ranked against all the companies in the Universe and not necessarily against the companies listed in the Peer Group.

Sub-Industry Outlook: Electric Utilities

Our fundamental outlook for electric utilities is neutral. We believe the electric distribution utilities will benefit from still low fuel and purchased power costs and new rate increases, partly offset by higher O&M and depreciation costs. We expect to see cooler summer weather reducing electric utility revenue growth in 2017, following a very warm summer in 2016. Strong capital spending should continue to help utilities for the next few years. We also look for a continued slow recovery in industrial sales to benefit electric utilities. However, we expect wholesale power operators to continue to remain challenged by lower-margin power contracts and pressure on spot power prices.\nIn the aftermath of the nuclear crisis in Japan, companies have faced intense scrutiny regarding the safety of their nuclear plants and in obtaining license extensions for existing plants, and/or the possible development of new facilities. For economic reasons, several nuclear plants have been retired, and we expect that more will be, though a handful of plants have been rescued from early retirement through state legislation in New York and Illinois. We see a significant amount of coal generation to retire as well due to recent EPA regulations that limit pollutant emissions. These retirements are to be replaced predominantly with natural gas-fired generation, but are supplemented with new wind and solar plants. However, we see some pressure on coal generation easing with our expectations that the EPA's Clean Power Plan will be scrapped or severely curtailed. Yet, we see economic factors leading to retirements of older and less efficient coal plants.\nWhile the repeal of the Public Utility Holding Company Act (PUHCA) in 2005 was expected to lead to further industry consolidation, the termination of several planned mergers in 2006 and later made companies cautious about investing the time and money required in the regulatory approval process. Over the past few years, however, there have been several large mergers that were completed. While a recent electric transmission merger was scuttled by regulatory opposition, we believe that deal activity is beginning to increase. In 2015, three utility companies made offers to purchase gas utilities, helping to diversify their earnings in the face of new emissions regulations. Other acquisitions have also been announced where Canadian companies are acquiring U.S. electric companies.\nYear-to-date through March 10, 2017, the S&P Composite 1500 (S&P 1500) Electric Utilities Index was up 4.6%, compared with a 3.9% increase for the S&P 1500 Utilities Sector Index and a 5.5% rise in the S&P 1500 Index. This follows an 11.9% rise in 2016, versus 13.7% for the S&P 500 Utilities Sector Index and 10.6% for the S&P 1500.\n--Christopher Muir

Emera Incorporated

Recommendation[as of June 22, 2017]: **HOLD**

Risk Evaluation: LOW **Price:** 48.86 [Jun 23, 2017 close] **Trading Currency:** CAD **Country:** Canada

Business Summary

Emera Incorporated, an energy and services company, through its subsidiaries, engages in the generation, transmission, and distribution of electricity to various customers. The company is also involved in gas transmission and utility energy services businesses; and the provision of energy marketing, trading, and other energy asset management services. In addition, it transports re-gasified liquefied natural gas to consumers in the northeastern United States through its 145-kilometre pipeline in New Brunswick. The company serves approximately 374,000 customers in Florida; 522,000 customers in New Mexico; 511,000 customers in Nova Scotia; 157,000 customers in the state of Maine; and 126,000 customers in the Island of Barbados. Emera Incorporated was founded in 1919 and is headquartered in Halifax, Canada.

Key Developments

Jun-26-2017	***Company Conference Presentations***	Emera Incorporated Presents at J.P. Morgan Energy Equity Investor Conference, Jun-26-2017 03:00 PM
Jun-04-2017	***Company Conference Presentations***	Emera Incorporated Presents at Credit Suisse 2017 Global Energy Conference, Jun-05-2017
May-31-2017	***Company Conference Presentations***	Emera Incorporated Presents at TD Power & Utilities Conference, Jun-01-2017
May-22-2017	***Company Conference Presentations***	Emera Incorporated Presents at American Gas Association Financial Forum, May-22-2017 01:00 PM
May-12-2017	***Annual General Meeting***	Emera Incorporated, Annual General Meeting, May 12, 2017
May-12-2017	***Executive Changes - CEO***	Emera Incorporated Announces Executive Changes
May-11-2017	***Earnings Calls***	Emera Incorporated, Q1 2017 Earnings Call, May 11, 2017
May-11-2017	***Earnings Release Date***	Emera Incorporated to Report Q1, 2017 Results on May 11, 2017
May-11-2017	***Announcements of Earnings***	Emera Incorporated Announces Consolidated Earnings Results for the First Quarter Ended March 31, 2017; Provides Earnings Guidance for the Year 2017
Apr-04-2017	***Company Conference Presentations***	Emera Incorporated Presents at CanWEA Spring Forum 2017, Apr-04-2017 03:30 PM
Mar-29-2017	***Executive Changes - CEO***	Emera Announces Executive Changes
Feb-27-2017	***Company Conference Presentations***	Emera Incorporated Presents at UBS Utilities and Natural Gas One-on-One Conference, Feb-28-2017
Feb-15-2017	***Announcements of Earnings***	Emera Incorporated Announces Consolidated Earnings Results for the Fourth Quarter and Full Year Ended December 31, 2016
Feb-13-2017	***Earnings Calls***	Emera Incorporated, Q4 2016 Earnings Call, Feb 13, 2017
Feb-10-2017	***Announcements of Earnings***	Emera Incorporated Announces Consolidated Earnings Results for the Fourth Quarter and Full Year Ended December 31, 2016
Feb-10-2017	***Earnings Release Date***	Emera Incorporated to Report Q4, 2016 Results on Feb 10, 2017
Jan-26-2017	***Company Conference Presentations***	Emera Incorporated Presents at CIBC 20th Annual Whistler Institutional Investor Conference, Jan-26-2017 11:10 AM
Jan-06-2017	***Dividend Increases***	Emera Inc. Approves Quarterly Common and Preferred Share Dividends, Payable on and After February 15, 2017

Corporate Information

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Web Site
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Key Officers
Chairman
M.J.Sheppard
Chief Executive Officer, President and Non-Independent Director
C.G.H.Huskilson
Chief Financial Officer
G.W.Blunden
Chief Operating Officer
S.C.Balfour
Chief Corporate Development Officer
N.G.Tower FCA, FCPA
CEO of Emera US Holdings Inc & TECO Energy & President of Emera US Holdings Inc & TECO Energy
R.R.Bennett C.M.

Board Members
S.D.Chrominska, H.E.Demone, A.L.Edgeworth P.Eng., J.D.Eisenhauer FCPA, FCA, C.G.H.Huskilson, B.L.Loewen FCPA, FCA, J.T.McLennan, D.A.Pether, J.B.Ramil, A.S.Rosen, R.P.Sergel, M.J.Sheppard

Country of Incorporation
Canada

Founded
1919

Employees
7,442

Glossary

Quantitative Model Overall Recommendation and drivers of the recommendation
CFRA's global quantitative stock reports provide a 5-tier recommendation assigning a Strong Buy, Buy, Hold, Sell, or Strong Sell recommendation based on a series of quantitative inputs from four separate regional models:

- United States
- Canada
- Developed Europe
- Developed Asia excluding Japan

Each of these regional models is based on between 25 and 40 different investment factors (financial ratios), selected from S&P Capital IQ's Alpha Factor Library.

To provide its recommendation CFRA ranks a universe of common stocks based on 5 measures or model categories: Valuation, Quality, Growth, Street Sentiment, and Price Momentum. In the U.S., a sixth sub-category for Financial Health will also be displayed.

Within these categories, factors are chosen based on their historical predictive strength (alpha) within the region and their correlation with other factors. Each regional model contains two separate sub-models; one that uses factors specific to financial companies and one that focuses on non-financial companies. Due to the large number of banks in the U.S., the U.S. model also has a third sub-model specifically for banks.

Each company within a region is grouped with a universe of stocks and receives a score on each of the five (or six in the U.S.) model categories. Percentile scores are used to compare each company to all other companies in the same universe for each model category. The five (six) model category scores are then weighted and rolled up into a single percentile ranking for that company. Rankings are then assigned investment labels, as follows:

Strong Buy: top 10% by model score
Buy: next 20%
Hold: next 40%
Sells: next 20%
Strong Sells: bottom 10%

Risk Evaluation
Risk Evaluation is a relative ranking, which represents an assessment of the risk of investing in a company's stock relative to the risk of investing in other companies' stocks in the same universe. To perform this assessment the following risk categories are evaluated:

Asset/Market Size Risk
Financial Leverage Risk
Price Volatility Risk
Liquidity Risk

Each company's stock is percentile ranked from 1 to 100 against the other companies within the same universe on each of the four risk categories mentioned above, with 1 being low risk and 100 being high risk. The overall risk evaluation represents the combined scores on these Risk categories, calculated as an equal-weighted average of percentile ranks of the 4 risk categories. The highest 40% of companies in each universe receive a high risk ranking, the next 35% receive a moderate risk ranking and, the lowest 25% receive a low risk ranking.

All investments carry some sort of risk and a low risk ranking represents a relative ranking of CFRA's assessment of the risk of investing in a company's stock versus the risk of investing in other companies that are part of that company's universe. Therefore, a low risk ranking should not be interpreted as an absolute risk evaluation, but as a relative measurement of the risk of investing in a company's stock.

Sector Ranking
CFRA's Investment Policy Committee (IPC) consists of a team of five seasoned investment professionals. It meets weekly to discuss market trends and projections, maintain an S&P 500 12-month forward price target, and make asset allocation/sector recommendations. The IPC establishes over, market, and underweight recommendations on the 10 sectors within the S&P 500. Overweight and underweight recommendations imply that the group expects these sectors to outperform or underperform the S&P 500 during the coming six-to-12 month period, respectively. A "marketweight" recommendation indicates that the sector is expected to be a market performer during this same timeframe. The IPC analyses economic projections, fundamental forecasts, technical considerations, and historical precedent when making such recommendations. Changes in recommendations can be made more frequently than every six-12 months as market conditions evolve. Sector rankings will only be made available for sectors in the S&P 500. If a ranking is not available, the value will be N/A.

Qualitative STARS Ranking system and definition
★★★★★ **5-STARS (Strong Buy):**
Total return is expected to outperform the total return of a relevant benchmark, by a wide margin over the coming 12 months, with shares rising in price on an absolute basis.
★★★★ **4-STARS (Buy):**
Total return is expected to outperform the total return of a relevant benchmark over the coming 12 months, with shares rising in price on an absolute basis.

★★★ **3-STARS (Hold):**
Total return is expected to closely approximate the total return of a relevant benchmark over the coming 12 months, with shares generally rising in price on an absolute basis.
★★ **2-STARS (Sell):**
Total return is expected to underperform the total return of a relevant benchmark over the coming 12 months, and the share price not anticipated to show a gain.
★ **1-STAR (Strong Sell):**
Total return is expected to underperform the total return of a relevant benchmark by a wide margin over the coming 12 months, with shares falling in price on an absolute basis.

S&P Capital IQ Quality Ranking
(also known as S&P Capital IQ Earnings & Dividend Rankings)- Growth and stability of earnings and dividends are deemed key elements in establishing S&PCapital IQ's earnings and dividend rankings for common stocks, which are designed to capsulize the nature of this record in a single symbol.It should be noted, however, that the process also takes into consideration certain adjustments and modifications deemed desirable in establishing such rankings. The final score for each stock is measured against a scoring matrix determined by analysis of the scores of a large and representative sample of stocks. The range of scores in the array of this sample hasbeen aligned with the following ladder of rankings:

A+	Highest	B	Below Average
A	High	B-	Lower
A-	Above Average	C	Lowest
B+	Average	D	In Reorganization
NR	Not Ranked		

A Quality Ranking will not be made available and will be displayed as "NA" if there is insufficient data available to generate the Ranking.

S&P Capital IQ Consensus Estimates
S&P CIQ Consensus Estimates represent the aggregation of individual estimates provided by analysts that are covering a public company. A consensus number can be provided as either the mean or the median. The size of the company and the amount of analyst coverage will determine the size of the group from which the Consensus is derived. All of the available analysts' estimates may not necessarily be included in the Consensus. The Consensus will only include analysts' estimates that are based on the same methodology. Consensus Mean: The mathematical average of the detailed estimates after the appropriate exclusions have been applied. Consensus Median: This represents the midpoint of the range of estimates that are ranked from highest to lowest after the appropriate exclusions have been applied. If the number of estimates is even, then the average of the middle two figures is the median.

Global Industry Classification Standard (GICS)
An industry classification standard, developed by Standard and Poor's in collaboration with Morgan Stanley Capital International (MSCI). Under the GICS structure, companies are classified in one of 154 sub-industries, which are grouped into 68 industries, 24 industry groups, and 10 economic sectors (consumer discretionary, consumer staples, energy, financials, health care, industrials, information technology, materials, telecom services, and utilities). This four-tier structure accommodates companies across the world and facilitates sector analysis and investing.

Glossary

Peer Group
A subset of an universe that groups companies by specific criteria, such as industry/across industry, lines of business, geography (local, regional, national, and international), size of business (e. g. in terms of revenue), performance criteria, etc.

Universe
A set of companies that shares a common feature such as the same market capitalization, industry or index.

Beta
Beta is a measurement of the sensitivity of a company's stock price to the overall fluctuation of a given benchmark index. The beta values used in this report are levered, unadjusted and derived from a least squares regression analysis using stock and benchmark index returns based on a monthly frequency. Beta is calculated using 60 monthly returns (each as of month end) but if the company's trading history is too short to provide such a sample, fewer than 60 but not fewer than 24 monthly returns are used to run the regression. Beta in this report uses five different benchmark indices to better estimate a stock's volatility against a respective market: the S&P 500 for all US stocks, the S&P/TSX index for all Canadian stocks, the S&P Europe 350 for all European stocks, the S&P/ASX 200 index for all Australian stocks, and the S&P Global 1200 for all other international stocks.

Free Cash Flow (FCF)
Operating Cash Flow minus Capital Expenditures over the past 12 months

Funds from Operations (FFO)
Funds from Operations (FFO) represents a REIT's net income, excluding gains or losses from sales of property, plus real estate depreciation.

Not Meaningful (NM)
Value is available but it is not meaningful. Examples are certain negative ratios such as P/E, as well as certain ratios that are over +/- 100%

Not Available (NA)
Value is not available for this data item

Return on Capital
EBIT / (Total Equity + Total Debt + Deferred Tax Liability Non Current + Deferred Tax Liability Current) Notes:
(1) If the denominator is less than or equal to zero then the ratio will be shown as NM
(2) If the return is less than (300%) then the value will be shown as NM

Return on Equity
Earnings From Continuing Operations / {(Total Equity(t) + Total Equity (t-1)] / 2) Notes:
(1) If both periods of data (t and t-1) are not available then the ratio will be shown as NM
(2) If the denominator is less than or equal to zero then the ratio will be shown as NM

Relative Strength vs Index
Relative Strength vs Index measures the stock performance of the company verse all other stocks in the benchmark index each week. Weekly readings are accumulated to form the cumulative Relative Strength line.

Relevant benchmarks:

Region	Country	Index
US	US	S&P 500 Index
Canada	Canada	S&P/TSX Composite Index
Europe	All	S&P Europe 350 Index
Asia ex Japan	Australia	S&P/ASX 200 Index
Asia ex Japan	All except Australia	S&P Global 1200

Abbreviations Used in CFRA Equity Research Reports

CAGR	Compound Annual Growth Rate
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest Taxes Depreciation and Amortization
EPS	Earnings Per Share
EV	Enterprise Value
FCF	Free Cash Flow
FFO	Funds from Operations
LTD	Long Term Debt
NM	Not Meaningful (see definition above)
P/E	Price/Earnings

Dividends on American Depository Receipts (ADRs) and American Depository Shares (ADSs) are net of taxes (paid in the country of origin).

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Qualitative STARS recommendations are determined and assigned by equity analysts. For reports containing STARS recommendations refer to the Glossary section of the report for detailed methodology and the definition of STARS rankings.

Quantitative Stock Reports:
Quantitative recommendations are determined by ranking a universe of common stocks based on 5 measures or model categories: Valuation, Quality, Growth, Street Sentiment, and Price Momentum. In the U.S., a sixth sub-category for Financial Health will also be displayed. Percentile scores are used to compare each company to all other companies in the same universe for each model category. The five (six) model category scores are then weighted and rolled up into a single percentile ranking for that company. For reports containing quantitative recommendations refer to the Glossary section of the report for detailed methodology and the definition of Quantitative rankings.

STARS Stock Reports and Quantitative Stock Reports:
The methodologies used in STARS Stock Reports and Quantitative Stock Reports (collectively, the "Research Reports") reflect different criteria, assumptions and analytical methods and may have differing recommendations. The methodologies and data used to generate the different types of Research Reports are believed by the author and distributor reasonable and appropriate. Generally, CFRA does not generate reports with different ranking methodologies for the same issuer. However, in the event that different methodologies or data are used on the analysis of an issuer, the methodologies may lead to different views or recommendations on the issuer, which may at times result in contradicting assessments of an issuer. CFRA reserves the right to alter, replace or vary models, methodologies or assumptions from time to time and without notice to clients.

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NEW REGULATORY FINANCE

Roger A. Morin, PhD

2006
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5. Standard & Poor's
6. Morningstar
7. BARRA

Value Line is the largest and most widely circulated independent investment advisory service, and influences the expectations of a large number of institutional and individual investors. The Value Line data are commercially available on a timely basis to investors in paper format or electronically. Value Line betas are derived from a least-squares regression analysis between weekly percent changes in the price of a stock and weekly percent changes in the New York Stock Exchange Average over a period of 5 years. In the case of shorter price histories, a smaller time period is used, but 2 years is the minimum. Value Line betas are computed on a theoretically sound basis using a broadly based market index, and they are adjusted for the regression tendency of betas to converge to 1.00. This necessary adjustment to beta is discussed below.

Practical and Conceptual Difficulties

Computational Issues. Absolute estimates of beta may vary over a wide range when different computational methods are used. The return data, the time period used, its duration, the choice of market index, and whether annual, monthly, or weekly return figures are used will influence the final result.

Ideally, the returns should be total returns, that is, dividends and capital gains. In practice, beta estimates are relatively unaffected if dividends are excluded. Theoretically, market returns should be expressed in terms of total returns on a portfolio of all risky assets. In practice, a broadly based value-weighted market index is used. For example, Merrill Lynch betas use the Standard & Poor's 500 market index, while Value Line betas use the New York Stock Exchange Composite market index. In theory, unless the market index used is the true market index, fully diversified to include all securities in their proportion outstanding, the beta estimate obtained is potentially distorted. Failure to include bonds, Treasury bills, real estate, etc., could lead to a biased beta estimate. But if beta is used as a relative risk ranking device, choice of the market index may not alter the relative rankings of security risk significantly.

To enhance statistical significance, beta should be calculated with return data going as far back as possible. But the company's risk may have changed if the historical period is too long. Weighting the data for this tendency is one possible remedy, but this procedure presupposes some knowledge of how risk changed over time. A frequent compromise is to use a 5-year period with either weekly or monthly returns. Value Line betas are computed based on weekly returns over a 5-year period, whereas Merrill Lynch betas are computed with monthly returns over a 5-year period. In an empirical study of utility

THE COST OF CAPITAL TO A PUBLIC UTILITY

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1974
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so that the current value can be widely off the mark as a measure of the expected future value.

5.4 Other Measures of Growth

The measure of expected growth in the dividend established in the previous two sections, the intrinsic growth rate, is not the only possible measure of the variable. Another plausible measure is some average of the past rates of growth in the dividend. Under our model of security valuation, dividend, earnings, and price per share all are expected to grow at the same rate. Hence, the rates of growth in the dividend, earnings, and price also are candidates for estimates of the expected rate of growth in the dividend.

Let us consider first the rate of growth in earnings per share. The earnings per share during T adjusted for stock splits and stock dividends to make interperiod comparisons valid is

$$\text{AYPS}(T) = \text{AFC}(T)/.5\,[\text{ANS}(T) + \text{ANS}(T-1)], \qquad (5.4.1)$$

where ANS(T) is the number of shares outstanding at the end of T adjusted for stock splits and dividends. The rate of growth in earnings per share during T is

$$\text{YGR}(T) = [\text{AYPS}(T) - \text{AYPS}(T-1)]/\text{AYPS}(T-1). \qquad (5.4.2)$$

For reasons to be given shortly, the smoothed rate of growth in earnings is superior to the current rate as a forecast of the expected rate. The smoothed rate of earnings growth is obtained from

$$Ln[1 + \text{YGRS}(T)] = \lambda Ln[1 + \text{YGR}(T)] + (1-\lambda)Ln[1 + \text{YGRS}(T-1)], \qquad (5.4.3)$$

with $\lambda = .15$ and YGRS(1953) = .04.

The primary reason for a difference between YGR and GRTH is a change in the rate of return on the common equity. To illustrate, assume a firm that has been earning a return on common of .10 and retaining one-half of its income to finance its investment. The rate of growth under both measures will be .05. If the firm's rate of return on common rises from .10 to .11, the retention growth rate will rise from .05 to (.5)(.11) = .055. However, the earnings growth rate will rise from .05 to .155.[5] Furthermore, the earnings growth rate in subsequent periods will be .055 if the return on common remains .11. This example suggests that the intrinsic growth rate is superior to the earnings growth rate as a measure of expected growth. Investors nonetheless may look to past data on earnings growth for information on expected future growth, and it is the growth investors expect that should be used to measure share yield.

A number of considerations suggest that investors may, in fact, use earnings growth as a measure of expected future growth. First, the intrinsic growth rate includes stock financing growth as well as retention growth. The former is difficult for us to measure and may be even more difficult for investors. Consequently, investors may use past earnings growth to forecast the future since it incorporates in one statistic growth from all sources. Second, we saw that inflation will result in a rise in the allowed rate of return on equity for a regulated company. If this response to inflation takes place with a lag, that is, the regulatory agency raises RRC over time, earnings growth will reflect the forecast rate of growth better than intrinsic growth. Finally, it appears that security analysts use past growth in earnings more than any other variable to forecast future growth.

Given that earnings growth is used by investors to forecast future growth, the smoothed value of the variable YGRS is superior to the current value. The previous illustration revealed that YGR overreacts to changes in the allowed rate of return and therefore is subject to large random fluctuations. The data on YGR confirm this conclusion.

The use of dividend growth as a forecast of future growth is subject to the same limitations as earnings if the firm pays a constant fraction of its earnings in dividends. That is, under this assumption the dividend growth rate in any period is the same as the earnings growth rate. Firms tend to change their dividend rate from one

[5] Let the book value per share at the start of T be BVS($T-1$) = \$50.00. With RRC(T) = .10, AYP(T) = \$5.00, and with RETR(T) = .5, BVS(T) = \$52.50. If RRC($T+1$) = .10, AYP($T+1$) = \$5.25, and YGR($T+1$) = RTGR($T+1$) = .05. However, if RRC($T+1$) = .11, RTGR($T+1$) = (.11)(.5) = .055, while AYP($T+1$) = \$5.775, and YGR($T+1$) = (\$5.775 − \$5.00)/\$5.00 = .155.

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The average growth rate estimate from all the analysts that follow the company measures the consensus expectation of the investment community for that company. In most cases, it is necessary to use earnings forecasts rather than dividend forecasts due to the extreme scarcity of dividend forecasts compared to the widespread availability of earnings forecasts. Given the paucity and variability of dividend forecasts, using the latter would produce unreliable DCF results. In any event, the use of the DCF model prospectively assumes constant growth in both earnings and dividends. Moreover, as discussed below, there is an abundance of empirical research that shows the validity and superiority of earnings forecasts relative to historical estimates when estimating the cost of capital.

The uniformity of growth projections is a test of whether they are typical of the market as a whole. If, for example, 10 out of 15 analysts forecast growth in the 7%–9% range, the probability is high that their analysis reflects a degree of consensus in the market as a whole. As a side note, the lack of uniformity in growth projections is a reasonable indicator of higher risk. Chapter 3 alluded to divergence of opinion amongst analysts as a valid risk indicator.

Because of the dominance of institutional investors and their influence on individual investors, analysts' forecasts of long-run growth rates provide a sound basis for estimating required returns. Financial analysts exert a strong influence on the expectations of many investors who do not possess the resources to make their own forecasts, that is, they are a cause of g. The accuracy of these forecasts in the sense of whether they turn out to be correct is not at issue here, as long as they reflect widely held expectations. As long as the forecasts are typical and/or influential in that they are consistent with current stock price levels, they are relevant. The use of analysts' forecasts in the DCF model is sometimes denounced on the grounds that it is difficult to forecast earnings and dividends for only one year, let alone for longer time periods. This objection is unfounded, however, because it is present investor expectations that are being priced; it is the consensus forecast that is embedded in price and therefore in required return, and not the future as it will turn out to be.

Empirical Literature on Earnings Forecasts

Published studies in the academic literature demonstrate that growth forecasts made by security analysts represent an appropriate source of DCF growth rates, are reasonable indicators of investor expectations and are more accurate than forecasts based on historical growth. These studies show that investors rely on analysts' forecasts to a greater extent than on historic data only.

Academic research confirms the superiority of analysts' earnings forecasts over univariate time-series forecasts that rely on history. This latter category

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mendation that is different than the expected ROE that the method assumes the utility will earn forever. For example, using an expected return on equity of 11% to determine the growth rate and using the growth rate to recommend a return on equity of 9% is inconsistent. It is not reasonable to assume that this regulated utility company is expected to earn 11% forever, but recommend a 9% return on equity. The only way this utility can earn 11% is that rates be set by the regulator so that the utility will in fact earn 11%. One is assuming, in effect, that the company will earn a return rate exceeding the recommended cost of equity forever, but then one is recommending that a different rate be granted by the regulator. In essence, using an ROE in the sustainable growth formula that differs from the final estimated cost of equity is asking the regulator to adopt two different returns.

The circularity problem is somewhat dampened by the self-correcting nature of the DCF model. If a high equity return is granted, the stock price will increase in response to the unanticipated favorable return allowance, lowering the dividend yield component of market return in compensation for the high g induced by the high allowed return. At the next regulatory hearing, more conservative forecasts of r would prevail. The impact on the dual components of the DCF formula, yield and growth, are at least partially offsetting.

Third, the empirical finance literature discussed earlier demonstrates that the sustainable growth method of determining growth is not as significantly correlated to measures of value, such as stock price and price/earnings ratios, as other historical growth measures or analysts' growth forecasts. Other proxies for growth, such as historical growth rates and analysts' growth forecasts, outperform retention growth estimates. See for example Timme and Eiseman (1989).

In summary, there are three proxies for the expected growth component of the DCF model: historical growth rates, analysts' forecasts, and the sustainable growth method. Criteria in choosing among the three proxies should include ease of use, ease of understanding, theoretical and mathematical correctness, and empirical validation. The latter two are crucial. The method should be logically valid and consistent, and should possess an adequate track record in predicting and explaining security value. The retention growth method is the weakest of the three proxies on both conceptual and empirical grounds. The research in this area has shown that the first two growth proxies do a better job of explaining variations in market valuation (M/B and P/E ratios) and are more highly correlated to measures of value than is the retention growth proxy.

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Chapter 7

Company Size and Return

One of the most remarkable discoveries of modern finance is the finding of a relationship between company size and return.[1] Historically on average, small companies have higher returns than those of large ones. Earlier chapters of this book document this phenomenon for the smallest stocks on the New York Stock Exchange, or NYSE. The relationship between company size and return cuts across the entire size spectrum; it is not restricted to the smallest stocks. This chapter examines returns across the entire range of company size.

Construction of the Size Decile Portfolios

The portfolios used in this chapter are those created by the Center for Research in Security Prices, or CRSP, at the University of Chicago's Booth School of Business. CRSP has refined the methodology of creating size-based portfolios and has applied this methodology to the entire universe of NYSE/AMEX/NASDAQ-listed securities going back to 1926.

The NYSE universe excludes closed-end mutual funds, preferred stocks, real estate investment trusts, foreign stocks, American Depository Receipts, unit investment trusts, and Americus Trusts. All companies on the NYSE are ranked by the combined market capitalization of all their eligible equity securities. The companies are then split into 10 equally populated groups or deciles. Eligible companies traded on the NYSE, the NYSE MKT LLC (formerly known as the American Stock Exchange, or AMEX), and the NASDAQ Stock Market (formerly the NASDAQ National Market) are then assigned to the appropriate deciles according to their capitalization in relation to the NYSE breakpoints. The portfolios are rebalanced using closing prices for the last trading day of March, June, September, and December. Securities added during the quarter are assigned to the appropriate portfolio when two consecutive month-end prices are available. If the final NYSE price of a security that becomes delisted is a month-end price, then that month's return is included in the quarterly return of the portfolio. When a month-end NYSE price is missing, the month-end value is derived from merger terms, quotations on regional exchanges, and other sources. If a month-end value is not available, the last available daily price is used.

In October 2008, NYSE Euronext acquired the American Stock Exchange and rebranded the index as NYSE Amex. Later, in May 2012, it was renamed NYSE MKT LLC. For the sake of continuity, we refer to this index as AMEX, its historical name.

Base security returns are monthly holding period returns. All distributions are added to the month-end prices. Appropriate adjustments are made to prices to account for stock splits and dividends. The return on a portfolio for one month is calculated as the value weighted average of the returns for the individual stocks in the portfolio. Annual portfolio returns are calculated by compounding the monthly portfolio returns.

Aspects of the Company Size Effect

The company size phenomenon is remarkable in several ways. First, the greater risk of small-cap does not, in the context of the capital asset pricing model, fully account for their higher returns over the long term. In the CAPM only systematic, or beta risk, is rewarded; small-cap stock returns have exceeded those implied by their betas.

Second, the calendar annual return differences between small- and large-cap companies are serially correlated. This suggests that past annual returns may be of some value in predicting future annual returns. Such serial correlation, or autocorrelation, is practically unknown in the market for large-cap stocks and in most other equity markets but is evident in the size premium series.

Table 7-5: Size-Decile Portfolios of the NYSE/AMEX/NASDAQ Number of Companies, Historical and Recent Market Capitalization

Decile	Historical Average Percentage of Total Capitalization	Recent Number of Companies	Recent Decile Market Capitalization (in Thousands)	Recent Percentage of Total Capitalization
1-Largest	64.03%	185	14,808,784,274	64.25%
2	14.04	199	3,247,447,914	14.09
3	6.88	194	1,579,432,904	6.85
4	4.56	221	1,042,428,212	4.52
5	3.03	215	694,147,086	3.01
6	2.56	265	585,657,120	2.54
7	1.99	317	449,325,255	1.95
8	1.51	417	333,731,801	1.45
9	0.80	395	173,673,205	0.75
10-Smallest	0.61	948	135,401,288	0.59
Mid-Cap 3-5	14.47	630	3,316,008,202	14.39
Low-Cap 6-8	6.05	999	1,368,714,176	5.94
Micro-Cap 9-10	1.41	1,343	309,074,493	1.34

Data from 1926–2014. Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2015 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business. Used with permission.

Historical average percentage of total capitalization shows the average, over the last 89 years, of the decile market values as a percentage of the total NYSE/AMEX/NASDAQ calculated each month. Number of companies in deciles, recent market capitalization of deciles, and recent percentage of total capitalization are as of Sept. 30, 2014.

Decile	Recent Market Capitalization (in Thousands)	Company Name
1-Largest	$591,015,721	Apple Inc
2	24,272,837	Cummins Inc
3	10,105,622	Murphy Oil Corp
4	5,844,592	Alaska Airgroup Inc
5	3,724,186	Great Plains Energy Inc
6	2,542,913	Wolverine World Wide Inc
7	1,686,860	Wesco Aircraft Holdings Inc
8	1,010,634	First Bancorp P R
9	548,839	G P Strategies Corp
10-Smallest	300,725	M V Oil Trust

Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2015 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business. Used with permission. Market capitalization and name of largest company in each decile are as of Sept. 30, 2014.

Long-Term Returns in Excess of Systematic Risk

The capital asset pricing model, or CAPM, does not fully account for the higher returns of small-cap stocks. Table 7-6 shows the returns in excess of the riskless rate over the past 89 years for each decile of the NYSE/AMEX/NASDAQ.

The CAPM can be expressed as follows:

$$k_s = r_f + (\beta_s \times ERP)$$

where,

- k_s = the expected return for company **s**;
- r_f = the expected return of the riskless asset;
- β_s = the beta of the stock of company **s**; and,
- ERP = the expected equity risk premium, or the amount by which investors expect the future return on equities to exceed that on the riskless asset.

Table 7-6 uses the CAPM to estimate the return in excess of the riskless rate and compares this estimate to historical performance. According to the CAPM, the expected return on a security should consist of the riskless rate plus an additional return to compensate for the systematic risk of the security. The return in excess of the riskless rate is estimated in the context of the CAPM by multiplying the equity risk premium by β (beta). The equity risk premium is the return that compensates investors for taking on risk equal to the risk of the market as a whole (systematic risk). Beta measures the extent to which a security or portfolio is exposed to systematic risk. The beta of each decile indicates the degree to which the decile's return moves with that of the overall market.

A beta greater than one indicates that the security or portfolio has greater systematic risk than the market; according to the CAPM equation, investors are compensated for taking on this additional risk. Yet, Table 7-6 illustrates that the smaller deciles have had returns that are not fully explained by their higher betas. This return in excess of that predicted by CAPM increases as one moves from the largest companies in decile 1 to the smallest in decile 10. The excess return is especially pronounced for micro-cap stocks (deciles 9-10). This size-related phenomenon has prompted a revision to the CAPM, which includes a size premium.

CRSP Deciles Size Premiums

	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Size Premium (Return in Excess of CAPM)
Decile				
Mid-Cap 3-5	$ 2,763.719	-	$ 11,978.971	0.98%
Low Cap 6-8	657.705	-	2,759.939	1.66%
Micro-Cap 9-10	2.531	-	656.845	3.46%
Breakdown of Deciles 1-10				
1-Largest	$ 25,142.834	-	$ 790,050.073	-0.30%
2	12,067.589	-	25,096.258	0.55%
3	6,557.519	-	11,978.971	0.83%
4	4,097.960	-	6,545.548	0.86%
5	2,763.719	-	4,091.971	1.36%
6	1,815.680	-	2,759.939	1.63%
7	1,175.369	-	1,814.568	1.58%
8	657.705	-	1,170.063	1.90%
9	299.400	-	656.845	2.48%
10- Smallest	2.531	-	299.290	5.37%
Breakdown of CRSP 10th Decile				
10a	$ 166.505	-	$ 299.290	3.89%
10w	228.014	-	299.290	2.91%
10x	166.505	-	227.819	5.07%
10b	$ 2.531	-	$ 166.349	8.39%
10y	87.646	-	166.349	6.97%
10z	2.531	-	87.600	11.40%

Source: *Duff & Phelps Cost of Capital Navigator*; 2018 Cost of Capital: Annual U.S. Guidance and Examples (Chapter 7, pp. 10-11, and CRSP Deciles Size Study).

DETAIL UNDERLYING CRSP DECILES SIZE PREMIUMS

Duff & Phelps Cost of Capital Navigator; 2018 Cost of Capital: Annual U.S. Guidance and Examples

Decile	Annual Arithmetic Mean Return (a)	Average Annual Risk-free Rate (b)	Actual Excess Return (c)	Long-term Equity Risk Premium (b)	OLS Beta (a)	CAPM Predicted Excess Return (d)	Size Premium (e)
Mid-Cap 3-5	13.89%	4.99%	8.90%	7.07%	1.12	7.92%	0.98%
Low Cap 6-8	15.28%	4.99%	10.29%	7.07%	1.22	8.63%	1.66%
Micro-Cap 9-10	17.99%	4.99%	13.00%	7.07%	1.35	9.54%	3.46%
1-Largest	11.19%	4.99%	6.20%	7.07%	0.92	6.50%	-0.30%
2	12.89%	4.99%	7.90%	7.07%	1.04	7.35%	0.55%
3	13.67%	4.99%	8.68%	7.07%	1.11	7.85%	0.83%
4	13.84%	4.99%	8.85%	7.07%	1.13	7.99%	0.86%
5	14.62%	4.99%	9.63%	7.07%	1.17	8.27%	1.36%
6	14.89%	4.99%	9.90%	7.07%	1.17	8.27%	1.63%
7	15.41%	4.99%	10.42%	7.07%	1.25	8.84%	1.58%
8	16.08%	4.99%	11.09%	7.07%	1.30	9.19%	1.90%
9	16.94%	4.99%	11.95%	7.07%	1.34	9.47%	2.48%
10- Smallest	20.19%	4.99%	15.20%	7.07%	1.39	9.83%	5.37%
10a	18.78%	4.99%	13.79%	7.07%	1.40	9.90%	3.89%
10w	17.66%	4.99%	12.67%	7.07%	1.38	9.76%	2.91%
10x	20.24%	4.99%	15.25%	7.07%	1.44	10.18%	5.07%
10b	23.07%	4.99%	18.08%	7.07%	1.37	9.69%	8.39%
10y	22.00%	4.99%	17.01%	7.07%	1.42	10.04%	6.97%
10z	25.44%	4.99%	20.45%	7.07%	1.28	9.05%	11.40%

(a) CRSP Deciles Size Study.
(b) Chapter 7, p. 10.
(c) Annual arthemetic mean return minus average annual risk-free rate (Chapter 7, p. 10).
(d) Long-term equity risk premium times OLS beta (Chapter 7, p. 10).
(e) Actual excess return return CAPM predicted Excess return (Chapter 7, p. 10).

Exhibit 7.2: Largest Company (by market capitalization) in CRSP (NYSE/NYSE MKT/NASDAQ) Deciles and Size Groupings
September 30, 2017

Decile	Company Name	Recent Market Capitalization (in $thousands)
1-Largest	Apple Inc	790,050,073
2	Pioneer Natural Resources Co	25,096,258
3	F M C Corp	11,978,971
4	Polaris Industries Inc	6,545,548
5	Penske Automotive Group Inc	4,091,971
6	Northwestern Corp	2,759,939
7	Nationstar Mortgage Holdings Inc	1,814,568
8	Weis Markets Inc	1,170,063
9	Eclipse Resources Corp	656,845
10-Smallest	Vishay Precision Group Inc	299,290

Source of underlying data: CRSP databases © 2018 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business (2018).

In the following sections we provide an example of (i) calculating a CRSP Deciles Size Study premium and (ii) a Risk Premium Report Study size premium, using example data from each of the two data sets.

Size Premium Calculation: CRSP Deciles Size Study

In the 2018 data year of the Cost of Capital Navigator, the CRSP Deciles Size Study are calculated over the years 1926–2017. The following statistics are calculated over this time period:

- The "historical" average annual long-term equity risk premium is 7.07%.
- The average annual risk-free rate is 4.99%.
- CRSP Decile 9 average annual return equals 16.94%.
- CRSP Decile 9 OLS beta equals 1.34.

The beta-adjusted size premium for CRSP Decile 9 is calculated as follows:

$$Size\ Premium_{CRSP\ Decile\ 9} = actual\ excess\ return - excess\ return\ predicted\ by\ CAPM$$

The *actual* excess return of Decile 9 is 11.95% (16.94% – 4.99%), and the excess return that CAPM *predicted* is 9.45% (1.34 x 7.07%) (difference due to rounding). The size premium for CRSP Decile 9 is therefore 2.50%, which is "what actually happened" (11.95%) minus "what CAPM predicted" (9.45%). This is what is meant when we say that the beta of smaller companies doesn't

explain all of their returns. In this simple example, beta fell 2.50% short of explaining what actually happened.

Size Premium Calculation: Risk Premium Report Study

In the 2018 year of the Cost of Capital Navigator, the Risk Premium Report Studies are calculated over the years 1963–2017. The following statistics are calculated over this time period:

- The "historical" average annual long-term equity risk premium is 5.28%.
- The average annual risk-free rate is 6.39%.
- In the Risk Premium Report Study, CAPM using net income as the size measure (25 portfolios sorted from largest companies to smallest companies by net income), portfolio 23 average annual return equals 16.84%.
- In Risk Premium Report Study, CAPM using net income portfolio 23 has a sum beta of 1.25.

The beta-adjusted size premium for the Risk Premium Report Study, CAPM using net income, portfolio 23, is calculated as follows:

$$Size\ Premium_{Portfolio\ 23,\ 5\text{-}Year\ Average\ Net\ Income} = actual\ excess\ return - excess\ return\ predicted\ by\ CAPM$$

The *actual* excess return of portfolio 23 is 10.45% (16.84% – 6.39%), and the excess return that CAPM *predicted* is 6.6% (1.25 x 5.28%). The (un-smoothed; see next section) size premium for CAPM, net income portfolio 23 is therefore 3.85%, which is "what actually happened" (10.45%) minus "what CAPM predicted" (6.6%).

"Smoothed" Premia versus "Average" Premia

The CRSP Deciles Size Study Premia are not smoothed.

The "smoothed" size premia (and risk premia) is used in the Risk Premium Report Study. Smoothing the premia essentially averages out the somewhat scattered nature of the raw average premia. The "smoothed" average risk premium is generally the more appropriate indicator for most of the portfolio groups. It should be noted, however, that at the largest-size and smallest-size ends of the range, the average historical risk premia may tend to jump off of the smoothed line, particularly for the portfolios ranked by size measures that incorporate market capitalization.

OLS Beta versus Sum Beta

The CRSP Deciles Size Study use ordinary least square (OLS) betas to calculate the size premia in the Cost of Capital Navigator (the size premia are the *same* size premia previously published in (i) the *SBBI Valuation Yearbook*'s "back page", and (ii) Duff & Phelps' *Valuation Handbook – U.S. Guide to Cost of Capital* Appendix 3.

CRSP Deciles Size Study – Supplementary Data Exhibits

Starting in 2018, the essential information and valuation data previously published in the hardcover *Valuation Handbook – U.S. Guide to Cost of Capital* are available exclusively in the new Duff & Phelps online Cost of Capital Navigator platform.

Essential Valuation Data in the Cost of Capital Navigator

It's in there: The essential valuation inputs previously published in the hardcover *Valuation Handbook – U.S. Guide to Cost of Capital* (e.g., risk-free rates, equity risk premia, size premia, risk premia over the risk-free rate, and industry risk premia) are in the new Duff & Phelps online Cost of Capital Navigator platform and available for you to use to estimate cost of equity capital using both the capital asset pricing model (CAPM), and various build-up models.

Essential Content in the Cost of Capital Navigator

It's in there: Chapters from the previous *2014*, *2015*, *2016*, and *2017 Valuation Handbooks – U.S. Guide to Cost of Capital*, and the new 2018 chapters updated through December 31, 2017. Included are dozens of examples for properly using the data to estimate levered and unlevered cost of equity capital, using both the capital asset pricing model (CAPM) and various build-up models. Also included is a comprehensive Cost of Capital Navigator Q&A that contains answers to commonly-asked questions.

Supplementary Data in the Cost of Capital Navigator

It's in there: This document provides supplementary data from the 2017 and 2018 data years (with data through December 31, 2016 and December 31, 2017, respectively) for the CRSP Deciles Size Study.

CRSP Decile Size Study, Supplementary Data – Summary Statistics of Annual Total Returns, Income Returns, and Capital Appreciation Returns of Basic U.S. Asset Classes

The following two pages provide summary statistics of total returns, income returns, and capital appreciation returns of basic U.S. asset classes over the time periods 1926–2017 and 1926–2016, respectively. These time periods match the time horizon over which the size premia, equity risk premia, and other statistics in the CRSP Deciles Size Study are calculated for the 2018 and 2017 data years, respectively.

Summary Statistics of Annual Total Returns, Income Returns, and Capital Appreciation Returns of Basic U.S. Asset Classes
1926–2017

1926–2017	Geometric Mean Returns (%)	Arithmetic Mean Returns (%)	Standard Deviation of Returns (%)
Large Company Stocks			
Total Return	10.2	12.1	19.8
Income Return	4.0	4.0	1.6
Capital Appreciation Return	6.0	7.8	19.1
Small Company Stocks			
Total Return	12.1	16.5	31.7
Mid-cap Stocks (Decile 3-5)			
Total Return	11.2	13.9	24.3
Income Return	3.7	3.8	1.8
Capital Appreciation Return	7.2	9.9	23.6
Low-cap Stocks (Decile 6-8)			
Total Return	11.6	15.3	28.5
Income Return	3.4	3.4	2.0
Capital Appreciation Return	8.0	11.7	27.9
Micro-cap Stocks (Decile 9-10)			
Total Return	12.2	18.0	38.6
Income Return	2.5	2.5	1.7
Capital Appreciation Return	9.7	15.4	37.8
Long-term Corporate Bonds			
Total Return	6.1	6.4	8.3
Long-term Government Bonds			
Total Return	5.5	6.0	9.9
Income Return	5.0	5.0	2.6
Capital Appreciation Return	0.4	0.8	8.9
Intermediate-term Government Bonds			
Total Return	5.1	5.2	5.6
Income Return	4.4	4.4	2.9
Capital Appreciation Return	0.6	0.7	4.4
US Treasury Bills			
Total Return	3.4	3.4	3.1
Inflation	2.9	3.0	4.0

Source of underlying data: (i) Stocks, Bonds, Bills, and Inflation® (SBBI®) return series from the Morningstar *Direct* database. Series used: Large Company Stocks (IA SBBI US Large Stock TR USD Ext). The "SBBI US Large Stock" return series is essentially the S&P 500 index; Small Company Stocks (IA SBBI US Small Stock TR USD); Long-term Corp. Bonds (IA SBBI US LT Corp TR USD); Long-term Gov't Bonds (IA SBBI US LT Govt TR USD); Intermediate-term Gov't Bonds (IA SBBI US IT Govt TR USD); T-bills (IA SBBI US 30 Day TBill TR USD); Inflation (IA SBBI US Inflation). (ii) CRSP U.S. Stock Database and CRSP U.S. Indices Database *CRSP standard market-cap-weighted NYSE/NYSE MKT/NASDAQ deciles 1–10. Mid-cap stocks represented by a market-capitalization weighted portfolio comprised of CRSP deciles 3-5; Low-cap stocks represented by a market-capitalization weighted portfolio comprised of CRSP deciles 6-8; Micro-cap stocks represented by a market-capitalization weighted portfolio comprised of CRSP deciles 9-10. Total return is equal to sum of three components returns: income return, capital appreciation, and reinvestment return. Used with permission. All rights reserved. Calculations performed by Duff & Phelps, LLC.*

Summary Statistics of Annual Total Returns, Income Returns, and Capital Appreciation Returns of Basic U.S. Asset Classes
1926–2016

1926–2016	Geometric Mean Returns (%)	Arithmetic Mean Returns (%)	Standard Deviation of Returns (%)
Large Company Stocks			
Total Return	10.0	12.0	19.9
Income Return	4.0	4.0	1.6
Capital Appreciation Return	5.8	7.7	19.2
Small Company Stocks			
Total Return	12.1	16.6	31.9
Mid-cap Stocks (Decile 3-5)			
Total Return	11.1	13.8	24.4
Income Return	3.8	3.8	1.8
Capital Appreciation Return	7.1	9.8	23.7
Low-cap Stocks (Decile 6-8)			
Total Return	11.5	15.3	28.7
Income Return	3.4	3.5	2.0
Capital Appreciation Return	7.9	11.6	28.1
Micro-cap Stocks (Decile 9-10)			
Total Return	12.1	18.0	38.8
Income Return	2.5	2.5	1.7
Capital Appreciation Return	9.7	15.4	38.0
Long-term Corporate Bonds			
Total Return	6.0	6.3	8.4
Long-term Government Bonds			
Total Return	5.5	6.0	9.9
Income Return	5.0	5.0	2.6
Capital Appreciation Return	0.3	0.7	8.9
Intermediate-term Government Bonds			
Total Return	5.1	5.3	5.6
Income Return	4.4	4.4	2.9
Capital Appreciation Return	0.6	0.7	4.5
US Treasury Bills			
Total Return	3.4	3.4	3.1
Inflation	2.9	3.0	4.1

Source of underlying data: (i) Stocks, Bonds, Bills, and Inflation® (SBBI®) return series from the Morningstar *Direct* database. Series used: Large Company Stocks (IA SBBI US Large Stock TR USD Ext). The "SBBI US Large Stock" return series is essentially the S&P 500 index; Small Company Stocks (IA SBBI US Small Stock TR USD); Long-term Corp. Bonds (IA SBBI US LT Corp TR USD); Long-term Gov't Bonds (IA SBBI US LT Govt TR USD); Intermediate-term Gov't Bonds (IA SBBI US IT Govt TR USD); T-bills (IA SBBI US 30 Day TBill TR USD); Inflation (IA SBBI US Inflation). (ii) CRSP U.S. Stock Database and CRSP U.S. Indices Database © 2017 Center for Research in Security Prices (CRSP®), University of Chicago Booth School of Business. *CRSP standard market-cap-weighted NYSE/NYSE MKT/NASDAQ deciles 1–10. Mid-cap stocks represented by a market-capitalization weighted portfolio comprised of CRSP deciles 3-5; Low-cap stocks represented by a market-capitalization weighted portfolio comprised of CRSP deciles 6-8; Micro-cap stocks represented by a market-capitalization weighted portfolio comprised of CRSP deciles 9-10. Total return is equal to sum of three components returns: income return, capital appreciation, and reinvestment return. Used with permission. All rights reserved. Calculations performed by Duff & Phelps, LLC.*

CRSP Decile Size Study, Supplementary Data – Decile Breakpoints, Summary Statistics of Annual Total Returns by Decile, and Decile Betas

CRSP decile "breakpoints" are the lower and upper bounds of a CRSP decile. The *lower* bound is represented by the *smallest* company in the decile (or size grouping, or 10th decile sub-decile), and the *upper* bound is represented by the *largest* company in the decile (or size grouping, or 10th decile sub-decile).

On the following pages are the breakpoints, summary statistics of annual total returns, OLS Betas, and Sum Betas of CRSP deciles 1–10, CRSP Mid-Cap, Low-Cap, and Micro-Cap size groupings, and 10th decile split into its sub-deciles 10a (and its upper and lower halves 10w and 10x), and 10b (and its upper and lower halves 10y and 10z).

CRSP Deciles Size Study

Decile 1

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$25,142.834	–	$790,050.073	11.19%	9.45%	18.86%	0.92	0.92
2017	12/31/16	$24,361.659	–	$609,163.498	11.05%	9.31%	18.92%	0.92	0.92

Sources of underlying data: 1.) CRSP U.S. Stock Database and CRSP U.S. Indices Database © 2018 Center for Research in Security Prices (CRSP®), University of Chicago Booth School of Business. 2.) Morningstar *Direct* database. Used with permission. All rights reserved. Calculations performed by Duff & Phelps, LLC.

Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 2

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$12,067.589	–	$25,096.258	12.89%	10.65%	21.37%	1.04	1.06
2017	12/31/16	$10,784.101	–	$24,233.747	12.82%	10.56%	21.49%	1.04	1.06

Sources of underlying data: 1.) CRSP U.S. Stock Database and CRSP U.S. Indices Database © 2018 Center for Research in Security Prices (CRSP®), University of Chicago Booth School of Business. 2.) Morningstar *Direct* database. Used with permission. All rights reserved. Calculations performed by Duff & Phelps, LLC.

Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 3

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$6,557.519	–	$11,978.971	13.67%	11.16%	23.24%	1.11	1.14
2017	12/31/16	$5,683.991	–	$10,711.194	13.57%	11.04%	23.35%	1.11	1.14

Sources of underlying data: 1.) CRSP U.S. Stock Database and CRSP U.S. Indices Database © 2018 Center for Research in Security Prices (CRSP®), University of Chicago Booth School of Business. 2.) Morningstar *Direct* database. Used with permission. All rights reserved. Calculations performed by Duff & Phelps, LLC.

Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 4

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$4,097.960	–	$6,545.548	13.84%	10.93%	25.42%	1.13	1.19
2017	12/31/16	$3,520.566	–	$5,676.716	13.80%	10.85%	25.56%	1.13	1.20

Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 5

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$2,763.719	–	$4,091.971	14.62%	11.53%	26.03%	1.17	1.25
2017	12/31/16	$2,392.689	–	$3,512.913	14.62%	11.49%	26.18%	1.17	1.25

Sources of underlying data: 1.) CRSP U.S. Stock Database and CRSP U.S. Indices Database © 2018 Center for Research in Security Prices (CRSP®), University of Chicago Booth School of Business. 2.) Morningstar *Direct* database. Used with permission. All rights reserved. Calculations performed by Duff & Phelps, LLC.

Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 6

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$1,815.680	–	$2,759.939	14.89%	11.48%	26.97%	1.17	1.28
2017	12/31/16	$1,571.193	–	$2,390.899	14.81%	11.37%	27.11%	1.17	1.28

Sources of underlying data: 1.) CRSP U.S. Stock Database and CRSP U.S. Indices Database © 2018 Center for Research in Security Prices (CRSP®), University of Chicago Booth School of Business. 2.) Morningstar *Direct* database. Used with permission. All rights reserved. Calculations performed by Duff & Phelps, LLC.

Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 7

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$1,175.369	–	$1,814.568	15.41%	11.63%	28.87%	1.25	1.39
2017	12/31/16	$1,033.341	–	$1,569.984	15.41%	11.58%	29.02%	1.25	1.39

Sources of underlying data: 1.) CRSP U.S. Stock Database and CRSP U.S. Indices Database © 2018 Center for Research in Security Prices (CRSP®), University of Chicago Booth School of Business. 2.) Morningstar *Direct* database. Used with permission. All rights reserved. Calculations performed by Duff & Phelps, LLC.

Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 8

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$657.705	–	$1,170.063	16.08%	11.55%	32.84%	1.30	1.48
2017	12/31/16	$569.279	–	$1,030.426	16.14%	11.56%	33.01%	1.30	1.48

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Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 9

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$299.400	–	$656.845	16.94%	11.59%	36.97%	1.34	1.55
2017	12/31/16	$263.715	–	$567.843	16.97%	11.56%	37.18%	1.34	1.55

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Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 10

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$2.531	–	$299.290	20.19%	13.31%	42.22%	1.39	1.68
2017	12/31/16	$2.516	–	$262.891	20.27%	13.31%	42.45%	1.39	1.69

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Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 10a

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$166.505	–	$299.290	18.78%	12.67%	39.05%	1.40	1.67
2017	12/31/16	$127.296	–	$262.891	18.85%	12.67%	39.26%	1.41	1.67

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Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 10w

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$228.014	–	$299.290	17.66%	12.23%	36.12%	1.38	1.57
2017	12/31/16	$190.553	–	$262.891	17.69%	12.20%	36.32%	1.38	1.58

Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 10x

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$166.505	–	$227.819	20.24%	12.73%	45.01%	1.44	1.80
2017	12/31/16	$127.296	–	$190.383	20.37%	12.78%	45.24%	1.45	1.80

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Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 10b

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$2.531	–	$166.349	23.07%	14.27%	49.88%	1.37	1.71
2017	12/31/16	$2.516	–	$127.279	23.14%	14.24%	50.16%	1.37	1.71

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Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 10y

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$87.646	–	$166.349	22.00%	13.05%	50.80%	1.42	1.75
2017	12/31/16	$73.561	–	$127.279	22.07%	13.02%	51.08%	1.42	1.75

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Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Decile 10z

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$2.531	–	$87.600	25.44%	15.90%	53.18%	1.28	1.64
2017	12/31/16	$2.516	–	$73.504	25.54%	15.90%	53.46%	1.28	1.64

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Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Mid-Cap 3-5

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$2,763.719	–	$11,978.971	13.89%	11.18%	24.26%	1.12	1.17
2017	12/31/16	$2,392.689	–	$10,711.194	13.82%	11.09%	24.39%	1.12	1.18

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Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Low-Cap 6-8

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$657.705	–	$2,759.939	15.28%	11.56%	28.55%	1.22	1.36
2017	12/31/16	$569.279	–	$2,390.899	15.26%	11.51%	28.70%	1.22	1.36

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Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

CRSP Deciles Size Study

Micro-Cap 9-10

Data Year	Data Through	Market Capitalization of Smallest Company (in millions)		Market Capitalization of Largest Company (in millions)	Annual Arithmetic Mean Return	Annual Geometric Mean Return	Annual Standard Deviation of Returns	OLS Beta	Sum Beta
2018	12/31/17	$2.531	–	$656.845	17.99%	12.17%	38.60%	1.35	1.59
2017	12/31/16	$2.516	–	$567.843	18.04%	12.15%	38.81%	1.35	1.59

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Annual Arithmetic Mean Returns, Geometric Mean Returns, and Standard Deviation of Returns are calculated over the period 1926–Present.

OLS and Sum betas are estimated from monthly return data in excess of the 30-day U.S. Treasury bill total return, January 1926–Present.

NEW REGULATORY FINANCE

Roger A. Morin, PhD

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The model is analogous to the standard CAPM, but with the return on a minimum risk portfolio that is unrelated to market returns, R_Z, replacing the risk-free rate, R_F. The model has been empirically tested by Black, Jensen, and Scholes (1972), who find a flatter than predicted SML, consistent with the model and other researchers' findings. An updated version of the Black-Jensen-Scholes study is available in Brealey, Myers, and Allen (2006) and reaches similar conclusions.

The zero-beta CAPM cannot be literally employed to estimate the cost of capital, since the zero-beta portfolio is a statistical construct difficult to replicate. Attempts to estimate the model are formally equivalent to estimating the constants, a and b, in Equation 6-2. A practical alternative is to employ the Empirical CAPM, to which we now turn.

6.3 Empirical CAPM

As discussed in the previous section, several finance scholars have developed refined and expanded versions of the standard CAPM by relaxing the constraints imposed on the CAPM, such as dividend yield, size, and skewness effects. These enhanced CAPMs typically produce a risk-return relationship that is flatter than the CAPM prediction in keeping with the actual observed risk-return relationship. The ECAPM makes use of these empirical findings. The ECAPM estimates the cost of capital with the equation:

$$K = R_F + \acute{\alpha} + \beta \times (MRP - \acute{\alpha}) \qquad (6\text{-}5)$$

where $\acute{\alpha}$ is the "alpha" of the risk-return line, a constant, and the other symbols are defined as before. All the potential vagaries of the CAPM are telescoped into the constant $\acute{\alpha}$, which must be estimated econometrically from market data. Table 6-2 summarizes[10] the empirical evidence on the magnitude of alpha.[11]

[10] The technique is formally applied by Litzenberger, Ramaswamy, and Sosin (1980) to public utilities in order to rectify the CAPM's basic shortcomings. Not only do they summarize the criticisms of the CAPM insofar as they affect public utilities, but they also describe the econometric intricacies involved and the methods of circumventing the statistical problems. Essentially, the average monthly returns over a lengthy time period on a large cross-section of securities grouped into portfolios are related to their corresponding betas by statistical regression techniques; that is, Equation 6-5 is estimated from market data. The utility's beta value is substituted into the equation to produce the cost of equity figure. Their own results demonstrate how the standard CAPM underestimates the cost of equity capital of public utilities because of utilities' high dividend yield and return skewness.

[11] Adapted from Vilbert (2004).

TABLE 6-2
EMPIRICAL EVIDENCE ON THE ALPHA FACTOR

Author	Range of alpha
Fischer (1993)	−3.6% to 3.6%
Fischer, Jensen and Scholes (1972)	−9.61% to 12.24%
Fama and McBeth (1972)	4.08% to 9.36%
Fama and French (1992)	10.08% to 13.56%
Litzenberger and Ramaswamy (1979)	5.32% to 8.17%
Litzenberger, Ramaswamy and Sosin (1980)	1.63% to 5.04%
Pettengill, Sundaram and Mathur (1995)	4.6%
Morin (1989)	2.0%

For an alpha in the range of 1%–2% and for reasonable values of the market risk premium and the risk-free rate, Equation 6-5 reduces to the following more pragmatic form:

$$K = R_F + 0.25\,(R_M - R_F) + 0.75\,\beta(R_M - R_F) \qquad (6\text{-}6)$$

Over reasonable values of the risk-free rate and the market risk premium, Equation 6-6 produces results that are indistinguishable from the ECAPM of Equation 6-5.[12]

An alpha range of 1%–2% is somewhat lower than that estimated empirically. The use of a lower value for alpha leads to a lower estimate of the cost of capital for low-beta stocks such as regulated utilities. This is because the use of a long-term risk-free rate rather than a short-term risk-free rate already incorporates some of the desired effect of using the ECAPM. That is, the

[12] Typical of the empirical evidence on the validity of the CAPM is a study by Morin (1989) who found that the relationship between the expected return on a security and beta over the period 1926–1984 was given by:

$$\text{Return} = 0.0829 + 0.0520\,\beta$$

Given that the risk-free rate over the estimation period was approximately 6% and that the market risk premium was 8% during the period of study, the intercept of the observed relationship between return and beta exceeds the risk-free rate by about 2%, or 1/4 of 8%, and that the slope of the relationship is close to 3/4 of 8%. Therefore, the empirical evidence suggests that the expected return on a security is related to its risk by the following approximation:

$$K = R_F + x(R_M - R_F) + (1 - x)\beta(R_M - R_F)$$

where x is a fraction to be determined empirically. The value of x that best explains the observed relationship Return = 0.0829 + 0.0520 β is between 0.25 and 0.30. If x = 0.25, the equation becomes:

$$K = R_F + 0.25(R_M - R_F) + 0.75\beta(R_M - R_F)$$

long-term risk-free rate version of the CAPM has a higher intercept and a flatter slope than the short-term risk-free version which has been tested. Thus, it is reasonable to apply a conservative alpha adjustment. Moreover, the lowering of the tax burden on capital gains and dividend income enacted in 2002 may have decreased the required return for taxable investors, steepening the slope of the ECAPM risk-return trade-off and bring it closer to the CAPM predicted returns.[13]

To illustrate the application of the ECAPM, assume a risk-free rate of 5%, a market risk premium of 7%, and a beta of 0.80. The Empirical CAPM equation (6-6) above yields a cost of equity estimate of 11.0% as follows:

$$\begin{aligned} K &= 5\% + 0.25\,(12\% - 5\%) + 0.75 \times 0.80\,(12\% - 5\%) \\ &= 5.0\% + 1.8\% + 4.2\% \\ &= 11.0\% \end{aligned}$$

As an alternative to specifying alpha, see Example 6-1.

Some have argued that the use of the ECAPM is inconsistent with the use of adjusted betas, such as those supplied by Value Line and Bloomberg. This is because the reason for using the ECAPM is to allow for the tendency of betas to regress toward the mean value of 1.00 over time, and, since Value Line betas are already adjusted for such trend, an ECAPM analysis results in double-counting. This argument is erroneous. Fundamentally, the ECAPM is not an adjustment, increase or decrease, in beta. This is obvious from the fact that the expected return on high beta securities is actually lower than that produced by the CAPM estimate. The ECAPM is a formal recognition that the observed risk-return tradeoff is flatter than predicted by the CAPM based on myriad empirical evidence. The ECAPM and the use of adjusted betas comprised two separate features of asset pricing. Even if a company's beta is estimated accurately, the CAPM still understates the return for low-beta stocks. Even if the ECAPM is used, the return for low-beta securities is understated if the betas are understated. Referring back to Figure 6-1, the ECAPM is a return (vertical axis) adjustment and not a beta (horizontal axis) adjustment. Both adjustments are necessary. Moreover, recall from Chapter 3 that the use of adjusted betas compensates for interest rate sensitivity of utility stocks not captured by unadjusted betas.

[13] The lowering of the tax burden on capital gains and dividend income has no impact as far as non-taxable institutional investors (pension funds, 401K, and mutual funds) are concerned, and such investors engage in very large amounts of trading on security markets. It is quite plausible that taxable retail investors are relatively inactive traders and that large non-taxable investors have a substantial influence on capital markets.

Betas and Their Regression Tendencies
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BETAS AND THEIR REGRESSION TENDENCIES

MARSHALL E. BLUME*

I. INTRODUCTION

A PREVIOUS STUDY [3] showed that estimated beta coefficients, at least in the context of a portfolio of a large number of securities, were relatively stationary over time. Nonetheless, there was a consistent tendency for a portfolio with either an extremely low or high estimated beta in one period to have a less extreme beta as estimated in the next period. In other words, estimated betas exhibited in that article a tendency to regress towards the grand mean of all betas, namely one. This study will examine in further detail this regression tendency.[1]

The next section presents evidence showing the existence of this regression tendency and reviews the conventional reasons given in explanation [1], [4], [5]. The following section develops a formal model of this regression tendency and finds that the conventional analysis of this tendency is, if not incorrect, certainly misleading. Accompanying this theoretical analysis are some new empirical results which show that a major reason for the observed regression is real non-stationarities in the underlying values of beta and that the so-called "order bias" is not of dominant importance.

II. THE CONVENTIONAL WISDOM

If an investor were to use estimated betas to group securities into portfolios spanning a wide range of risk, he would more than likely find that the betas estimated for the very same portfolios in a subsequent period would be less extreme or closer to the market beta of one than his prior estimates. To illustrate, assume that the investor on July 1, 1933, had at his disposal an estimate of beta for each common stock which had been listed on the NYSE (New York Stock Exchange) for the prior seven years, July 1926-June 1933. Assume further that each estimate was derived by regressing the eighty-four monthly relatives covering this seven-year period upon the corresponding values for the market portfolio.[2]

If this investor, say, desired equally weighted portfolios of 100 securities, he might group those 100 securities with the smallest estimates of beta together to form a portfolio. Such a portfolio would of all equally

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1. Quite apart from this regression tendency, it is reasonable to suppose that betas do change over time in systematic ways in response to certain changes in the structure of companies.

2. Such regressions were calculated only for securities with complete data. The relative for the market portfolio was measured by Fisher's Combination Link Relative [6].

weighted portfolios have the smallest possible estimated portfolio beta since an estimate of such a portfolio beta can be shown to be an average of the estimates for the individual securities [2, p. 169]. To cover a wide range of portfolio betas, this investor might then form a second portfolio consisting of the 100 securities with the next smallest estimates of beta, and so on.

Using the securities available as of June 1933, this investor could thus obtain four portfolios of 100 securities apiece with no security in common. Estimated over the same seven-year period, July 1926-June 1933, the betas for these portfolios[3] would have ranged from 0.50 to 1.53. Similar portfolios can be constructed for each of the next seven-year periods through 1954 and their portfolio betas calculated. Table 1 contains these estimates under the heading "Grouping Period."

The betas for these same portfolios, but reestimated using the monthly portfolio relatives adjusted for delistings from the seven years following the grouping period, illustrate the magnitude of the regression tendency.[4] Whereas the portfolio betas as estimated, for instance, in the grouping period 1926-33 ranged from 0.50 to 1.53, the betas as estimated for these same portfolios in the subsequent seven-year period 1933-40 ranged only from 0.61 to 1.42. The results for the other periods display a similar regression tendency.

An obvious explanation of this regression tendency is that for some unstated economic or behavioral reasons, the underlying betas do tend to regress towards the mean over time.[5] Yet, even if the true betas were constant over time, it has been argued that the portfolio betas as estimated in the grouping period would as a statistical artifact tend to be more extreme than those estimated in a subsequent period. This bias has sometimes been termed an order or selection bias.

The frequently given intuitive explanation of this order bias [1], [4], [5], parallels the following: Consider the portfolio formed of the 100 securities with the lowest estimates of beta. The estimated portfolio beta might be expected to understate the true beta or equivalently be expected to be measured with negative error. The reason the measurement error might

3. These portfolio betas were derived by averaging the 100 estimates for the individual securities. Alternatively, as [2] shows, the same number would be obtained by regressing the monthly portfolio relatives upon the market index where the portfolio relatives are calculated assuming an equal amount invested in each security at the beginning of each month.

4. These portfolio betas were calculated by regressing portfolio relatives upon the market relatives. The portfolio relatives were taken to be the average of the monthly relatives of the individual securities for which relatives were available. These relatives represent those which would have been realized from an equally-weighted, monthly rebalancing strategy in which a delisted security is sold at the last available price and the proceeds reinvested equally in the remaining securities. This rather complicated procedure takes into account delisted securities and therefore avoids any survivorship bias. In [3], the securities analyzed were required to be listed on the NYSE throughout both the grouping period and the subsequent period, so that there was a potential survivorship bias. Nonetheless, the results reported there are in substantive agreement with the results in Table 1.

5. If the betas are continually changing over time, an estimate of beta as provided by a simple regression must be interpreted with considerable caution. For example, if the true beta followed a linear time trend, it is easily shown that the estimated beta can be interpreted as an unbiased estimate of the beta in the middle of the sample period. A similar interpretation would not in general hold if, for instance, the true beta followed a quadratic time trend.

TABLE 1
BETA COEFFICIENTS FOR PORTFOLIOS OF 100 SECURITIES

Portfolio	Grouping Period	First Subsequent Period
	7/26-6/33	7/33-6/40
1	0.50	0.61
2	0.85	0.96
3	1.15	1.24
4	1.53	1.42
	7/33-6/40	7/40-6/47
1	0.38	0.56
2	0.69	0.77
3	0.90	0.91
4	1.13	1.12
5	1.35	1.31
6	1.68	1.69
	7/40-6/47	7/47-6/54
1	0.43	0.60
2	0.61	0.76
3	0.73	0.88
4	0.86	0.99
5	1.00	1.10
6	1.21	1.21
7	1.61	1.36
	7/47-6/54	7/54-6/61
1	0.36	0.57
2	0.61	0.71
3	0.78	0.88
4	0.91	0.96
5	1.01	1.03
6	1.13	1.13
7	1.26	1.24
8	1.47	1.32
	7/54-6/61	7/61-6/68
1	0.37	0.62
2	0.56	0.68
3	0.72	0.85
4	0.86	0.85
5	0.99	0.95
6	1.11	0.98
7	1.23	1.07
8	1.43	1.25

be expected to be negative may best be explored by analyzing how a security might happen to have one of the 100 lowest estimates of beta. First, if the true beta were in the lowest hundred, the estimated beta would fall in the lowest 100 estimates only if the error in measuring the beta were not too large which roughly translates into more negative than positive errors. Second, if the true beta were not in the lowest 100, the

estimated beta might still be in the lowest 100 estimates if it were measured with a sufficiently large negative error.[6]

Thus, the negative errors in the 100 smallest estimates of beta might be expected to outweigh the positive errors. The same argument except in reverse would apply to the 100 largest estimates. Indeed, it would seem that any portfolio of securities stratified by estimates of beta for which the average of these estimates is not the grand mean of all betas, namely 1.0, would be subject to some order bias. It would also seem that the absolute magnitude of this order bias should be greater, the further the average estimate is from the grand mean. The next section formalizes this intuitive argument and suggests that, if it is not incorrect, it is certainly misleading as to the source of the bias.

III. A Formal Model

The intuitive explanation of the order bias just given would seem to suggest that the way in which the portfolios are formed caused the bias. This section will argue that the bias is present in the estimated betas for the individual securities and is not induced by the way in which the portfolios are selected. Following this argument will be an analysis of the extent to which this order bias accounts for the observed regression tendency in portfolio betas over time.

A numerical example will serve to illustrate the logic of the subsequent argument and to introduce some required notation.[7] Assume for the moment that the possible values of beta for an individual security i in period t, β_{it}, are 0.8, 1.0 and 1.2 and that each of these values is equally likely. Assume further that in estimating a beta for an individual security, there is a 0.6 probability that the estimate $\hat{\beta}_{it}$ contains no measurement error, a 0.2 probability that it understates the true β_{it} by 0.2, and a 0.2 probability that it overstates the true value by 0.2. Now in a sample of ten securities whose true betas were all say 0.8, one would expect two estimates of beta to be 0.6, six to be 0.8, and two to be 1.0. These numbers have been transcribed to the first row of Table 2. The second and third rows are similarly constructed by first assuming that the ten securities all had a true value of 1.0 and then of 1.2.

The rows of Table 2 thus correspond to the distribution of the estimated beta, $\hat{\beta}_{it}$, conditional on the true value, β_{it}. It might be noted that the expectation of $\hat{\beta}_{it}$ conditional on β_{it}, $E(\hat{\beta}_{it} \mid \beta_{it})$, is β_{it}. However, in a sampling situation, an investigator would be faced with an estimate of beta and would want to assess the distribution of the true β_{it} conditional on the estimated $\hat{\beta}_{it}$. Such conditional distributions correspond to the columns of Table 2. It is easily verified that the expectation of β_{it} conditional on $\hat{\beta}_{it}$, $E(\beta_{it} \mid \hat{\beta}_{it})$ is generally not $\hat{\beta}_{it}$. For example, if $\hat{\beta}_{it}$ were

6. It is theoretically possible that the estimated beta for a security whose true beta does not fall into the lowest 100 to be in the lowest 100 estimates with a positive measurement error if the betas for some of the improperly classified securities are measured with sufficiently large positive errors.

7. The author is indebted to Harry Markowitz for suggesting this numerical example as a way of clarifying the subsequent formal development.

TABLE 2
NUMBER OF SECURITIES CROSS CLASSIFIED BY β_{it} AND $\hat{\beta}_{it}$

		$\hat{\beta}_{it}$				
		.6	.8	1.0	1.2	1.4
	.8	2	6	2		
β_{it}	1.0		2	6	2	
	1.2			2	6	2

0.8, $E(\beta_{it} \mid \hat{\beta}_{it} = 0.8)$ would be 0.85 since with this estimate the true beta would be 0.8 with probability 0.75 or 1.0 with probability 0.25.[8]

The estimate $\hat{\beta}_{it}$, therefore, would typically be biased, and it is biased whether or not portfolios are formed. The effect of forming large portfolios is to reduce the random component in the estimate, so that the difference between the estimated portfolio beta and the true portfolio beta can be ascribed almost completely to the magnitude of the bias.

In the spirit of this example, the paper will now develop explicit formulae for the order bias and real non-stationarities over time. Let it be assumed that the betas for individual securities in period t, β_{it}, can be thought of as drawings from a normal distribution with a mean of 1.0 and variance $\sigma^2(\beta_{it})$. The corresponding assumption for the numerical example just discussed would be a trinomial distribution with equal probabilities for each possible value of β_{it}.

Let it additionally be assumed that the estimate, $\hat{\beta}_{it}$, measures β_{it} with error η_{it}, a mean-zero independent normal variate, so that $\hat{\beta}_{it}$ is given by the sum of β_{it} and η_{it}. It immediately follows that β_{it} and $\hat{\beta}_{it}$ are distributed by a bivariate normal distribution. It might be noted that, as formulated, $\sigma^2(\eta_{it})$ need not equal $\sigma^2(\eta_{jt})$, $i \neq j$. Since the empirical work will assume equality, the subsequent theoretical work will also make this assumption even though for the most part it is not necessary. The final assumption is that β_{it} and β_{it+1} are distributed as bivariate normal variates. Because η_{it} is independently distributed, $\hat{\beta}_{it}$ and β_{it+1} will be distributed by a bivariate normal distribution.

That $\hat{\beta}_{it}$ and β_{it+1} are bivariate normal random variables, each with a mean of 1.0, implies the following regression

$$E(\beta_{it+1} \mid \hat{\beta}_{it}) - 1 = \frac{\text{Cov}\,(\beta_{it+1}, \hat{\beta}_{it})}{\sigma^2(\hat{\beta}_{it})}\,(\hat{\beta}_{it} - 1). \tag{1}$$

This regression is similar to the procedure proposed in Blume [3] to adjust the estimated betas for the regression tendency. That procedure was to regress estimates of beta for individual securities from a later period on estimates from an earlier period and to use the coefficients from this regression to adjust future estimates.[9] The empirical evidence

8. For further and more detailed discussion of the distinction between $E(\beta_{it} \mid \hat{\beta}_{it})$ and $E(\hat{\beta}_{it} \mid \beta_{it})$, the reader is referred to Vasicek [7].

9. That the regression of estimated betas from a later period on estimates from an earlier period is similar to (1) follows from noting that $E(\hat{\beta}_{it+1} \mid \hat{\beta}_{it})$ equals $E(\beta_{it+1} \mid \hat{\beta}_{it})$ and that $\text{Cov}(\hat{\beta}_{it+1}, \hat{\beta}_{it})$ equals $\text{Cov}(\beta_{it+1}, \hat{\beta}_{it})$. In [3], the grand mean of all betas was estimated in each period and was not assumed equal to 1.0.

presented there indicated that this procedure did improve the accuracy of estimates of future betas, though no claim was made that there might not be better ways to adjust for the regression tendency.

The coefficient of $(\hat{\beta}_{it} - 1)$ in (1) can be broken down into two components: one of which would correspond to the so-called order bias and the other to a true regression tendency. To achieve this result, note that the covariance of β_{it+1} and $\hat{\beta}_{it}$ is given by $\text{Cov}(\beta_{it+1}, \beta_{it} + \eta_{it})$, which because of the assumed independence of the errors, reduces to the covariance of β_{it+1} and β_{it}. Making this substitution and replacing $\text{Cov}(\beta_{it+1}, \beta_{it})$ by $\rho(\beta_{it+1}, \beta_{it})\sigma(\beta_{it+1})\sigma(\beta_{it})$, (1) becomes

$$E(\beta_{it+1} \mid \hat{\beta}_{it}) - 1 = \frac{\rho(\beta_{it+1}, \beta_{it})\sigma(\beta_{it+1})\sigma(\beta_{it})}{\sigma^2(\hat{\beta}_{it})} (\hat{\beta}_{it} - 1). \tag{2}$$

The ratio of $\sigma(\beta_{it})\sigma(\beta_{it+1})$ to $\sigma^2(\hat{\beta}_{it})$ might be identified with the order bias and the correlation of β_{it} and β_{it+1} with a true regression.

If the underlying values of beta are stationary over time, the correlation of successive values will be 1.0 and the standard deviations of β_{it} and β_{it+1} will be the same. Assuming such stationarity and noting then that β_{it+1} equals β_{it}, equation (2) can be rewritten as[10]

$$\begin{aligned} E(\beta_{it+1} \mid \hat{\beta}_{it}) - 1 &= E(\beta_{it} \mid \hat{\beta}_{it}) - 1 \\ &= \frac{\sigma^2(\beta_{it})}{\sigma^2(\hat{\beta}_{it})} (\hat{\beta}_{it} - 1). \end{aligned} \tag{3}$$

Since $\sigma^2(\beta_{it})$ would be less than $\sigma^2(\hat{\beta}_{it})$ if beta is measured with any error, the coefficient of $(\hat{\beta}_{it} - 1)$ would be less than 1.0. This means that the true beta for a security would be expected to be closer to one than the estimated value. In other words, an estimate of beta for an individual security except for an estimate of 1.0 is biased.[11]

10. Equation (3) can be derived alternatively from the assumption that β_{it} and $\hat{\beta}_{it}$ are bivariate normal variables and under the assumption of stationarity β_{it} will equal β_{it+1}. Vasicek [7] has developed using Bayes' Theorem, an expression for $E(\beta_{it}|\hat{\beta}_{it})$ which can be shown to be mathematically identical to the right hand side of (3): He observed that the procedure used by Merrill Lynch, Pierce, Fenner and Smith, Inc. in their Security Risk Evaluation Service is similar to his expression if $\sigma^2(\eta_{it})$ is assumed to be the same for all securities. Merrill Lynch's procedure, as he presented it, is to use the coefficient of the cross-sectional regression of $(\hat{\beta}_{it+1} - 1)$ on $(\hat{\beta}_{it} - 1)$ to adjust future estimates. This adjustment mechanism is in fact the same as (1) or (2) which shows that such a cross sectional regression takes into account real changes in the underlying betas. Only if betas were stationary over time would his formula be similar to Merrill Lynch's.

11. The formula for order bias given by (3) is similar to that which measures the bias in the estimated slope coefficient in a regression on one independent variable measured with error. Explicitly, consider the regression, $y = bx + \epsilon$, where ϵ is an independent mean-zero normal disturbance and both y and x are measured in deviate form. Now if x is measured with independent mean-zero error η and y is regressed on $x + \eta$, it is well known that the estimated coefficient, $\hat{b}$, will be biased toward zero and the probability limit of $\hat{b}$ is $\frac{b}{1 + \frac{\sigma^2(\eta)}{\sigma^2(x)}}$. This expression can be rewritten as $\frac{\sigma^2(x)}{\sigma^2(x + \eta)} b$. Interpreting x as the true beta less 1.0, the correspondence to (3) is obvious. In this type of regression, one could either adjust the independent variables themselves for bias and thus obtain an unbiased estimate of the regression coefficient or run the regression on the unadjusted variables and then adjust the regression coefficient. The final coefficient will be the same in either case.

In light of this discussion, the paper now reexamines the empirical results of the previous section. The initial task will be to adjust the portfolio betas in the grouping periods for the order bias. After making this adjustment, it will be apparent that much of the regression tendency observed in Table 1 remains. Thus, if (2) is valid, the value of the correlation coefficient is probably not 1.0. The statistical properties of estimates of the portfolio betas in both the grouping and subsequent periods will be examined. The section ends with an additional test that gives further confirmation that much of the regression tendency stems from true non-stationarities in the underlying betas.

To adjust the estimates of beta in the grouping periods for the order bias using (3) would require estimates of the ratio of $\sigma^2(\beta_{it})$ to $\sigma^2(\hat{\beta}_{it})$. The sample variance calculated from the estimated betas for all securities in a particular cross-section provides an estimate of $\sigma^2(\hat{\beta}_{it})$. An estimate of $\sigma^2(\beta_{it})$ can be derived as the difference between estimates of $\sigma^2(\hat{\beta}_{it})$ and $\sigma^2(\eta_{it})$. If the variance of the error in measuring an individual beta is the same for every security, $\sigma^2(\eta_{it})$ can be estimated as the average over all securities of the squares of the standard error associated with each estimated beta.

In conformity with these procedures, estimates of the ratio of $\sigma^2(\beta_{it})$ to $\sigma^2(\hat{\beta}_{it})$ for the five seven-year periods from 1926 through 1961 were respectively 0.92, 0.92, 0.89, 0.82, and 0.75. In other words, an unbiased estimate of the underlying beta for an individual security should be some eight to twenty-five per cent closer to 1.0 than the original estimate. For instance, if $\sigma^2(\beta_{it})/\sigma^2(\hat{\beta}_{it})$ were 0.9 and if $\hat{\beta}_{it}$ were 1.3, an unbiased estimate would be 1.27.

To determine whether the order bias accounted for all of the regression, the estimated betas for the individual securities were adjusted for the order bias using (3) and the appropriate value of the ratio. For the same portfolios of 100 securities examined in the previous section, portfolio betas for the grouping period were recalculated as the average of these adjusted betas. It might be noted that these adjusted portfolio betas could alternatively be obtained by adjusting the unadjusted portfolio betas directly. These adjusted portfolio betas are given in Table 3. For the reader's convenience, the unadjusted portfolio betas and those estimated in the subsequent seven years are reproduced from Table 1.

Before comparing these estimates, let us for the moment consider the statistical properties of the portfolio betas, first in the grouping period and then in the subsequent period. Though unadjusted estimates of the portfolio betas in the grouping period may be biased, they would be expected to be highly "reliable" as that term is used in psychometrics. Thus, regardless of what these estimates measure, they measure it accurately or more precisely their values approximate those which would be expected conditional on the underlying population and how they are calculated. For equally-weighted portfolios, the larger the number of securities, the more reliable would be the estimate.

Specifically, for an equally-weighted portfolio of 100 securities, the standard deviation of the error in the portfolio beta would be one-tenth

TABLE 3

BETA COEFFICIENTS FOR PORTFOLIOS OF 100 SECURITIES

Portfolio	Grouping Period: Unadjusted for Order Bias	Grouping Period: Adjusted for Order Bias	First Subsequent Period	Second Subsequent Period
	7/26-6/33		7/33-6/40	7/40-6/47
1	0.50	.54	0.61	0.73
2	0.85	.86	0.96	0.92
3	1.15	1.14	1.24	1.21
4	1.53	1.49	1.42	1.47
	7/33-6/40		7/40-6/47	7/47-6/54
1	0.38	.43	0.56	0.53
2	0.69	.72	0.77	0.86
3	0.90	.91	0.91	0.96
4	1.13	1.12	1.12	1.11
5	1.35	1.32	1.31	1.29
6	1.68	1.63	1.69	1.40
	7/40-6/47		7/47-6/54	7/54-6/61
1	0.43	.50	0.60	0.73
2	0.61	.65	0.76	0.88
3	0.73	.76	0.88	0.93
4	0.86	.88	0.99	1.04
5	1.00	1.00	1.10	1.12
6	1.21	1.19	1.21	1.14
7	1.61	1.54	1.36	1.20
	7/47-6/54		7/54-6/61	7/61-6/68
1	0.36	.48	0.57	0.72
2	0.61	.68	0.71	0.79
3	0.78	.82	0.88	0.88
4	0.91	.93	0.96	0.92
5	1.01	1.01	1.03	1.04
6	1.13	1.10	1.13	1.02
7	1.26	1.21	1.24	1.08
8	1.47	1.39	1.32	1.15
	7/54-6/61		7/61-6/68	
1	0.37	.53	0.62	
2	0.56	.67	0.68	
3	0.72	.79	0.85	
4	0.86	.89	0.85	
5	0.99	.99	0.95	
6	1.11	1.08	0.98	
7	1.23	1.17	1.07	
8	1.43	1.32	1.25	

the standard error of the estimated betas for individual securities providing the errors in measuring these individual betas were independent of each other. During the 1926-33 period, the average standard error of betas for individual securities was 0.12 so that the standard error of the portfolio beta would be roughly 0.012. The average standard error for individual securities increased gradually to 0.20 in the period July 1954-June 1961. For the next seven-year period ending June 1968, the average declined to 0.17.

As pointed out, standard errors for portfolio betas calculated from those for individual securities assume independence of the errors in estimates. The standard error for a portfolio beta can however be calculated directly without making this assumption of independence by regressing the portfolio returns on the market index. The standard error for the portfolio of the 100 securities with the lowest estimates of beta in the July 1926-June 1933 period was for instance, 0.018, which compares to 0.012 calculated assuming independence. The average standard error of the estimated betas for the four portfolios in this period was also 0.018. The average standard errors of the betas for the portfolios of 100 securities in the four subsequent seven-year periods ending June 1961 were respectively 0.025, 0.027, 0.024, and 0.027. Although these standard errors, not assuming independence, are about 50 per cent larger than before, they are still extremely small compared to the range of possible values for portfolio betas.

For the moment, let us therefore assume that the portfolio betas as estimated in the grouping period before adjustment for order bias are extremely reliable numbers in that whatever they measure, they measure it accurately. In this case, adjusting these portfolio betas for the order bias will give extremely reliable and unbiased estimates of the underlying portfolio beta and therefore these adjusted betas can be taken as very good approximations to the underlying, but unknown, values. The greater the number of securities in the portfolio, the better the approximation will be.

The numerical example in Table 2 gives an intuitive feel for what is happening. Consider a portfolio of a large number of securities whose estimated betas were all 0.8 in a particular sample. It will be recalled that such an estimate requires that the true beta be either 0.8 or 1.0. As the number of securities with estimates of 0.8 increases, one can be more and more confident that 75 per cent of the securities have true betas of 0.8 and 25 per cent have true betas of 1.0 or equivalently that an equally-weighted portfolio of these securities has a beta of 0.85.

The heuristic argument in the prior section might lead some to believe that, contrary to the estimates in the grouping period, there are no order biases associated with the portfolio betas estimated in the subsequent seven years. This belief, however, is not correct. Formally, the portfolios formed in the grouping period are being treated as if they were securities in the subsequent period. To estimate these portfolio betas, portfolio returns were calculated and regressed upon some measure of the market. In this paper so far, these portfolio returns were calculated under an equally-weighted monthly revision strategy in which delisted securities were sold at the last available price and the proceeds reinvested equally in the remaining. Other strategies are, of course, possible.

Since these portfolios are being treated as securities, formula (3) applies, so that there is still some "order bias" present. However, in determining the rate of regression, the appropriate measure of the variance of the errors in the estimates is the variance for the portfolio betas and not for the betas of individual stocks. This fact has the important effect of making the ratio of $\sigma^2(\beta_{it})$ to $\sigma^2(\hat{\beta}_{it})$ much closer to one than for

individual securities. Estimating $\sigma^2(\hat{\beta}_{it})$ and $\sigma^2(\eta_{it})$ for the portfolios formed on the immediately prior period, the value of this ratio for each of the four seven-year periods from 1933 to 1961 was in excess of 0.99 and for the last seven-year period in excess of 0.98. Thus, for most purposes, little error is introduced by assuming that these estimated portfolio betas contain no "order bias" or equivalently that these estimates measure accurately the true portfolio beta.

A comparison of the portfolio betas in the grouping period, even after adjusting for the order bias, to the corresponding betas in the immediately subsequent period discloses a definite regression tendency. This regression tendency is statistically significant at the five per cent level for each of the last three grouping periods, 1940-47, 1947-54, 1954-61.[12] Thus, this evidence strongly suggests that there is a substantial tendency for the underlying values of beta to regress towards the mean over time. Yet, it could be argued that this test is suspect because the formula used in adjusting for the order bias was developed under the assumption that the distributions of beta were normal. This assumption is certainly not strictly correct and it is not clear how sensitive the adjustment is to violations of this assumption.

A more robust way to demonstrate the existence of a true regression tendency is based upon the observation that the portfolio betas estimated in the period immediately subsequent to the grouping period are measured with negligible error and bias. These estimated portfolio betas can be compared to betas for the same portfolios estimated in the second seven years subsequent to the grouping period. These betas, which have been estimated in the second subsequent period and are given in Table 3, disclose again an obvious regression tendency. This tendency is significant at the five per cent level for the last three of the four possible comparisons.[13]

IV. Summary

Beginning with a review of the conventional wisdom, the paper showed that estimated beta coefficients tend to regress towards the grand mean of all betas over time. The next section presented two kinds of empirical analyses which showed that part of this observed regression tendency represented real nonstationarities in the betas of individual securities and that the so-called order bias was not of overwhelming importance.

In other words, companies of extreme risk—either high or low—tend to have less extreme risk characteristics over time. There are two logical

12. This test of significance was based upon the regression $(\hat{\beta}_{it+1} - 1) = b(\hat{\beta}_{it} - 1) + \epsilon_{it}$ where $\hat{\beta}_{it}$ has been adjusted for order bias. The estimated coefficients with the t-value measured from 1.0 in parentheses were for the five seven-years chronologically 0.86 (−1.14), 0.94 (−0.88), 0.71 (−3.84), 0.86 (−3.23), and 0.81 (−2.57). Note that even if β_{it} were measured with substantial independent error contrary to fact, the estimated b would not be biased towards zero because, as footnote 10 shows, the adjustment for the order bias has already corrected for this bias.

13. Using the same regression as in the previous footnote, the estimated coefficient b with the t-value measured from 1.0 in parentheses were for the four possible comparisons in chronological order 0.92 (−0.69), 0.74 (−2.67), 0.62 (−6.86), and 0.58 (−5.51).

explanations. First, the risk of existing projects may tend to become less extreme over time. This explanation may be plausible for high risk firms, but it would not seem applicable to low risk firms. Second, new projects taken on by firms may tend to have less extreme risk characteristics than existing projects. If this second explanation is correct, it is interesting to speculate on the reasons. For instance, is it a management decision or do limitations on the availability of profitable projects of extreme risk tend to cause the riskiness of firms to regress towards the grand mean over time? Though one could continue to speculate on the forces underlying this tendency of risk—as measured by beta coefficients—to regress towards the grand mean over time, it remains for future research to determine the explicit reasons.

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The Risk Premium Approach to Measuring a Utility's Cost of Equity

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The Risk Premium Approach to Measuring a Utility's Cost of Equity

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■ In the mid-1960s, Myron Gordon and others began applying the theory of finance to help estimate utilities' costs of capital. Previously, the standard approach in cost of equity studies was the "comparable earnings method," which involved selecting a sample of unregulated companies whose investment risk was judged to be comparable to that of the utility in question, calculating the average return on book equity (ROE) of these sample companies, and setting the utility's service rates at a level that would permit the utility to achieve the same ROE as comparable companies. This procedure has now been thoroughly discredited (see Robichek [15]), and it has been replaced by three market-oriented (as opposed to accounting-oriented) approaches: (i) the DCF method, (ii) the bond-yield-plus-risk-premium method, and (iii) the CAPM, which is a specific version of the generalized bond-yield-plus-risk-premium approach.

Our purpose in this paper is to discuss the risk-premium approach, including the market risk premium that is used in the CAPM. First, we critique the various procedures that have been used in the past to estimate risk premiums. Second, we present some data on estimated risk premiums since 1965. Third, we examine the relationship between equity risk premiums and the level of interest rates, because it is important, for purposes of estimating the cost of capital, to know just how stable the relationship between risk premiums and interest rates is over time. If stability exists, then one can estimate the cost of equity at any point in time as a function of interest rates as reported in *The Wall Street Journal*, the *Federal Reserve Bulletin*, or some similar source.[1] Fourth, while we do not discuss the CAPM directly, our analysis does have some important implications for selecting a market risk premium for use in that model. Our focus is on utilities, but the methodology is applicable to the estimation of the cost of

[1]For example, the Federal Energy Regulatory Commission's Staff recently proposed that a risk premium be estimated every two years and that, between estimation dates, the last-determined risk premium be added to the current yield on ten-year Treasury bonds to obtain an estimate of the cost of equity to an average utility (Docket RM 80–36). Subsequently, the FCC made a similar proposal ("Notice of Proposed Rulemaking," August 13, 1984, Docket No. 84–800). Obviously, the validity of such procedures depends on (i) the accuracy of the risk premium estimate and (ii) the stability of the relationship between risk premiums and interest rates. Both proposals are still under review.

equity for any publicly traded firm, and also for non-traded firms for which an appropriate risk class can be assessed, including divisions of publicly traded corporations.[2]

Alternative Procedures for Estimating Risk Premiums

In a review of both rate cases and the academic literature, we have identified three basic methods for estimating equity risk premiums: (i) the *ex post*, or historic, yield spread method; (ii) the survey method; and (iii) an *ex ante* yield spread method based on DCF analysis.[3] In this section, we briefly review these three methods.

Historic Risk Premiums

A number of researchers, most notably Ibbotson and Sinquefield [12], have calculated historic holding period returns on different securities and then estimated risk premiums as follows:

$$\text{Historic Risk Premium} = \left\{\begin{array}{c}\text{Average of the}\\ \text{annual returns on}\\ \text{a stock index for}\\ \text{a particular}\\ \text{past period}\end{array}\right\} - \left\{\begin{array}{c}\text{Average of the}\\ \text{annual returns on}\\ \text{a bond index for}\\ \text{the same}\\ \text{past period}\end{array}\right\} . \quad (1)$$

Ibbotson and Sinquefield (I&S) calculated both arithmetic and geometric average returns, but most of their risk-premium discussion was in terms of the geometric averages. Also, they used both corporate and Treasury bond indices, as well as a T-bill index, and they analyzed all possible holding periods since 1926. The I&S study has been employed in numerous rate cases in two ways: (i) directly, where the I&S historic risk premium is added to a company's bond yield to obtain an estimate of its cost of equity, and (ii) indirectly, where I&S data are used to estimate the market risk premium in CAPM studies.

There are both conceptual and measurement problems with using I&S data for purposes of estimating the cost of capital. Conceptually, there is no compelling reason to think that investors expect the same relative returns that were earned in the past. Indeed, evidence presented in the following sections indicates that relative expected returns should, and do, vary significantly over time. Empirically, the measured historic premium is sensitive both to the choice of estimation horizon and to the end points. These choices are essentially arbitrary, yet they can result in significant differences in the final outcome. These measurement problems are common to most forecasts based on time series data.

The Survey Approach

One obvious way to estimate equity risk premiums is to poll investors. Charles Benore [1], the senior utility analyst for Paine Webber Mitchell Hutchins, a leading institutional brokerage house, conducts such a survey of major institutional investors annually. His 1983 results are reported in Exhibit 1.

Exhibit 1. Results of Risk Premium Survey, 1983*

Assuming a double A, long-term utility bond currently yields 12½%, the common stock for the same company would be fairly priced relative to the bond if its expected return was as follows:

Total Return	Indicated Risk Premium (basis points)	Percent of Respondents
over 20½%	over 800	
20½%	800	
19½%	700	
18½%	600	10%
17½%	500	8%
16½%	400	29%
15½%	300	35%
14½%	200	16%
13½%	100	0%
under 13½%	under 100	1%
Weighted average	358	100%

*Benore's questionnaire included the first two columns, while his third column provided a space for the respondents to indicate which risk premium they thought applied. We summarized Benore's responses in the frequency distribution given in Column 3. Also, in his questionnaire each year, Benore adjusts the double A bond yield and the total returns (Column 1) to reflect current market conditions. Both the question above and the responses to it were taken from the survey conducted in April 1983.

[2]The FCC is particularly interested in risk-premium methodologies, because (i) only eighteen of the 1,400 telephone companies it regulates have publicly-traded stock, and hence offer the possibility of DCF analysis, and (ii) most of the publicly-traded telephone companies have both regulated and unregulated assets, so a corporate DCF cost might not be applicable to the regulated units of the companies.

[3]In rate cases, some witnesses also have calculated the differential between the yield to maturity (YTM) of a company's bonds and its concurrent ROE, and then called this differential a risk premium. In general, this procedure is unsound, because the YTM on a bond is a *future expected* return on the bond's *market value*, while the ROE is the *past realized* return on the stock's *book value*. Thus, comparing YTMs and ROEs is like comparing apples and oranges.

Benore's results, as measured by the average risk premiums, have varied over the years as follows:

Year	Average RP (basis points)
1978	491
1979	475
1980	423
1981	349
1982	275
1983	358

The survey approach is conceptually sound in that it attempts to measure investors' expectations regarding risk premiums, and the Benore data also seem to be carefully collected and processed. Therefore, the Benore studies do provide one useful basis for estimating risk premiums. However, as with most survey results, the possibility of biased responses and/or biased sampling always exists. For example, if the responding institutions are owners of utility stocks (and many of them are), and if the respondents think that the survey results might be used in a rate case, then they might bias upward their responses to help utilities obtain higher authorized returns. Also, Benore surveys large institutional investors, whereas a high percentage of utility stocks are owned by individuals rather than institutions, so there is a question as to whether his reported risk premiums are really based on the expectations of the "representative" investor. Finally, from a pragmatic standpoint, there is a question as to how to use the Benore data for utilities that are not rated AA. The Benore premiums can be applied as an add-on to the own-company bond yields of any given utility only if it can be assumed that the premiums are constant across bond rating classes. *A priori*, there is no reason to believe that the premiums will be constant.

DCF-Based *Ex Ante* Risk Premiums

In a number of studies, the DCF model has been used to estimate the *ex ante* market risk premium, RP_M. Here, one estimates the average expected future return on equity for a group of stocks, k_M, and then subtracts the concurrent risk-free rate, R_F, as proxied by the yield to maturity on either corporate or Treasury securities:[4]

$$RP_M = k_M - R_F. \tag{2}$$

Conceptually, this procedure is exactly like the I&S approach except that one makes direct estimates of future expected returns on stocks and bonds rather than assuming that investors expect future returns to mirror past returns.

The most difficult task, of course, is to obtain a valid estimate of k_M, the expected rate of return on the market. Several studies have attempted to estimate DCF risk premiums for the utility industry and for other stock market indices. Two of these are summarized next.

Vandell and Kester. In a recently published monograph, Vandell and Kester [18] estimated *ex ante* risk premiums for the period from 1944 to 1978. R_F was measured both by the yield on 90-day T-bills and by the yield on the Standard and Poor's AA Utility Bond Index. They measured k_M as the average expected return on the S&P's 500 Index, with the expected return on individual securities estimated as follows:

$$k_i = \left(\frac{D_1}{P_0}\right)_i + g_i, \tag{3}$$

where,

D_1 = dividend per share expected over the next twelve months,
P_0 = current stock price,
g = estimated long-term constant growth rate, and
i = the i^{th} stock.

To estimate g_i, Vandell and Kester developed fifteen forecasting models based on both exponential smoothing and trend-line forecasts of earnings and dividends, and they used historic data over several estimating horizons. Vandell and Kester themselves acknowledge that, like the Ibbotson-Sinquefield premiums, their analysis is subject to potential errors associated with trying to estimate expected future growth purely from past data. We shall have more to say about this point later.

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[4]In this analysis, most people have used yields on long-term bonds rather than short-term money market instruments. It is recognized that long-term bonds, even Treasury bonds, are not risk free, so an RP_M based on these debt instruments is smaller than it would be if there were some better proxy to the long-term riskless rate. People have attempted to use the T-bill rate for R_F, but the T-bill rate embodies a different average inflation premium than stocks, and it is subject to random fluctuations caused by monetary policy, international currency flows, and other factors. Thus, many people believe that for cost of capital purposes, R_F should be based on long-term securities.

We did test to see how debt maturities would affect our calculated risk premiums. If a short-term rate such as the 30-day T-bill rate is used, measured risk premiums jump around widely and, so far as we could tell, randomly. The choice of a maturity in the 10- to 30-year range has little effect, as the yield curve is generally fairly flat in that range.

Malkiel. Malkiel [14] estimated equity risk premiums for the Dow Jones Industrials using the DCF model. Recognizing that the constant dividend growth assumption may not be valid, Malkiel used a nonconstant version of the DCF model. Also, rather than rely exclusively on historic data, he based his growth rates on Value Line's five-year earnings growth forecasts plus the assumption that each company's growth rate would, after an initial five-year period, move toward a long-run real national growth rate of four percent. He also used ten-year maturity government bonds as a proxy for the riskless rate. Malkiel reported that he tested the sensitivity of his results against a number of different types of growth rates, but, in his words, "The results are remarkably robust, and the estimated risk premiums are all very similar." Malkiel's is, to the best of our knowledge, the first risk-premium study that uses analysts' forecasts. A discussion of analysts' forecasts follows.

Security Analysts' Growth Forecasts

Ex ante DCF risk premium estimates can be based either on expected growth rates developed from time series data, such as Vandell and Kester used, or on analysts' forecasts, such as Malkiel used. Although there is nothing inherently wrong with time series-based growth rates, an increasing body of evidence suggests that primary reliance should be placed on analysts' growth rates. First, we note that the observed market price of a stock reflects the consensus view of investors regarding its future growth. Second, we know that most large brokerage houses, the larger institutional investors, and many investment advisory organizations employ security analysts who forecast future EPS and DPS, and, to the extent that investors rely on analysts' forecasts, the consensus of analysts' forecasts is embodied in market prices. Third, there have been literally dozens of academic research papers dealing with the accuracy of analysts' forecasts, as well as with the extent to which investors actually use them. For example, Cragg and Malkiel [7] and Brown and Rozeff [5] determined that security analysts' forecasts are more relevant in valuing common stocks and estimating the cost of capital than are forecasts based solely on historic time series. Stanley, Lewellen, and Schlarbaum [16] and Linke [13] investigated the importance of analysts' forecasts and recommendations to the investment decisions of individual and institutional investors. Both studies indicate that investors rely heavily on analysts' reports and incorporate analysts' forecast information in the formation of their expectations about stock returns. A representative listing of other work supporting the use of analysts' forecasts is included in the References section. Thus, evidence in the current literature indicates that (i) analysts' forecasts are superior to forecasts based solely on time series data, and (ii) investors do rely on analysts' forecasts. Accordingly, we based our cost of equity, and hence risk premium estimates, on analysts' forecast data.[5]

Risk Premium Estimates

For purposes of estimating the cost of capital using the risk premium approach, it is necessary either that the risk premiums be time-invariant or that there exists a predictable relationship between risk premiums and interest rates. If the premiums are constant over time, then the constant premium could be added to the prevailing interest rate. Alternatively, if there exists a stable relationship between risk premiums and interest rates, it could be used to predict the risk premium from the prevailing interest rate.

To test for stability, we obviously need to calculate risk premiums over a fairly long period of time. Prior to 1980, the only consistent set of data we could find came from Value Line, and, because of the work involved, we could develop risk premiums only once a year (on January 1). Beginning in 1980, however, we began collecting and analyzing Value Line data on a monthly basis, and in 1981 we added monthly estimates from Merrill Lynch and Salomon Brothers to our data base. Finally, in mid-1983, we expanded our analysis to include the IBES data.

Annual Data and Results, 1966–1984

Over the period 1966–1984, we used Value Line data to estimate risk premiums both for the electric utility industry and for industrial companies, using the companies included in the Dow Jones Industrial and Utility averages as representative of the two groups. Value Line makes a five-year growth rate forecast, but it also gives data from which one can develop a longer-term forecast. Since DCF theory calls for a truly long-term (infinite horizon) growth rate, we concluded that it was better to develop and use such a forecast than to

[5]Recently, a new type of service that summarizes the key data from most analysts' reports has become available. We are aware of two sources of such services, the Lynch, Jones, and Ryan's Institutional Brokers Estimate System (IBES) and Zack's Icarus Investment Service. IBES and the Icarus Service gather data from both buy-side and sell-side analysts and provide it to subscribers on a monthly basis in both a printed and a computer-readable format.

Exhibit 2. Estimated Annual Risk Premiums, Nonconstant (Value Line) Model, 1966–1984

January 1 of the Year Reported	Dow Jones Electrics			Dow Jones Industrials			
	k_{Avg}	R_F	RP	k_{Avg}	R_F	RP	(3) ÷ (6)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1966	8.11%	4.50%	3.61%	9.56%	4.50%	5.06%	0.71
1967	9.00%	4.76%	4.24%	11.57%	4.76%	6.81%	0.62
1968	9.68%	5.59%	4.09%	10.56%	5.59%	4.97%	0.82
1969	9.34%	5.88%	3.46%	10.96%	5.88%	5.08%	0.68
1970	11.04%	6.91%	4.13%	12.22%	6.91%	5.31%	0.78
1971	10.80%	6.28%	4.52%	11.23%	6.28%	4.95%	0.91
1972	10.53%	6.00%	4.53%	11.09%	6.00%	5.09%	0.89
1973	11.37%	5.96%	5.41%	11.47%	5.96%	5.51%	0.98
1974	13.85%	7.29%	6.56%	12.38%	7.29%	5.09%	1.29
1975	16.63%	7.91%	8.72%	14.83%	7.91%	6.92%	1.26
1976	13.97%	8.23%	5.74%	13.32%	8.23%	5.09%	1.13
1977	12.96%	7.30%	5.66%	13.63%	7.30%	6.33%	0.89
1978	13.42%	7.87%	5.55%	14.75%	7.87%	6.88%	0.81
1979	14.92%	8.99%	5.93%	15.50%	8.99%	6.51%	0.91
1980	16.39%	10.18%	6.21%	16.53%	10.18%	6.35%	0.98
1981	17.61%	11.99%	5.62%	17.37%	11.99%	5.38%	1.04
1982	17.70%	14.00%	3.70%	19.30%	14.00%	5.30%	0.70
1983	16.30%	10.66%	5.64%	16.53%	10.66%	5.87%	0.96
1984	16.03%	11.97%	4.06%	15.72%	11.97%	3.75%	1.08

use the five-year prediction.[6] Therefore, we obtained data as of January 1 from Value Line for each of the Dow Jones companies and then solved for k, the expected rate of return, in the following equation:

$$P_0 = \sum_{t=1}^{n} \frac{D_t}{(1+k)^t} + \left(\frac{D_n(1+g_n)}{k-g_n}\right)\left(\frac{1}{1+k}\right)^n. \quad (4)$$

Equation (4) is the standard nonconstant growth DCF model; P_0 is the current stock price; D_t represents the forecasted dividends during the nonconstant growth period; n is the years of nonconstant growth; D_n is the first constant growth dividend; and g_n is the constant, long-run growth rate after year n. Value Line provides D_t values for t = 1 and t = 4, and we interpolated to obtain D_2 and D_3. Value Line also gives estimates for ROE and for the retention rate (b) in the terminal year, n, so we can forecast the long-term growth rate as $g_n = b(ROE)$. With all the values in Equation (4) specified except k, we can solve for k, which is the DCF rate of return that would result if the Value Line forecasts were met, and, hence, the DCF rate of return implied in the Value Line forecast.[7]

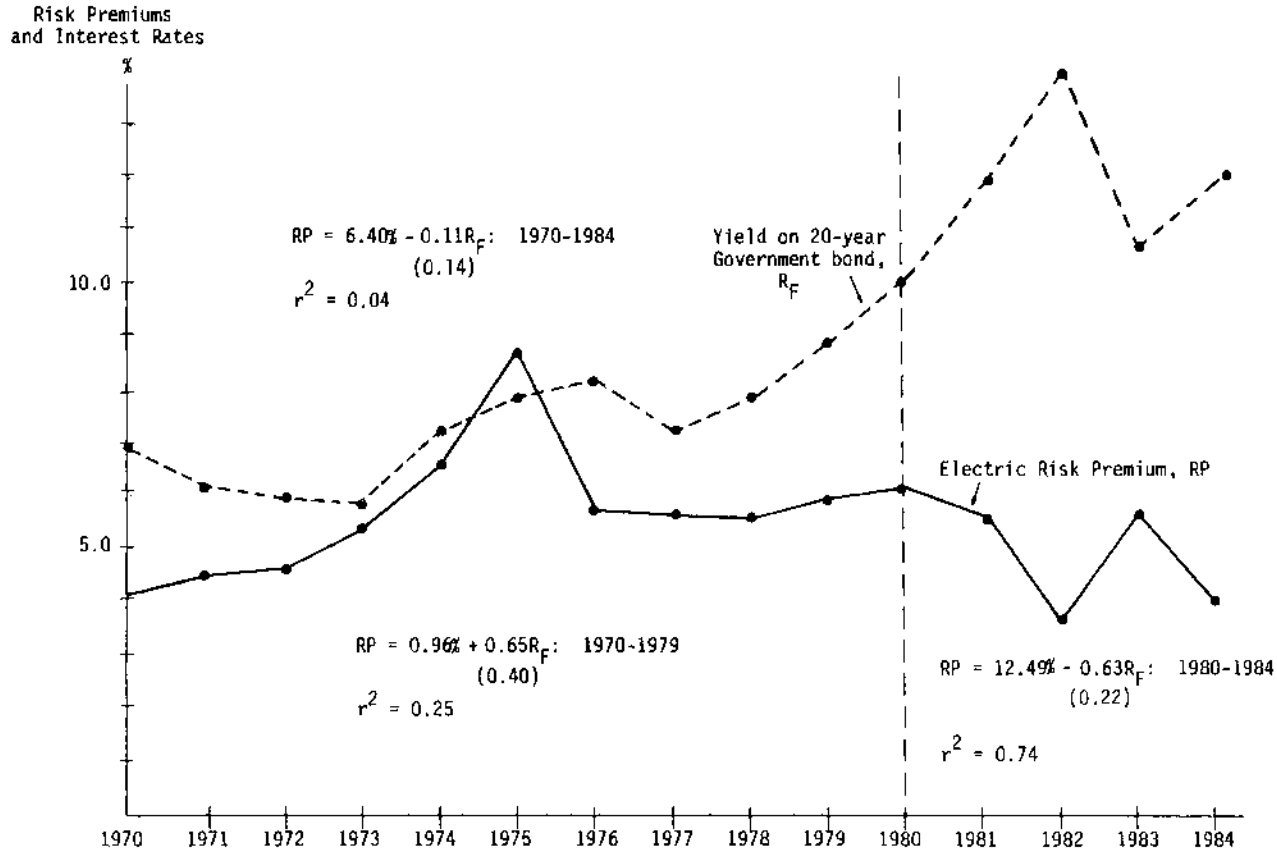
Having estimated a k value for each of the electric and industrial companies, we averaged them (using market-value weights) to obtain a k value for each group, after which we subtracted R_F (taken as the December 31 yield on twenty-year constant maturity Treasury bonds) to obtain the estimated risk premiums shown in Exhibit 2. The premiums for the electrics are plotted in Exhibit 3, along with interest rates. The following points are worthy of note:

1. Risk premiums fluctuate over time. As we shall see in the next section, fluctuations are even wider when measured on a monthly basis.
2. The last column of Exhibit 2 shows that risk premi-

[6]This is a debatable point. Cragg and Malkiel, as well as many practicing analysts, feel that most investors actually focus on five-year forecasts. Others, however, argue that five-year forecasts are too heavily influenced by base-year conditions and/or other nonpermanent conditions for use in the DCF model. We note (i) that most published forecasts do indeed cover five years, (ii) that such forecasts are typically "normalized" in some fashion to alleviate the base-year problem, and (iii) that for relatively stable companies like those in the Dow Jones averages, it generally does not matter greatly if one uses a normalized five-year or a longer-term forecast, because these companies meet the conditions of the constant-growth DCF model rather well.

[7]Value Line actually makes an explicit price forecast for each stock, and one could use this price, along with the forecasted dividends, to develop an expected rate of return. However, Value Line's forecasted stock price builds in a forecasted *change* in k. Therefore, the forecasted price is inappropriate for use in estimating current values of k.

Exhibit 3. Equity Risk Premiums for Electric Utilities and Yields on 20-Year Government Bonds, 1970–1984*



*Standard errors of the coefficients are shown in parentheses below the coefficients.

ums for the utilities increased relative to those for the industrials from the mid-1960s to the mid-1970s. Subsequently, the perceived riskiness of the two groups has, on average, been about the same.

3. Exhibit 3 shows that, from 1970 through 1979, utility risk premiums tended to have a positive association with interest rates: when interest rates rose, so did risk premiums, and vice versa. However, beginning in 1980, an inverse relationship appeared: rising interest rates led to declining risk premiums. We shall discuss this situation further in the next section.

Monthly Data and Results, 1980–1984

In early 1980, we began calculating risk premiums on a monthly basis. At that time, our only source of analysts' forecasts was Value Line, but beginning in 1981 we also obtained Merrill Lynch and Salomon Brothers' data, and then, in mid-1983, we obtained IBES data. Because our focus was on utilities, we restricted our monthly analysis to that group.

Our 1980–1984 monthly risk premium data, along with Treasury bond yields, are shown in Exhibits 4 and 5 and plotted in Exhibits 6, 7, and 8. Here are some comments on these Exhibits:

1. Risk premiums, like interest rates and stock prices, are volatile. Our data indicate that it would not be appropriate to estimate the cost of equity by adding the current cost of debt to a risk premium that had been estimated in the past. Current risk premiums should be matched with current interest rates.
2. Exhibit 6 confirms the 1980–1984 section of Exhibit 3 in that it shows a strong inverse relationship between interest rates and risk premiums; we shall discuss shortly why this relationship holds.
3. Exhibit 7 shows that while risk premiums based on Value Line, Merrill Lynch, and Salomon Brothers

Exhibit 4. Estimated Monthly Risk Premiums for Electric Utilities Using Analysts' Growth Forecasts, January 1980–June 1984

Beginning of Month	Value Line	Merrill Lynch	Salomon Brothers	Average Premiums	20-Year Treasury Bond Yield, Constant Maturity Series
Jan 1980	6.21%	NA	NA	6.21%	10.18%
Feb 1980	5.77%	NA	NA	5.77%	10.86%
Mar 1980	4.73%	NA	NA	4.73%	12.59%
Apr 1980	5.02%	NA	NA	5.02%	12.71%
May 1980	4.73%	NA	NA	4.73%	11.04%
Jun 1980	5.09%	NA	NA	5.09%	10.37%
Jul 1980	5.41%	NA	NA	5.41%	9.86%
Aug 1980	5.72%	NA	NA	5.72%	10.29%
Sep 1980	5.16%	NA	NA	5.16%	11.41%
Oct 1980	5.62%	NA	NA	5.62%	11.75%
Nov 1980	5.09%	NA	NA	5.09%	12.33%
Dec 1980	5.65%	NA	NA	5.65%	12.37%
Annual Avg.	5.35%			5.35%	11.31%
Jan 1981	5.62%	4.76%	5.63%	5.34%	11.99%
Feb 1981	4.82%	4.87%	5.16%	4.95%	12.48%
Mar 1981	4.70%	3.73%	4.97%	4.47%	13.10%
Apr 1981	4.24%	3.23%	4.52%	4.00%	13.11%
May 1981	3.54%	3.24%	4.24%	3.67%	13.51%
Jun 1981	3.57%	4.04%	4.27%	3.96%	13.39%
Jul 1981	3.61%	3.63%	4.16%	3.80%	13.32%
Aug 1981	3.17%	3.05%	3.04%	3.09%	14.23%
Sep 1981	2.11%	2.24%	2.35%	2.23%	14.99%
Oct 1981	2.83%	2.64%	3.24%	2.90%	14.93%
Nov 1981	2.08%	2.49%	3.03%	2.53%	15.27%
Dec 1981	3.72%	3.45%	4.24%	3.80%	13.12%
Annual Avg.	3.67%	3.45%	4.07%	3.73%	13.62%
Jan 1982	3.70%	3.37%	4.04%	3.70%	14.00%
Feb 1982	3.05%	3.37%	3.70%	3.37%	14.37%
Mar 1982	3.15%	3.28%	3.75%	3.39%	13.96%
Apr 1982	3.49%	3.61%	4.29%	3.80%	13.69%
May 1982	3.08%	4.25%	3.91%	3.75%	13.47%
Jun 1982	3.16%	4.51%	4.72%	4.13%	13.53%
Jul 1982	2.57%	4.21%	4.21%	3.66%	14.48%
Aug 1982	4.33%	4.83%	5.27%	4.81%	13.69%
Sep 1982	4.08%	5.14%	5.58%	4.93%	12.40%
Oct 1982	5.35%	5.24%	6.34%	5.64%	11.95%
Nov 1982	5.67%	5.95%	6.91%	6.18%	10.97%
Dec 1982	6.31%	6.71%	7.45%	6.82%	10.52%
Annual Avg.	4.00%	4.54%	5.01%	4.52%	13.09%
Jan 1983	5.64%	6.04%	6.81%	6.16%	10.66%
Feb 1983	4.68%	5.99%	6.10%	5.59%	11.01%
Mar 1983	4.99%	6.89%	6.43%	6.10%	10.71%
Apr 1983	4.75%	5.82%	6.31%	5.63%	10.84%
May 1983	4.50%	6.41%	6.24%	5.72%	10.57%
Jun 1983	4.29%	5.21%	6.16%	5.22%	10.90%
Jul 1983	4.78%	5.72%	6.42%	5.64%	11.12%
Aug 1983	3.89%	4.74%	5.41%	4.68%	11.78%
Sep 1983	4.07%	4.90%	5.57%	4.85%	11.71%
Oct 1983	3.79%	4.64%	5.38%	4.60%	11.64%
Nov 1983	2.84%	3.77%	4.46%	3.69%	11.90%
Dec 1983	3.36%	4.27%	5.00%	4.21%	11.83%
Annual Avg.	4.30%	5.37%	5.86%	5.17%	11.22%
Jan 1984	4.06%	5.04%	5.65%	4.92%	11.97%
Feb 1984	4.25%	5.37%	5.96%	5.19%	11.76%
Mar 1984	4.73%	6.05%	6.38%	5.72%	12.12%
Apr 1984	4.78%	5.33%	6.32%	5.48%	12.51%
May 1984	4.36%	5.30%	6.42%	5.36%	12.78%
Jun 1984	3.54%	4.00%	5.63%	4.39%	13.60%

Exhibit 5. Monthly Risk Premiums Based on IBES Data

Beginning of Month	Average of Merrill Lynch, Salomon Brothers, and Value Line Premiums for Dow Jones Electrics	IBES Premiums for Dow Jones Electrics	IBES Premiums for Entire Electric Industry
Aug 1983	4.68%	4.10%	4.16%
Sep 1983	4.85%	4.43%	4.27%
Oct 1983	4.60%	4.31%	3.90%
Nov 1983	3.69%	3.36%	3.36%
Dec 1983	4.21%	3.86%	3.54%
Jan 1984	4.92%	4.68%	4.18%
Feb 1984	5.19%	5.00%	4.36%
Mar 1984	5.72%	5.35%	4.45%
Apr 1984	5.48%	5.33%	4.23%
May 1984	5.36%	5.26%	4.30%
Jun 1984	4.39%	4.47%	3.40%
Average Premiums	4.83%	4.56%	4.01%

Exhibit 6. Utility Risk Premiums and Interest Rates, 1980–1984

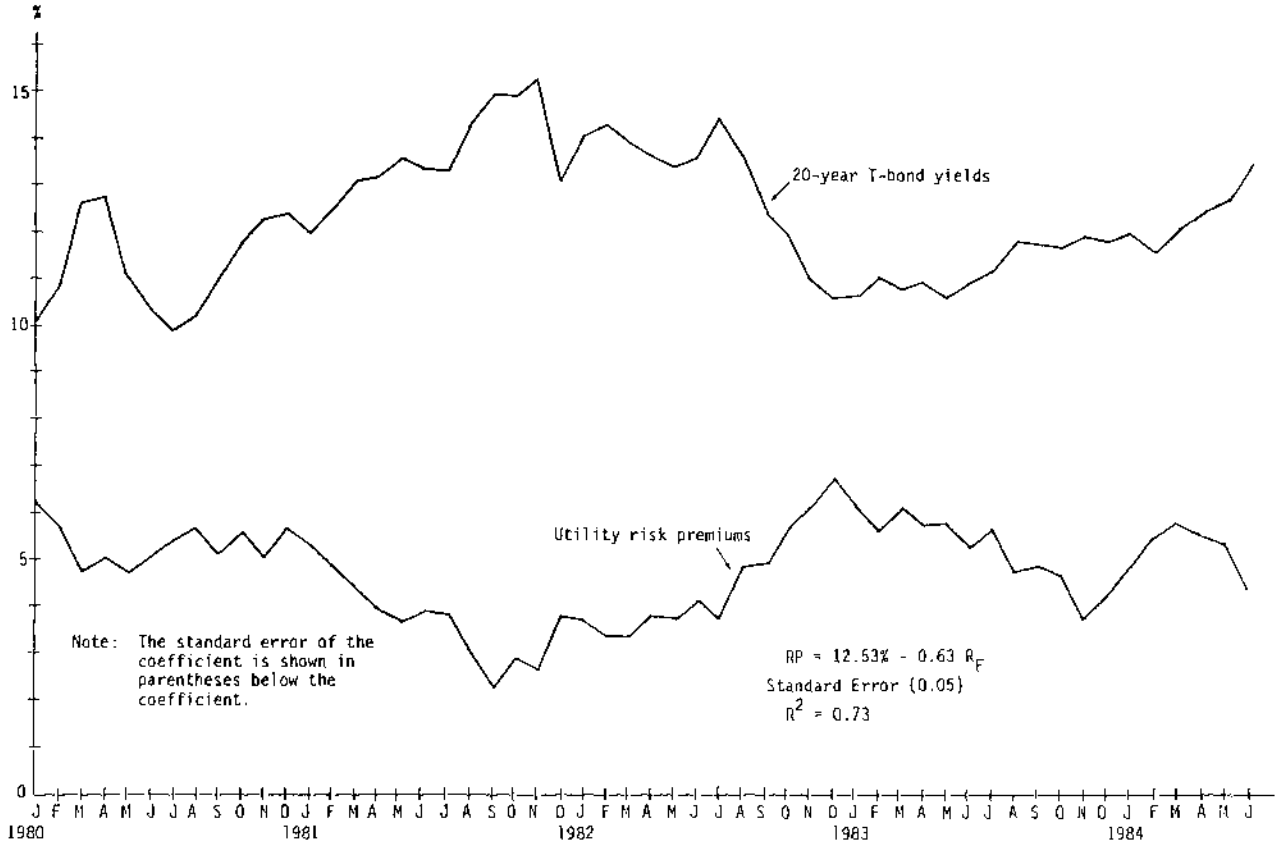


Exhibit 7. Monthly Risk Premiums, Electric Utilities, 1981–1984 (to Date)

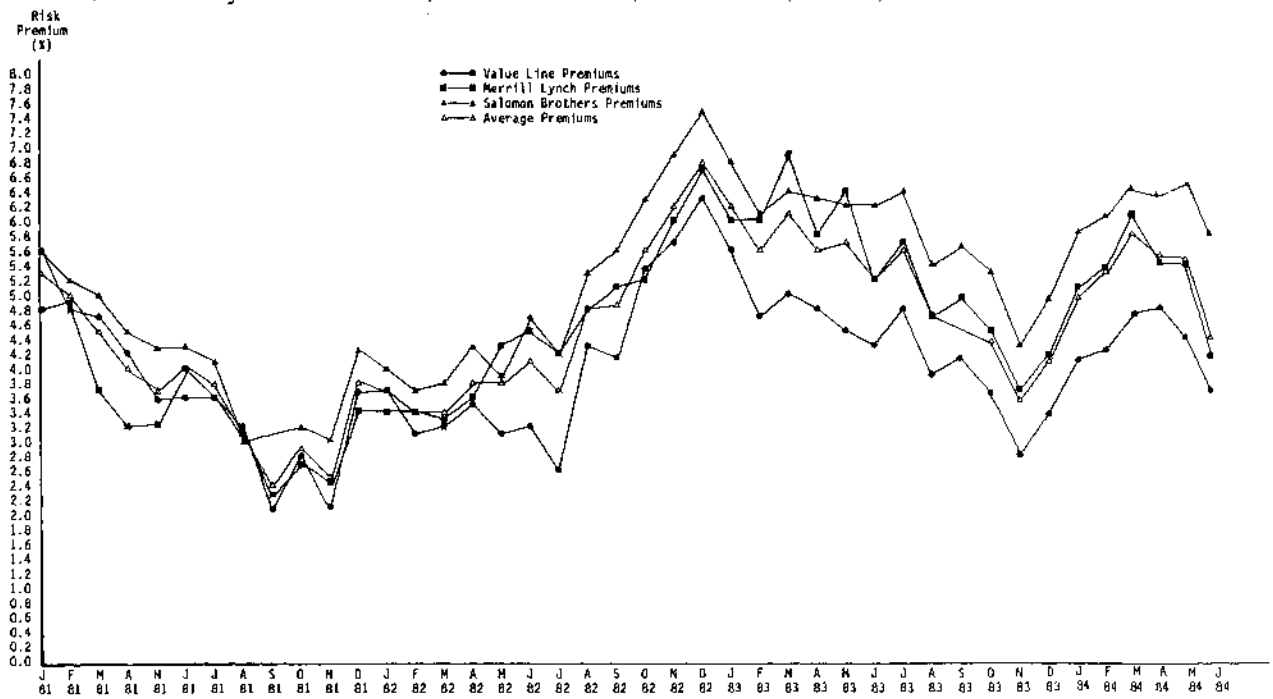
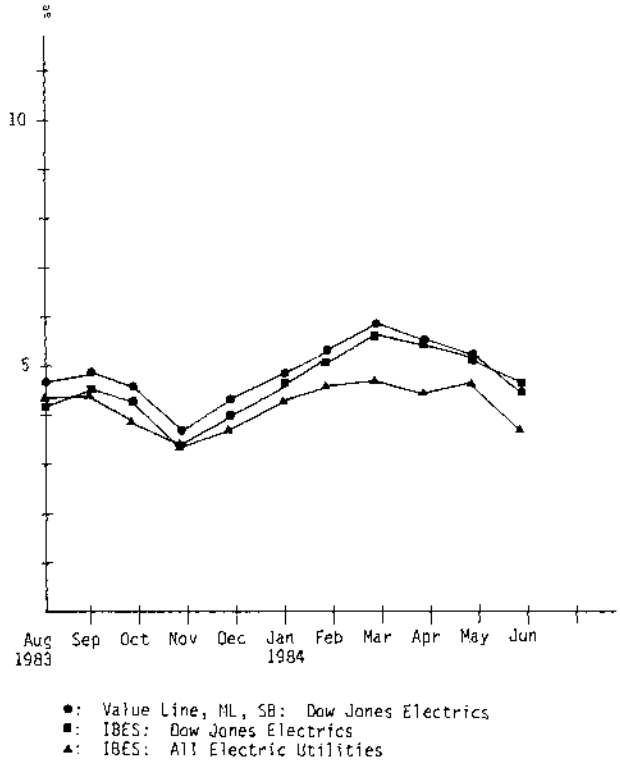


Exhibit 8. Comparative Risk Premium Data



do differ, the differences are not large given the nature of the estimates, and the premiums follow one another closely over time. Since all of the analysts are examining essentially the same data and since utility companies are not competitive with one another, and hence have relatively few secrets, the similarity among the analysts' forecasts is not surprising.

4. The IBES data, presented in Exhibit 5 and plotted in Exhibit 8, contain too few observations to enable us to draw strong conclusions, but (i) the Dow Jones Electrics risk premiums based on our three-analyst data have averaged 27 basis points above premiums based on the larger group of analysts surveyed by IBES and (ii) the premiums on the 11 Dow Jones Electrics have averaged 54 basis points higher than premiums for the entire utility industry followed by IBES. Given the variability in the data, we are, at this point, inclined to attribute these differences to random fluctuations, but as more data become available, it may turn out that the differences are statistically significant. In particular, the 11 electric utilities included in the Dow Jones Utility Index all have large nuclear investments, and this may cause them to be regarded as riskier than the industry average, which includes both nuclear and non-nuclear companies.

Tests of the Reasonableness of the Risk Premium Estimates

So far our claims to the reasonableness of our risk-premium estimates have been based on the reasonableness of our variable measures, particularly the measures of expected dividend growth rates. Essentially, we have argued that since there is strong evidence in the literature in support of analysts' forecasts, risk premiums based on these forecasts are reasonable. In the spirit of positive economics, however, it is also important to demonstrate the reasonableness of our results more directly.

It is theoretically possible to test for the validity of the risk-premium estimates in a CAPM framework. In a cross-sectional estimate of the CAPM equation,

$$(k - R_F)_i = \alpha_0 + \alpha_1 \beta_i + u_i, \qquad (5)$$

we would expect

$$\hat{\alpha}_0 = 0 \text{ and } \hat{\alpha}_1 = k_M - R_F = \text{Market risk premium.}$$

This test, of course, would be a joint test of both the CAPM and the reasonableness of our risk-premium estimates. There is a great deal of evidence that questions the empirical validity of the CAPM, especially when applied to regulated utilities. Under these conditions, it is obvious that no unambiguous conclusion can be drawn regarding the efficacy of the premium estimates from such a test.[8]

A simpler and less ambiguous test is to show that the risk premiums are higher for lower rated firms than for higher rated firms. Using 1984 data, we classified the

[8]We carried out the test on a monthly basis for 1984 and found positive but statistically insignificant coefficients. A typical result (for April 1984) follows:

$$(k - R_F)_i = \underset{(0.91)}{3.1675} + \underset{(1.44)}{1.8031}\ \beta_i.$$

The figures in parentheses are standard errors. Utility risk premiums do increase with betas, but the intercept term is not zero as the CAPM would predict, and α_1 is both less than the predicted value and not statistically significant. Again, the observation that the coefficients do not conform to CAPM predictions could be as much a problem with CAPM specification for utilities as with the risk premium estimates.

A similar test was carried out by Friend, Westerfield, and Granito [9]. They tested the CAPM using expectational (survey) data rather than *ex post* holding period returns. They actually found their coefficient of β_i to be negative in all their cross-sectional tests.

Exhibit 9. Relationship between Risk Premiums and Bond Ratings, 1984*

Month	Aaa/AA	AA	Aa/A	A	A/BBB	BBB	Below BBB
January†	—	2.61%	3.06%	3.70%	5.07%	4.90%	9.45%
February	2.98%	3.17%	3.36%	4.03%	5.26%	5.14%	7.97%
March	2.34%	3.46%	3.29%	4.06%	5.43%	5.02%	8.28%
April	2.37%	3.03%	3.29%	3.88%	5.29%	4.97%	6.96%
May	2.00%	2.48%	3.42%	3.72%	4.72%	6.64%	8.81%
June	0.72%	2.17%	2.46%	3.16%	3.76%	5.00%	5.58%
Average	2.08%	2.82%	3.15%	3.76%	4.92%	5.28%	7.84%

*The risk premiums are based on IBES data for the electric utilities followed by both IBES and Salomon Brothers. The number of electric utilities followed by both firms varies from month to month. For the period between January and June 1984, the number of electrics followed by both firms ranged from 96 to 99 utilities.
†In January, there were no Aaa/AA companies. Subsequently, four utilities were upgraded to Aaa/AA.

utility industry into risk groups based on bond ratings. For each rating group, we estimated the average risk premium. The results, presented in Exhibit 9, clearly show that the lower the bond rating, the higher the risk premiums. Our premium estimates therefore would appear to pass this simple test of reasonableness.

Risk Premiums and Interest Rates

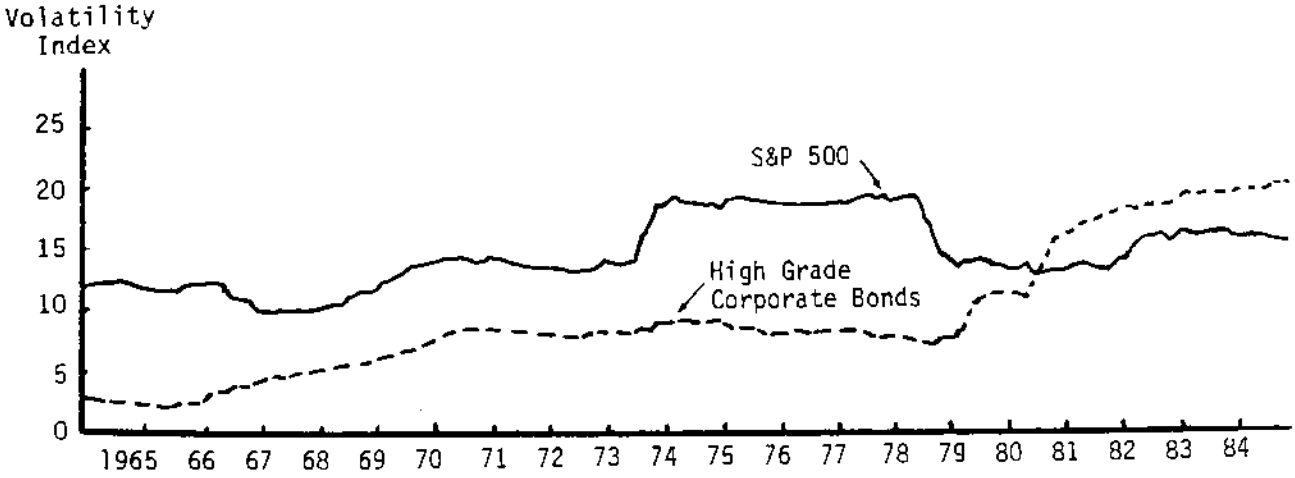
Traditionally, stocks have been regarded as being riskier than bonds because bondholders have a prior claim on earnings and assets. That is, stockholders stand at the end of the line and receive income and/or assets only after the claims of bondholders have been satisfied. However, if interest rates fluctuate, then the holders of long-term bonds can suffer losses (either realized or in an opportunity cost sense) even though they receive all contractually due payments. Therefore, if investors' worries about "interest rate risk" versus "earning power risk" vary over time, then perceived risk differentials between stocks and bonds, and hence risk premiums, will also vary.

Any number of events could occur to cause the perceived riskiness of stocks versus bonds to change, but probably the most pervasive factor, over the 1966–1984 period, is related to inflation. Inflationary expectations are, of course, reflected in interest rates. Therefore, one might expect to find a relationship between risk premiums and interest rates. As we noted in our discussion of Exhibit 3, risk premiums were positively correlated with interest rates from 1966 through 1979, but, beginning in 1980, the relationship turned negative. A possible explanation for this change is given next.

1966–1979 Period. During this period, inflation heated up, fuel prices soared, environmental problems surfaced, and demand for electricity slowed even as expensive new generating units were nearing completion. These cost increases required offsetting rate hikes to maintain profit levels. However, political pressure, combined with administrative procedures that were not designed to deal with a volatile economic environment, led to long periods of "regulatory lag" that caused utilities' earned ROEs to decline in absolute terms and to fall far below the cost of equity. These factors combined to cause utility stockholders to experience huge losses: S&P's Electric Index dropped from a mid-1960s high of 60.90 to a mid-1970s low of 20.41, a decrease of 66.5%. Industrial stocks also suffered losses during this period, but, on average, they were only one third as severe as the utilities' losses. Similarly, investors in long-term bonds had losses, but bond losses were less than half those of utility stocks. Note also that, during this period, (i) bond investors were able to reinvest coupons and maturity payments at rising rates, whereas the earned returns on equity did not rise, and (ii) utilities were providing a rising share of their operating income to debtholders versus stockholders (interest expense/book value of debt was rising, while net income/common equity was declining). This led to a widespread belief that utility commissions would provide enough revenues to keep utilities from going bankrupt (barring a disaster), and hence to protect the bondholders, but that they would not necessarily provide enough revenues either to permit the expected rate of dividend growth to occur or, perhaps, even to allow the dividend to be maintained.

Because of these experiences, investors came to regard inflation as having a more negative effect on utility stocks than on bonds. Therefore, when fears of inflation increased, utilities' measured risk premiums

Exhibit 10. Relative Volatility* of Stocks and Bonds, 1965–1984



*Volatility is measured as the standard deviation of total returns over the last 5 years.
Source: Merrill Lynch, *Quantitative Analysis*, May/June 1984.

also increased. A regression over the period 1966–1979, using our Exhibit 2 data, produced this result:

$$RP = 0.30\% + 0.73\ R_F; \qquad r^2 = 0.48.$$
$$(0.22)$$

This indicates that a one percentage point increase in the Treasury bond rate produced, on average, a 0.73 percentage point increase in the risk premium, and hence a 1.00 + 0.73 = 1.73 percentage point increase in the cost of equity for utilities.

1980–1984 Period. The situation changed dramatically in 1980 and thereafter. Except for a few companies with nuclear construction problems, the utilities' financial situations stabilized in the early 1980s, and then improved significantly from 1982 to 1984. Both the companies and their regulators were learning to live with inflation; many construction programs were completed; regulatory lags were shortened; and in general the situation was much better for utility equity investors. In the meantime, over most of the 1980–1984 period, interest rates and bond prices fluctuated violently, both in an absolute sense and relative to common stocks. Exhibit 10 shows the volatility of corporate bonds very clearly. Over most of the eighteen-year period, stock returns were much more volatile than returns on bonds. However, that situation changed in October 1979, when the Fed began to focus on the money supply rather than on interest rates.[9]

In the 1980–1984 period, an increase in inflationary expectations has had a more adverse effect on bonds than on utility stocks. If the expected rate of inflation increases, then interest rates *will increase* and bond prices *will fall*. Thus, uncertainty about inflation translates directly into risk in the bond markets. The effect of inflation on stocks, including utility stocks, is less clear. If inflation increases, then utilities should, in theory, be able to obtain rate increases that would offset increases in operating costs and also compensate for the higher cost of equity. Thus, with "proper" regulation, utility stocks would provide a better hedge against unanticipated inflation than would bonds. This hedge did not work at all well during the 1966–1979 period, because inflation-induced increases in operating and capital costs were not offset by timely rate increases. However, as noted earlier, both the utilities and their regulators seem to have learned to live better with inflation during the 1980s.

Since inflation is today regarded as a major investment risk, and since utility stocks now seem to provide a better hedge against unanticipated inflation than do

[9]Because the standard deviations in Exhibit 10 are based on the last five years of data, even if bond returns stabilize, as they did beginning in 1982, their reported volatility will remain high for several more years. Thus, Exhibit 10 gives a rough indication of the current relative riskiness of stocks versus bonds, but the measure is by no means precise or necessarily indicative of future expectations.

bonds, the interest-rate risk inherent in bonds offsets, to a greater extent than was true earlier, the higher operating risk that is inherent in equities. Therefore, when inflationary fears rise, the perceived riskiness of bonds rises, helping to push up interest rates. However, since investors are today less concerned about inflation's impact on utility stocks than on bonds, the utilities' cost of equity does not rise as much as that of debt, so the observed risk premium tends to fall.

For the 1980–1984 period, we found the following relationship (see Exhibit 6):

$$RP = 12.53\% - 0.63\ R_F; \qquad r^2 = 0.73.$$
$$(0.05)$$

Thus, a one percentage point increase in the T-bond rate, on average, caused the risk premium to fall by 0.63%, and hence it led to a 1.00 − 0.63 = 0.37 percentage point increase in the cost of equity to an average utility. This contrasts sharply with the pre-1980 period, when a one percentage point increase in interest rates led, on average, to a 1.73 percentage point increase in the cost of equity.

Summary and Implications

We began by reviewing a number of earlier studies. From them, we concluded that, for cost of capital estimation purposes, risk premiums must be based on expectations, not on past realized holding period returns. Next, we noted that expectational risk premiums may be estimated either from surveys, such as the ones Charles Benore has conducted, or by use of DCF techniques. Further, we found that, although growth rates for use in the DCF model can be either developed from time-series data or obtained from security analysts, analysts' growth forecasts are more reflective of investors' views, and, hence, in our opinion are preferable for use in risk-premium studies.

Using analysts' growth rates and the DCF model, we estimated risk premiums over several different periods. From 1966 to 1984, risk premiums for both electric utilities and industrial stocks varied widely from year to year. Also, during the first half of the period, the utilities had smaller risk premiums than the industrials, but after the mid-1970s, the risk premiums for the two groups were, on average, about equal.

The effects of changing interest rates on risk premiums shifted dramatically in 1980, at least for the utilities. From 1965 through 1979, inflation generally had a more severe adverse effect on utility stocks than on bonds, and, as a result, an increase in inflationary expectations, as reflected in interest rates, caused an increase in equity risk premiums. However, in 1980 and thereafter, rising inflation and interest rates increased the perceived riskiness of bonds more than that of utility equities, so the relationship between interest rates and utility risk premiums shifted from positive to negative. Earlier, a 1.00 percentage point increase in interest rates had led, on average, to a 1.73% increase in the utilities' cost of equity, but after 1980 a 1.00 percentage point increase in the cost of debt was associated with an increase of only 0.37% in the cost of equity.

Our study also has implications for the use of the CAPM to estimate the cost of equity for utilities. The CAPM studies that we have seen typically use either Ibbotson-Sinquefield or similar historic holding period returns as the basis for estimating the market risk premium. Such usage implicitly assumes (i) that *ex post* returns data can be used to proxy *ex ante* expectations and (ii) that the market risk premium is relatively stable over time. Our analysis suggests that neither of these assumptions is correct; at least for utility stocks, *ex post* returns data do not appear to be reflective of *ex ante* expectations, and risk premiums are volatile, not stable.

Unstable risk premiums also make us question the FERC and FCC proposals to estimate a risk premium for the utilities every two years and then to add this premium to a current Treasury bond rate to determine a utility's cost of equity. Administratively, this proposal would be easy to handle, but risk premiums are simply too volatile to be left in place for two years.

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Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts

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■ One of the most widely used concepts in finance is that shareholders require a risk premium over bond yields to bear the additional risks of equity investments. While models such as the two-parameter capital asset pricing model (CAPM) or arbitrage pricing theory offer explicit methods for varying risk premia across securities, the models are invariably linked to some underlying market (or factor-specific) risk premium. Unfortunately, the theoretical models provide limited practical advice on establishing empirical estimates of such a benchmark market risk premium. As a result, the typical advice to practitioners is to estimate the market risk premium based on historical realizations of share and bond returns (see Brealey and Myers [3]).

In this paper, we present estimates of shareholder required rates of return and risk premia which are derived using forward-looking analysts' growth forecasts. We update, through 1991, earlier work which, due to data availability, was restricted to the period 1982-1984 (Harris [12]). Using stronger tests, we also reexamine the efficacy of using such an expectational approach as an alternative to the use of historical averages. Using the S&P 500 as a proxy for the market portfolio, we find an average market risk premium (1982-1991) of 6.47% above yields on long-term U.S. government bonds and 5.13% above yields on corporate bonds. We also find that required returns for individual stocks vary directly with their risk (as proxied by beta) and that the market risk premium varies over time. In particular, the equity market premium over government bond yields is higher in low interest rate environments and when there is a larger spread between corporate and government bond yields. These findings show that, in addition to fitting the theoretical requirement of being forward-looking, the utilization of analysts' forecasts in estimating return requirements provides reasonable empirical results that can be useful in practical applications.

Section I provides background on the estimation of equity required returns and a brief discussion of related

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literature on financial analysts' forecasts (FAF). In Section II, models and data are discussed. Following a comparison of the results to historical risk premia, the estimates are subjected to economic tests of both their time-series and cross-sectional characteristics in Section III. Finally, conclusions are offered in Section IV.

I. Background and Literature Review

In establishing economic criteria for resource allocation, it is often convenient to use the notion of a shareholder's required rate of return. Such a rate (k) is the minimum level of expected return necessary to compensate the investor for bearing risks and receiving dollars in the future rather than in the present. In general, k will depend on returns available on alternative investments (e.g., bonds or other equities) and the riskiness of the stock. To isolate the effects of risk, it is useful to work in terms of a risk premium (rp), defined as

$$rp = k - i, \qquad (1)$$

where i = required return for a zero risk investment.[1]

Lacking a superior alternative, investigators often use averages of historical realizations to estimate a benchmark "market" risk premium which then may be adjusted for the relative risk of individual stocks (e.g., using the CAPM or a variant). The historical studies of Ibbotson Associates [13] have been used frequently to implement this approach.[2] This historical approach requires the assumptions that past realizations are a good surrogate for future expectations and, as typically applied, that risk premia are constant over time. Carleton and Lakonishok [5] demonstrate empirically some of the problems with such historical premia when they are disaggregated for different time periods or groups of firms.

As an alternative to historical estimates, the current paper derives estimates of k, and hence, implied values of rp, using publicly available expectational data. This expectational approach employs the dividend growth model (hereafter referred to as the discounted cash flow or DCF model) in which a consensus measure of financial analysts' forecasts (FAF) of earnings is used as a proxy for investor expectations. Earlier works by Malkiel [17], Brigham, Vinson, and Shome [4], and Harris [12] have used FAF in DCF models, and this approach has been employed in regulatory settings (see Harris [12]) and suggested by consultants as an alternative to use of historical data (e.g., Ibbotson Associates [13, pp. 127, 128]). Unfortunately, the published studies use data extending to 1984 at the latest. Our paper draws on this earlier work but extends it through 1991.[3] Our work is closest to that done by Harris [12], who reviews literature showing a strong link between equity prices and FAF and supporting the use of FAF as a proxy for investor expectations. Using data from 1982 to 1984, Harris' results suggest that this expectational approach to estimating equity risk premia is an encouraging alternative to the use of historical averages. He also demonstrates that such risk premia vary both cross-sectionally with the riskiness of individual stocks and over time with financial market conditions.

II. Models and Data

A. Model for Estimation

The simplest and most commonly used version of the DCF model to estimate shareholders' required rate of return, k, is shown in Equation (2):

$$k = \left(\frac{D_1}{P_0}\right) + g, \qquad (2)$$

where D_1 = dividend per share expected to be received at time one, P_0 = current price per share (time 0), and g = expected growth rate in dividends per share. The limitations of this model are well known, and it is straightforward to derive expressions for k based on more general specifications of the DCF model.[4] The primary difficulty in using the DCF model is obtaining an estimate of g, since it should reflect market expectations of future perfor-

[1] Theoretically, i is a risk-free rate, though empirically its proxy (e.g., yield to maturity on a government bond) is only a "least risk" alternative that is itself subject to risk. In this development, the effects of tax codes on required returns are ignored.

[2] Many leading texts in financial management use such historical risk premia to estimate a market return. See, for example, Brealey and Myers [3]. Often a market risk premium is adjusted for the observed relative risk of a stock.

[3] See Harris [12] for a discussion of the earlier work and a detailed discussion of the approach employed here.

[4] As stated, Equation (2) requires expectations of either an infinite horizon of dividend growth at a rate g or a finite horizon of dividend growth at rate g and special assumptions about the price of the stock at the end of that horizon. Essentially, the assumption must ensure that the stock price grows at a compound rate of g over the finite horizon. One could alternatively estimate a nonconstant growth model, although the proxies for multistage growth rates are even more difficult to obtain than single stage growth estimates. Marston, Harris, and Crawford [19] examine publicly available data from 1982-1985 and find that plausible measures of risk are more closely related to expected returns derived from a constant growth model than to those derived from multistage growth models. These findings illustrate empirical difficulties in finding empirical proxies for multistage growth models for large samples.

mance. Without a ready source for measuring such expectations, application of the DCF model is fraught with difficulties. This paper uses published FAF of long-run growth in earnings as a proxy for g.

B. Data

FAF for this research come from IBES (Institutional Broker's Estimate System), which is a product of Lynch, Jones, and Ryan, a major brokerage firm.[5] Representative of industry practice, IBES contains estimates of (*i*) EPS for the upcoming fiscal years (up to five separate years), and (*ii*) a five-year growth rate in EPS. Each item is available at monthly intervals.

The mean value of individual analysts' forecasts of five-year growth rate in EPS will be used as a proxy for g in the DCF model.[6] The five-year horizon is the longest horizon over which such forecasts are available from IBES and often is the longest horizon used by analysts. IBES requests "normalized" five-year growth rates from analysts in order to remove short-term distortions that might stem from using an unusually high or low earnings year as a base.

Dividend and other firm-specific information come from COMPUSTAT. Interest rates (both government and corporate) are gathered from Federal Reserve Bulletins and *Moody's Bond Record*. Exhibit 1 describes key variables used in the study. Data collected cover all dividend paying stocks in the Standard & Poor's 500 stock (S&P 500) index, plus approximately 100 additional stocks of regulated companies. Since five-year growth rates are first available from IBES beginning in 1982, the analysis covers the 113-month period from January 1982 to May 1991.

III. Risk Premia and Required Rates of Return

A. Construction of Risk Premia

For each month, a "market" required rate of return is calculated using each dividend paying stock in the S&P 500 index for which data are available. The DCF model in Equation (2) is applied to each stock and the results weighted by market value of equity to produce the market required return.[7] The return is converted to a risk premium

Exhibit 1. Variable Definitions

k	=	Equity required rate of return.
P_0	=	Average daily price per share.
D_1	=	Expected dividend per share measured as current indicated annual dividend from COMPUSTAT multiplied by $(1 + g)$.[a]
g	=	Average financial analysts' forecast of five-year growth rate in earnings per share (from IBES).
i_{lt}	=	Yield to maturity on long-term U.S. government obligations (source: Federal Reserve Bulletin, constant maturity series).
i_c	=	Yield to maturity on long-term corporate bonds: Moody's average.[b]
rp	=	Equity risk premium calculated as $rp = k - i$.
β	=	beta, calculated from CRSP monthly data over 60 months.

Notes:
[a]See footnote 7 for a discussion of the $(1 + g)$ adjustment.
[b]The average corporate bond yield across bond rating categories as reported by Moody's. See *Moody's Bond Survey* for a brief description and the latest published list of bonds included in the bond rating categories.

[5]Harris [12] provides a discussion of IBES data and its limitations. In more recent years, IBES has begun collecting forecasts for each of the next five years. Since this work was completed, the FAF used here have become available from IBES Inc., now a subsidiary of CitiBank.

[6]While the model calls for expected growth in dividends, no source of data on such projections is readily available. In addition, in the long run, dividend growth is sustainable only via growth in earnings. As long as payout ratios are not expected to change, the two growth rates will be the same.

[7]The construction of D_1 is controversial since dividends are paid quarterly and may be expected to change during the year; whereas, Equation (2), as is typical, is being applied to annual data. Both the quarterly payment of dividends (due to investors' reinvestment income before year's end, see Linke and Zumwalt [15]) and any growth during the year require an upward adjustment of the current annual rate of dividends to construct D_1. If quarterly dividends grow at a constant rate, both factors could be accommodated straightforwardly by applying Equation (2) to quarterly data with a quarterly growth rate and then annualizing the estimated quarterly required return. Unfortunately, with lumpy changes in dividends, the precise nature of the adjustment depends on both an individual company's pattern of growth during the calendar year and an individual company's required return (and hence reinvestment income in the risk class).
In this work, D_1 is calculated as D_0 $(1 + g)$. The full g adjustment is a crude approximation to adjust for both growth and reinvestment income. For example, if one expected dividends to have been raised, on average, six months ago, a "1/2 g" adjustment would allow for growth, and the remaining "1/2 g" would be justified on the basis of reinvestment income. Any precise accounting for both reinvestment income and growth would require tracking each company's dividend change history and making explicit judgments about the quarter of the next change. Since no organized "market" forecast of such a detailed nature exists, such a procedure is not possible. To get a feel for the magnitudes involved, during the sample period the dividend yield (D_1/P_0) and growth (market value weighted) for the S&P 500 were typically 4% to 6% and 11% to 13%, respectively. As a result, a "full g" adjustment on average increases the required return by 60 to 70 basis points (relative to no g adjustment).

Exhibit 2. Bond Market Yields, Equity Required Return, and Equity Risk Premium,[a] 1982-1991

	Bond Market Yields[b]		Equity Market Required Return[c]	Equity Risk Premium	
Year	(1) U.S. Gov't	(2) Moody's Corporates	(3) S&P 500	U.S. Gov't (3) - (1)	Moody's Corporates (3) - (2)
1982	12.92	14.94	20.08	7.16	5.14
1983	11.34	12.78	17.89	6.55	5.11
1984	12.48	13.49	17.26	4.78	3.77
1985	10.97	12.05	16.32	5.37	4.28
1986	7.85	9.71	15.09	7.24	5.38
1987	8.58	9.84	14.71	6.13	4.86
1988	8.96	10.18	15.37	6.41	5.19
1989	8.46	9.66	15.06	6.60	5.40
1990	8.61	9.77	15.69	7.08	5.92
1991[d]	8.21	9.41	15.61	7.40	6.20
Average[e]	9.84	11.18	16.31	6.47	5.13

Notes:
[a]Values are averages of monthly figures in percent.
[b]Yields to maturity.
[c]Required return on value weighted S&P 500 index using Equation (1).
[d]Figures for 1991 are through May.
[e]Months weighted equally.

over government bonds by subtracting i_{lt}, the yield to maturity on long-term government bonds. A risk premium over corporate bond yields is also constructed by subtracting i_c, the yield on long-term corporate bonds. Exhibit 2 reports the results by year (averages of monthly data).

The results are quite consistent with the patterns reported earlier (i.e., Harris [12]). The estimated risk premia in Exhibit 2 are positive, consistent with equity owners demanding additional rewards over and above returns on debt securities. The average expectational risk premium (1982 to 1991) over government bonds is 6.47%, only slightly higher than the 6.16% average for 1982 to 1984 reported earlier (Harris [12]). Furthermore, Exhibit 2 shows the estimated risk premia change over time, suggesting changes in the market's perception of the incremental risk of investing in equity rather than debt securities.

For comparison purposes, Exhibit 3 contains historical returns and risk premia. The average expectational risk premium reported in Exhibit 2 falls roughly midway between the arithmetic (7.5%) and geometric (5.7%) long-term differentials between returns on stocks and long-term government bonds. Note, however, that the expectational risk premia appear to change over time. In the following sections, we examine the estimated risk premia to see if they vary cross-sectionally with the risk of individual stocks and over time with financial market conditions.

B. Cross-Sectional Tests

Earlier, Harris [12] conducted crude tests of whether expectational equity risk premia varied with risk proxied by bond ratings and the dispersion of analysts' forecasts and found that required returns increased with higher risk. Here we examine the link between these premia and beta, perhaps the most commonly used measure of risk for equities.[8] In keeping with traditional work in this area, we adopt the methodology introduced by Fama and Macbeth [9] but replace realized returns with expected returns from Equation (2) as the variable to be explained. For this portion of our tests, we restrict our sample to 1982-1987

[8]For other efforts using expectational data in the context of the two-parameter CAPM, see Friend, Westerfield, and Granito [10], Cragg and Malkiel [7], Marston, Crawford, and Harris [19], Marston and Harris [20], and Linke, Kannan, Whitford, and Zumwalt [16]. For a more complete treatment of the subject, see Marston and Harris [20] from which we draw some of these results. Marston and Harris also investigate the role of unsystematic risk and the difference in estimates found when using expected versus realized returns.

Exhibit 3. Average Historical Returns on Bonds, Stocks, Bills, and Inflation in the U.S., 1926-1989

Historical Return Realizations	Geometric	Arithmetic
Common stock	10.3%	12.4%
Long-term government bonds	4.6%	4.9%
Long-term corporate bonds	5.2%	5.5%
Treasury bills	3.6%	3.7%
Inflation rate	3.1%	3.2%

Source: Ibbotson Associates, Inc., *1990 Stocks, Bonds, Bills and Inflation*, 1990 Yearbook.

and in any month include firms that have at least three forecasts of earnings growth to reduce measurement error associated with individual forecasts.[9] This restricted sample still consists of, on average, 399 firms for each of the 72 months (or 28,744 company months).

For a given company in a given month, beta is estimated via the market model (using ordinary least squares) on the prior 60 months of return data taken from CRSP. Beta estimates are updated monthly and are calculated against an equally weighted index of all NYSE securities. For each month, we aggregate firms into 20 portfolios (consisting of approximately 20 securities each). The advantage of grouped data is the reduction in potential measurement error inherent in independent variables at the company level. Portfolios are formed based on a ranking of beta estimated from a prior time period (t = -61 to t = -120). Portfolio expected returns and beta are calculated as the simple averages for the individual securities.

Using these data, we estimate the following model for each of the 72 months:

$$R_p = \alpha_0 + \alpha_1 \beta_p + u_p, \quad p = 1...20, \qquad (3)$$

where:

R_p = Expected return for portfolio p in the given month,

β_p = Portfolio beta, estimated over 60 prior months, and

u_p = A random error term with mean zero.

As a result of estimating regression (3) for each month, 72 estimates of each coefficient (α_0 and α_1) are obtained. Using realized returns as the dependent variable, the traditional approach (e.g., Fama and Macbeth [9]) is to assume that realized returns are a fair game. Given this assumption, the mean of the 72 values of each coefficient is an unbiased estimate of the mean over that same time period if one could have actually used expected returns as the dependent variable. Note that if expected returns are used as the dependent variable the fair-game assumption is not required. Making the additional assumption that the true value of the coefficient is constant over the 72 months, a test of whether the mean coefficient is different from zero is performed using a t-statistic where the denominator is the standard error of the 72 values of the coefficient. This is the technique employed by Fama and Macbeth [9]. If one assumes the CAPM is correct, the coefficient α_1 is an empirical estimate of the market risk premium, which should be positive.

To test the sensitivity of the results, we also repeat our procedures using individual security returns rather than portfolios. To account, at least in part, for differences in precision of coefficient estimates in different months we also report results in which monthly parameter estimates are weighted inversely by the standard error of the coefficient estimate rather than being weighted equally (following Chan, Hamao, and Lakonishok [6]).

Exhibit 4 shows that there is a significant positive link between expectational required returns and beta. For instance, in Panel A, the mean coefficient of 2.78 on beta is significantly different from zero at better than the 0.001 level (t = 35.31), and each of the 72 monthly coefficients going into this average is positive (as shown by that 100% positive figure). Using individual stock returns, the significant positive link between beta and expected return remains, though it is smaller in magnitude than for portfolios.[10] Comparison of Panels A and B shows that the results are not sensitive to the weighting of monthly coefficients.

While the findings in Exhibit 4 suggest a strong positive link between beta and risk premia (a result often not supported when realized returns are used as a proxy for expectations; e.g., see Tinic and West [22]), the results do not support the predictions of a simple CAPM. In particular, the intercept is higher than a proxy for the risk-free rate over the sample period and the coefficient of beta is well below estimates of a market risk premium obtained from either expectational (Exhibit 2) or historical data (Exhibit

[9]Firms for which the standard deviation of individual FAF exceeded 20 in any month were excluded since we suspect some of these involve errors in data entry. This screen eliminated very few companies in any month. The 1982-1987 period was chosen due to the availability of data on betas.

[10]The smaller coefficients on beta using individual stock portfolio returns are likely due in part to the higher measurement error in measuring individual stock versus portfolio betas.

Exhibit 4. Mean Values of Monthly Parameter Estimates for the Relationship Between Required Returns and Beta for Both Portfolios and Individual Securities (Figures in Parentheses are *t* Values and Percent Positive), 1982-1987

	Intercept	B	Adjusted R^2 [c]	F[c]
Panel A. Equal Weighting[a]				
Portfolio returns	14.06 (54.02, 100)	2.78 (35.31, 100)	0.503	25.4
Security returns	14.77 (58.10, 100)	1.91 (16.50, 99)	0.080	39.0
Panel B. Weighted by Standard Errors[b]				
Portfolio returns	13.86 (215.6, 100)	2.67 (35.80, 100)	0.503	25.4
Security returns	14.63 (398.9, 100)	1.92 (47.3, 99)	0.080	39.0

[a]Equally weighted average of monthly parameters estimated using cross-sectional data for each of the 72 months, January 1982 - December 1987.
[b]In obtaining the reported means, estimates of the monthly intercept and slope coefficients are weighted inversely by the standard error of the estimate from the cross-sectional regression for that month.
[c]Values are averages for the 72 monthly regressions.

3).[11] Nonetheless, the results show that the estimated risk premia conform to the general theoretical relationship between risk and required return that is expected when investors are risk-averse.

C. Time Series Tests — Changes in Market Risk Premia

A potential benefit of using ex ante risk premia is the estimation of changes in market risk premia over time. With changes in the economy and financial markets, equity investments may be perceived to change in risk. For instance, investor sentiment about future business conditions likely affects attitudes about the riskiness of equity investments compared to investments in the bond markets. Moreover, since bonds are risky investments themselves, equity risk premia (relative to bonds) could change due to changes in perceived riskiness of bonds, even if equities displayed no shifts in risk. For example, during the high interest rate period of the early 1980s, the high level of interest rate volatility made fixed income investments more risky holdings than they were in a world of relatively stable rates.

Studying changes in risk premia for utility stocks, Brigham, et al [4] conclude that, prior to 1980, utility risk premia increased with the level of interest rates, but that this pattern reversed thereafter, resulting in an inverse correlation between risk premia and interest rates. Studying risk premia for both utilities and the equity market generally, Harris [12] also reports that risk premia appear to change over time. Specifically, he finds that equity risk premia decreased with the level of government interest rates, increased with the increases in the spread between corporate and government bond yields, and increased with increases in the dispersion of analysts' forecasts. Harris' study is, however, restricted to the 36-month period, 1982 to 1984.

Exhibit 5 reports results of analyzing the relationship between equity risk premia, interest rates, and yield spreads between corporate and government bonds. Following Harris [12], these bond yield spreads are used as a time series proxy for equity risk. As the perceived riskiness of corporate activity increases, the difference between yields on corporate bonds and government bonds should increase. One would expect the sources of increased riskiness to corporate bonds to also increase risks to shareholders. All regressions in Exhibit 5 are corrected for serial correlation.[12]

[11]Estimation difficulties confound precise interpretation of the intercept as the risk-free rate and the coefficient on beta as the market risk premium (see Miller and Scholes [21], and Black, Jensen, and Scholes [2]). The higher than expected intercept and lower than expected slope coefficient on beta are consistent with the prior studies of Black, Jensen, and Scholes [2], and Fama and MacBeth [9] using historical returns. Such results are consistent with Black's [1] zero beta model, although alternative explanations for these findings exist as well (as noted by Black, Jensen, and Scholes [2]).

[12]Ordinary least squares regressions showed severe positive autocorrelation in many cases, with Durbin Watson statistics typically below one. Estimation used the Prais-Winsten method. See Johnston [14, pp. 321-325].

Exhibit 5. Changes in Equity Risk Premia Over Time — Entries are Coefficient (t-value); Dependent Variable is Equity Risk Premium

Time period	Intercept	i_{lt}	$i_c - i_{lt}$	R^2
A. May 1991-1992	0.131	-0.651		0.53
	(19.82)	(-11.16)		
	0.092	-0.363	0.666	0.54
	(14.26)	(-6.74)	(5.48)	
B. 1982-1984	0.140	-0.637		0.43
	(8.15)	(-5.00)		
	0.064	-0.203	1.549	0.60
	(3.25)	(-1.63)	(4.84)	
C. 1985-1987	0.131	-0.739		0.74
	(7.73)	(-9.67)		
	0.110	-0.561	0.317	0.77
	(12.53)	(-7.30)	(1.87)	
D. 1988-1991	0.136	-0.793		0.68
	(16.23)	(-8.29)		
	0.130	-0.738	0.098	0.68
	(8.71)	(-4.96)	(0.40)	

Note: All variables are defined in Exhibit 1. Regressions were estimated using monthly data and were corrected for serial correlation using the Prais-Winsten method. For purposes of this regression, variables are expressed in decimal form, e.g., 14% = 0.14.

For the entire sample period, Panel A shows that risk premia are negatively related to the level of interest rates — as proxied by yields on government bonds, i_{lt}. This negative relationship is also true for each of the subperiods displayed in Panels B through D. Such a negative relationship may result from increases in the perceived riskiness of investment in government debt at high levels of interest rates. A direct measure of uncertainty about investments in government bonds would be necessary to test this hypothesis directly.

For the entire 1982 to 1991 period, the addition of the yield spread risk proxy to the regressions dramatically lowers the magnitude of the coefficient on government bond yields, as can be seen by comparing Equations 1 and 2 of Panel A. Furthermore, the coefficient of the yield spread (0.666) is itself significantly positive. This pattern suggests that a reduction in the risk differential between investment in government bonds and in corporate activity is translated into a lower equity market risk premium. Further examination of Panels B through D, however, suggests that the yield spread variable is much more important in explaining changes in equity risk premia in the early portion of the 1980s than in the 1988 to 1991 period.

In summary, market equity risk premia change over time and appear inversely related to the level of government interest rates but positively related to the bond yield spread, which proxies for the incremental risk of investing in equities as opposed to government bonds.

IV. Conclusions

Shareholder required rates of return and risk premia are based on theories about investors' expectations for the future. In practice, however, risk premia are often estimated using averages of historical returns. This paper applies an alternate approach to estimating risk premia that employs publicly available expectational data. At least for the decade studied (1982 to 1991), the resultant average market equity risk premium over government bonds is comparable in magnitude to long-term differences (1926 to 1989) in historical returns between stocks and bonds. There is strong evidence, however, that market risk premia change over time and, as a result, use of a constant historical average risk premium is not likely to mirror changes in investor return requirements. The results also show that the expectational risk premia vary cross-sectionally with the relative risk (beta) of individual stocks.

The approach offers a straightforward and powerful aid in establishing required rates of return either for corporate investment decisions or in the regulatory arena. Since data are readily available on a wide range of equities, an investigator can analyze various proxy groups (e.g., portfolios of utility stocks) appropriate for a particular decision as well as analyze changes in equity return requirements over time.

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NEW
REGULATORY
FINANCE

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Any forward-looking cost of capital calculation already embodies tax effects since investors price securities on the basis of after-tax returns. Besides, a very large proportion of trading is conducted by tax-exempt financial institutions (pension funds, mutual funds, 401K, etc.) for whom tax issues are largely immaterial.

The existence of a negative risk premium is highly unlikely, as it is at serious odds with the basic tenets of finance, economics, and law. Using proper definitions for expected rates of return of equity and debt, the preponderance of the evidence indicates that the negative risk premium does not exist. Several risk premium studies cited in this chapter have found positive risk premiums well in excess of 5% over the last decade. Risk premiums do narrow during unusually turbulent and volatile interest rate environments, but then return to normal levels. They are most unlikely to ever become negative.

4.7 Risk Premium Determinants

Fundamentally, the primary determinant of expected returns is risk. To wit, the various paradigms of financial theory, including the Capital Asset Pricing Model and the Arbitrage Pricing Model covered in subsequent chapters, posit fundamental relationships between return and risk. There are also secondary influences on the relative magnitude of the risk premium, however, including the level of interest rates, default risk, and taxes.

Interest Rates

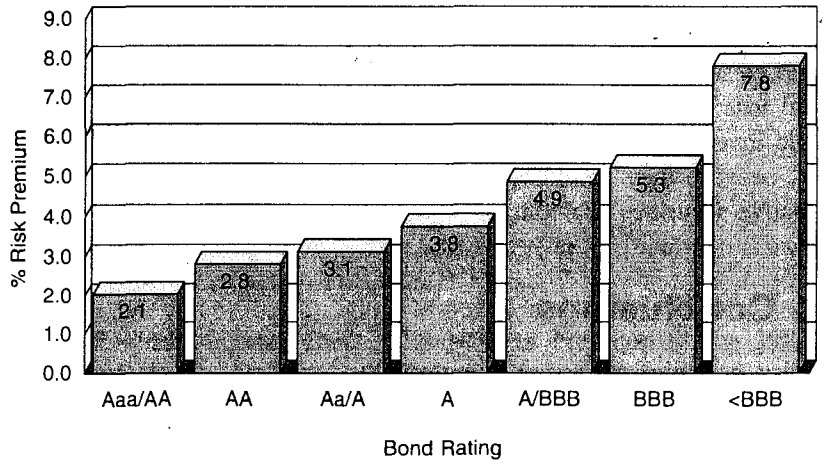
Published studies by Brigham, Shome, and Vinson (1985), Harris (1986), Harris and Marston (1992, 1993), Carleton, Chambers, and Lakonishok (1983), Morin, (2005), and McShane (2005), and others demonstrate that, beginning in 1980, risk premiums varied inversely with the level of interest rates—rising when rates fell and declining when interest rates rose. The reason for this relationship is that when interest rates rise, bondholders suffer a capital loss. This is referred to as interest rate risk. Stockholders, on the other hand, are more concerned with the firm's earning power. So, if bondholders' fear of interest rate risk exceeds shareholders' fear of loss of earning power, the risk differential will narrow and hence the risk premium will shrink. This is particularly true in high inflation environments. Interest rates rise as a result of accelerating inflation, and the interest rate risk of bonds intensifies more than the earnings risk of common stocks, which are partially hedged from the ravages of inflation. This phenomenon has been termed as a "lock-in" premium. Conversely in low interest rate environments, when bondholders' interest rate fears subside and shareholders' fears of loss of earning power dominate, the risk differential will widen and hence the risk premium will increase.

Harris (1986) showed that for every 100 basis point change in government bond yields, the equity risk premium for utilities changes 51 basis points in the opposite direction, for a net change in the cost of equity of 49 basis points. For example, a 100 basis point decline in government bond yields would lead to a 51 basis point increase in the equity risk premium and therefore an overall decrease in the cost of equity of 49 basis points, a result almost identical to the estimate reported in Morin (2005). As discussed earlier, similar results were uncovered by McShane (2005), who examined the statistical relationship between DCF-derived risk premiums and interest rates using a sample of natural gas distribution utilities.

The gist of the empirical research on this subject is that the cost of equity has changed only half as much as interest rates have changed in the past. The knowledge that risk premiums vary inversely to the level of interest rates can be used to adjust historical risk premiums to better reflect current market conditions. Thus, when interest rates are unusually high (low), the appropriate current risk premium is somewhat below (above) that long-run average. The empirical research cited above provides guidance as to the magnitude of the adjustment.

Risk premiums also tend to fluctuate with changes in investor risk aversion. Such changes can be tracked by observing the yield spreads between different bond rating categories over time. Brigham, Shome, and Vinson (1985) examined the relationship between risk premium and bond rating and found, unsurprisingly, that the risk premiums are higher for lower rated firms than for higher rated firms. Figure 4-5 shows the results graphically.

FIGURE 4-5
RISK PREMIUMS VS BOND RATINGS
ELECTRIC UTILITIES



Source: Brigham, Shome, and Vinson (1985).

to the DCF method, which may be sluggish in detecting changes in return requirements, especially when based on historical data.

One advantage of risk premium over DCF is that the former is a period-by-period (time-series) study of the cost of equity over the cost of debt, in contrast to the latter which is a point-in-time cross-sectional estimate. In other words, the risk premium approach takes a broader time-series perspective rather than a snapshot point-in-time viewpoint, and is therefore less vulnerable to the vagaries of any one particular capital market environment. A prospective risk premium test relies on a succession of DCF observations over long periods, and is not as vulnerable to a given capital market environment as a spot DCF test.

Of course, the estimation of the appropriate risk premium for either the equity market as a whole or for a specific utility company, is not an exact science. Therefore, it is necessary to evaluate a broad spectrum of data and apply alternative risk premium estimation approaches in order to derive a fair and reasonable estimate of the required equity risk premium. Equal emphasis should be accorded to risk premium results based on history and those based on prospective data. Each proxy for expected risk premium brings information to the judgment process from a different light. Neither proxy is without blemish, each has advantages and shortcomings. Historical risk premiums over long periods are available and verifiable, but may no longer be applicable if structural shifts have occurred. Prospective risk premiums may be more relevant since they encompass both history and current changes, but are nevertheless imperfect proxies and are subject to measurement error and to the vagaries of the DCF input proxies.

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Common Equity Flotation Costs and Rate Making

By EUGENE F. BRIGHAM, DANA ABERWALD, and LOUIS C. GAPENSKI

The proper treatment of common stock flotation costs is an issue in almost every utility rate case, and becomes increasingly important – for reasons shown in this article – as new stock offerings decline. The article provides clarification of the issue and offers a reasonable solution.

Incorrect statements have been made about the proper treatment of common equity flotation costs in the financial literature, and this has contributed to incorrect rate case testimony and to several improper decisions. The problem seems to have arisen for two reasons: (1) During the 1970s, when most utilities were raising large amounts of equity, the case for an equity cost adjustment was generally based on the need to sell common stock at prices greater than book value so as to avoid dilution when new stock was sold, but the proper rationale for the adjustment, and the argument that should have been made, is that an adjustment is necessary to recover actual incurred costs. (2) A number of academic writers [1, 2, 3, 6, 7, 8, 11][1] have attempted to deal with the problem algebraically, and while a mathematical approach has merit, the different authors based their models on different and somewhat obscure assumptions, with the result that the academic research has actually done more to confuse than to clarify the issue.

As we see it, there are two questions which need answers:

1) Is an adjustment needed even if a company has no plans to sell new common stock in the foreseeable future?
2) If an adjustment is required, should it be applied to common stock only or to total common equity (common stock plus retained earnings)?

The answers are "yes" to the first question and "total common equity" to the second. Specifically, the market-determined cost of equity should be adjusted (increased) to reflect issuance costs associated with past issues regardless of whether a company plans to issue stock in the future or not, and the adjustment should be applied to the total common equity, including retained earnings. The reasons for these conclusions are set forth in the balance of this article.

[1]Numbers in brackets correspond to numbers in the list of references at the end of the article.

Background and Approach

The flotation cost adjustment – whether for bonds, preferred stocks, or common equity – is designed to convert a market rate of return into a fair rate of return on accounting book values. Prior to the 1970s, most utilities were regulated on the basis of the comparable earnings approach. With that method no market return was involved, and hence there was no need for a common equity flotation adjustment. However, as use of market-oriented equity cost approaches, especially the discounted cash flow (DCF) method, became prevalent during the 1970s, a specific flotation adjustment became necessary. The first use of DCF, to the authors' knowledge, was by Professor Myron J. Gordon as a staff witness in an American Telephone and Telegraph Company rate case before the Federal Communications Commission in the mid-1960s. Professors Alexander A. Robichek and Ezra Solomon of Stanford University, testifying for AT&T, proved that if a commission correctly identifies and then allows a *company* to earn its DCF cost of equity, k, on book equity, then *investors* will never be able to earn k on their investment, because the capital that investors have put up will exceed the company's book equity as a result of issuance (or flotation) costs. Thus, in the very first

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case where DCF methodology was used, Robichek and Solomon proved, and Gordon accepted, the idea that the allowed return on equity should exceed the DCF cost. Unfortunately, only the need for an adjustment, not the proper adjustment mechanism itself, was identified in that rate case.

The DCF method's great increase in popularity occurred during the 1970s, just when the companies were raising unprecedented amounts of new equity capital. Witnesses who used the DCF method recognized the need for an adjustment, and they had to provide a rationale to commissioners. Most witnesses gave this explanation:

1) If a company were allowed to earn only its DCF cost of equity, then its stock would normally sell at book value.
2) When new stock was issued, flotation expenses plus market pressure would drive the price of the stock below book value.
3) The issuance of stock at below book value would dilute the book value of the existing shares, and since future earnings and dividends are dependent upon book value, the market value of existing stock would also be diluted.
4) This dilution would obviously harm current stockholders; indeed, it would amount to economic confiscation.
5) Therefore, fair regulation requires commissioners to set authorized returns high enough to cause utility stocks to sell at prices that exceed book value by an amount sufficient to prevent below-book sales.

This argument was correct, although incomplete, and it was generally accepted during the 1970s, when most utilities were selling new stock every year or two. There were, of course, arguments about the level of flotation costs and the extent of market pressure, and hence about the proper market-to-book ratio, but the logic of some type of adjustment was rarely questioned.

However, as many utilities' construction programs neared completion in the early 1980s, and, accordingly, as new stock offerings slowed, the issue of the need for a flotation adjustment resurfaced. Patterson [6, 7] applied standard corporate finance techniques and concluded that a flotation adjustment is needed irrespective of current equity sales. Richter [11] supported Patterson's position. Arzac and Marcus [1, 2] also concluded that a flotation adjustment is always needed, but their formula produces an almost trivial adjustment factor unless the company is selling very large amounts of stock every year. Patterson and Arzac-Marcus debated in the finance journals, but they reached no reconciliation. Finally, in the latest article, Professors Bierman and Hass [3] derived yet another formula, one which produces an adjustment factor between those recommended by Patterson and Arzac-Marcus.

The issue is important, so it is necessary that we resolve the conflict. Further, since utility executives and regulators, not financial economists, must make decisions in this area, the resolution must be understandable to these decision makers. After studying the problem, we concluded that the best way to approach a clear resolution is to set up some hypothetical, but reasonable, situations and then to test the alternative theories, asking the following question: What results do the several methods produce, and are those results fair to both consumers and investors?

Bonds and Preferred Stocks

Because the proper treatment of flotation costs on bonds and preferred stocks is well known and not controversial, it helps to begin by examining that treatment as a lead-in to the analysis of common stock. First, note that debt flotation costs can be recovered in either of two ways: (1) They can be expensed and recovered from customers during the year the securities are sold, or (2) They can be capitalized and recovered over the life of the securities. The second method, which is consistent with the theory that those customers who benefit from a cost should pay for it, is generally used. Under this theory, bond flotation expenses are reflected in the embedded cost of the bond and are recovered over the life of the bond. For example, if flotation costs of 5 per cent were incurred on a $100 million, ten-year, 15 per cent coupon bond issue, they would be handled in the following manner by most federal and state regulators:

$$\text{Cost to company} = \frac{\text{Interest expense} + \text{Amortization of flotation costs}}{\text{Principal value} - \text{Unamortized flotation costs}} \quad (1)$$

$$= \frac{\$15{,}000{,}000 + (\$5{,}000{,}000/10)}{\$100{,}000{,}000 - \$5{,}000{,}000}$$

$$= \frac{\$15{,}500{,}000}{\$95{,}000{,}000} = 16.3158\% \text{ for the first year}$$

Return requirements would be calculated as follows:

$$\text{Return requirements} = \text{Cost rate}(\text{Principal value} - \text{Unamortized flotation costs}) \quad (2)$$

$$= 0.163158(\$100{,}000{,}000 - \$5{,}000{,}000)$$

$$= \$15{,}500{,}000.$$

In this example, the company received $95 million of cash, which it used to purchase $95 million of operating assets. To meet its interest expense and flotation amortization requirements, the company must have $15.5 million in return dollars. This return will only be generated if the company earns 16.3158 per cent on its $95 million of operating assets. Under this procedure, the percentage cost as calculated in Equation 1 declines each year, but the return dollar amount remains constant.[2]

[2]An alternative procedure that produces exactly the same result is to divide interest charges plus flotation amortization by the principal value of the issue, and then to multiply this cost rate by the principal value of the issue:

$$\text{Embedded cost rate} = \frac{\$15{,}500{,}000}{\$100{,}000{,}000} = 0.155 = 15.5\%.$$

$$\text{Return requirements} = 0.155(\$100{,}000{,}000) = \$15{,}500{,}000.$$

This procedure in effect includes both flotation costs and operating assets in the rate base.

Preferred stocks are handled similarly. Actually, utilities issue two types of preferred stocks, those with sinking funds and those that are perpetual. The adjustment formula for sinking fund preferred is exactly like that for bonds, but a difference arises in the case of perpetual preferreds. Perpetual preferred stock represents permanent capital; hence its flotation costs are not amortized.[3] Assuming again a $100 million issue and a 5 per cent flotation cost, this formula applies:

$$\text{Cost to company} = \frac{\text{Dividend requirements}}{\text{Net proceeds}} = \frac{\$15{,}000{,}000}{\$95{,}000{,}000} \quad (3)$$

$$= 15.7895\%$$

Alternatively, we could write the formula as follows:

$$\text{Cost to company} = \frac{\text{Dividend rate}}{1.0 - \text{Flotation}} = \frac{15\%}{0.95} = 15.7895\% \quad (3a)$$

The return dollars can then be calculated as follows:[4]

$$\text{Dollars of return} = 0.157895(\$95{,}000{,}000) = \$15{,}000{,}000.$$

In this example, the preferred stockholders expect and require a return of 15 per cent on *their investment* ($100 million), but the company must earn 15.7895 per cent on *its operating assets* ($95 million) to provide this required return.[5] If the company earned only 15 per cent on the $95 million, then the company would have after-tax revenues of only $14,250,000 to meet investors' preferred dividend requirements of $15 million. Obviously, then, the 15 per cent market value cost of preferred must be adjusted upward to a 15.7895 per cent return on the company's operating assets if investors are to receive the reasonable rate of return they contracted for.

Common Stock

From a conceptual standpoint, it has long been recognized that the situation with common stock is similar to that for bonds and preferred stocks: Issuance costs are incurred; they should not be and are not expensed at the time the stock is sold; and therefore recovery must occur in subsequent years. Further, just as with bonds and preferred stock, the authorized rate of return on rate base equity must be above the rate of return to the investor; that is, the cost to the utility is above the return to the investor. The standard textbook formula, which Patterson [6] used, is as follows:[6]

$$r = \frac{\text{Expected dividend yield}}{1.0 - F} + g \quad (5)$$

Here:

r = authorized rate of return on book equity, if stockholders are to earn their required rate of return, k,
F = percentage flotation cost associated with common stock offerings, and
g = the expected growth rate in earnings and dividends.

The percentage flotation factor, F, consists of two elements: (1) underwriting costs and (2) "market pressure," which is the decline in the stock price that results when the supply of shares is suddenly increased. Historically, utility underwriting expenses have averaged from 3 to 4 per cent of gross proceeds [9]. Market pressure varies over time, depending on the size of the issue, the condition of the market, and the degree to which investors were surprised by the announcement of the stock sale. Moreover, stock prices change for reasons other than new offerings, so it is difficult to obtain an exact measure of market pressure. However, several careful studies have been reported, and they indicate that market pressure is in the range of one to 3 per cent [10]. Thus, for most utilities, flotation expenses plus pressure have totaled about 5.5 per cent.

To illustrate the flotation cost adjustment process, and following Bierman and Hass for consistency, we assume that a new, start-up utility has the following characteristics:

1) Our hypothetical company can sell stock in the market at $10 per share, and investors expect it to pay a dividend of one dollar and to grow at a rate of 5 per cent. Thus, its DCF cost of equity is $k = D/P + g = 10\% + 5\% = 15\%$, investors' required rate of return.
2) To raise initial capital, the company plans to sell an issue of stock, incurring flotation costs of F = 5 per cent.
3) Applying Equation 5, we obtain a flotation-adjusted cost of equity (r) of 15.5263 per cent:

$$r = \frac{\text{Expected dividend yield}}{1 - F} + g$$

$$= \frac{10.0\%}{0.95} + 5\%$$

$$= 10.5263\% + 5\% = 15.5263\%$$

Thus, the illustrative utility's fair rate of return on book equity according to Equation 5 is approximately 53 basis points above its 15 per cent unadjusted "bare bones DCF cost of equity."
4) The company will sell one share of stock and obtain net proceeds of $9.50. This $9.50 is also the initial book value, B, and rate base. (Obvi-

[3] In effect, the flotation costs of the preferred are amortized over an infinite period, which is to say the amortization per year is zero. Investors have made a *permanent* investment, so the original investors or those who purchase the stock in the secondary market must receive a return on that investment in perpetuity.

[4] Of course, preferred stock dividends are not deductible, so the total revenues required to produce the return dollars is higher for preferred stock than for debt.

[5] Note that the return dollars for the bond exceed those for the perpetual preferred stock – $15.5 million versus $15 million. However, these are first-year costs only. The bond's cost rate declines over time due to the amortization of its flotation costs, whereas the cost rate associated with the preferred stock remains constant, and the rates of return to the bondholders and the preferred stockholders are identical.

[6] This formula is developed in reference citation 5, Chapter 7, as well as in most other corporate finance textbooks.

ously, this amount, which we use for simplicity, could be scaled up without altering the conclusions.)

5) After its inception and initial stock offering, all of the company's equity is expected to come from retained earnings. In a later case, we will examine the situation when more stock is sold.
6) The company operates in a reasonable and prudent manner, such that by any fairness criteria, investors should be allowed to earn their 15 per cent cost of capital return, no more and no less. For simplicity, we also assume that regulation operates properly, without lags.
7) Initially, we assume that the market cost of capital remains constant at 15 per cent, and that the company maintains a constant payout ratio so as to keep the dividend yield and growth components at 10 per cent and 5 per cent, respectively. These assumptions are consistent with the DCF model, but later in the article we expand the analysis by relaxing both of them.

Now these questions may be asked:

> Should the flotation adjustment be applied to all common equity or, once retained earnings appear on the balance sheet, only to common stock?
> For how many years should an adjustment be applied: One, two, ten, twenty, or forever?

When we applied Equation 5, the textbook formula which Patterson recommended, we found that it produces results that satisfy the fairness criterion; namely, it permits investors to earn exactly their 15 per cent cost of capital, no more and no less. This result for our initial case is demonstrated in Table 1, which was produced by a simple computer model, and it is analyzed below:

Table 1

Case 1: Company Earns Flotation-adjusted Cost of Equity (r) on All Common Equity

Beginning of Year

Year	Common Stock (1)	Retained Earnings (2)	Total Equity (3)	Stock Price (4)	Market-Book Ratio (5)	EPS (6)	DPS (7)	Payout (8)
1	$9.50	$0.0000	$ 9.5000	$10.0000	1.0526x	$1.4750	$1.0000	67.7966%
2	9.50	0.4750	9.9750	10.5000	1.0526	1.5488	1.0500	67.7966
3	9.50	0.9738	10.4738	11.0250	1.0526	1.6262	1.1025	67.7966
4	9.50	1.4974	10.9974	11.5763	1.0526	1.7075	1.1576	67.7966
5	9.50	2.0473	11.5473	12.1551	1.0526	1.7929	1.2155	67.7966
6	9.50	2.6247	12.1247	12.7628	1.0526	1.8825	1.2763	67.7966
7	9.50	3.2309	12.7309	13.4010	1.0526	1.9766	1.3401	67.7966
8	9.50	3.8675	13.3675	14.0710	1.0526	2.0755	1.4071	67.7966
9	9.50	4.5358	14.0358	14.7746	1.0526	2.1792	1.4775	67.7966
10	9.50	5.2376	14.7376	15.5133	1.0526	2.2882	1.5513	67.7966

NOTES:
1) Assumptions made in this case are as follows:
   a) Issue price = $10
   b) Flotation cost = 5%
   c) k = D/P + g = 10% + 5% = 15%
   d) r = 15.5263%
2) The data in this case, and also the more complex cases, were developed with a Lotus 1-2-3 computer program.

1) The company's balance sheet item common stock is shown in Column 1.
2) Retained earnings are shown in Column 2. Initially, they are zero, but they build up over time.
3) Total equity as shown in Column 3 is the sum of common stock and retained earnings. Total equity grows as retained earnings build up.
4) Column 4 shows the stock price as determined by the basic DCF formula. It starts at $10 and grows at a rate of 5 per cent per year, which is necessary to produce the 5 per cent capital gains yield that investors expect and should receive.[7]
5) Column 5 shows the market-to-book (M/B) ratio. Notice that the M/B always exceeds one. The only way the M/B ratio could go to one would be for the stock price to fall below the value shown in Column 4, but if that were to happen, then investors would not receive the capital gains to which they are entitled. Thus, the M/B will exceed one if investors are being treated fairly.
6) Earnings per share (EPS) as shown in Column 6 is the product of total equity times 0.155263, the fair rate of return as determined by Equation 5.
7) Dividends per share (DPS) as shown in Column 7 begin at one dollar and grow at a rate of 5 per cent per year. This growth rate is a requirement if investors are to earn their DCF cost of capital.
8) The payout ratio is shown in Column 8. Under

[7]The DCF valuation equation is

$$P_0 = \frac{D_1}{k - g}$$

This equation, solved for k, produces the standard DCF cost of capital equation, $k = D_1/P_0 + g$. See reference citation 5, Chapter 5, for a derivation and discussion.

the assumptions of the standard DCF constant growth model, the payout must be constant, and it is if r as determined by Equation 5 is used as the allowed return on equity.

9) Note also that book value per share as shown in Column 3 is growing at a constant rate, 5 per cent. The retention growth rate, g = br, where r is the return on book equity and b is the fraction of earnings, is

$$g = br = (1.0 - 0.677966)(15.5263) = 0.322(15.5263) = 5.0\%,$$ just as it should be.

Case 1 proves that Equation 5 produces the desired results; namely, returns that exactly cover the cost of equity, no more and no less. Any return on book equity different from that established by Equation 5 would produce inconsistent results. For example, suppose the authorized rate of return were cut from 15.5263 to the DCF return, 15 per cent, in Year 2. This would cause the stock price to drop from $10.50 to the $9.9750 book value. Thus, stockholders would suffer a loss, and they would not obtain the capital gains yield to which they are entitled. Any other type of experimentation will show exactly the same thing: If the company is not allowed to earn the cost of equity as determined by Equation 5 on total common equity, stockholders will not receive a 15 per cent return on their invested capital.

Sale of Additional Equity

While the only-one-equity-sale conditions used to develop Case 1 are consistent with Bierman and Hass's example, and also with some actual companies such as Comsat and the Yankee Atomic Power companies, most utilities sell additional common stock from time to time. Therefore, we modified the computer model to analyze stock sales subsequent to the initial offering, and we report the results in Table 2 as Case 2, in which the company raises an additional share of new common equity for $12.1247 at the beginning of Year 6. (Note that the $12.1247 is calculated as the price of the stock at the beginning of Year 6 less flotation costs.) Earnings, dividends, and common equity all increase in Year 6 as a result of the sale, but investors continue to earn exactly 15 per cent on their investment so long as the company is allowed to earn 15.5263 per cent on its total book equity.

In Case 3, reported in Table 3, we present the results for a company that issues new equity at a flotation cost different from the cost of its original stock issue. Case 3 is similar to Case 2. Just as in Case 2, the company issues new equity at the beginning of Year 6. However, in Case 3, the equity sold at the beginning of Year 6 has a different flotation cost (3 per cent) from that of the original issue (5 per cent). With lower flotation costs, the company nets more common equity in Case 3 than in Case 2. (The dollar amount of new equity raised is calculated as the price of the share of stock at the beginning of Year 6 less the 3 per cent flotation costs incurred.)

In this example, because the new equity is sold at a different flotation cost than the old equity, a new value of r must be calculated and used to determine net income. The new r is a weighted average of r as determined by Equation 5 for each equity issue, with the weights being the fraction of total equity attributable to the new and old stock at the time the new stock is issued. Because of the lower flotation costs on the new equity, there is a corresponding drop in the market-to-book ratio in Year 6. Note, however, that after the transitional Year 6, earnings and dividends continue to grow at the required 5 per cent rate, which is neces-

Table 2

Case 2: Company Sells Additional Stock at the Beginning of Year 6

Year	Common Stock (1)	New Issue (1a)	Retained Earnings (2)	Total Equity (3)	Stock Price (4)	Market-Book Ratio (5)	EPS (6)	DPS (7)	Payout Ratio (8)
1	$ 9.50		$0.0000	$ 9.5000	$10.0000	1.0526x	$1.4750	$1.0000	67.7966%
2	9.50		0.4750	9.9750	10.5000	1.0526	1.5488	1.0500	67.7966
3	9.50		0.9738	10.4738	11.0250	1.0526	1.6262	1.1025	67.7966
4	9.50		1.4974	10.9974	11.5763	1.0526	1.7075	1.1576	67.7966
5	9.50		2.0473	11.5473	12.1551	1.0526	1.7929	1.2155	67.7966
6	9.50	$12.1247	2.6247	24.2493	12.7628	1.0526	1.8825	1.2763	67.7966
7	21.6247		3.8371	25.4618	13.4010	1.0526	1.9766	1.3401	67.7966
8	21.6247		5.1102	26.7349	14.0710	1.0526	2.0755	1.4071	67.7966
9	21.6247		6.4470	28.0717	14.7746	1.0526	2.1792	1.4775	67.7966
10	21.6247		7.8506	29.4752	15.5133	1.0526	2.2882	1.5513	67.7966

NOTES:
Assumptions made in this case are as follows:
a) Original issue price = $10
b) Flotation cost = 5%
c) k = D/P + g = 10% + 5% = 15%
d) r = 15.5263%
e) Year 6 issue price = $12.7628
f) Year 6 new common stock = $12.7628(1 − F)
= $12.7628(0.95)
= $12.1247

Table 3

Case 3: Company Sells Additional Stock at the Beginning of Year 6 Incurring Different Flotation Costs

Beginning of Year

Year	Common Stock (1)	New Issue (1a)	Retained Earnings (2)	Total Equity (3)	Stock Price (4)	Market-Book Ratio (5)	EPS (6)	DPS (7)	Payout Ratio (8)
1	$ 9.5000		$0.0000	$ 9.5000	$10.0000	1.0526x	$1.4750	$1.0000	67.7966%
2	9.5000		0.4750	9.9750	10.5000	1.0526	1.5488	1.0500	67.7966
3	9.5000		0.9738	10.4738	11.0250	1.0526	1.6262	1.1025	67.7966
4	9.5000		1.4974	10.9974	11.5763	1.0526	1.7075	1.1576	67.7966
5	9.5000		2.0473	11.5473	12.1551	1.0526	1.7929	1.2155	67.7966
6	9.5000	$12.3799	2.6247	24.5046	12.7628	1.0526	1.8889	1.2763	67.7566
7	21.8799		3.8499	25.7298	13.4010	1.0526	1.9833	1.3401	67.5676
8	21.8799		5.1364	27.0163	14.0710	1.0526	2.0825	1.4071	67.5676
9	21.8799		6.4872	28.3671	14.7746	1.0526	2.1866	1.4775	67.5676
10	21.8799		7.9056	29.7855	15.5133	1.0526	2.2960	1.5513	67.5676

NOTES:
Assumptions made in this case are as follows:
a) Original issue price = $10
b) Year 1 Flotation cost = 5%
c) $k = D/P + g = 10\% + 5\% = 15\%$
d) $r_1 = 15.5263\%$
e) Year 6 issue price = $12.7628
f) Year 6 flotation cost = 3%
g) Year 6 new common stock = $12.7628(1 - F)$
$= \$12.7628(0.97)$
$= \$12.3799$
h) Additional issue r = 15.3093%

sary if investors are to receive the 15 per cent DCF return on their investment. The stock price grows at 5 per cent throughout the ten-year period.

The fact that the company must continue to earn the flotation-adjusted cost of equity, even as retained earnings build up to a larger and larger proportion of total common equity, is counterintuitive, and so it deserves further discussion. Here are two comments:

1) *Demonstration that a weighted average cost rate is inappropriate.* It has been suggested that the authorized return on equity should be a weighted average of the flotation-adjusted cost rate, r = 15.5263 per cent, and the DCF cost rate, k = 15 per cent, with the weights being based on common equity and accumulated retained earnings, respectively. When we programmed our model to reflect these conditions, we obtained the results shown in Table 4. A problem obviously exists – if dividends are to grow at the 5 per cent rate that investors expect, and if earnings are based on a weighted average of k and r, then a higher and higher percentage of earnings will have to paid out. Thus, the payout ratio will rise. In Year 34 the payout ratio will exceed 100 per cent, so retained earnings will start to decline. Retained earnings actually go negative in Year 45, and Total Common Equity goes negative in Year 46, which means the company is officially bankrupt. This example demonstrates, in yet another way, that the flotation-adjusted cost of equity must be earned on all common equity if investors are to receive the DCF return to which they are entitled under prudent management. The example also demonstrates that, if investors were informed that the regulatory treatment implied in Table 4 were going to be employed, they would not invest in the company in the first place.

2) *Logical explanation.* To understand *why* the Equation 5 value must be applied to all common equity, retained earnings as well as equity raised by selling stock, one must trace through the valuation process. Notice that, in Year 1, investors require a return of 15 per cent on their $10 investment, or $1.50. However, the company earns only $1.4750, of which it pays out one dollar as a dividend and retains 47.5 cents. To give the investor the fifty-cent increase in market value (or capital gain) needed to add to the one dollar dividend to produce the $1.50, or 15 per cent, total DCF return, the 47.5 cents must earn more than 15 per cent. Specifically, it must earn the flotation adjusted cost of equity, r = 15.5263 per cent. This same thought process can be continued in other years, ad infinitum, and the ultimate conclusion is that both the original common equity and all retained earnings must earn r = 15.5263 per cent.

If the preceding paragraph is not clear, we can put it another way. The investor expects and is entitled to earn, under prudent management, a return of 15 per cent on his or her investment. Thus, dividends plus capital gains must total 15 per cent, or $1.50 in the first year. Ten per cent, or one dollar, will come from dividends, so 5 per cent, or 50 cents, must come from capital gains. To obtain a capital gain yield of 50 cents from 47.5 cents of retained earnings, the retained earnings must earn a return greater than k = 15 per cent; specifically, the retained earnings must be allowed to earn r = 15.5263 per cent. (If the 47.5 cents earned 15 per cent, then it would be worth exactly 47.5 cents, not 50 cents.) In Year 2, retained earnings will rise by

5 per cent from 47.5 cents to 49.875 cents; the capital gains then must rise from 50 cents to .50(1.05) = 52.5 cents; the only way this can happen is for the second-year retained earnings to be allowed to earn r = 15.5263 per cent; and so on.

The Effect of the Payout Ratio on the Flotation Cost Adjustment

Even though fair regulation requires that retained earnings be allowed to earn the flotation adjusted cost of equity, the level of retained earnings as affected by the payout ratio does have a material effect on the size of the adjustment.

To illustrate this point, assume (1) that two utilities both have a 15 per cent market cost of equity, that is, k = 15 per cent; (2) that both companies sell at a price of $20; but (3) that one company has a policy of paying out 25 per cent of its earnings and retaining 75 per cent, while the other has the reverse dividend policy. Assume further that both companies earn 15 per cent on their $20 market value, so earnings per share are .15($20) = $3. The high payout company has a dividend of .75($3) = $2.25, while the low payout company has a dividend of .25($3) = 75 cents. At the same time, the low payout company, which plows most of its earnings back into the business, will have a growth rate of g = .75(15 per cent) = 11.25 per cent, while the high payout company will have g = .25(15 per cent) = 3.75 per cent.

Under these conditions, the following situation would exist for the two illustrative companies:

Low payout Company: $k = \frac{D_1}{P_0} + g = \frac{\$\ 0.75}{\$20} + 11.25\%$

$= 3.75\% + 11.25\% = 15\%$

High payout Company: $k = \frac{D_1}{P_0} + g = \frac{\$\ 2.25}{\$20} + 3.75\%$

$= 11.25\% + 3.75\% = 15\%$

Applying the adjustment formula,

$$r = \frac{\text{Expected dividend yield}}{1 - F} + g,$$

we find this situation, assuming that issuance costs are 5 per cent:

High payout Company: $r = \frac{11.25\%}{0.95} + 3.75\%$

$= 11.842\% + 3.75\% = 15.592\%$

Low payout Company: $r = \frac{3.75\%}{0.95} + 11.25\%$

$= 3.947 + 11.25\% = 15.197\%$

Difference = 0.395%

Thus, we see that the company which retains most of its earnings, and which consequently has more retained

Table 4

Case 4: Company Earns Weighted Average k

Year	Common Stock (1)	Retained Earnings (2)	Total Equity (3)	EPS (4)	DPS (5)	Payout Rate (6)	Weighted k (7)
1	$9.5000	$ 0.0000	$ 9.5000	$1.4750	$1 0000	67.7966%	0.1553
2	9.5000	0.4750	9.9750	1.5463	1.0500	67.9062	0.1550
3	9.5000	0.9713	10.4713	1.6207	1.1025	68.0267	0.1548
4	9.5000	1.4894	10.9894	1.6984	1.1576	68.1591	0.1545
5	9.5000	2.0302	11.5302	1.7795	1.2155	68.3047	0.1543
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
33	9.5000	23.2219	32.7219	4.9583	4.7649	96.1006	0.1515
34	9.5000	23.4152	32.9152	4.9873	5.0032	100.3188	0.1515
35	9.5000	23.3993	32.8993	4.9849	5.2533	105.3852	0.1515
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
45	9.5000	−2.3443	7.1557	1.1234	8.2791	736.9935	0.1570
46	The company goes bankrupt.						

NOTES:

1) Assumptions made in this case are as follows:
   a) Issue price = $10
   b) Flotation cost = 5%
   c) k = D/P + g = 10% + 5% = 15%
   d) r = 15.5263%
2) The dividend in Year 45 cannot grow by the 5 per cent growth rate, because if it did total equity would become negative. Therefore, the Year 45 dividend is calculated as the remaining portion of total equity + earnings in Year 45: $7.1557 + $1.1234 = $8.2791.

Table 5

Case 5: Company Sells Additional Stock and k Changes

Beginning of Year

Year	Common Stock (1)	New Issue (1a)	Retained Earnings (2)	Total Equity (3)	Stock Price (4)	Market-Book Ratio (5)	EPS (6)	DPS (7)	Payout Ratio (8)
1	$ 9.5000		$0.0000	$ 9.5000	$10.0000	1.0526x	$1.4750	$1.0000	67.7966%
2	9.5000		0.4750	9.9750	10.5000	1.0526	1.5488	1.0500	67.7966
3	9.5000		0.9738	10.4738	11.0250	1.0526	1.6262	1.1025	67.7966
4	9.5000		1.4974	10.9974	11.5763	1.0526	1.7075	1.1576	67.7966
5	9.5000		2.0473	11.5473	12.1551	1.0526	1.7929	1.2155	67.7966
6	9.5000	$12.3799	2.6247	24.5046	12.7628	1.0526	1.8889	1.2763	67.5676
7	21.8799		3.8499	25.7298	13.4010	1.0526	1.9833	1.3401	67.5676
8	21.8799		5.1364	27.0163	14.0710	1.0526	1.8123	1.4071	77.6398
9	21.8799		5.9469	27.8268	14.4931	1.0526	1.8667	1.4493	77.6398
10	21.8799		6.7817	28.6616	14.9279	1.0526	1.9227	1.4928	77.6398

NOTES:
Assumptions made in this case are as follows:
a) Original issue price = $10
b) Year 1 flotation cost = 5%
c) Issue 1 r = 15.5263%
d) Year 6 issue price = $12.7628
e) Year 6 flotation cost = 3%
f) Year 6 new common stock = $12.7628(1 − F)
= $12.7628(0.97)
= $12.3799
g) Additional issue r = 15.3093%
h) Years 1-7, k = D/P + g = 10% + 5% = 15%
i) Years 8-10, k = D/P + g = 10% + 3% = 13%

Table 6

Case 6: Company Sells Additional Stock and k Changes

Beginning of Year

Year	Common Stock (1)	New Issue (1a)	Retained Earnings (2)	Total Equity (3)	Stock Price (4)	Market-Book Ratio (5)	EPS (6)	DPS (7)	Payout Ratio (8)
1	$ 9.5000		$0.0000	$ 9.5000	$10.0000	1.0526x	$1.4750	$1.0000	67.7966%
2	9.5000		0.4750	9.9750	10.5000	1.0526	1.5488	1.0500	67.7966
3	9.5000		0.9738	10.4738	11.0250	1.0526	1.6262	1.1025	67.7966
4	9.5000		1.4974	10.9974	11.5763	1.0526	1.7075	1.1576	67.7966
5	9.5000		2.0473	11.5473	12.1551	1.0526	1.7929	1.2155	67.7966
6	9.5000	$12.3799	2.6247	24.5046	12.7628	1.0526	1.8889	1.2763	67.5676
7	21.8799		3.8499	25.7298	13.4010	1.0526	1.9833	1.3401	67.5676
8	21.8799		5.1364	27.0163	14.0710	1.0526	1.8011	1.1257	62.5000
9	21.8799		5.9469	27.3671	14.7746	1.0526	1.8911	1.1820	62.5000
10	21.8799		6.7817	29.7855	15.5133	1.0526	1.9857	1.2411	62.5000

NOTES:
Assumptions made in this case are as follows:
a) Original issue price = $10
b) Year 1 flotation cost = 5%
c) Issue 1 r = 15.5263%
d) Year 6 issue price = $12.7628
e) Year 6 flotation cost = 3%
f) Year 6 new common stock = $12.7628(1 − F)
= $12.7628(0.97)
= $12.3799
g) Additional issue r = 15.3093%
h) Years 1-7, k = D/P + g = 10% + 5% = 15%
i) Years 8-10, k = D/P + g = 10% + 3% = 13%

earnings and a smaller dollar amount of flotation costs, also has the lower flotation-adjusted cost of equity. This demonstrates that the issuance cost adjustment formula is itself adjusted to reflect the extent to which a company finances by retaining earnings rather than by selling new common stock.

Changes in the DCF Cost of Equity

We also analyzed the effects of changes in the DCF cost of equity over time. While a change in the DCF k causes a change in earnings, dividends, and the growth rate, the flotation adjustment *process* is not affected – Equation 5 still produces a fair rate of return on book value. This is demonstrated in Tables 5 and 6. It should be noted that the effects of the adjustment as derived by Equation 5 do vary with the level of the DCF cost and with the split between dividend yield and growth. In Case 5, we analyze the effects of a change in the growth rate with the dividend yield held constant, while in Case 6, reversing them, we analyze the effects of a change in the dividend yield with the growth rate held constant. Both cases use Case 3 as their base case. In each instance, a new value for r, based on Equation 5, can be established, and this return on book value permits investors to earn their new DCF cost of equity.

Capitalizing Flotation Costs

Bierman and Hass, almost as an afterthought toward the end of their article, suggested that utilities should be allowed to record the *gross amount* of equity sales and to earn a DCF return on gross equity capital. This would amount to capitalizing flotation costs. These capitalized costs could then be amortized over some prescribed period or else be kept on the books indefinitely.

To show this, we set up computer models using our various cases but capitalizing flotation costs. One can see that earnings, dividends, and stock prices are all exactly like those shown in our tables. Thus, capitalizing flotation costs produces exactly the same results as Equation 5.

Capitalizing flotation costs has much to recommend it, for it would eliminate the confusion that has existed. However, a fundamental problem exists for any company that has incurred flotation costs in the past, that is, for virtually the entire utility industry. How would the fact that past flotation costs were not capitalized be dealt with? In other words, capitalizing flotation costs would be an excellent procedure for a new, start-up, company, but such a plan would not be feasible for an existing company without somehow adjusting for past costs. Such an adjustment could be made, but a discussion of it goes beyond the scope of this article.

Conclusion

The proper treatment of equity flotation costs has caused much confusion. Had such costs been either capitalized in the past or else expensed on an as-incurred basis, there would be no problem, but since neither of these practices has generally been followed, the DCF return must be adjusted to produce a fair rate of return on book equity.

Further, the adjustment is always required, irrespective of whether or not a company has plans to sell new stock in the future, and the adjusted return must be earned on total equity, including retained earnings. Otherwise, it would be impossible for investors to earn the cost of equity, even under prudent and efficient management.

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Alternative Sources of Equity

A second controversy is whether a flotation cost allowance should be allowed because a company can always obtain equity from sources other than a public issue of common stock, such as a rights issue for example. There are several sources of equity capital available to a firm, including: public common stock issues, conversions of convertible preferred stock, dividend reinvestment plans, employees' savings plans, warrants, and stock dividend programs. Each carries its own set of administrative costs and flotation cost components, including discounts, commissions, corporate expenses, offering spread, and market pressure.

Equity capital raised through a public issue is typically more expensive than alternate sources of equity. Rights issues, when available, are less expensive, but direct costs still would be incurred. Of course, a rights issue assumes that a willing underwriter and a willing market could be found for such offerings in the first place, an unlikely event in public capital markets for small unproven companies. Internal sources of equity, including dividend reinvestment and/or employee stock option plans, are also typically less expensive, unless a discount on the purchase price is inherent in the plan, in which case they are often equivalent to a public issue. Direct costs are also incurred in an employee stock savings plan and/or a shareholder dividend reinvestment plan.

The flotation cost allowance is still warranted, however, because it is a composite factor that reflects the historical mix of all these sources of equity. The flotation cost allowance applicable to all the company's book equity is actually a weighted average of the current allowances required for each past financing, that is, the flotation cost allowance factor is a build-up of historical flotation cost adjustments associated and traceable to each component of equity source. However, it is impractical and prohibitive to start from the inception of a company and source all present equity from various equity vintages and types of equity capital raised by the company. One way of circumventing the problem of vintaging each form of equity is to source book equity by broad categories of equity, such as dividend reinvestment plan equity, stock option equity, and public issue equity, and calculate a weighted average flotation factor. That is also onerous and cumbersome. A practical solution is to rely on the results of the empirical studies discussed earlier that quantify the average flotation cost factor of a large sample of utility stock offerings.

Efficient Markets

A third controversy centers around the argument that the omission of flotation cost is justified on the grounds that, in an efficient market, the stock price already reflects any accretion or dilution resulting from new issuances of securities and that a flotation cost adjustment results in a double counting effect. The simple fact of the matter is that whatever stock price is set by the

market, the company issuing stock will always net an amount less than the stock price due to the presence of intermediation and flotation costs. As a result, the company must earn slightly more on its reduced rate base in order to produce a return equal to that required by shareholders.

Existing shareholders are made worse off when a company issues new stock below the market price, irrespective of how "efficient" that stock price may be. As seen in an earlier example, the new issue results in a transfer of wealth from existing to new shareholders. This is true regardless of the degree of efficiency of the market.

It has also been argued that a flotation cost allowance is inequitable since it results in a windfall gain to shareholders. This argument is erroneous. As stated previously, the company's common equity account is credited by an amount less than the market value of the issue, so that the company must earn slightly more on its reduced rate base in order to produce a return equal to that required by shareholders. Moreover, existing shareholders are made worse off when a company issues new stock below the market price.

The suggestion that the flotation cost allowance is unwarranted because investors factor this shortcoming in the stock price implies that it is appropriate to use a deficient model because such a deficiency is reflected in stock prices. In other words, it is appropriate to use a deficient model because investors are aware of this. Such circular reasoning could be used to justify any regulatory policy. For example, under this reasoning, it would be appropriate to authorize a return on equity of 1% because investors reflect this fact in the stock price. This is clearly illogical and erroneous. Any regulatory policy, as irrational as it may be, can be justified using this argument.

Absence of Imminent Stock Issues

Another controversy is whether the flotation cost allowance should still be applied when the utility is not contemplating an imminent common stock issue. Some argue that flotation costs are real and should be recognized in calculating the fair return on equity, but only at the time when the expenses are incurred. In other words, the flotation cost allowance should not continue indefinitely, but should be made in the year in which the sale of securities occurs, with no need for continuing compensation in future years. This argument implies that the company has already been compensated for these costs and/or the initial contributed capital was obtained freely, devoid of any flotation costs, which is an unlikely assumption, and certainly not applicable to most utilities. If the flotation costs of past stock issues have been fully recovered, the argument has merit. If that assumption is not met, the argument is without merit. The flotation cost adjustment cannot be strictly forward-looking unless all past flotation costs associated with past issues have been recovered.

Value Line Forecast for the U.S. Economy

	Actual					Estimated				
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Gross Domestic Product and its Components (2009 Chain Weighted $) Billions of Dollars										
Final Sales	15612	16014	16472	16716	17145	***17612***	***18103***	***18519***	***18889***	***19210***
Total Consumption	10565	10868	11264	11572	11891	***12199***	***12526***	***12827***	***13122***	***13411***
Nonresidential Fixed Investment	2033	2173	2224	2211	2315	***2460***	***2607***	***2737***	***2846***	***2932***
Structures	429	474	466	447	471	***503***	***533***	***560***	***582***	***594***
Equipment & Software	982	1048	1084	1048	1098	***1182***	***1271***	***1322***	***1361***	***1389***
Residential Fixed Investment	488	506	557	588	598	***615***	***636***	***656***	***669***	***682***
Exports	2032	2119	2127	2120	2191	***2309***	***2452***	***2600***	***2730***	***2839***
Imports	2436	2546	2673	2706	2814	***2951***	***3117***	***3304***	***3470***	***3609***
Federal Government	1143	1115	1114	1115	1116	***1143***	***1172***	***1178***	***1183***	***1189***
State & Local Governments	1714	1723	1763	1784	1785	***1804***	***1828***	***1846***	***1864***	***1883***
Gross Domestic Product	16692	17428	18121	18625	19392	***20360***	***21456***	***22565***	***23661***	***24737***
Real GDP (2009 Chain Weighted $)	15612	15982	16397	16716	17097	***17595***	***18113***	***18548***	***18956***	***19335***
Prices and Wages — Annual Rates of Change										
GDP Deflator	1.6	1.8	1.1	1.5	1.9	***2.1***	***2.6***	***2.7***	***2.6***	***2.5***
CPI-All Urban Consumers	1.5	1.6	0.5	1.8	2.1	***2.8***	***2.6***	***2.6***	***2.5***	***2.5***
PPI-Finished Goods	1.2	1.9	-3.3	1.1	3.6	***3.0***	***2.6***	***2.5***	***2.3***	***2.3***
Employment Cost Index—Total Comp.	1.9	2.1	1.9	2.2	2.6	***3.2***	***3.4***	***3.4***	***3.4***	***3.3***
Productivity	0.0	0.7	0.7	0.9	1.2	***1.4***	***1.3***	***1.3***	***1.3***	***1.2***
Production and Other Key Measures										
Industrial Prod. (% Change, Annualized)	1.9	3.7	-2.7	-0.1	3.1	***3.7***	***3.2***	***2.8***	***2.5***	***2.2***
Factory Operating Rate (%)	74.1	75.3	75.5	75.1	74.8	***76.0***	***76.6***	***76.0***	***75.5***	***75.0***
Nonfarm Inven. Change (2009 Chain Weighted $)	54.3	65.0	102.8	34.5	12.3	***45.1***	***77.5***	***65.0***	***55.0***	***50.0***
Housing Starts (Mill. Units)	0.93	1.00	1.11	1.18	1.21	***1.33***	***1.39***	***1.40***	***1.42***	***1.40***
Existing House Sales (Mill. Units)	5.07	4.92	5.24	5.44	5.54	***5.61***	***5.73***	***5.75***	***5.80***	***5.70***
Total Light Vehicle Sales (Mill. Units)	15.5	16.4	17.4	17.5	17.2	***17.0***	***16.8***	***16.7***	***16.6***	***16.5***
National Unemployment Rate (%)	7.4	6.2	5.3	4.9	4.4	***3.9***	***3.7***	***3.7***	***3.9***	***4.0***
Federal Budget Surplus (Unified, FY, $Bill)	-680	-483	-477	-582	-681	***-875***	***-950***	***-1000***	***-1050***	***-1100***
Price of Oil ($Bbl., U.S. Refiners' Cost)	100.47	92.23	48.40	40.60	48.30	***63.00***	***61.00***	***62.00***	***64.00***	***66.00***
Money and Interest Rates										
3-Month Treasury Bill Rate (%)	0.1	0.1	0.1	0.3	0.9	***2.0***	***2.8***	***3.2***	***3.2***	***3.0***
Federal Funds Rate (%)	0.1	0.1	0.1	0.4	1.0	***1.8***	***2.9***	***3.4***	***3.5***	***3.4***
10-Year Treasury Note Rate (%)	2.4	2.5	2.2	1.9	2.3	***3.1***	***3.5***	***3.7***	***3.6***	***3.5***
Long-Term Treasury Bond Rate (%)	3.5	3.3	2.9	2.6	3.2	***3.5***	***3.8***	***3.8***	***3.8***	***3.7***
AAA Corporate Bond Rate (%)	4.2	4.2	3.9	3.7	3.9	***4.4***	***5.0***	***5.0***	***4.8***	***4.8***
Prime Rate (%)	3.3	3.3	3.3	3.5	4.1	***4.9***	***5.8***	***6.5***	***7.0***	***6.5***
Incomes										
Personal Income (Annualized % Change)	1.1	4.4	4.1	1.6	3.9	***4.6***	***4.9***	***5.0***	***4.8***	***4.5***
Real Disp. Inc. (Annualized % Change)	-1.4	2.7	3.2	0.3	1.9	***3.3***	***3.3***	***2.7***	***2.4***	***2.0***
Personal Savings Rate (%)	4.8	4.8	6.1	4.9	3.4	***3.1***	***3.5***	***3.8***	***3.8***	***3.8***
After-Tax Profits (Annualized $Bill)	1693	1694	1657	1692	1786	***1857***	***1980***	***2099***	***2204***	***2314***
Yr-to-Yr % Change	0.6	0.1	-2.2	2.1	5.5	***4.0***	***6.6***	***6.0***	***5.0***	***5.0***
Composition of Real GDP-Annual Rates of Change										
Gross Domestic Product	1.7	2.4	2.6	1.9	2.3	***2.9***	***2.9***	***2.4***	***2.2***	***2.0***
Final Sales	2.1	2.6	2.9	1.5	2.6	***2.7***	***2.8***	***2.3***	***2.0***	***1.7***
Total Consumption	1.5	2.9	3.6	2.7	2.8	***2.6***	***2.7***	***2.4***	***2.3***	***2.2***
Nonresidential Fixed Investment	3.5	6.9	2.3	-0.6	4.7	***6.3***	***6.0***	***5.0***	***4.0***	***3.0***
Structures	1.4	10.5	-1.8	-4.1	5.6	***6.6***	***6.0***	***5.0***	***4.0***	***2.0***
Equipment & Software	4.6	6.7	3.5	-3.4	4.8	***7.7***	***7.5***	***4.0***	***3.0***	***2.0***
Residential Fixed Investment	11.7	3.6	10.1	5.6	1.8	***2.8***	***3.5***	***3.0***	***2.0***	***2.0***
Exports	3.5	4.3	0.4	-0.3	3.3	***5.4***	***6.2***	***6.0***	***5.0***	***4.0***
Imports	1.1	4.5	5.0	1.3	4.0	***4.9***	***5.6***	***6.0***	***5.0***	***4.0***
Federal Government	-5.8	-2.4	-0.1	0.1	0.1	***2.4***	***2.5***	***0.5***	***0.5***	***0.5***
State & Local Governments	-0.8	0.5	2.3	1.2	0.1	***1.1***	***1.3***	***1.0***	***1.0***	***1.0***

Short Label	2018	2019	2020	2021	2022	2023	2024	2025
Yield on 30-year Treasury bonds, Source: FRB,	3.28	3.88	4.21	4.33	4.35	4.35	4.35	4.37
Gross domestic product, Source: BEA, Units: b	20,334.05	21,403.16	22,401.22	23,352.30	24,313.41	25,301.33	26,318.71	27,365.42
Yield on 10-year Treasury notes, Source: FRB,	3.08	3.53	3.70	3.73	3.71	3.67	3.66	3.68
Real gross domestic product, Source: BEA, Un	17,581.59	18,074.48	18,425.58	18,730.88	19,038.55	19,361.42	19,704.01	20,061.28
Yield on Aaa-rated corporate bonds, Source: F	4.06	4.57	4.86	4.98	5.06	5.09	5.11	5.11
Rate on Aa-rated public utility bonds, Source:	4.35	5.05	5.32	5.44	5.51	5.54	5.55	5.56
Chained price index--gross domestic product, S	115.65	118.41	121.57	124.67	127.70	130.68	133.57	136.41
Consumer price index, all-urban, Source: BLS,	2.51	2.56	2.62	2.68	2.74	2.81	2.87	2.93

Short Label	2026	2027	2028	2029	2030	2031	2032	2033
Yield on 30-year Treasury bonds, Source: FRB,	4.37	4.37	4.37	4.38	4.38	4.38	4.38	4.38
Gross domestic product, Source: BEA, Units: b	28,444.96	29,570.82	30,772.13	31,997.24	33,271.06	34,585.71	35,938.01	37,360.05
Yield on 10-year Treasury notes, Source: FRB,	3.66	3.66	3.67	3.67	3.67	3.67	3.67	3.67
Real gross domestic product, Source: BEA, Un	20,423.37	20,800.16	21,207.20	21,610.67	22,027.16	22,452.64	22,875.18	23,308.74
Yield on Aaa-rated corporate bonds, Source: F	5.11	5.11	5.12	5.12	5.12	5.12	5.12	5.12
Rate on Aa-rated public utility bonds, Source:	5.56	5.56	5.57	5.57	5.57	5.57	5.57	5.57
Chained price index--gross domestic product, S	139.27	142.16	145.10	148.06	151.04	154.03	157.10	160.28
Consumer price index, all-urban, Source: BLS,	3.00	3.06	3.12	3.19	3.25	3.32	3.39	3.46

Short Label	2034	2035	2036	2037	2038	2039	2040	2041
Yield on 30-year Treasury bonds, Source: FRB,	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38
Gross domestic product, Source: BEA, Units: b	38,844.61	40,387.14	41,979.86	43,648.98	45,394.31	47,208.56	49,096.63	51,056.94
Yield on 10-year Treasury notes, Source: FRB,	3.67	3.67	3.67	3.67	3.67	3.68	3.68	3.68
Real gross domestic product, Source: BEA, Un	23,756.67	24,207.71	24,659.45	25,124.22	25,599.54	26,080.29	26,565.24	27,048.05
Yield on Aaa-rated corporate bonds, Source: F	5.12	5.12	5.12	5.12	5.12	5.12	5.11	5.11
Rate on Aa-rated public utility bonds, Source:	5.57	5.57	5.57	5.56	5.56	5.56	5.56	5.56
Chained price index--gross domestic product, S	163.51	166.83	170.23	173.73	177.32	181.01	184.81	188.76
Consumer price index, all-urban, Source: BLS,	3.53	3.60	3.68	3.75	3.83	3.91	4.00	4.08

Short Label	2042	2043	2044	2045	2046	2047	2048
Yield on 30-year Treasury bonds, Source: FRB,	4.38	4.38	4.38	4.39	4.39	4.39	4.39
Gross domestic product, Source: BEA, Units: b	53,131.01	55,319.97	57,631.27	60,060.02	62,589.47	65,233.36	67,996.81
Yield on 10-year Treasury notes, Source: FRB,	3.68	3.68	3.68	3.69	3.69	3.69	3.69
Real gross domestic product, Source: BEA, Un	27,554.00	28,077.32	28,618.14	29,172.69	29,732.88	30,302.63	30,875.74
Yield on Aaa-rated corporate bonds, Source: F	5.11	5.11	5.10	5.10	5.10	5.10	5.10
Rate on Aa-rated public utility bonds, Source:	5.55	5.55	5.55	5.54	5.54	5.54	5.54
Chained price index--gross domestic product, S	192.82	197.02	201.37	205.87	210.50	215.27	220.22
Consumer price index, all-urban, Source: BLS,	4.17	4.26	4.36	4.46	4.56	4.66	4.77

ref2018.d121317a	2016	2017	2018	2019	2020	2021
Real Gross Domestic Product	**16,716**	**17,075**	**17,501**	**17,929**	**18,335**	**18,719**
Components of Real Gross Domestic Product						
Real Consumption	11,572	11,877	12,215	12,540	12,847	13,138
Real Business Fixed Investment	2,210	2,306	2,388	2,478	2,590	2,684
Real Government Spending	2,900	2,905	2,917	2,929	2,940	2,949
Real Exports	2,120	2,200	2,259	2,341	2,450	2,542
Real Imports	2,706	2,810	2,930	3,061	3,214	3,315
Energy Intensity						
(thousand Btu per 2009 dollar of GDP)						
Delivered Energy	4.28	4.22	4.24	4.17	4.09	4.01
Total Energy	5.80	5.67	5.66	5.57	5.47	5.35
Price Indices						
GDP Chain-type Price Index (2009=1.000)	1.114	1.134	1.159	1.186	1.217	1.247
Consumer Price Index (1982-84=1.00)						
All-urban	2.40	2.45	2.49	2.55	2.63	2.71
Energy Commodities and Services	1.90	1.99	2.02	2.13	2.36	2.50
Wholesale Price Index (1982=1.00)						
All Commodities	1.85	1.93	1.96	2.00	2.08	2.14
Fuel and Power	1.46	1.59	1.63	1.71	1.91	2.00
Metals and Metal Products	1.94	2.07	2.09	2.14	2.19	2.21
Industrial Commodities excluding Energy	1.93	1.99	2.02	2.05	2.10	2.13
Interest Rates (percent, nominal)						
Federal Funds Rate	0.40	1.03	1.71	2.65	3.00	3.00
10-Year Treasury Note	1.84	2.40	3.12	3.81	4.07	4.07
AA Utility Bond Rate	3.73	3.92	5.11	5.73	6.12	6.11
Value of Shipments (billion 2009 dollars)						
Non-Industrial and Service Sectors	21,674	22,698	22,805	23,408	24,004	24,628
Total Industrial	7,335	7,575	7,614	7,893	8,085	8,225
Agriculture, Mining, and Construction	2,046	2,031	2,152	2,219	2,269	2,314
Manufacturing	5,289	5,544	5,461	5,674	5,816	5,911
Energy-Intensive	1,903	1,971	1,992	2,070	2,097	2,123
Non-Energy-Intensive	3,386	3,573	3,469	3,604	3,719	3,788
Total Shipments	**29,008**	**30,272**	**30,419**	**31,301**	**32,089**	**32,853**
Population and Employment (millions)						
Population, with Armed Forces Overseas	323.7	325.9	328.5	331.1	333.8	336.4
Population, aged 16 and over	258.5	260.7	263.2	265.6	268.1	270.6

ref2018.d121317a	2016	2017	2018	2019	2020	2021
Population, aged 65 and over	49.5	51.1	52.8	54.6	56.5	58.4
Employment, Nonfarm	144.2	145.6	147.4	149.1	150.6	151.8
Employment, Manufacturing	12.0	12.5	12.8	13.0	13.4	13.6
Key Labor Indicators						
Labor Force (millions)	159.2	160.4	161.9	163.6	165.3	166.3
Nonfarm Labor Productivity (2009=1.00)	1.07	1.08	1.10	1.12	1.13	1.15
Unemployment Rate (percent)	4.85	4.40	4.22	4.05	4.11	4.21
Key Indicators for Energy Demand						
Real Disposable Personal Income	12,609	12,826	13,264	13,705	14,027	14,392
Housing Starts (millions)	1.26	1.31	1.44	1.49	1.55	1.59
Commercial Floorspace (billion square feet)	89.7	90.7	91.7	92.8	93.9	94.9
Unit Sales of Light-Duty Vehicles (millions)	17.46	17.09	17.09	17.06	16.99	16.60

ref2018.d121317a	2022	2023	2024	2025	2026	2027
Real Gross Domestic Product	**19,123**	**19,495**	**19,852**	**20,221**	**20,609**	**21,039**
Components of Real Gross Domestic Product						
Real Consumption	13,458	13,761	14,059	14,364	14,688	15,042
Real Business Fixed Investment	2,762	2,836	2,903	2,981	3,059	3,153
Real Government Spending	2,960	2,977	2,997	3,016	3,036	3,056
Real Exports	2,635	2,730	2,825	2,920	3,017	3,131
Real Imports	3,428	3,567	3,693	3,830	3,967	4,137
Energy Intensity						
(thousand Btu per 2009 dollar of GDP)						
Delivered Energy	3.93	3.86	3.78	3.71	3.63	3.56
Total Energy	5.24	5.14	5.05	4.95	4.85	4.76
Price Indices						
GDP Chain-type Price Index (2009=1.000)	1.277	1.309	1.341	1.373	1.404	1.436
Consumer Price Index (1982-84=1.00)						
All-urban	2.78	2.86	2.94	3.02	3.10	3.18
Energy Commodities and Services	2.60	2.71	2.82	2.90	2.97	3.06
Wholesale Price Index (1982=1.00)						
All Commodities	2.18	2.23	2.28	2.33	2.37	2.42
Fuel and Power	2.08	2.17	2.25	2.33	2.39	2.46
Metals and Metal Products	2.23	2.26	2.27	2.30	2.31	2.34
Industrial Commodities excluding Energy	2.17	2.21	2.25	2.28	2.32	2.36
Interest Rates (percent, nominal)						
Federal Funds Rate	3.00	3.00	3.00	3.00	3.00	3.00
10-Year Treasury Note	4.04	4.01	4.02	4.03	4.02	4.01
AA Utility Bond Rate	6.05	6.02	6.06	6.07	6.03	6.00
Value of Shipments (billion 2009 dollars)						
Non-Industrial and Service Sectors	25,285	25,882	26,467	27,021	27,633	28,286
Total Industrial	8,361	8,502	8,641	8,777	8,924	9,071
Agriculture, Mining, and Construction	2,350	2,379	2,418	2,450	2,481	2,508
Manufacturing	6,011	6,123	6,223	6,327	6,443	6,563
Energy-Intensive	2,155	2,186	2,220	2,244	2,269	2,294
Non-Energy-Intensive	3,857	3,936	4,003	4,082	4,175	4,268
Total Shipments	**33,647**	**34,384**	**35,107**	**35,798**	**36,557**	**37,358**
Population and Employment (millions)						
Population, with Armed Forces Overseas	339.0	341.5	344.1	346.6	349.1	351.5
Population, aged 16 and over	273.0	275.5	277.8	280.1	282.3	284.5

ref2018.d121317a	2022	2023	2024	2025	2026	2027
Population, aged 65 and over	60.3	62.2	64.1	66.0	67.8	69.5
Employment, Nonfarm	153.1	154.2	155.1	155.7	156.5	157.5
Employment, Manufacturing	13.7	13.9	14.0	14.1	14.2	14.4
Key Labor Indicators						
Labor Force (millions)	167.3	168.3	169.2	170.0	170.8	171.8
Nonfarm Labor Productivity (2009=1.00)	1.17	1.18	1.20	1.22	1.24	1.26
Unemployment Rate (percent)	4.21	4.29	4.39	4.58	4.66	4.67
Key Indicators for Energy Demand						
Real Disposable Personal Income	14,742	15,039	15,370	15,706	16,063	16,447
Housing Starts (millions)	1.63	1.64	1.63	1.61	1.60	1.60
Commercial Floorspace (billion square feet)	96.0	97.1	98.1	99.1	100.1	101.2
Unit Sales of Light-Duty Vehicles (millions)	16.62	16.76	16.81	16.88	17.03	17.11

ref2018.d121317a	2028	2029	2030	2031	2032	2033
Real Gross Domestic Product	**21,493**	**21,954**	**22,421**	**22,896**	**23,369**	**23,833**
Components of Real Gross Domestic Product						
Real Consumption	15,409	15,768	16,126	16,488	16,856	17,219
Real Business Fixed Investment	3,251	3,342	3,425	3,517	3,612	3,707
Real Government Spending	3,089	3,131	3,176	3,213	3,252	3,291
Real Exports	3,265	3,400	3,532	3,666	3,813	3,949
Real Imports	4,313	4,483	4,656	4,822	5,006	5,181
Energy Intensity						
(thousand Btu per 2009 dollar of GDP)						
Delivered Energy	3.49	3.42	3.35	3.29	3.23	3.17
Total Energy	4.67	4.58	4.49	4.40	4.32	4.25
Price Indices						
GDP Chain-type Price Index (2009=1.000)	1.467	1.498	1.530	1.564	1.598	1.633
Consumer Price Index (1982-84=1.00)						
All-urban	3.26	3.35	3.43	3.52	3.61	3.70
Energy Commodities and Services	3.14	3.24	3.32	3.42	3.51	3.60
Wholesale Price Index (1982=1.00)						
All Commodities	2.46	2.50	2.54	2.58	2.62	2.66
Fuel and Power	2.52	2.60	2.67	2.74	2.81	2.88
Metals and Metal Products	2.36	2.37	2.38	2.39	2.40	2.41
Industrial Commodities excluding Energy	2.39	2.42	2.46	2.49	2.52	2.55
Interest Rates (percent, nominal)						
Federal Funds Rate	3.00	3.00	3.00	3.00	3.00	3.00
10-Year Treasury Note	4.02	4.01	4.01	4.01	4.02	4.03
AA Utility Bond Rate	5.99	6.00	5.97	5.95	5.96	5.98
Value of Shipments (billion 2009 dollars)						
Non-Industrial and Service Sectors	28,981	29,695	30,402	31,129	31,848	32,573
Total Industrial	9,231	9,386	9,540	9,703	9,854	9,998
Agriculture, Mining, and Construction	2,545	2,574	2,603	2,637	2,660	2,679
Manufacturing	6,685	6,813	6,936	7,066	7,194	7,319
Energy-Intensive	2,322	2,349	2,377	2,404	2,428	2,456
Non-Energy-Intensive	4,364	4,464	4,560	4,662	4,766	4,863
Total Shipments	**38,212**	**39,082**	**39,942**	**40,832**	**41,702**	**42,570**
Population and Employment (millions)						
Population, with Armed Forces Overseas	353.9	356.3	358.6	360.9	363.1	365.3
Population, aged 16 and over	286.7	288.8	290.8	292.9	294.9	296.9

ref2018.d121317a	2028	2029	2030	2031	2032	2033
Population, aged 65 and over	71.2	72.7	74.1	75.2	76.2	77.2
Employment, Nonfarm	158.6	159.8	161.1	162.2	163.3	164.4
Employment, Manufacturing	14.5	14.5	14.6	14.6	14.6	14.6
Key Labor Indicators						
Labor Force (millions)	173.0	174.4	175.7	177.0	178.3	179.6
Nonfarm Labor Productivity (2009=1.00)	1.28	1.30	1.32	1.35	1.37	1.39
Unemployment Rate (percent)	4.68	4.68	4.70	4.66	4.64	4.66
Key Indicators for Energy Demand						
Real Disposable Personal Income	16,869	17,292	17,698	18,103	18,521	18,929
Housing Starts (millions)	1.58	1.59	1.62	1.62	1.60	1.61
Commercial Floorspace (billion square feet)	102.2	103.3	104.4	105.5	106.6	107.7
Unit Sales of Light-Duty Vehicles (millions)	17.25	17.30	17.41	17.47	17.42	17.36

ref2018.d121317a	2034	2035	2036	2037	2038	2039
Real Gross Domestic Product	**24,315**	**24,802**	**25,299**	**25,796**	**26,290**	**26,810**
Components of Real Gross Domestic Product						
Real Consumption	17,580	17,940	18,311	18,687	19,071	19,471
Real Business Fixed Investment	3,808	3,913	4,023	4,135	4,242	4,358
Real Government Spending	3,331	3,370	3,409	3,450	3,489	3,527
Real Exports	4,081	4,224	4,381	4,523	4,680	4,849
Real Imports	5,358	5,550	5,751	5,926	6,131	6,341
Energy Intensity						
(thousand Btu per 2009 dollar of GDP)						
Delivered Energy	3.12	3.06	3.01	2.97	2.93	2.88
Total Energy	4.17	4.10	4.04	3.98	3.92	3.86
Price Indices						
GDP Chain-type Price Index (2009=1.000)	1.670	1.708	1.747	1.787	1.828	1.870
Consumer Price Index (1982-84=1.00)						
All-urban	3.79	3.89	3.99	4.10	4.20	4.32
Energy Commodities and Services	3.70	3.79	3.89	4.01	4.12	4.24
Wholesale Price Index (1982=1.00)						
All Commodities	2.70	2.74	2.78	2.83	2.88	2.92
Fuel and Power	2.96	3.04	3.12	3.22	3.31	3.41
Metals and Metal Products	2.42	2.43	2.44	2.44	2.45	2.46
Industrial Commodities excluding Energy	2.58	2.61	2.65	2.68	2.71	2.74
Interest Rates (percent, nominal)						
Federal Funds Rate	3.00	3.00	3.00	3.00	3.00	3.00
10-Year Treasury Note	4.04	4.03	4.04	4.04	4.05	4.06
AA Utility Bond Rate	5.96	5.95	5.94	5.98	5.97	5.96
Value of Shipments (billion 2009 dollars)						
Non-Industrial and Service Sectors	33,340	34,118	34,913	35,683	36,456	37,270
Total Industrial	10,154	10,320	10,486	10,649	10,823	10,991
Agriculture, Mining, and Construction	2,712	2,744	2,774	2,807	2,838	2,867
Manufacturing	7,442	7,576	7,712	7,842	7,985	8,124
Energy-Intensive	2,481	2,506	2,536	2,566	2,600	2,627
Non-Energy-Intensive	4,962	5,070	5,176	5,276	5,385	5,497
Total Shipments	**43,494**	**44,439**	**45,399**	**46,332**	**47,279**	**48,261**
Population and Employment (millions)						
Population, with Armed Forces Overseas	367.5	369.5	371.6	373.6	375.6	377.5
Population, aged 16 and over	298.9	300.9	302.8	304.7	306.6	308.4

ref2018.d121317a	2034	2035	2036	2037	2038	2039
Population, aged 65 and over	78.1	79.2	80.2	80.9	81.4	81.8
Employment, Nonfarm	165.4	166.4	167.5	168.5	169.4	170.3
Employment, Manufacturing	14.7	14.7	14.7	14.7	14.8	14.8
Key Labor Indicators						
Labor Force (millions)	180.6	181.5	182.5	183.6	184.7	185.8
Nonfarm Labor Productivity (2009=1.00)	1.41	1.43	1.45	1.48	1.50	1.52
Unemployment Rate (percent)	4.65	4.66	4.63	4.67	4.73	4.74
Key Indicators for Energy Demand						
Real Disposable Personal Income	19,337	19,747	20,158	20,568	20,977	21,392
Housing Starts (millions)	1.64	1.67	1.68	1.67	1.65	1.64
Commercial Floorspace (billion square feet)	108.8	109.8	110.9	111.9	113.0	114.1
Unit Sales of Light-Duty Vehicles (millions)	17.42	17.47	17.54	17.59	17.74	17.90

ref2018.d121317a	2040	2041	2042	2043	2044	2045
Real Gross Domestic Product	**27,356**	**27,910**	**28,471**	**29,052**	**29,626**	**30,204**
Components of Real Gross Domestic Product						
Real Consumption	19,871	20,293	20,724	21,164	21,592	22,020
Real Business Fixed Investment	4,487	4,622	4,754	4,894	5,032	5,173
Real Government Spending	3,573	3,612	3,656	3,702	3,747	3,792
Real Exports	5,019	5,192	5,367	5,550	5,725	5,905
Real Imports	6,552	6,782	7,017	7,265	7,500	7,745
Energy Intensity						
(thousand Btu per 2009 dollar of GDP)						
Delivered Energy	2.84	2.79	2.75	2.71	2.67	2.63
Total Energy	3.80	3.74	3.68	3.62	3.57	3.52
Price Indices						
GDP Chain-type Price Index (2009=1.000)	1.913	1.958	2.004	2.052	2.102	2.153
Consumer Price Index (1982-84=1.00)						
All-urban	4.43	4.55	4.67	4.79	4.92	5.05
Energy Commodities and Services	4.35	4.47	4.58	4.70	4.82	4.95
Wholesale Price Index (1982=1.00)						
All Commodities	2.97	3.02	3.07	3.12	3.17	3.22
Fuel and Power	3.50	3.60	3.69	3.79	3.90	4.00
Metals and Metal Products	2.47	2.48	2.49	2.50	2.50	2.51
Industrial Commodities excluding Energy	2.78	2.81	2.85	2.88	2.92	2.95
Interest Rates (percent, nominal)						
Federal Funds Rate	3.00	3.00	3.00	3.00	3.00	3.00
10-Year Treasury Note	4.07	4.07	4.06	4.05	4.05	4.05
AA Utility Bond Rate	5.97	5.95	5.94	5.93	5.91	5.91
Value of Shipments (billion 2009 dollars)						
Non-Industrial and Service Sectors	38,086	38,887	39,704	40,530	41,345	42,130
Total Industrial	11,171	11,353	11,519	11,697	11,875	12,050
Agriculture, Mining, and Construction	2,905	2,945	2,976	3,012	3,050	3,082
Manufacturing	8,266	8,408	8,544	8,685	8,826	8,967
Energy-Intensive	2,654	2,682	2,708	2,734	2,761	2,789
Non-Energy-Intensive	5,612	5,726	5,836	5,951	6,064	6,178
Total Shipments	**49,257**	**50,240**	**51,224**	**52,226**	**53,220**	**54,180**
Population and Employment (millions)						
Population, with Armed Forces Overseas	379.4	381.3	383.1	385.0	386.8	388.6
Population, aged 16 and over	310.2	312.0	313.7	315.4	317.1	318.7

ref2018.d121317a	2040	2041	2042	2043	2044	2045
Population, aged 65 and over	82.2	82.6	83.0	83.4	83.9	84.6
Employment, Nonfarm	171.5	172.5	173.7	174.8	175.9	176.9
Employment, Manufacturing	14.8	14.9	14.9	14.9	14.9	14.9
Key Labor Indicators						
Labor Force (millions)	187.0	188.2	189.3	190.5	191.6	192.6
Nonfarm Labor Productivity (2009=1.00)	1.55	1.57	1.60	1.62	1.65	1.68
Unemployment Rate (percent)	4.73	4.72	4.69	4.67	4.66	4.66
Key Indicators for Energy Demand						
Real Disposable Personal Income	21,822	22,250	22,685	23,130	23,578	24,035
Housing Starts (millions)	1.65	1.66	1.67	1.68	1.71	1.73
Commercial Floorspace (billion square feet)	115.1	116.2	117.3	118.4	119.5	120.5
Unit Sales of Light-Duty Vehicles (millions)	18.02	18.17	18.28	18.45	18.66	18.86

ref2018.d121317a	2046	2047	2048	2049	2050
Real Gross Domestic Product	**30,785**	**31,404**	**31,998**	**32,584**	**33,205**
Components of Real Gross Domestic Product					
Real Consumption	22,454	22,929	23,398	23,864	24,338
Real Business Fixed Investment	5,313	5,466	5,619	5,756	5,905
Real Government Spending	3,835	3,877	3,920	3,961	4,004
Real Exports	6,090	6,270	6,446	6,625	6,819
Real Imports	7,987	8,243	8,500	8,735	8,990
Energy Intensity					
(thousand Btu per 2009 dollar of GDP)					
Delivered Energy	2.60	2.56	2.53	2.50	2.47
Total Energy	3.47	3.42	3.37	3.33	3.28
Price Indices					
GDP Chain-type Price Index (2009=1.000)	2.206	2.261	2.318	2.376	2.437
Consumer Price Index (1982-84=1.00)					
All-urban	5.19	5.33	5.48	5.63	5.79
Energy Commodities and Services	5.06	5.20	5.36	5.50	5.64
Wholesale Price Index (1982=1.00)					
All Commodities	3.27	3.32	3.38	3.44	3.50
Fuel and Power	4.10	4.22	4.36	4.48	4.61
Metals and Metal Products	2.51	2.52	2.53	2.53	2.53
Industrial Commodities excluding Energy	2.99	3.03	3.06	3.10	3.14
Interest Rates (percent, nominal)					
Federal Funds Rate	3.00	3.00	3.00	3.00	3.00
10-Year Treasury Note	4.05	4.05	4.06	4.06	4.07
AA Utility Bond Rate	5.90	5.89	5.91	5.91	5.91
Value of Shipments (billion 2009 dollars)					
Non-Industrial and Service Sectors	42,887	43,686	44,486	45,286	46,102
Total Industrial	12,221	12,400	12,568	12,731	12,908
Agriculture, Mining, and Construction	3,122	3,163	3,198	3,228	3,265
Manufacturing	9,099	9,237	9,371	9,503	9,643
Energy-Intensive	2,816	2,847	2,878	2,908	2,939
Non-Energy-Intensive	6,282	6,391	6,493	6,595	6,704
Total Shipments	**55,108**	**56,086**	**57,054**	**58,017**	**59,010**
Population and Employment (millions)					
Population, with Armed Forces Overseas	390.4	392.2	394.0	395.7	397.5
Population, aged 16 and over	320.3	321.9	323.5	325.1	326.7

ref2018.d121317a	2046	2047	2048	2049	2050
Population, aged 65 and over	85.3	85.9	86.5	87.1	87.9
Employment, Nonfarm	177.8	178.9	179.8	180.7	181.7
Employment, Manufacturing	14.9	14.8	14.8	14.8	14.8
Key Labor Indicators					
Labor Force (millions)	193.6	194.7	195.8	197.0	198.0
Nonfarm Labor Productivity (2009=1.00)	1.70	1.73	1.76	1.78	1.81
Unemployment Rate (percent)	4.68	4.66	4.67	4.70	4.68
Key Indicators for Energy Demand					
Real Disposable Personal Income	24,492	24,953	25,410	25,861	26,328
Housing Starts (millions)	1.74	1.75	1.75	1.75	1.75
Commercial Floorspace (billion square feet)	121.6	122.8	123.9	125.0	126.1
Unit Sales of Light-Duty Vehicles (millions)	19.03	19.16	19.14	19.33	19.49

THE VALUE LINE Investment Survey®

Part 1 Summary & Index

File at the front of the *Ratings & Reports* binder. Last week's *Summary & Index* should be removed.

July 27, 2018

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SCREENS

The Median of Estimated
PRICE-EARNINGS RATIOS
of all stocks with earnings

18.6

26 Weeks Ago	Market Low	Market High
20.7	3-9-09 10.3	1-26-18 21.1

The Median of Estimated
DIVIDEND YIELDS
(next 12 months) of all dividend paying stocks under review

2.0%

26 Weeks Ago	Market Low	Market High
1.9%	3-9-09 4.0%	1-26-18 1.8%

The Estimated Median Price
APPRECIATION POTENTIAL
of all 1700 stocks in the Value Line universe in the hypothesized economic environment 3 to 5 years hence

40%

26 Weeks Ago	Market Low	Market High
25%	3-9-09 185%	1-26-18 20%

ANALYSES OF INDUSTRIES IN ALPHABETICAL ORDER WITH PAGE NUMBER

Numeral in parenthesis after the industry is rank for probable performance (next 12 months).

*Reviewed in this week's issue.

In three parts: This is Part 1, the Summary & Index. Part 2 is Selection & Opinion. Part 3 is Ratings & Reports. Volume LXXIII, No. 50.
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Index to Stocks

Prices quoted are as of July 17, 2018.
All shares are traded on the New York Stock Exchange except where noted.

PAGE NUMBERS
Bold type refers to Ratings and Reports

		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	1702	**AAON, Inc.**	(NDQ)	AAON	**35.75**	4	3	5	1.30	40- 60 (10- 70%)	**39.7**	**0.9**	.90	.32	21	3/31	**.08**	.19	9/30	▲.16	.13	YES
	702	AAR Corp.		AIR	**46.17**	3	3	3	1.20	40- 60 (N- 30%)	**21.5**	**0.6**	2.15	.30	59	5/31	**.52**	.44	9/30	.075	.075	YES
	1966	AB InBev ADR		BUD	**102.75**	4	1	5	1.05	105- 130 (N- 25%)	**23.4**	**4.3**	4.40	4.40	74	3/31	**.52**	.71	6/30	2.39	2.193	YES
	1739	ABB Ltd. ADR		ABB	**21.80**	3	2	4	1.10	30- 40 (40- 85%)	**18.2**	**3.8**	1.20	.83	32	3/31	**.27**	.34	6/30	.806	.76	YES
1036	380	ABM Industries Inc.		ABM	**29.34**	4	2	4	.85	55- 75 (85-155%)	**13.7**	**2.4**	2.14	.70	55	4/30	**.47**	.49	9/30	.175	.17	YES
	1409	ACCO Brands		ACCO	**14.10**	1	3	3	1.30	18- 30 (30-115%)	**10.4**	**1.7**	1.35	.24	68	3/31	**.09**	.04	6/30	.06	NIL	YES
	2611	ACI Worldwide	(NDQ)	ACIW	**26.40**	5	3	3	1.10	25- 40 (N- 50%)	**26.4**	**NIL**	1.00	NIL	47	3/31	**d.17**	d.01	6/30	NIL	NIL	YES
	1317	ADT Inc.		ADT	**9.39**	–	3	–	NMF	10- 16 (5- 70%)	**NMF**	**1.5**	d.45	.14	63	3/31	**d.22**	NA	9/30	.035	NIL	YES
	1216	AES Corp.		AES	**12.85**	2	3	3	1.15	16- 25 (25- 95%)	**6.8**	**4.0**	1.90	.52	71	3/31	**1.03**	d.04	9/30	◆.13	.12	YES
	152	AGCO Corp.		AGCO	**59.41**	3	3	4	1.05	80- 125 (35-110%)	**15.8**	**1.0**	3.75	.60	28	3/31	**.35**	d.02	6/30	.15	.14	YES
	2382	A.H. Belo		AHC	**4.35**	–	4	–	.90	8- 13 (85-200%)	**9.7**	**7.4**	.45	.32	93	3/31	**d.19**	d.20	9/30	.08	.08	YES
	742	AK Steel Holding		AKS	**4.78**	3	5	3	2.00	9- 16 (90-235%)	**7.4**	**NIL**	.65	NIL	6	3/31	**.09**	.20	6/30	NIL	NIL	YES
	2302	AMC Entertainment Hldgs.		AMC	**16.85**	3	3	4	1.05	25- 35 (50-110%)	**84.3**	**4.7**	.20	.80	45	3/31	**.14**	.07	6/30	.20	.20	YES
	2327	AMC Networks	(NDQ)	AMCX	**61.45**	1	3	2	.95	145- 220 (135-260%)	**7.4**	**NIL**	8.25	NIL	22	3/31	**2.65**	2.10	6/30	NIL	NIL	YES
227	1635	AMN Healthcare		AMN	**60.60**	2	3	3	1.05	60- 90 (N- 50%)	**20.5**	**NIL**	2.95	NIL	12	3/31	**.87**	.65	6/30	NIL	NIL	YES
	1566	ASA Gold & Precious		ASA	**10.03**	–	3	1	.90	16- 25 (60-150%)	**NMF**	**0.4**	d.10	.04-NIL	66	5/31	**12.11(q)**	13.49(q)	6/30	.02	.02	YES
	1636	ASGN Inc.		ASGN	**83.90**	2	3	3	1.40	70- 105 (N- 25%)	**31.1**	**NIL**	2.70	NIL	12	3/31	**.55**	.42	6/30	NIL	NIL	YES
★★	919	AT&T Inc.		T	**31.76**	3	1	3	.75	50- 60 (55- 90%)	**9.3**	**6.4**	3.40	2.02	60	3/31	**.85**	.74	9/30	.50	.49	YES
	939	A10 Networks		ATEN	**7.28**	–	4	–	1.65	8- 13 (10- 80%)	**NMF**	**NIL**	d.20	NIL	85	9/30	**d.04**	d.07	6/30	NIL	NIL	YES
	920	ATN International	(NDQ)	ATNI	**55.63**	4	3	4	.80	60- 90 (10- 60%)	**NMF**	**1.2**	.05	.68	60	3/31	**d.32**	.53	9/30	.17	.34	YES
	1318	AVX Corp.		AVX	**17.89**	5	3	5	1.10	20- 30 (10- 70%)	**21.6**	**2.6**	.83	.47	63	3/31	**.18**	.20	6/30	.115	.11	YES
	2134	Aaron's Inc.		AAN	**44.97**	4	3	4	1.05	55- 85 (20- 90%)	**13.6**	**0.3**	3.30	.12	48	3/31	**.81**	.80	9/30	.03	.028	YES
451	196	Abaxis, Inc.	(NDQ)	ABAX	**83.35**	–	3	–	1.05	70- 100 (N- 20%)	**57.9**	**0.9**	1.44	.72	78	3/31	**.42**	.33	6/30	▲.18	.14	YES
	197	Abbott Labs.		ABT	**62.80**	▼3	1	1	1.10	65- 75 (5- 20%)	**22.0**	**1.8**	2.85	1.12	78	6/30	**◆.73**	.62	9/30	.28	.265	YES
	1606	AbbVie Inc.		ABBV	**95.41**	2	3	2	1.15	125- 185 (30- 95%)	**12.2**	**4.0**	7.80	3.84	73	3/31	**1.87**	1.28	9/30	.96	.64	YES
1037	2197	Abercrombie & Fitch		ANF	**26.36**	3	4	2	1.25	30- 50 (15- 90%)	**37.7**	**3.0**	▼.70	.80	61	4/30	**d.62**	d.91	6/30	.20	.20	YES
	420	Aberdeen Australia Fd.	(ASE)	IAF	**6.08**	–	3	2	.95	9- 13 (50-115%)	**NMF**	**4.1**	NMF	.25	–	4/30	**6.18(q)**	6.45(q)	6/30	.034	.03	
	1205	Aberdeen Asia-Pac. Fd.	(ASE)	FAX	**4.34**	–	4	2	.70	4- 7 (N- 60%)	**NMF**	**9.7**	NMF	.42	–	4/30	**5.14(q)**	5.46(q)	6/30	.105	.105	
	421	Aberdeen Japan Equity		JEQ	**8.47**	–	3	3	1.00	10- 16 (20- 90%)	**NMF**	**0.6**	NMF	.05	–	4/30	**10.14(q)**	9.13(q)	6/30	NIL	NIL	
	170	ABIOMED Inc.	(NDQ)	ABMD	**427.37**	3	3	3	1.10	290- 435 (N- N%)	**NMF**	**NIL**	3.31	NIL	75	3/31	**.80**	.33	6/30	NIL	NIL	YES
451	940	Acacia Communications	(NDQ)	ACIA	**34.59**	–	3	–	1.50	50- 70 (45-100%)	**98.8**	**NIL**	.35	NIL	85	3/31	**d.23**	.86	6/30	NIL	NIL	YES
	2612	Accenture Plc		ACN	**168.07**	3	1	3	1.00	150- 185 (N- 10%)	**23.1**	**1.7**	7.28	2.90	47	5/31	**1.79**	1.52	6/30	1.33	1.21	YES
	2008	Activision Blizzard	(NDQ)	ATVI	**80.95**	3	3	3	1.10	45- 65 (N- N%)	**47.6**	**0.5**	1.70	.38	91	3/31	**.65**	.56	6/30	.34	.30	YES
1417	153	Actuant Corp.		ATU	**28.10**	4	3	3	1.35	30- 45 (5- 60%)	**25.3**	**0.1**	1.11	.04	28	5/31	**.39**	.32	6/30	NIL	NIL	YES
1845	1302	Acuity Brands		AYI	**130.91**	3	3	4	1.25	215- 325 (65-150%)	**13.8**	**0.4**	9.46	.52	51	5/31	**2.37**	2.15	9/30	.13	.13	YES
	1206	Adams Divers. Equity Fd		ADX	**15.85**	–	2	3	.95	20- 25 (25- 60%)	**NMF**	**1.5**	NMF	.23	–	3/31	**17.32(q)**	16.34(q)	6/30	.05	.05	
1243	972	Adient plc		ADNT	**49.04**	–	3	–	NMF	80- 120 (65-145%)	**6.5**	**2.2**	7.49	1.10	8	3/31	**1.85**	2.02	9/30	.275	.275	YES
	2588	Adobe Systems	(NDQ)	ADBE	**258.31**	3	2	3	1.10	270- 360 (5- 40%)	**52.7**	**NIL**	4.90	NIL	54	5/31	**1.33**	.75	6/30	NIL	NIL	YES
	1999	Adtalem Global Educ.		ATGE	**52.70**	5	3	3	1.10	40- 60 (N- 15%)	**17.1**	**NIL**	3.09	NIL	87	3/31	**.72**	.70	6/30	NIL	NIL	YES
	941	ADTRAN, Inc.	(NDQ)	ADTN	**16.00**	5	3	5	.90	20- 30 (25- 90%)	**NMF**	**2.3**	d.55	.36	85	6/30	**◆d.16**	.26	9/30	◆.09	.09	YES
	2118	Advance Auto Parts		AAP	**140.28**	3	3	3	1.05	180- 270 (30- 90%)	**20.2**	**0.2**	6.95	.24	7	3/31	**2.10**	1.60	9/30	.06	.06	YES
	1347	Advanced Energy	(NDQ)	AEIS	**59.95**	1	3	4	1.20	85- 125 (40-110%)	**11.5**	**NIL**	5.20	NIL	17	3/31	**1.34**	1.04	6/30	NIL	NIL	YES
2454	1348	Advanced Micro Dev.	(NDQ)	AMD	**16.87**	3	5	3	1.55	9- 16 (N- N%)	**48.2**	**NIL**	.35	NIL	17	3/31	**.11**	d.04	6/30	NIL	NIL	YES
	561	AdvanSix Inc.		ASIX	**38.32**	–	3	–	NMF	45- 65 (15- 70%)	**13.0**	**NIL**	2.95	NIL	15	3/31	**.37**	.88	6/30	NIL	NIL	YES
	1233	AECOM		ACM	**32.41**	4	3	3	1.40	45- 70 (40-115%)	**12.8**	**NIL**	2.53	NIL	82	3/31	**.67**	.89	6/30	NIL	NIL	YES
	1102	Aegion Corp.	(NDQ)	AEGN	**25.35**	4	3	3	1.35	35- 50 (40- 95%)	**18.8**	**NIL**	1.35	NIL	30	3/31	**.13**	.18	6/30	NIL	NIL	YES
	1554	AEGON		AEG					SEE FINAL REPORT													
	2536	AerCap Hldgs. NV		AER	**55.33**	3	3	2	1.35	65- 100 (15- 80%)	**8.2**	**NIL**	6.75	NIL	20	3/31	**1.72**	1.48	6/30	NIL	NIL	YES
	1740	Aerojet Rocketdyne		AJRD	**30.59**	2	3	3	1.10	30- 45 (N- 45%)	**29.1**	**NIL**	1.05	NIL	32	3/31	**.18**	.08	6/30	NIL	NIL	YES
	703	AeroVironment	(NDQ)	AVAV	**74.70**	4	3	3	1.15	35- 55 (N- N%)	**NMF**	**NIL**	.34	NIL	59	4/30	**.85**	1.32	6/30	NIL	NIL	YES
	797	Aetna Inc.		AET	**191.54**	–	2	–	.95	195- 265 (N- 40%)	**17.5**	**1.0**	10.95	2.00	9	3/31	**3.19**	2.71	9/30	.50	.50	YES
	2537	Affiliated Managers		AMG	**148.49**	2	3	3	1.45	210- 310 (40-110%)	**16.1**	**0.9**	9.20	1.40	20	3/31	**2.77**	2.13	6/30	.30	.20	YES
	1555	Aflac Inc.		AFL	**42.94**	2	2	1	1.00	55- 75 (30- 75%)	**10.7**	**2.5**	4.00	1.08	13	3/31	**1.05**	.84	6/30	.26	.215	YES
451	113	Agilent Technologies		A	**63.04**	3	3	2	1.10	75- 115 (20- 80%)	**22.8**	**1.0**	2.77	.60	62	4/30	**.65**	.58	9/30	.149	.132	YES
	1567	Agnico Eagle Mines		AEM	**45.55**	4	3	3	.60	65- 100 (45-120%)	**50.6**	**1.0**	.90	.45	66	3/31	**.19**	.28	6/30	.11	.10	YES

★★ Supplementary Report in this week's issue.
▲ Arrow indicates the direction of a change. When it appears with the Latest Dividend, the arrow signals that a change in the regular payment rate has occurred in the latest quarter.

For Timeliness, 3-5 year Target Price Range, or Estimated Earnings 12 months to 12-31-18, the arrow indicates a change since the preceding week. When a diamond ◆ (indicating a new figure) appears alongside the latest quarterly earnings results, the rank change probably was primarily caused by the earnings report. In other cases, the change is due to the dynamics of the ranking system and could simply be the result of the improvement or weakening of other stocks.

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		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS: Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS: Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	2443	Air Products & Chem.		APD	156.20	3	1	1	1.05	185- 225 (20- 45%)	20.9	2.8	7.46	4.40	4	3/31	1.71	1.43	9/30	1.10	.95	YES
	2538	Aircastle Ltd.		AYR	20.35	3	3	4	1.35	35- 50 (70-145%)	8.3	5.5	2.45	1.12	20	3/31	.73	.54	6/30	.28	.26	YES
	1815	Akamai Technologies	(NDQ)	AKAM	78.63	3	3	3	1.20	110- 165 (40-110%)	41.4	NIL	1.90	NIL	64	3/31	.31	.46	6/30	NIL	NIL	YES
2454	1607	Akorn, Inc.	(NDQ)	AKRX	16.74	–	4	–	1.20	12- 20 (N- 20%)	NMF	NIL	d.70	NIL	73	3/31	d.23	.33	6/30	NIL	NIL	YES
	302	Alaska Air Group		ALK	61.80	3	3	4	1.15	85- 130 (40-110%)	10.9	2.1	5.65	1.28	25	3/31	.14	1.05	6/30	.32	.30	YES
	1703	Albany Int'l 'A'		AIN	63.25	2	3	3	1.15	65- 95 (5- 50%)	30.1	1.1	2.10	.68	21	3/31	.54	.46	9/30	.17	.17	YES
	2444	Albemarle Corp.		ALB	96.97	2	3	4	1.30	120- 180 (25- 85%)	18.6	1.4	5.20	1.34	4	3/31	1.18	.45	9/30	.335	.32	YES
★★	1581	Alcoa Corp.		AA	48.02	–	3	–	NMF	60- 90 (25- 85%)	11.0	NIL	4.35	NIL	35	6/30	◆1.52	.62	6/30	NIL	NIL	YES
	1511	Alexandria Real Estate		ARE	125.77	3	3	2	.90	150- 225 (20- 80%)	42.6	3.0	2.95	3.72	96	3/31	1.32	.29	6/30	.90	.83	YES
	1608	Alexion Pharmac.	(NDQ)	ALXN	136.40	3	3	5	1.20	135- 205 (N- 50%)	32.5	NIL	4.20	NIL	73	3/31	1.11	.75	6/30	NIL	NIL	YES
	2633	Alibaba Group Hldg Ltd.		BABA	192.66	3	3	2	1.05	185- 280 (N- 45%)	35.0	NIL	5.51	NIL	79	3/31	.91	.63	6/30	NIL	NIL	YES
	198	Align Techn.	(NDQ)	ALGN	370.53	3	3	3	1.20	230- 345 (N- N%)	77.2	NIL	4.80	NIL	78	3/31	1.17	.85	6/30	NIL	NIL	YES
	1946	Ali. Couche-Tard	(TSE)	ATDB.TO	62.01b	3	3	5	.80	110- 165 (75-165%)	14.8	0.7	4.18	.41	39	4/30	.93(b)	.66(b)	9/30	▲.10(b)	.18(b)	YES
	833	Alkermes plc	(NDQ)	ALKS	45.12	3	3	5	1.35	65- 95 (45-110%)	NMF	NIL	.05	NIL	90	3/31	d.09	d.18	6/30	NIL	NIL	YES
	758	Alleghany Corp.		Y	603.16	3	1	3	.95	665- 810 (10- 35%)	18.8	NIL	32.00	NIL	56	3/31	8.14	9.67	6/30	NIL	NIL	YES
	1582	Allegheny Techn.		ATI	26.71	3	4	2	1.95	35- 60 (30-125%)	19.1	NIL	1.40	NIL	35	3/31	.32	.16	6/30	NIL	NIL	YES
	303	Allegiant Travel	(NDQ)	ALGT	139.00	3	3	1	.85	200- 300 (45-115%)	12.7	2.0	10.95	2.80	25	3/31	3.42	2.50	6/30	.70	.70	YES
	1319	Allegion plc		ALLE	80.08	3	3	3	1.10	95- 145 (20- 80%)	18.2	1.0	4.40	.84	63	3/31	.80	.73	6/30	.21	.16	YES
	1609	Allergan plc		AGN	175.66	3	3	4	1.05	230- 340 (30- 95%)	11.0	1.6	16.00	2.88	73	3/31	3.74	3.35	6/30	.72	.70	YES
	902	ALLETE		ALE	77.44	4	2	3	.75	55- 75 (N- N%)	22.8	3.0	3.40	2.29	52	3/31	.99	.97	6/30	.56	.535	YES
	434	Alliance Data Sys.		ADS	225.44	▲2	3	4	1.15	330- 495 (45-120%)	9.8	1.0	22.95	2.28	36	3/31	4.44	3.90	6/30	.57	.52	YES
	1583	Alliance Resource	(NDQ)	ARLP	18.55	4	3	3	1.15	45- 70 (145-275%)	7.1	11.6	2.60	2.15	35	3/31	.55	1.10	6/30	▲.515	.438	YES
	2539	AllianceBernstein Hldg.		AB	29.50	2	3	3	1.20	30- 45 (N- 55%)	11.8	7.0	2.50	2.07	20	3/31	.60	.46	6/30	.73	.49	YES
	903	Alliant Energy		LNT	42.88	3	2	4	.70	35- 45 (N- 5%)	20.4	3.1	2.10	1.34	52	3/31	.52	.44	9/30	◆.335	.315	YES
	973	Allison Transmission		ALSN	41.62	1	3	3	1.00	70- 110 (70-165%)	10.8	1.4	3.85	.60	8	3/31	1.08	.52	6/30	.15	.15	YES
	825	Allscripts Healthcare	(NDQ)	MDRX	12.45	2	3	4	1.00	17- 25 (35-100%)	16.2	NIL	.77	NIL	49	3/31	.16	.13	6/30	NIL	NIL	YES
	759	Allstate Corp.		ALL	94.26	1	1	3	.85	150- 180 (60- 90%)	10.9	2.0	8.65	1.84	56	3/31	2.96	1.64	9/30	.46	.37	YES
	2502	Ally Financial		ALLY	27.55	1	3	3	1.20	45- 65 (65-135%)	9.2	2.2	3.00	.60	19	3/31	.68	.48	9/30	▲.15	.12	YES
	834	Alnylam Pharmac.	(NDQ)	ALNY	102.27	5	4	3	1.55	95- 160 (N- 55%)	NMF	NIL	d6.00	NIL	90	3/31	d1.41	d1.25	6/30	NIL	NIL	YES
	2634	Alphabet Inc.	(NDQ)	GOOG	1198.80	2	1	3	1.10	1320-1615 (10- 35%)	30.9	NIL	38.80	NIL	79	3/31	9.09	7.73	6/30	NIL	NIL	YES
	1018	Altice USA		ATUS	17.89	–	3	–	NMF	25- 35 (40- 95%)	NMF	NIL	d.10	NIL	38	3/31	d.17	d.11	6/30	NIL	NIL	YES
	1704	Altra Industrial Motion	(NDQ)	AIMC	44.25	–	3	–	1.30	45- 70 (N- 60%)	21.1	1.6	2.10	.72	21	3/31	.31	.36	9/30	.17	.17	YES
	1992	Altria Group		MO	57.35	2	2	3	.70	80- 110 (40- 90%)	14.3	4.9	4.00	2.80	70	3/31	.95	.72	9/30	.70	.66	YES
	2635	Amazon.com	(NDQ)	AMZN	1843.93	3	3	4	1.15	1210-1810 (N- N%)	NMF	NIL	9.70	NIL	79	3/31	3.27	1.48	6/30	NIL	NIL	YES
1036	1349	Ambarella, Inc.	(NDQ)	AMBA	38.51	5	4	3	1.55	40- 65 (5- 70%)	45.3	NIL	.85	NIL	17	4/30	.13	.39	6/30	NIL	NIL	YES
	2613	Amdocs Ltd.	(NDQ)	DOX	68.96	4	1	3	.80	65- 80 (N- 15%)	21.8	1.5	3.17	1.00	47	3/31	.70	.76	9/30	.25	.22	YES
	798	Amedisys, Inc.	(NDQ)	AMED	93.34	3	3	4	.95	60- 90 (N- N%)	30.6	NIL	3.05	NIL	9	3/31	.79	.47	6/30	NIL	NIL	YES
	319	AMERCO	(NDQ)	UHAL	365.90	3	3	4	1.05	420- 630 (15- 70%)	19.0	NIL	19.26	NIL	18	3/31	.56	.49	6/30	NIL	NIL	
	904	Ameren Corp.		AEE	61.27	2	2	4	.65	50- 65 (N- 5%)	20.1	3.1	3.05	1.88	52	3/31	.62	.42	6/30	.458	.44	YES
	921	America Movil		AMX	17.40	4	3	3	1.05	20- 30 (15- 70%)	21.8	2.0	.80	.35	60	6/30	NIL	.23	6/30	NIL	NIL	YES
	304	Amer. Airlines	(NDQ)	AAL	37.38	3	3	3	1.30	65- 95 (75-155%)	6.9	1.1	5.45	.40	25	3/31	.75	.46	6/30	.10	.10	YES
	974	Amer. Axle		AXL	16.73	3	4	4	1.30	30- 45 (80-170%)	4.5	NIL	3.70	NIL	8	3/31	.98	1.02	6/30	NIL	NIL	YES
	2198	Amer. Eagle Outfitters		AEO	23.85	3	3	2	.95	25- 40 (5- 70%)	15.4	2.3	1.55	.55	61	4/30	.23	.16	9/30	.138	.125	YES
	905	Amer. Elec. Power		AEP	70.44	4	1	5	.65	65- 80 (N- 15%)	18.3	3.6	3.85	2.57	52	3/31	.92	.94	6/30	.62	.59	YES
★★	2540	Amer. Express		AXP	101.15	3	1	3	1.05	110- 135 (10- 35%)	13.9	1.5	7.26	1.49	20	3/31	1.86	1.34	9/30	.35	.32	YES
	760	Amer. Financial Group		AFG	108.94	2	2	2	.90	100- 140 (N- 30%)	13.3	1.3	8.20	1.40	56	3/31	2.42	1.69	9/30	.35	.313	YES
	2541	Amer. Int'l Group		AIG	54.71	5	3	4	1.05	70- 105 (30- 90%)	8.5	2.3	6.40	1.28	20	3/31	1.04	1.18	6/30	.32	.32	YES
	2303	Amer. Outdoor Brands	(NDQ)	AOBC	10.93	4	3	3	.90	20- 30 (85-175%)	28.0	NIL	.39	NIL	45	4/30	.14	.50	6/30	NIL	NIL	YES
	340	Amer. Railcar	(NDQ)	ARII	41.33	3	3	4	1.45	45- 65 (10- 55%)	16.2	3.9	2.55	1.60	42	3/31	.68	.55	6/30	.40	.40	YES
	1784	Amer. States Water		AWR	60.27	4	2	3	.80	45- 60 (N- N%)	34.4	1.8	1.75	1.08	94	3/31	.20	.34	6/30	.255	.242	YES
	596	Amer. Tower 'A'		AMT	142.17	3	2	3	.95	165- 225 (15- 60%)	46.6	2.3	3.05	3.28	86	3/31	.63	.67	9/30	▲.77	.64	YES
	562	Amer. Vanguard Corp.		AVD	22.05	3	3	3	1.15	25- 35 (15- 60%)	27.6	0.4	.80	.08	15	3/31	.16	.12	9/30	.02	.015	YES
	1785	Amer. Water Works		AWK	87.69	3	3	4	.65	75- 115 (N- 30%)	26.6	2.1	3.30	1.85	94	3/31	.59	.52	6/30	▲.455	.415	YES
851	1103	Amer. Woodmark	(NDQ)	AMWD	86.30	2	3	3	1.15	130- 200 (50-130%)	13.9	NIL	6.23	NIL	30	4/30	1.08	1.06	6/30	NIL	NIL	YES
	622	AmeriGas Partners		APU	42.35	3	3	4	.80	50- 70 (20- 65%)	26.8	9.0	1.58	3.83	50	3/31	1.44	1.14	6/30	.95	.95	YES
	2542	Ameriprise Fin'l		AMP	142.96	1	3	3	1.35	215- 320 (50-125%)	9.9	2.5	14.45	3.60	20	3/31	3.91	2.52	6/30	▲.90	.83	YES
	199	AmerisourceBergen		ABC	86.82	3	3	2	1.00	105- 160 (20- 85%)	13.3	1.8	6.55	1.52	78	3/31	1.94	1.77	6/30	.38	.365	YES
	1741	AMETEK, Inc.		AME	73.18	3	2	1	1.15	65- 90 (N- 25%)	23.6	0.8	3.10	.56	32	3/31	.78	.60	6/30	.14	.09	YES
	835	Amgen	(NDQ)	AMGN	193.92	3	1	3	1.15	265- 320 (35- 65%)	14.6	2.8	13.25	5.34	90	3/31	3.47	3.15	6/30	1.32	1.15	YES
	1379	Amkor Technology	(NDQ)	AMKR	8.50	3	4	3	1.30	13- 20 (55-135%)	14.2	NIL	.60	NIL	3	3/31	.04	d.04	6/30	NIL	NIL	YES
	1320	Amphenol Corp.		APH	89.01	2	2	2	1.00	75- 105 (N- 20%)	25.4	1.0	3.50	.92	63	3/31	.84	.69	9/30	▲.23	.16	YES
	761	AmTrust Financial Svcs.	(NDQ)	AFSI	14.61	–	3	–	.95	25- 40 (70-175%)	2.8	4.7	5.30	.68	56	3/31	3.36	.13	6/30	.17	.17	YES
	2399	Anadarko Petroleum		APC	71.43	3	3	3	1.55	60- 90 (N- 25%)	46.1	1.4	1.55	1.00	11	3/31	.22	d.58	6/30	.25	.05	YES
	1350	Analog Devices	(NDQ)	ADI	98.26	2	2	2	1.15	115- 155 (15- 60%)	16.8	2.0	5.86	1.92	17	4/30	1.45	1.03	6/30	.48	.45	YES
1649	114	Analogic Corp.		ALOG	SEE FINAL SUPPLEMENT																	
2665	502	Andeavor		ANDV	135.60	–	3	–	1.20	110- 170 (N- 25%)	23.4	1.7	5.80	2.36	29	3/31	1.07	.42	6/30	.59	.55	YES
	623	Andeavor Logistics LP		ANDX	42.22	3	3	3	1.35	75- 115 (80-170%)	14.6	9.6	2.90	4.06	50	3/31	.59	.51	6/30	▲1.015	.94	YES
2030	171	AngioDynamics	(NDQ)	ANGO	21.08	5	3	3	.90	18- 25 (N- 20%)	78.1	NIL	.27	NIL	75	5/31	.06	d.35	6/30	NIL	NIL	YES
	1568	AngloGold Ashanti ADS		AU	8.47	3	4	3	.60	16- 25 (90-195%)	12.1	0.6	.70	.05	66	12/31	.24(p)	.02(p)	6/30	.058	.093	YES
	1321	Anixter Int'l		AXE	64.70	4	3	4	1.20	90- 130 (40-100%)	12.8	NIL	5.05	NIL	63	3/31	.94	.91	6/30	NIL	NIL	YES
	1512	Annaly Capital Mgmt.		NLY	10.41	4	3	4	.65	12- 18 (15- 75%)	8.8	11.5	1.18	1.20	96	3/31	.30	.31	9/30	.30	.30	YES
	2589	ANSYS, Inc.	(NDQ)	ANSS	180.64	3	2	3	1.05	170- 235 (N- 30%)	37.2	NIL	4.85	NIL	54	3/31	1.20	.89	6/30	NIL	NIL	YES
	624	Antero Midstream Part.		AM	29.96	3	3	3	1.15	45- 65 (50-115%)	15.0	6.0	2.00	1.80	50	3/31	.43	.35	9/30	▲.415	.32	YES
	526	Antero Resources		AR	21.45	2	3	4	1.30	60- 85 (180-295%)	16.5	NIL	1.30	NIL	24	3/31	.44	.18	6/30	NIL	NIL	YES
	799	Anthem, Inc.		ANTM	246.03	3	2	3	.90	300- 410 (20- 65%)	17.0	1.2	14.45	3.00	9	3/31	4.99	3.73	6/30	.75	.65	YES
	2543	Aon plc		AON	145.62	1	1	3	.95	160- 195 (10- 35%)	18.2	1.1	8.00	1.60	20	3/31	2.97	1.45	6/30	▲.40	.36	YES
	2400	Apache Corp.		APA	45.26	2	3	4	1.50	80- 120 (75-165%)	28.3	2.2	1.60	1.00	11	3/31	.32	.08	9/30	.25	.25	YES
	1513	Apartment Investment		AIV	42.03	3	3	4	.80	35- 50 (N- 20%)	20.0	3.6	2.10	1.52	96	3/31	.52	.07	6/30	.38	.36	YES
	1104	Apogee Enterprises	(NDQ)	APOG	49.92	3	3	4	1.30	55- 85 (10- 70%)	14.4	1.3	3.47	.64	30	5/31	.62	.62	9/30	.158	.14	YES
	2658	Apollo Global Mgmt		APO	36.02	4	3	3	1.35	35- 50 (N- 40%)	11.6	4.2	3.10	1.52	97	3/31	d.30	.82	6/30	.38	.49	YES
	2659	Apollo Investment	(NDQ)	AINV	5.80	4	3	4	.90	7- 10 (20- 70%)	8.4	10.3	.69	.60	97	3/31	.10	.04	9/30	.15	.15	YES
2666	1393	Apple Inc.	(NDQ)	AAPL	191.45	2	2	2	.95	235- 320 (25- 65%)	16.1	1.6	11.91	2.99	43	3/31	2.73	2.10	6/30	▲.73	.63	YES

(•) All data adjusted for announced stock split or stock dividend. See back page of Ratings & Reports.
◆ New figure this week.
(b) Canadian Dollars.
(d) Deficit.
(f) The estimate may reflect a probable increase or decrease. If a dividend boost or cut is possible but not probable, two figures are shown, the first is the more likely.
(g) Dividends subject to foreign withholding tax for U.S. residents.
(h) Est'd Earnings & Est'd Dividends after conversion to U.S. dollars at Value Line estimated translation rate.
(j) All Index data expressed in hundreds.
(p) 6 months (q) Asset Value
N=Negative figure NA=Not available NMF=No meaningful figure

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Bold type refers to Ratings and Reports

		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	1705	Applied Ind'l Techn.		AIT	72.90	2	3	3	1.00	75- 115 (5- 60%)	18.5	1.6	3.93	1.20	21	3/31	.93	.75	9/30	.30	.29	YES
643	1380	Applied Materials	(NDQ)	AMAT	47.30	1	3	2	1.20	70- 105 (50-120%)	10.0	1.7	4.71	.80	3	4/30	1.22	.76	9/30	.20	.10	YES
	1175	AptarGroup		ATR	94.64	3	2	3	.95	90- 120 (N- 25%)	25.6	1.4	3.70	1.36	16	3/31	.92	.81	6/30	.32	.32	YES
	975	Aptiv PLC		APTV	96.34	–	3	–	1.20	85- 130 (N- 35%)	22.7	0.9	4.25	.88	8	3/31	1.15	.82	6/30	.22	.29	YES
	1786	Aqua America		WTR	36.41	4	2	4	.75	40- 50 (10- 35%)	26.0	2.4	1.40	.88	94	3/31	.29	.28	6/30	.205	.191	YES
	1742	ARAMARK Holdings		ARMK	38.49	3	3	4	.90	50- 75 (30- 95%)	29.4	1.1	1.31	.42	32	3/31	.11	.28	6/30	.105	.103	YES
	320	ArcBest Corp.	(NDQ)	ARCB	44.80	2	3	1	1.65	60- 90 (35-100%)	17.6	0.7	2.55	.32	18	3/31	.29	d.22	6/30	.08	.08	YES
	743	ArcelorMittal		MT	30.31	1	3	2	1.65	50- 75 (65-145%)	7.2	NIL	4.20	NIL	6	3/31	1.17	.98	6/30	NIL	NIL	YES
	762	Arch Capital Group	(NDQ)	ACGL	28.36	3	1	4	.70	30- 40 (5- 40%)	12.9	NIL	2.20	NIL	56	3/31	.19	.47	6/30	NIL	NIL	YES
	1902	Archer Daniels Midl'd		ADM	47.72	3	2	3	1.10	45- 65 (N- 35%)	15.4	2.8	3.10	1.36	81	3/31	.70	.59	6/30	.335	.32	YES
★★	1584	Arconic Inc.		ARNC	19.24	–	3	–	NMF	40- 60 (110-210%)	15.4	1.2	1.25	.24	35	3/31	.34	.33	9/30	.06	.06	YES
	2020	Argo Group Int'l		ARGO	60.00	3	2	2	.85	65- 85 (10- 40%)	12.0	1.8	5.00	1.08	95	3/31	.71	1.03	6/30	▲.27	.235	
227	1816	Arista Networks		ANET	273.88	3	3	2	1.00	345- 370 (25- 35%)	38.0	NIL	7.20	NIL	64	3/31	1.79	1.07	6/30	NIL	NIL	YES
	1105	Armstrong World Inds.		AWI	68.00	2	3	3	1.25	70- 105 (5- 55%)	18.9	NIL	3.60	NIL	30	3/31	.76	.55	6/30	NIL	NIL	YES
	942	Arris Int'l plc	(NDQ)	ARRS	26.52	1	3	4	1.25	40- 60 (50-125%)	8.8	NIL	3.00	NIL	85	3/31	.73	.40	6/30	NIL	NIL	YES
	1322	Arrow Electronics		ARW	77.73	1	3	3	1.30	75- 110 (N- 40%)	9.3	NIL	8.40	NIL	63	3/31	1.88	1.46	6/30	NIL	NIL	YES
	2119	Asbury Automotive		ABG	68.75	▲1	3	1	1.30	80- 120 (15- 75%)	8.9	NIL	7.75	NIL	7	3/31	1.93	1.58	6/30	NIL	NIL	YES
	2199	Ascena Retail Group	(NDQ)	ASNA	3.52	4	5	2	1.50	11- 20 (215-470%)	NMF	NIL	▼d.31	NIL	61	4/30	d.20	d.07	6/30	NIL	NIL	YES
	563	Ashland Global Hldgs.		ASH	80.91	–	3	–	NMF	70- 110 (N- 35%)	22.9	1.3	3.53	1.03	15	3/31	1.06	.46	6/30	.225	.39	YES
	2021	Aspen Insurance Hldgs.		AHL	40.10	4	2	3	.85	45- 60 (10- 50%)	9.7	2.4	4.15	.96	95	3/31	.38	1.36	6/30	.24	.24	YES
	779	Assoc. Banc-Corp		ASB	28.05	3	3	2	1.10	30- 45 (5- 60%)	15.2	2.1	1.85	.60	14	3/31	.40	.35	6/30	.15	.12	YES
	2544	Assurant Inc.		AIZ	107.65	3	2	4	.85	75- 100 (N- N%)	14.4	2.1	7.50	2.24	20	3/31	.96	2.53	9/30	◆.56	.53	YES
	2022	Assured Guaranty		AGO	36.37	3	3	3	1.25	35- 55 (N- 50%)	10.4	1.8	3.50	.66	95	3/31	1.68	2.49	6/30	.16	.143	YES
	154	Astec Inds.	(NDQ)	ASTE	60.76	3	3	3	1.10	80- 125 (30-105%)	17.9	0.7	3.40	.40	28	3/31	.87	.65	6/30	.10	.10	YES
	1610	AstraZeneca PLC (ADS)		AZN	37.17	5	3	3	1.00	35- 55 (N- 50%)	33.8	3.8	1.10	1.40	73	3/31	.14	.21	6/30	NIL	NIL	YES
	704	Astronics Corp.	(NDQ)	ATRO	38.47	5	3	3	1.25	50- 75 (30- 95%)	24.0	NIL	1.60	NIL	59	3/31	.11	.38	6/30	NIL	NIL	
	1637	Atento S.A.		ATTO	6.25	3	4	3	.60	10- 16 (60-155%)	11.4	5.4	.55	.34	12	3/31	d.02	.12	6/30	NIL	NIL	
1037	826	athenahealth	(NDQ)	ATHN	158.74	–	3	–	1.15	200- 295 (25- 85%)	35.7	NIL	4.45	NIL	49	3/31	1.25	.32	6/30	NIL	NIL	YES
	305	Atlas Air Worldwide	(NDQ)	AAWW	69.10	3	3	3	1.35	75- 115 (10- 65%)	10.6	NIL	6.50	NIL	25	3/31	.86	d.03	6/30	NIL	NIL	YES
	549	Atmos Energy		ATO	90.80	4	1	3	.70	100- 120 (10- 30%)	22.0	2.3	4.13	2.05	41	3/31	1.57	1.52	6/30	.485	.45	YES
	2590	Autodesk, Inc.	(NDQ)	ADSK	136.56	4	3	3	1.20	95- 145 (N- 5%)	NMF	NIL	d1.30	NIL	54	4/30	d.38	d.59	6/30	NIL	NIL	YES
	976	Autoliv, Inc.		ALV	106.88	–	3	–	1.00	140- 205 (30- 90%)	15.2	2.3	7.05	2.48	8	3/31	1.45	1.62	9/30	.62	.60	YES
	2614	Automatic Data Proc.	(NDQ)	ADP	137.36	3	1	3	1.00	135- 165 (N- 20%)	26.7	2.1	5.15	2.82	47	3/31	1.45	1.31	9/30	▲.69	.57	YES
	2120	AutoNation, Inc.		AN	49.64	4	3	3	1.15	80- 120 (60-140%)	10.2	NIL	4.85	NIL	7	3/31	1.01	.97	6/30	NIL	NIL	YES
	2121	AutoZone Inc.		AZO	699.94	2	3	3	.80	860-1285 (25- 85%)	13.1	NIL	53.55	NIL	7	5/31	13.42	11.44	6/30	NIL	NIL	YES
	1514	AvalonBay Communities		AVB	171.37	3	2	4	.70	205- 275 (20- 60%)	26.4	3.5	6.50	6.04	96	3/31	1.03	1.72	9/30	1.47	1.42	YES
	139	AVANGRID, Inc.		AGR	52.77	3	2	3	.40	45- 60 (N- 15%)	22.9	3.3	2.30	1.76	53	3/31	.79	.77	12/31	▲.44	.432	YES
	209	Avanos Medical		AVNS	57.55	–	3	–	1.25	40- 60 (N- 5%)	67.7	NIL	.85	NIL	78	3/31	d.24	d.32	6/30	NIL	NIL	YES
	564	Avery Dennison		AVY	104.48	2	2	2	.95	110- 150 (5- 45%)	17.7	2.0	5.90	2.12	15	3/31	1.44	1.11	6/30	▲.52	.45	YES
	2163	Avis Budget Group	(NDQ)	CAR	31.98	3	4	2	1.50	50- 80 (55-150%)	9.0	NIL	3.55	NIL	44	3/31	d.74	d.94	6/30	NIL	NIL	YES
	2220	Avista Corp.		AVA	50.59	–	2	–	.70	35- 45 (N- N%)	26.6	3.0	1.90	1.52	84	3/31	.83	.96	6/30	.373	.357	YES
	1323	Avnet, Inc.	(NDQ)	AVT	43.82	3	3	4	1.20	55- 80 (25- 85%)	11.7	1.7	3.76	.76	63	3/31	1.02	.88	6/30	.19	.18	YES
	1007	Avon Products		AVP	1.44	4	5	2	1.70	3- 6 (110-315%)	9.6	NIL	.15	NIL	72	3/31	d.02	d.07	6/30	NIL	NIL	YES
	565	Axalta Coating		AXTA	30.03	4	3	1	1.05	35- 50 (15- 65%)	23.1	NIL	1.30	NIL	15	3/31	.28	.26	6/30	NIL	NIL	YES
	2023	AXIS Capital Hldgs.		AXS	57.59	3	2	4	.75	70- 95 (20- 65%)	11.5	2.7	5.00	1.56	95	3/31	1.46	.59	9/30	.39	.38	YES
227	705	Axon Enterprise	(NDQ)	AAXN	70.64	3	4	3	1.20	30- 50 (N- N%)	NMF	NIL	.45	NIL	59	3/31	.24	.09	6/30	NIL	NIL	YES
	1903	**B&G Foods**		BGS	30.80	4	3	4	.65	45- 70 (45-125%)	14.3	6.2	2.15	1.90	81	3/31	.55	.58	9/30	▲.475	.465	YES
	2503	BB&T Corp.		BBT	52.00	2	2	2	1.00	55- 70 (5- 35%)	13.3	3.0	3.90	1.56	19	3/31	.94	.46	6/30	▲.375	.30	YES
	1028	BCE Inc.		BCE	42.49	4	3	4	.75	45- 65 (5- 55%)	15.7	5.6	2.70	2.36	89	3/31	.62	.62	9/30	.581	.553	YES
	1794	BGC Partners	(NDQ)	BGCP	11.07	–	3	–	1.20	12- 18 (10- 65%)	9.2	6.5	1.20	.72	23	3/31	.32	.23	6/30	.18	.18	YES
	1585	BHP Billiton Ltd. ADR		BHP	48.73	4	3	3	1.35	60- 85 (25- 75%)	15.0	4.5	3.25	2.20(h)	35	12/31	.75(p)	1.20(p)	6/30	NIL	NIL	YES
	352	BJ's Restaurants	(NDQ)	BJRI	62.60	2	3	3	.85	80- 120 (30- 90%)	30.5	0.7	2.05	.44	67	3/31	.70	.42	6/30	.11	NIL	YES
	780	BOK Financial	(NDQ)	BOKF	96.01	2	3	2	1.10	100- 150 (5- 55%)	14.3	1.9	6.70	1.80	14	3/31	1.61	1.35	6/30	.45	.44	YES
	503	BP PLC ADR		BP	44.43	3	3	3	1.20	55- 85 (25- 90%)	15.6	5.4	2.85	2.40	29	3/31	.74	.44	6/30	.60	.60	YES
228	1029	BT Group ADR(g)		BT	14.56	3	3	4	1.00	25- 35 (70-140%)	7.9	7.1	1.85	1.04	89	3/31	.61	.52	6/30	NIL	NIL	
	1217	BWX Technologies		BWXT	64.49	2	3	2	.90	75- 115 (15- 80%)	25.8	1.0	2.50	.64	71	3/31	.66	.55	6/30	.16	.11	YES
	115	Badger Meter		BMI	45.75	▲3	3	3	1.05	45- 65 (N- 40%)	31.6	1.1	1.45	.52	62	3/31	.26	.30	6/30	.13	.115	YES
	2636	Baidu, Inc.	(NDQ)	BIDU	270.02	2	3	2	1.40	330- 495 (20- 85%)	29.7	NIL	9.08	NIL	79	3/31	2.14	.67	6/30	NIL	NIL	YES
	2419	Baker Hughes, a GE co.		BHGE	32.64	–	3	–	NMF	45- 70 (40-115%)	43.5	2.2	.75	.72	92	3/31	.17	NIL	6/30	.18	.17	YES
	566	Balchem Corp.	(NDQ)	BCPC	98.69	3	3	3	1.10	115- 170 (15- 70%)	34.0	0.4	2.90	.42	15	3/31	.60	.48	6/30	NIL	NIL	YES
	1176	Ball Corp.		BLL	38.25	2	2	4	.95	35- 45 (N- 20%)	18.2	1.0	2.10	.40	16	3/31	.35	.19	6/30	.10	.10	YES
	2504	BancorpSouth Bank		BXS	33.60	3	3	2	1.15	35- 55 (5- 65%)	17.4	1.8	1.93	.62	19	3/31	.54	.41	9/30	.14	.125	YES
	2505	Bank of America		BAC	30.01	2	3	2	1.20	35- 50 (15- 65%)	12.2	1.8	2.45	.54	19	6/30	◆.63	.44	6/30	.12	.075	YES
	2506	Bank of Hawaii		BOH	84.08	4	2	2	1.00	90- 120 (5- 45%)	16.0	2.9	5.27	2.40	19	3/31	1.28	1.20	6/30	▲.60	.50	YES
	2507	Bank of Montreal	(TSE)	BMO.TO	103.67b	3	2	3	.80	105- 145 (N- 40%)	12.6	3.7	8.20	3.84	19	4/30	1.86(b)	1.84(b)	9/30	▲.96(b)	.90(b)	YES
	2508	Bank of New York Mellon		BK	54.05	2	2	1	1.10	80- 110 (50-105%)	12.9	2.1	4.20	1.12	19	3/31	1.10	.83	6/30	.24	.19	YES
	2509	Bank of Nova Scotia	(TSE)	BNS.TO	76.15b	3	1	3	.85	95- 115 (25- 50%)	10.7	4.4	7.12	3.36	19	4/30	1.70(b)	1.62(b)	9/30	.82(b)	.76(b)	YES
1846	2164	Barnes & Noble		BKS	5.45	4	4	4	1.45	8- 14 (45-155%)	13.6	11.0	▲.40	.60-NIL	44	4/30	d.10	d.19	9/30	.15	.15	YES
	1743	Barnes Group		B	60.32	3	3	3	1.20	65- 100 (10- 65%)	19.5	1.1	3.10	.64	32	3/31	.72	.71	6/30	▲.16	.14	YES
	1638	Barrett Business Serv.	(NDQ)	BBSI	95.55	3	3	3	1.05	90- 135 (N- 40%)	21.5	1.0	4.45	1.00	12	3/31	d1.25	d1.55	6/30	.25	.25	YES
	1569	Barrick Gold		ABX	12.66	3	4	4	.80	12- 19 (N- 50%)	15.8	0.9	.80	.12	66	3/31	.15	.14	6/30	.03	.03	YES
	1149	Bassett Furniture	(NDQ)	BSET	26.30	3	3	3	1.15	45- 70 (70-165%)	15.5	1.9	1.70	.50	77	5/31	.40	.54	6/30	.11	.10	YES
1421	1632	Bausch Health		BHC	23.10	3	5	1	1.10	25- 50 (10-115%)	6.9	NIL	3.35	NIL	73	3/31	.88	.78	6/30	NIL	NIL	YES
	172	Baxter Int'l Inc.		BAX	74.75	2	1	3	.90	85- 100 (15- 35%)	25.8	1.0	2.90	.76	75	3/31	.70	.58	12/31	◆.19	.16	YES
	1106	Beacon Roofing	(NDQ)	BECN	40.26	4	3	3	1.15	85- 130 (110-225%)	11.9	NIL	3.38	NIL	30	3/31	d.65	d.16	6/30	NIL	NIL	YES
	1125	Beazer Homes USA		BZH	15.64	2	5	4	1.75	19- 35 (20-125%)	9.8	NIL	1.60	NIL	1	3/31	.36	d.23	6/30	NIL	NIL	YES
	173	Becton, Dickinson		BDX	247.75	3	1	4	.85	270- 330 (10- 35%)	21.6	1.2	11.47	3.04	75	3/31	2.65	2.30	6/30	.75	.73	YES
	2165	Bed Bath & Beyond	(NDQ)	BBBY	19.13	4	3	3	1.00	19- 30 (N- 55%)	7.7	3.3	2.47	.64	44	5/31	.32	.53	12/31	.16	.15	YES
	1303	Belden Inc.		BDC	63.77	3	3	5	1.55	75- 115 (20- 80%)	22.4	0.3	2.85	.20	51	3/31	d.15	.40	9/30	.05	.05	YES
	2349	Belmond Ltd.		BEL	11.30	5	3	4	1.20	12- 18 (5- 60%)	56.5	NIL	.20	NIL	31	3/31	d.15	d.18	6/30	NIL	NIL	YES
	1177	Bemis Co.		BMS	42.06	3	1	4	.90	60- 75 (45- 80%)	15.6	2.9	2.70	1.24	16	3/31	.52	.55	6/30	.31	.30	YES
	1324	Benchmark Electronics		BHE	29.50	4	3	4	1.00	30- 50 (N- 70%)	17.9	2.0	1.65	.60	63	3/31	.41	.34	9/30	.15	NIL	YES

★★ Supplementary Report in this week's issue.
▲ Arrow indicates the direction of a change. When it appears with the Latest Dividend, the arrow signals that a change in the regular payment rate has occurred in the latest quarter.

For Timeliness, 3-5 year Target Price Range, or Estimated Earnings 12 months to 12-31-18, the arrow indicates a change since the preceding week. When a diamond ◆ (indicating a new figure) appears alongside the latest quarterly earnings results, the rank change probably was primarily caused by the earnings report. In other cases, the change is due to the dynamics of the ranking system and could simply be the result of the improvement or weakening of other stocks.

PAGE NUMBERS
Bold type refers to Ratings and Reports

		NAME OF STOCK		Ticker Symbol	Recent Price	Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	763	Berkley (W.R.)		WRB	73.80	3	1	2	.85	85- 105 (15- 40%)	20.2	0.8	3.65	.60	56	3/31	1.00	.70	9/30	.15	.14	YES
	764	Berkshire Hathaway 'B'		BRKB	190.41	3	1	2	.90	215- 265 (15- 40%)	28.0	NIL	6.80	NIL	56	3/31	2.15	1.65	6/30	NIL	NIL	YES
	1178	Berry Global Group		BERY	47.41	3	3	4	1.00	85- 130 (80-175%)	12.9	NIL	3.68	NIL	16	3/31	.84	.79	6/30	NIL	NIL	YES
	2166	Best Buy Co.		BBY	76.56	2	3	3	1.10	▲ 85- 125 (10- 65%)	14.0	2.4	5.45	1.80	44	4/30	.82	.57	9/30	.45	.34	YES
	2167	Big 5 Sporting Goods	(NDQ)	BGFV	6.70	4	4	1	.90	15- 25 (125-275%)	9.6	9.0	▲.70	.60	44	3/31	d.06	.24	6/30	.15	.15	YES
1037	2135	Big Lots Inc.		BIG	42.31	3	3	4	1.10	85- 125 (100-195%)	9.6	3.0	4.40	1.26	48	4/30	.74	1.15	6/30	.30	.25	YES
	200	Bio-Rad Labs. 'A'		BIO	302.62	3	2	2	.90	230- 310 (N- N%)	58.8	NIL	5.15	NIL	78	3/31	1.17	.41	6/30	NIL	NIL	YES
	836	Bio-Techne Corp.	(NDQ)	TECH	152.47	3	1	3	.90	160- 200 (5- 30%)	52.9	0.9	2.88	1.30	90	3/31	.94	.57	6/30	.32	.32	YES
2030	1611	Biogen	(NDQ)	BIIB	354.98	2	3	3	1.10	310- 470 (N- 30%)	15.6	NIL	22.70	NIL	73	3/31	5.54	3.46	6/30	NIL	NIL	YES
	837	BioMarin Pharmac.	(NDQ)	BMRN	103.92	5	3	3	1.35	95- 140 (N- 35%)	NMF	NIL	d.70	NIL	90	3/31	d.26	d.09	6/30	NIL	NIL	YES
	2221	Black Hills		BKH	60.89	3	2	5	.85	60- 80 (N- 30%)	17.4	3.2	3.50	1.96	84	3/31	1.63	1.42	6/30	.475	.445	YES
	1817	Black Knight, Inc.		BKI	55.25	2	3	4	.95	65- 100 (20- 80%)	31.6	NIL	1.75	NIL	64	3/31	.43	.30	6/30	NIL	NIL	YES
	2401	Black Stone Minerals		BSM	17.90	4	3	2	.95	16- 25 (N- 40%)	18.8	7.0	.95	1.25	11	3/31	.23	.37	6/30	.313	.31	YES
	597	BlackBerry		BB	10.11	3	4	2	1.40	13- 16 (30- 60%)	NMF	NIL	.09	NIL	86	5/31	.03	.02	6/30	NIL	NIL	YES
	2545	BlackRock, Inc.		BLK	504.88	2	2	1	1.30	625- 845 (25- 65%)	17.4	2.5	29.00	12.52	20	6/30	◆6.62	5.22	9/30	▲3.13	2.50	YES
	2660	Blackstone Group LP		BX	35.71	▲3	3	3	1.35	45- 70 (25- 95%)	11.3	6.5	3.15	2.32	97	3/31	.65	.82	6/30	.35	.87	YES
1244	2546	Block (H&R)		HRB	23.97	3	3	3	.85	35- 55 (45-130%)	14.3	4.2	1.68	1.00	20	4/30	5.43	3.76	9/30	▲.25	.24	YES
	353	Bloomin' Brands	(NDQ)	BLMN	20.78	2	3	3	1.00	45- 70 (115-235%)	12.6	1.7	1.65	.36	67	3/31	.71	.54	6/30	.09	.08	YES
	2454	Blue Buffalo Pet Prod.		BUFF	SEE FINAL SUPPLEMENT																	
★★	625	Boardwalk Pipeline		BWP	SEE FINAL SUPPLEMENT																	
1846	706	Boeing		BA	356.88	2	1	2	1.10	390- 475 (10- 35%)	21.3	2.1	16.75	7.42	59	3/31	4.15	2.34	9/30	1.71	1.42	YES
	598	Boingo Wireless	(NDQ)	WIFI	22.96	2	3	3	1.15	25- 35 (10- 50%)	NMF	NIL	d.45	NIL	86	3/31	d.08	d.18	6/30	NIL	NIL	YES
	1107	Boise Cascade		BCC	46.20	1	3	2	1.40	40- 60 (N- 30%)	15.4	0.6	3.00	.28	30	3/31	.94	.26	6/30	.07	NIL	YES
	707	Bombardier Inc. 'B'	(TSE)	BBDB.TO	5.22b	4	5	3	.85	8- 15 (55-185%)	NMF	NIL	.05	NIL	59	3/31	.01(b)	d.03(b)	6/30	NIL	NIL	YES
	2637	Booking Holdings	(NDQ)	BKNG	2030.52	2	3	2	1.20	2455-3680 (20- 80%)	23.5	NIL	86.55	NIL	79	3/31	12.00	9.88	6/30	NIL	NIL	YES
	381	Booz Allen Hamilton		BAH	46.48	3	3	3	1.00	50- 75 (10- 60%)	20.3	1.6	2.29	.76	55	3/31	.52	.44	6/30	.19	.17	YES
	977	BorgWarner		BWA	45.67	1	3	2	1.30	65- 95 (40-110%)	10.4	1.5	4.40	.68	8	3/31	1.10	.91	6/30	.17	.14	YES
	1967	Boston Beer 'A'		SAM	320.50	3	3	3	.95	215- 320 (N- N%)	44.5	NIL	7.20	NIL	74	3/31	.78	.45	6/30	NIL	NIL	YES
	2389	Boston Omaha	(NDQ)	BOMN	20.94	–	4	–	NMF	20- 35 (N- 65%)	NMF	NIL	d.40	NIL	34	3/31	d.13	d.16	6/30	NIL	NIL	
	1515	Boston Properties		BXP	125.67	5	3	4	.90	135- 200 (5- 60%)	37.0	2.5	3.40	3.20	96	3/31	1.14	.63	9/30	.80	.75	YES
1243	174	Boston Scientific		BSX	33.95	3	3	3	.95	35- 55 (5- 60%)	32.3	NIL	1.05	NIL	75	3/31	.26	.20	6/30	NIL	NIL	YES
	2350	Boyd Gaming		BYD	38.34	1	4	3	1.35	30- 55 (N- 45%)	29.5	0.6	1.30	.24	31	3/31	.39	.32	9/30	▲.06	.05	YES
	1744	Brady Corp.		BRC	37.00	3	3	3	1.20	45- 65 (20- 75%)	18.2	2.2	2.03	.83	32	4/30	.49	.43	9/30	.208	.205	YES
	2000	Bridgepoint Education		BPI	7.00	4	4	3	1.15	15- 25 (115-255%)	23.3	NIL	.30	NIL	87	3/31	.01	.23	6/30	NIL	NIL	YES
	1706	Briggs & Stratton		BGG	17.48	4	3	4	1.10	25- 40 (45-130%)	13.3	3.2	1.31	.56	21	3/31	.84	.83	6/30	.14	.14	YES
	2001	Bright Horizons Family		BFAM	108.85	2	2	3	.85	120- 165 (10- 50%)	34.6	NIL	3.15	NIL	87	3/31	.72	.61	6/30	NIL	NIL	YES
	354	Brinker Int'l		EAT	48.26	3	3	2	.80	65- 95 (35- 95%)	13.4	3.4	3.61	1.66	67	3/31	1.08	.94	6/30	.38	.34	YES
851	382	Brink's (The) Co.		BCO	82.70	3	3	3	1.20	90- 130 (10- 55%)	21.8	0.7	3.80	.60	55	3/31	.65	.58	9/30	◆.15	.15	YES
	1612	Bristol-Myers Squibb		BMY	56.63	3	2	5	.90	70- 90 (25- 60%)	18.6	2.8	3.05	1.60	73	3/31	.91	.94	9/30	.40	.39	YES
643	306	Bristow Group		BRS	14.32	4	5	3	1.60	10- 18 (N- 25%)	NMF	NIL	d1.32	NIL	25	3/31	d2.84	d2.22	6/30	NIL	NIL	YES
	1993	Brit. Am. Tobacco ADR		BTI	50.19	3	2	4	1.00	90- 125 (80-150%)	11.7	4.6	4.30	2.30	70	12/31	2.10(p)	1.31(p)	6/30	.661	1.70	YES
2030	1351	Broadcom Inc.	(NDQ)	AVGO	208.31	1	3	1	1.10	210- 320 (N- 55%)	14.4	3.4	14.43	7.00	17	4/30	8.33	1.06	6/30	1.75	1.02	YES
	435	Broadridge Fin'l		BR	118.26	3	2	3	.95	105- 140 (N- 20%)	30.6	1.3	3.86	1.57	36	3/31	.90	.63	9/30	.365	.33	YES
	800	Brookdale Senior Living		BKD	9.36	5	4	4	1.35	15- 25 (60-165%)	NMF	NIL	d3.55	NIL	9	3/31	d2.45	d.68	6/30	NIL	NIL	YES
1418	383	Brookfield Asset Mgmt.		BAM	41.97	3	3	3	1.10	50- 75 (20- 80%)	16.1	1.4	2.60	.60	55	3/31	.84	d.08	9/30	.15	.14	YES
	1745	Brookfield Infrastruc.		BIP	39.77	3	2	4	.95	40- 55 (N- 40%)	33.1	4.7	1.20	1.88	32	3/31	.42	d.03	6/30	.47	.435	YES
	1707	Brooks Automation	(NDQ)	BRKS	32.42	2	3	3	1.20	35- 50 (10- 55%)	19.9	1.2	1.63	.40	21	3/31	.40	.28	6/30	.10	.10	YES
	2547	Brown & Brown		BRO	29.15	3	1	3	.95	30- 40 (5- 35%)	23.3	1.0	1.25	.30	20	3/31	.32	.25	9/30	◆.075	.068	YES
	1968	Brown-Forman 'B'		BFB	52.64	5	1	2	.90	80- 95 (50- 80%)	31.3	1.3	1.68	.70	74	4/30	.23	.30	9/30	.158	.146	YES
	116	Bruker Corp.	(NDQ)	BRKR	28.89	3	3	2	1.10	40- 60 (40-110%)	21.4	0.6	1.35	.16	62	3/31	.17	.13	6/30	.04	.04	YES
	2304	Brunswick Corp.		BC	67.69	2	3	2	1.35	100- 150 (50-120%)	14.7	1.1	4.60	.76	45	3/31	1.01	.84	9/30	◆.19	.165	YES
	626	Buckeye Partners L.P.		BPL	34.95	4	3	3	1.20	80- 120 (130-245%)	11.7	14.4	3.00	5.05	50	3/31	.74	.86	6/30	1.263	1.25	YES
	2200	Buckle (The), Inc.		BKE	23.60	3	3	1	.90	20- 35 (N- 50%)	12.1	4.2	1.95	1.00	61	4/30	.38	.34	9/30	.25	.25	YES
	1904	Bunge Ltd.		BG	68.74	4	3	4	.80	90- 135 (30- 95%)	33.5	3.0	2.05	2.04	81	3/31	d.20	.31	9/30	▲.50	.46	YES
	2136	Burlington Stores		BURL	153.29	2	4	2	1.05	130- 215 (N- 40%)	25.5	NIL	6.00	NIL	48	4/30	1.26	.79	6/30	NIL	NIL	YES
2030	2591	**CA, Inc.**	(NDQ)	CA	44.09	–	2	–	1.10	35- 50 (N- 15%)	21.9	2.4	2.01	1.04	54	3/31	.49	.38	6/30	.255	.255	YES
	2615	CACI Int'l		CACI	178.95	2	3	3	.95	150- 225 (N- 25%)	21.9	NIL	8.18	NIL	47	3/31	2.56	1.61	6/30	NIL	NIL	YES
	708	CAE Inc.	(TSE)	CAE.TO	27.67b	2	3	2	.70	25- 40 (N- 45%)	22.7	1.3	1.22	.36	59	3/31	.37(b)	.25(b)	6/30	.09(b)	.08(b)	
	1795	Cboe Global Markets	(NDQ)	CBOE	104.88	2	2	3	.75	135- 185 (30- 75%)	22.8	1.0	4.60	1.08	23	3/31	1.04	.16	6/30	.27	.25	YES
	384	CBRE Group		CBRE	49.67	1	3	3	1.35	65- 95 (30- 90%)	15.5	NIL	3.20	NIL	55	3/31	.54	.43	6/30	NIL	NIL	YES
	2328	CBS Corp. 'B'		CBS	58.02	2	3	5	1.05	60- 85 (5- 45%)	11.4	1.2	5.10	.72	22	3/31	1.32	1.09	9/30	.18	.18	YES
	2390	CDK Global Inc.	(NDQ)	CDK	66.69	2	3	3	1.15	90- 135 (35-100%)	22.7	0.9	2.94	.62	34	3/31	.71	.53	6/30	.15	.14	YES
	2616	CDW Corp.	(NDQ)	CDW	86.18	2	3	3	1.05	70- 105 (N- 20%)	23.3	1.0	3.70	.84	47	3/31	.82	.35	6/30	.21	.16	YES
	1352	CEVA, Inc.	(NDQ)	CEVA	32.10	5	4	3	1.20	40- 65 (25-100%)	80.3	NIL	.40	NIL	17	3/31	d.10	.19	6/30	NIL	NIL	YES
	1597	CF Industries		CF	42.73	3	3	2	1.35	30- 50 (N- 15%)	42.7	2.9	1.00	1.25	76	3/31	.27	d.10	9/30	◆.30	.30	YES
	385	C.H. Robinson	(NDQ)	CHRW	87.70	3	2	3	.85	125- 170 (45- 95%)	19.5	2.1	4.50	1.84	55	3/31	1.01	.86	6/30	.46	.45	YES
	2548	CIT Group		CIT	52.16	3	3	2	1.10	60- 85 (15- 65%)	13.8	1.9	3.77	1.00	20	3/31	.79	.38	9/30	▲.25	.15	YES
	1796	CME Group	(NDQ)	CME	169.02	3	2	2	.75	150- 200 (N- 20%)	24.1	1.7	7.00	2.80	23	3/31	1.76	1.18	6/30	.70	.66	YES
	906	CMS Energy Corp.		CMS	47.60	3	2	4	.65	35- 50 (N- 5%)	20.3	3.1	2.35	1.48	52	3/31	.86	.71	6/30	.358	.332	YES
	765	CNA Fin'l		CNA	48.03	2	2	3	1.00	75- 100 (55-110%)	11.4	2.5	4.20	1.20	56	3/31	1.07	.87	6/30	.30	.25	YES
	527	CNX Resources		CNX	17.12	–	4	–	1.55	20- 35 (15-105%)	31.1	NIL	.55	NIL	24	3/31	.19	d.33	6/30	NIL	NIL	YES
	2617	CSG Systems Int'l	(NDQ)	CSGS	41.02	3	3	2	.90	40- 60 (N- 45%)	17.5	2.0	2.35	.84	47	3/31	.42	.62	6/30	.21	.198	YES
	341	CSX Corp.	(NDQ)	CSX	64.44	2	3	3	1.20	70- 100 (10- 55%)	19.5	1.4	3.30	.88	42	6/30	◆1.01	.64	6/30	.22	.20	YES
	1325	CTS Corp.		CTS	37.15	2	3	3	1.10	30- 45 (N- 20%)	26.5	0.4	1.40	.16	63	3/31	.34	.26	9/30	.04	.04	YES
	504	CVR Energy		CVI	37.66	3	4	2	1.40	35- 55 (N- 45%)	21.5	8.0	1.75	3.00	29	3/31	.39	.26	9/30	▲.75	.50	YES
	1598	CVR Partners, LP		UAN	3.76	5	4	5	1.35	4- 7 (5- 85%)	NMF	0.5	d.48	.02-.04	76	3/31	d.17	d.09	6/30	NIL	.02	YES
852	505	CVR Refining LP		CVRR	23.45	2	3	3	1.10	17- 25 (N- 5%)	12.7	8.7	1.85	2.04	29	3/31	.99	.45	6/30	.51	NIL	YES
	965	CVS Health		CVS	67.94	1	1	4	.90	100- 125 (45- 85%)	9.7	2.9	7.00	2.00	26	3/31	1.48	1.17	9/30	.50	.50	YES
	1019	Cable One		CABO	749.82	1	3	3	.70	620- 930 (N- 25%)	24.5	0.9	30.65	7.00	38	3/31	7.08	5.62	6/30	1.75	1.50	
	2445	Cabot Corp.		CBT	65.73	▼2	3	3	1.30	60- 90 (N- 35%)	16.0	2.0	4.11	1.32	4	3/31	1.04	1.18	9/30	◆.33	.315	YES
	567	Cabot Microelectr's	(NDQ)	CCMP	116.19	2	3	2	1.10	130- 200 (10- 70%)	24.4	1.4	4.76	1.62	15	3/31	1.14	.71	9/30	.40	.20	YES
	528	Cabot Oil & Gas 'A'		COG	23.66	3	3	4	1.10	35- 55 (50-130%)	21.5	1.0	1.10	.24	24	3/31	.25	.23	6/30	.06	.05	YES

(•) All data adjusted for announced stock split or stock dividend. See back page of Ratings & Reports.
◆ New figure this week.
(b) Canadian Dollars.
(d) Deficit.
(f) The estimate may reflect a probable increase or decrease. If a dividend boost or cut is possible but not probable, two figures are shown, the first is the more likely.
(g) Dividends subject to foreign withholding tax for U.S. residents.
(h) Est'd Earnings & Est'd Dividends after conversion to U.S. dollars at Value Line estimated translation rate.
(j) All Index data expressed in hundreds.
(p) 6 months (q) Asset Value
N=Negative figure NA=Not available NMF=No meaningful figure

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		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
2455	2592	Cadence Design Sys.	(NDQ)	CDNS	45.66	2	3	3	1.10	45- 70 (N- 55%)	27.8	NIL	1.64	NIL	54	3/31	.40	.32	6/30	NIL	NIL	YES
	1905	Cal-Maine Foods	(NDQ)	CALM	45.85	3	3	2	1.05	40- 65 (N- 40%)	12.8	NIL	3.58	NIL	81	2/28	1.27	.09	6/30	NIL	NIL	YES
	599	CalAmp Corp.	(NDQ)	CAMP	23.65	4	4	3	1.20	25- 40 (5- 70%)	46.4	NIL	.51	NIL	86	5/31	.23	d.08	6/30	NIL	NIL	YES
	1906	Calavo Growers	(NDQ)	CVGW	95.75	3	3	3	.65	75- 115 (N- 20%)	31.2	1.0	3.07	.95	81	4/30	.80	.74	6/30	NIL	NIL	YES
	2154	Caleres Inc.		CAL	34.37	3	3	1	1.10	40- 60 (15- 75%)	14.0	0.8	2.45	.28	58	4/30	.43	.40	9/30	.07	.07	YES
2460	1787	California Water		CWT	40.70	4	3	3	.80	35- 50 (N- 25%)	28.1	1.8	1.45	.75	94	3/31	d.05	.02	6/30	.188	.18	YES
	2305	Callaway Golf		ELY	18.78	3	3	2	1.05	18- 30 (N- 60%)	26.8	0.2	.70	.04	45	3/31	.65	.30	6/30	.01	.01	YES
	529	Callon Petroleum		CPE	10.87	1	4	4	2.00	20- 35 (85-220%)	12.1	NIL	.90	NIL	24	3/31	.27	.22	6/30	NIL	NIL	YES
	838	Cambrex Corp.		CBM	55.95	3	3	5	1.10	55- 85 (N- 50%)	20.7	NIL	2.70	NIL	90	3/31	.32	.63	6/30	NIL	NIL	YES
	1516	Camden Property Trust		CPT	89.92	4	3	2	.75	70- 105 (N- 15%)	51.4	3.4	1.75	3.08	96	3/31	.41	.39	9/30	.77	.75	YES
	1586	Cameco Corp.	(TSE)	CCO.TO	14.43b	3	3	2	1.25	15- 25 (5- 75%)	48.1	0.6	.30	.08	35	3/31	.06(b)	d.07(b)	6/30	NIL(b)	.10(b)	YES
643	1907	Campbell Soup		CPB	41.16	4	2	5	.70	45- 60 (10- 45%)	15.7	3.4	2.63	1.40	81	4/30	.70	.59	9/30	.35	.35	YES
228	2122	Camping World Holdings		CWH	25.37	–	3	–	1.60	45- 65 (75-155%)	8.9	1.3	2.85	.32	7	3/31	.41	.38	6/30	.08	.08	YES
1419	2102	Canada Goose Hldgs.	(TSE)	GOOS.TO	83.91	–	3	–	NMF ▲	70- 105 (N- 25%)	80.7	NIL	▲1.04	NIL	65	3/31	.09	d.23	6/30	NIL	NIL	
	2510	Can. Imperial Bank	(TSE)	CM.TO	116.38b	3	1	3	.80	140- 170 (20- 45%)	9.8	4.7	11.90	5.44	19	4/30	2.89(b)	2.59(b)	9/30	1.33(b)	1.27(b)	YES
	342	Can. National Railway		CNI	84.12	4	2	3	1.05	90- 125 (5- 50%)	21.0	2.2	4.00	1.82	42	3/31	.80	.86	6/30	▲.455	.309	YES
	2402	Can. Natural Res.	(TSE)	CNQ.TO	47.60b	2	3	3	1.35	55- 85 (15- 80%)	15.9	2.8	3.00	1.34	11	3/31	.71(b)	.25(b)	9/30	.335(b)	.275(b)	YES
	343	Can. Pacific Railway		CP	186.02	3	3	2	1.15	215- 325 (15- 75%)	18.1	1.1	10.30	2.04	42	3/31	2.16	1.88	9/30	▲.488	.422	YES
	2137	Canadian Tire 'A'	(TSE)	CTCA.TO	173.68b	3	2	3	.75	185- 250 (5- 45%)	14.5	2.1	12.00	3.60	48	3/31	1.18(b)	1.24(b)	9/30	.90(b)	.65(b)	YES
	1985	Canon Inc. ADR(g)		CAJ	31.80	3	1	3	.90	50- 60 (55- 90%)	13.5	4.5	2.35	1.42	33	3/31	.50	.45	6/30	.712	.598	YES
	201	Cantel Medical Corp.		CMD	95.80	3	3	2	.95	100- 150 (5- 55%)	37.3	0.2	2.57	.19	78	4/30	.45	.42	9/30	.085	.07	YES
	2549	Capital One Fin'l		COF	95.98	2	3	3	1.15	85- 125 (N- 30%)	9.9	1.7	9.65	1.60	20	3/31	2.61	1.51	6/30	.40	.40	YES
	1502	Capitol Fed. Fin'l	(NDQ)	CFFN	13.02	4	2	3	.75	14- 20 (10- 55%)	18.1	2.6	.72	.34	80	3/31	.17	.16	9/30	◆.085	.085	YES
	2420	CARBO Ceramics		CRR	9.61	4	5	4	1.70	14- 25 (45-160%)	NMF	NIL	d1.95	NIL	92	3/31	d.83	d1.22	6/30	NIL	NIL	YES
2673	202	Cardinal Health		CAH	49.97	4	2	3	1.05	105- 145 (110-190%)	13.5	3.8	3.70	1.91	78	3/31	.81	1.20	9/30	▲.476	.462	YES
	2002	Career Education	(NDQ)	CECO	18.37	3	5	4	1.35	18- 35 (N- 90%)	19.3	NIL	.95	NIL	87	3/31	.25	.08	6/30	NIL	NIL	YES
	1746	Carlisle Cos.		CSL	112.58	4	2	3	1.05	145- 195 (30- 75%)	19.1	1.3	5.90	1.48	32	3/31	.92	1.04	6/30	.37	.35	YES
	2661	Carlyle Group L.P.	(NDQ)	CG	23.75	5	3	3	1.30	25- 40 (5- 70%)	10.8	4.5	2.20	1.08	97	3/31	.30	.90	6/30	.27	.10	YES
	2123	CarMax, Inc.		KMX	77.67	3	3	3	1.25	95- 140 (20- 80%)	18.1	NIL	4.30	NIL	7	5/31	1.33	1.13	6/30	NIL	NIL	YES
	2306	Carnival Corp.		CCL	58.59	▼3	3	3	.90	85- 125 (45-115%)	13.0	3.4	4.50	2.00	45	5/31	.78	.52	6/30	▲.50	.40	YES
	744	Carpenter Technology		CRS	56.93	2	3	3	1.55	60- 90 (5- 60%)	24.1	1.3	2.36	.72	6	3/31	.63	.44	6/30	.18	.18	YES
	1838	Carriage Services		CSV	24.95	2	3	3	.90	35- 50 (40-100%)	17.2	1.2	1.45	.30	2	3/31	.52	.39	6/30	.075	.05	YES
	2103	Carter's Inc.		CRI	115.02	3	3	3	.85	145- 220 (25- 90%)	19.8	1.6	▲5.80	1.80	65	3/31	.90	.95	6/30	.45	.37	YES
	1947	Casey's Gen'l Stores	(NDQ)	CASY	111.08	4	3	5	.75	120- 180 (10- 60%)	23.8	1.0	4.66	1.16	39	4/30	.51	.76	9/30	▲.29	.26	YES
	175	Catalent, Inc.		CTLT	43.29	3	3	3	1.00	40- 60 (N- 40%)	46.1	NIL	.94	NIL	75	3/31	.14	.21	6/30	NIL	NIL	YES
2455	155	Caterpillar Inc.		CAT	138.95	2	2	1	1.20	190- 255 (35- 85%)	12.9	2.5	10.75	3.44	28	3/31	2.82	1.28	9/30	▲.86	.78	YES
2031	2201	Cato Corp.		CATO	24.27	4	3	3	1.00	30- 40 (25- 65%)	24.3	5.4	▲1.00	1.32-.48	61	4/30	.94	.85	6/30	.33	.33	YES
2030	1353	Cavium Inc.		CAVM						SEE FINAL SUPPLEMENT												
	2307	Cedar Fair L.P.		FUN	59.70	3	3	3	.80	80- 120 (35-100%)	16.8	6.0	3.56	3.56	45	3/31	d1.49	d1.16	6/30	.89	.855	YES
	2446	Celanese Corp.		CE	110.14	1	3	3	1.30	90- 140 (N- 25%)	12.2	2.0	9.05	2.16	4	3/31	2.79	1.81	9/30	◆.54	.46	YES
	1326	Celestica Inc.		CLS	12.32	4	3	4	1.00	14- 20 (15- 60%)	17.6	NIL	.70	NIL	63	3/31	.10	.16	6/30	NIL	NIL	YES
	1613	Celgene Corp.	(NDQ)	CELG	85.85	3	3	5	1.25	125- 190 (45-120%)	19.7	NIL	4.35	NIL	73	3/31	1.10	1.16	6/30	NIL	NIL	YES
	1108	CEMEX ADS		CX	6.63	3	4	4	1.55	10- 17 (50-155%)	11.1	NIL	.60	NIL	30	3/31	.02	.14	6/30	NIL	NIL	YES
	506	Cenovus Energy	(TSE)	CVE.TO	13.81b	4	3	3	1.15	20- 30 (45-115%)	NMF	1.4	d.50	.20	29	3/31	d.74(b)	.55(b)	6/30	.05(b)	.05(b)	YES
	801	Centene Corp.		CNC	133.91	2	3	3	1.05	100- 155 (N- 15%)	19.8	NIL	6.75	NIL	9	3/31	2.17	1.12	6/30	NIL	NIL	YES
2464	907	CenterPoint Energy		CNP	27.71	3	3	5	.90	20- 30 (N- 10%)	18.5	4.1	1.50	1.13	52	3/31	.38	.44	6/30	.278	.267	YES
	422	Central Europe/Russia		CEE	23.99	–	4	2	1.05	25- 45 (5- 90%)	NMF	2.1	NMF	.50	–	4/30	27.73(q)	24.59(q)	6/30	NIL	NIL	
	1190	Central Garden & Pet	(NDQ)	CENT	43.62	2	3	3	.85	60- 95 (40-120%)	19.8	NIL	2.20	NIL	88	3/31	.86	.67	6/30	NIL	NIL	YES
	1587	Century Aluminum	(NDQ)	CENX	14.77	3	5	1	2.15	19- 35 (30-135%)	21.1	NIL	.70	NIL	35	3/31	NIL	d.17	6/30	NIL	NIL	YES
	1030	CenturyLink Inc.		CTL	19.63	4	3	5	1.05	16- 24 (N- 20%)	17.8	11.0	1.10	2.16	89	3/31	.25	.52	6/30	.54	.54	YES
	827	Cerner Corp.	(NDQ)	CERN	60.98	4	2	4	.95	75- 105 (25- 70%)	24.4	NIL	2.50	NIL	49	3/31	.58	.59	6/30	NIL	NIL	YES
	203	Charles River		CRL	119.95	3	3	3	1.00	110- 170 (N- 40%)	24.7	NIL	4.85	NIL	78	3/31	1.08	.97	6/30	NIL	NIL	YES
	731	Chart Industries	(NDQ)	GTLS	67.08	3	3	3	1.75	55- 85 (N- 25%)	44.7	NIL	1.50	NIL	40	3/31	.18	d.10	6/30	NIL	NIL	YES
	1020	Charter Communic.	(NDQ)	CHTR	302.03	3	3	5	1.00	215- 325 (N- 10%)	74.6	NIL	4.05	NIL	38	3/31	.70	.57	6/30	NIL	NIL	YES
	1818	Check Point Software	(NDQ)	CHKP	110.11	3	1	5	.85	110- 135 (N- 25%)	20.8	NIL	5.30	NIL	64	3/31	1.16	1.08	6/30	NIL	NIL	YES
	355	Cheesecake Factory	(NDQ)	CAKE	57.13	4	3	2	.75	55- 85 (N- 50%)	21.6	2.1	2.65	1.20	67	3/31	.56	.72	6/30	.29	.24	YES
	1747	Chemed Corp.		CHE	325.94	2	3	3	.80	245- 370 (N- 15%)	29.4	0.4	11.10	1.28	32	3/31	2.72	1.82	6/30	.28	.26	YES
	781	Chemical Financial	(NDQ)	CHFC	55.62	2	3	2	1.00	60- 95 (10- 70%)	14.1	2.0	3.95	1.12	14	3/31	.97	.67	6/30	.28	.27	YES
	568	Chemours Co. (The)		CC	44.22	1	3	1	2.20	60- 90 (35-105%)	8.0	1.6	5.50	.72	15	3/31	1.58	.79	6/30	.17	.03	YES
	612	Cheniere Energy	(ASE)	LNG	61.30	3	3	2	1.45	95- 145 (55-135%)	30.7	NIL	2.00	NIL	57	3/31	1.50	.23	6/30	NIL	NIL	YES
	530	Chesapeake Energy		CHK	4.77	2	5	4	2.15	8- 15 (70-215%)	11.9	NIL	.40	NIL	24	3/31	.29	.08	6/30	NIL	NIL	YES
	550	Chesapeake Utilities		CPK	83.95	3	2	4	.70	85- 115 (N- 35%)	26.7	1.8	3.15	1.51	41	3/31	1.64	1.17	9/30	▲.37	.325	YES
2667	507	Chevron Corp.		CVX	121.91	2	1	3	1.20	125- 155 (5- 25%)	16.5	3.7	7.40	4.48	29	3/31	1.90	1.41	6/30	1.12	1.08	YES
	451	Chicago Bridge & Iron		CBI						SEE FINAL SUPPLEMENT												
852	2202	Chico's FAS		CHS	8.61	4	3	3	1.05 ▼	15- 20 (75-130%)	12.3	4.1	▼.70	.35	61	4/30	.23	.26	12/31	.085	.083	YES
453	2203	Children's Place	(NDQ)	PLCE	119.65	3	3	1	.80	145- 215 (20- 80%)	14.7	1.7	8.15	2.00	61	4/30	1.87	1.95	6/30	▲.50	.40	YES
	978	China Auto. Sys.	(NDQ)	CAAS	4.08	–	5	–	1.35	7- 13 (70-220%)	5.8	NIL	.70	NIL	8	3/31	.14	.18	6/30	NIL	NIL	YES
	423	China Fund (The)		CHN	20.49	–	3	2	.80	25- 35 (20- 70%)	NMF	2.4	NMF	.50	–	4/30	24.05(q)	19.41(q)	6/30	NIL	NIL	
	922	China Mobile (ADR)		CHL	43.76	2	3	3	.85	50- 80 (15- 85%)	9.6	4.8	4.55	2.10	60	12/31	1.94(p)	1.69(p)	6/30	NIL	NIL	YES
	356	Chipotle Mex. Grill		CMG	452.54	4	3	3	.90	480- 720 (5- 60%)	51.1	NIL	8.85	NIL	67	3/31	2.13	1.60	6/30	NIL	NIL	YES
	2351	Choice Hotels Int'l		CHH	77.15	3	3	2	1.00	65- 100 (N- 30%)	21.4	1.1	3.60	.86	31	3/31	.67	.51	9/30	.215	.215	YES
	766	Chubb Ltd.		CB	133.38	5	1	4	.90	145- 175 (10- 30%)	12.7	2.2	10.50	2.92	56	3/31	2.34	2.48	9/30	▲.73	.71	YES
	1191	Church & Dwight		CHD	54.77	3	1	5	.75	60- 75 (10- 35%)	24.3	1.6	2.25	.87	88	3/31	.63	.52	6/30	.218	.19	YES
	2352	Churchill Downs	(NDQ)	CHDN	304.60	3	3	3	.95	235- 355 (N- 15%)	51.6	0.6	5.90	1.70	31	3/31	.97	.13	6/30	NIL	NIL	YES
	943	Ciena Corp.		CIEN	26.95	4	4	3	1.40	30- 50 (10- 85%)	19.5	NIL	1.38	NIL	85	4/30	.23	.45	6/30	NIL	NIL	YES
	802	Cigna Corp.		CI	170.71	1	2	3	.85	220- 295 (30- 75%)	12.9	NIL	13.25	.04	9	3/31	4.11	2.77	6/30	.04	.04	YES
	531	Cimarex Energy		XEC	97.39	2	3	5	1.40	125- 190 (30- 95%)	13.2	0.7	7.40	.64	24	3/31	1.82	1.05	9/30	.16	.08	YES
	2375	Cimpress N.V.	(NDQ)	CMPR	149.26	3	3	3	.95	100- 150 (N- N%)	76.5	NIL	1.95	NIL	69	3/31	d.07	d1.38	6/30	NIL	NIL	YES
	1031	Cincinnati Bell		CBB	14.40	4	4	5	1.40	13- 22 (N- 55%)	NMF	NIL	d.45	NIL	89	3/31	d.19	d.01	6/30	NIL	NIL	YES
	767	Cincinnati Financial	(NDQ)	CINF	70.55	3	2	4	.90	75- 100 (5- 40%)	21.7	3.0	3.25	2.12	56	3/31	.72	.59	9/30	.53	.50	YES
	2308	Cinemark Hldgs.		CNK	35.89	4	3	4	1.10	50- 80 (40-125%)	16.0	3.6	2.25	1.28	45	3/31	.53	.67	6/30	.32	.29	YES
	386	Cintas Corp.	(NDQ)	CTAS	194.26	3	2	3	.95	160- 215 (N- 10%)	30.3	0.9	6.41	1.80	55	2/28	1.37	1.06	6/30	NIL	NIL	YES

★★ Supplementary Report in this week's issue.
▲ Arrow indicates the direction of a change. When it appears with the Latest Dividend, the arrow signals that a change in the regular payment rate has occurred in the latest quarter.

For Timeliness, 3-5 year Target Price Range, or Estimated Earnings 12 months to 12-31-18, the arrow indicates a change since the preceding week. When a diamond ◆ (indicating a new figure) appears alongside the latest quarterly earnings results, the rank change probably was primarily caused by the earnings report. In other cases, the change is due to the dynamics of the ranking system and could simply be the result of the improvement or weakening of other stocks.

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PAGE NUMBERS		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	1354	Cirrus Logic	(NDQ)	CRUS	40.12	3	3	5	.90	55- 80 (35-100%)	16.0	NIL	2.51	NIL	17	3/31	.51	.85	6/30	NIL	NIL	YES
452	944	Cisco Systems	(NDQ)	CSCO	42.34	3	1	2	1.05	50- 65 (20- 55%)	15.5	3.1	2.73	1.32	85	4/30	.66	.60	9/30	.33	.29	YES
	2204	Citi Trends	(NDQ)	CTRN	27.97	2	4	3	.80	35- 60 (25-115%)	16.5	1.2	1.70	.34	61	4/30	.83	.60	6/30	.08	.08	YES
	2511	Citigroup Inc.		C	69.35	2	3	3	1.25	80- 125 (15- 80%)	11.4	1.9	6.08	1.33	19	6/30	◆1.63	1.27	6/30	.32	.16	YES
	2512	Citizens Fin'l Group		CFG	40.04	2	3	2	1.15	50- 70 (25- 75%)	12.8	2.2	3.12	.90	19	3/31	.78	.61	6/30	.22	.14	YES
	2593	Citrix Sys.	(NDQ)	CTXS	110.11	3	3	3	1.15	105- 160 (N- 45%)	21.0	NIL	5.25	NIL	54	3/31	1.29	.97	6/30	NIL	NIL	YES
	613	Clean Energy Fuels	(NDQ)	CLNE	2.63	–	5	–	1.85	7- 13 (165-395%)	17.5	NIL	.15	NIL	57	3/31	.08	.40	6/30	NIL	NIL	YES
	411	Clean Harbors		CLH	56.41	3	3	4	1.15	55- 80 (N- 40%)	75.2	NIL	.75	NIL	27	3/31	d.22	d.37	6/30	NIL	NIL	YES
	2391	Clear Channel Outdoor		CCO	4.45	–	5	–	NMF	5- 10 (10-125%)	NMF	NIL	d.20	NIL	34	3/31	d.35	d.08	6/30	NIL	NIL	YES
	745	Cleveland-Cliffs Inc.		CLF	8.47	4	5	3	1.95	11- 20 (30-135%)	6.8	NIL	1.25	NIL	6	3/31	d.29	d.11	6/30	NIL	NIL	YES
	1192	Clorox Co.		CLX	135.02	5	2	4	.70	120- 160 (N- 20%)	22.8	2.8	5.93	3.84	88	3/31	1.37	1.31	9/30	.96	.84	YES
2457	1969	Coca-Cola		KO	45.25	4	1	4	.75	50- 60 (10- 35%)	21.5	3.6	2.10	1.61	74	3/31	.47	.43	9/30	.39	.37	YES
	1970	Coca-Cola Bottling	(NDQ)	COKE	135.71	3	3	4	.85	185- 280 (35-105%)	25.4	0.7	5.35	1.00	74	3/31	d.82	.45	9/30	◆.25	.25	
	1971	Coca-Cola European Part.		CCE	41.90	–	3	–	.80	45- 70 (5- 65%)	15.5	3.1	2.70	1.28	74	3/31	.41	.37	6/30	.309	.504	YES
	1021	Cogeco Communic.	(TSE)	CCA.TO	70.94b	3	2	4	.55	65- 90 (N- 25%)	12.5	2.7	5.68	1.90	38	5/31	◆1.23(b)	1.54(b)	9/30	◆.475(b)	.43(b)	YES
	117	Cognex Corp.	(NDQ)	CGNX	45.54	4	3	3	1.20	40- 60 (N- 30%)	38.0	0.4	1.20	.18	62	3/31	.18	.26	6/30	.045	.043	YES
228	2618	Cognizant Technology	(NDQ)	CTSH	82.74	2	2	3	1.05	100- 135 (20- 65%)	18.4	1.0	4.50	.80	47	3/31	1.06	.84	6/30	.20	.15	YES
	118	Coherent, Inc.	(NDQ)	COHR	165.10	3	3	4	1.20	260- 390 (55-135%)	13.9	NIL	11.91	NIL	62	3/31	2.61	1.69	6/30	NIL	NIL	YES
	1748	Colfax Corp.		CFX	30.19	2	3	4	1.35	50- 75 (65-150%)	14.4	NIL	2.10	NIL	32	3/31	.48	.35	6/30	NIL	NIL	YES
	1193	Colgate-Palmolive		CL	65.56	4	1	4	.85	75- 95 (15- 45%)	21.1	2.6	3.10	1.68	88	3/31	.72	.64	9/30	.42	.40	YES
	2104	Columbia Sportswear	(NDQ)	COLM	93.76	3	3	3	1.15	70- 110 (N- 15%)	28.0	1.0	3.35	.90	65	3/31	.77	.52	6/30	.22	.18	YES
	1708	Columbus McKinnon	(NDQ)	CMCO	41.71	2	3	3	1.35	40- 60 (N- 45%)	17.8	0.5	2.34	.20	21	3/31	.51	.40	6/30	▲.05	.04	YES
1418	1022	Comcast Corp.	(NDQ)	CMCSA	34.27	1	2	5	.90	55- 75 (60-120%)	14.0	2.2	2.45	.76	38	3/31	.62	.53	9/30	.19	.158	YES
	782	Comerica Inc.		CMA	91.86	2	3	2	1.20	105- 155 (15- 70%)	13.7	1.5	6.70	1.36	14	6/30	◆1.87	1.13	9/30	▲.34	.30	YES
	783	Commerce Bancshs.	(NDQ)	CBSH	68.29	▲2	1	3	.95	60- 75 (N- 10%)	19.2	1.4	3.55	.94	14	6/30	◆1.01	.71	6/30	.235	.214	YES
	746	Commercial Metals		CMC	21.89	3	3	3	1.45	30- 40 (35- 85%)	13.9	2.2	1.57	.48	6	5/31	.36	.34	9/30	.12	.12	YES
228	979	Commercial Vehicle	(NDQ)	CVGI	7.05	–	5	–	1.50	19- 35 (170-395%)	5.6	NIL	1.25	NIL	8	3/31	.32	.08	6/30	NIL	NIL	YES
	945	CommScope Holding	(NDQ)	COMM	29.69	4	3	4	1.15	50- 70 (70-135%)	12.4	NIL	2.40	NIL	85	3/31	.49	.52	6/30	NIL	NIL	YES
2668	803	Community Health		CYH	2.75	–	5	–	1.80	13- 25 (375-810%)	NMF	NIL	d1.25	NIL	9	3/31	d.22	d1.78	6/30	NIL	NIL	YES
	2662	Compass Diversified		CODI	17.90	3	3	4	.70	30- 45 (70-150%)	11.2	8.0	1.60	1.44	97	3/31	d.09	d.61	6/30	.36	.36	YES
	1599	Compass Minerals Int'l		CMP	67.15	4	3	3	.95	85- 125 (25- 85%)	23.6	4.4	2.85	2.94	76	3/31	.37	.63	6/30	.72	.72	YES
	828	Computer Prog. & Sys.	(NDQ)	CPSI	33.70	3	3	3	.60	45- 70 (35-110%)	14.7	1.2	2.30	.40	49	3/31	.59	.29	6/30	.10	.20	YES
	946	Comtech Telecom.	(NDQ)	CMTL	34.22	3	4	3	1.35	18- 30 (N- N%)	48.2	1.3	.71	.45	85	4/30	.34	.19	9/30	.10	.10	YES
1650	1908	Conagra Brands		CAG	36.11	–	2	–	NMF	40- 55 (10- 50%)	16.2	2.4	2.23	.85	81	5/31	.50	.37	6/30	.213	.20	YES
	532	Concho Resources		CXO	148.06	3	3	4	1.50	140- 210 (N- 40%)	42.3	NIL	3.50	NIL	24	3/31	1.00	.49	6/30	NIL	NIL	YES
	176	CONMED Corp.	(NDQ)	CNMD	73.98	3	3	3	1.00	60- 90 (N- 20%)	44.8	1.1	1.65	.80	75	3/31	.38	.26	9/30	.20	.20	YES
1037	2168	Conn's, Inc.	(NDQ)	CONN	37.60	3	4	3	1.65 ▲	50- 80 (35-115%)	17.1	NIL	2.20	NIL	44	4/30	.39	d.08	6/30	NIL	NIL	YES
	1788	Conn. Water Services	(NDQ)	CTWS	65.45	–	3	–	.65	45- 65 (N- N%)	35.4	1.9	1.85	1.25	94	3/31	d.10	.36	6/30	▲.313	.298	YES
	2403	ConocoPhillips		COP	70.28	2	3	3	1.40	85- 125 (20- 80%)	18.0	1.6	3.90	1.14	11	3/31	.96	d.14	9/30	.285	.265	YES
	1032	Consol. Communic.	(NDQ)	CNSL	12.50	4	3	4	1.00	25- 35 (100-180%)	NMF	12.4	d.40	1.55-.78	89	3/31	d.16	d.07	9/30	.387	.387	YES
	140	Consol. Edison		ED	78.96	3	1	5	.50	70- 85 (N- 10%)	18.6	3.7	4.25	2.91	53	3/31	1.37	1.27	6/30	.715	.69	YES
	1789	Consolidated Water	(NDQ)	CWCO	14.35	4	3	3	.95	25- 35 (75-145%)	23.9	2.5	.60	.36	94	3/31	.14	.18	9/30	.085	.075	YES
	1972	Constellation Brands		STZ	213.85	3	3	2	.80	230- 345 (10- 60%)	23.4	1.4	9.15	3.08	74	5/31	2.20	2.34	6/30	▲.74	.52	YES
	2169	Container Store Group		TCS	8.22	–	5	–	1.30	7- 13 (N- 60%)	26.5	NIL	▼.31	NIL	44	3/31	.17	.17	6/30	NIL	NIL	YES
	2404	Continental Resources		CLR	60.72	2	4	2	1.80	65- 105 (5- 75%)	27.6	NIL	2.20	NIL	11	3/31	.68	.02	6/30	NIL	NIL	YES
1844	387	Convergys Corp.		CVG	24.97	–	3	–	1.10	25- 40 (N- 60%)	14.7	1.8	1.70	.44	55	3/31	.41	.52	9/30	▲.11	.10	YES
	204	Cooper Cos.		COO	246.07	3	2	3	.90	255- 345 (5- 40%)	24.3	NIL	10.12	.06	78	4/30	1.23	2.12	9/30	.03	.03	YES
2667	980	Cooper Tire & Rubber		CTB	25.25	3	3	4	1.05	50- 70 (100-175%)	12.3	1.7	2.05	.42	8	3/31	.16	.57	6/30	.105	.105	YES
	981	Cooper-Standard		CPS	134.91	1	3	3	1.00	165- 250 (20- 85%)	12.0	NIL	11.20	NIL	8	3/31	3.07	2.20	6/30	NIL	NIL	YES
	307	Copa Holdings, S.A.		CPA	97.05	2	3	3	1.35	115- 170 (20- 75%)	9.2	3.6	10.50	3.48	25	3/31	3.22	2.41	6/30	.87	.51	YES
	2124	Copart, Inc.	(NDQ)	CPRT	59.16	3	2	3	1.00 ▲	45- 60 (N- N%)	30.3	NIL	1.95	NIL	7	4/30	.52	.37	6/30	NIL	NIL	YES
	1948	Core-Mark Holding	(NDQ)	CORE	23.63	4	3	5	.80	25- 40 (5- 70%)	24.9	1.8	.95	.43	39	3/31	d.03	.05	6/30	.10	.09	YES
	1517	CoreCivic, Inc.		CXW	24.26	4	3	5	1.00	25- 40 (5- 65%)	16.7	7.1	1.45	1.73	96	3/31	.32	.43	9/30	.43	.42	YES
	436	CoreLogic		CLGX	53.58	1	3	3	1.05	60- 90 (10- 70%)	19.8	NIL	2.70	NIL	36	3/31	.52	.37	6/30	NIL	NIL	YES
1844	2421	Core Laboratories		CLB	114.90	4	3	1	1.20	140- 210 (20- 85%)	43.4	1.9	2.65	2.20	92	3/31	.54	.40	9/30	◆.55	.55	YES
	1819	Cornerstone OnDemand	(NDQ)	CSOD	55.09	3	4	3	1.35	55- 90 (N- 65%)	78.7	NIL	.70	NIL	64	3/31	.14	.08	6/30	NIL	NIL	YES
	1304	Corning Inc.		GLW	29.19	4	3	4	1.25	30- 45 (5- 55%)	36.5	2.5	.80	.72	51	3/31	d.72	.07	6/30	.18	.155	YES
	437	CoStar Group	(NDQ)	CSGP	426.32	3	3	3	1.15	475- 715 (10- 70%)	56.8	NIL	7.50	NIL	36	3/31	1.65	1.05	6/30	NIL	NIL	YES
	2138	Costco Wholesale	(NDQ)	COST	215.00	3	1	3	.80	215- 260 (N- 20%)	30.1	1.1	7.14	2.28	48	5/31	1.70	1.40	9/30	▲.57	.50	YES
	1973	Cott Corp.		COT	16.80	3	3	4	.90	12- 17 (N- N%)	56.0	1.4	.30	.24	74	3/31	.03	d.06	6/30	.06	.06	YES
	1008	Coty Inc.		COTY	14.23	4	3	4	.80	25- 35 (75-145%)	19.5	3.5	.73	.50	72	3/31	.13	.15	6/30	.125	.125	YES
	1218	Covanta Holding Corp.		CVA	16.85	3	3	3	1.00	16- 25 (N- 50%)	9.4	5.9	1.80	1.00	71	3/31	1.53	d.41	9/30	.25	.25	YES
	357	Cracker Barrel	(NDQ)	CBRL	147.31	3	2	2	.80	215- 295 (45-100%)	15.0	3.4	9.85	5.00	67	4/30	2.03	1.95	9/30	▲1.25	1.20	YES
	1974	Craft Brew Alliance	(NDQ)	BREW	19.60	3	4	3	1.25	20- 35 (N- 80%)	56.0	NIL	.35	NIL	74	3/31	.01	d.09	6/30	NIL	NIL	YES
	1749	Crane Co.		CR	82.01	2	3	3	1.25	95- 140 (15- 70%)	16.9	1.7	4.85	1.40	32	3/31	1.13	1.05	6/30	.35	.33	YES
	2550	Crawford & Co. 'B'		CRDB	8.44	3	4	4	1.30	12- 20 (40-135%)	10.6	2.4	.80	.20	20	3/31	.14	.12	6/30	.05	.05	
	1394	Cray Inc.	(NDQ)	CRAY	25.25	4	4	3	1.40	35- 55 (40-120%)	NMF	NIL	d.85	NIL	43	3/31	d.53	d.70	6/30	NIL	NIL	YES
	1355	Cree, Inc.	(NDQ)	CREE	46.32	4	3	1	1.25	35- 55 (N- 20%)	NMF	NIL	.23	NIL	17	3/31	.07	d.23	6/30	NIL	NIL	YES
	2405	Crescent Point Energy	(TSE)	CPG.TO	9.75b	4	4	3	1.65	18- 30 (85-210%)	10.8	3.7	.90	.36	11	3/31	d.17(b)	.22(b)	6/30	.09(b)	.09(b)	YES
	2155	Crocs, Inc.	(NDQ)	CROX	17.34	3	4	1	1.00	16- 25 (N- 45%)	69.4	NIL	.25	NIL	58	3/31	.15	.08	6/30	NIL	NIL	YES
	1639	Cross Country Health.	(NDQ)	CCRN	11.93	4	4	3	1.10	15- 25 (25-110%)	26.5	NIL	.45	NIL	12	3/31	.05	d.08	6/30	NIL	NIL	YES
	600	Crown Castle Int'l		CCI	110.87	3	3	4	.85	125- 185 (15- 65%)	88.7	4.1	1.25	4.50	86	3/31	.21	.33	6/30	1.05	.95	YES
	1179	Crown Holdings		CCK	45.40	2	3	5	1.05	80- 115 (75-155%)	8.4	NIL	5.40	NIL	16	3/31	.94	.72	6/30	NIL	NIL	YES
	177	CryoLife Inc.		CRY	29.35	5	3	3	1.05	14- 20 (N- N%)	97.8	NIL	.30	NIL	75	3/31	d.11	.06	6/30	NIL	NIL	YES
	2638	Ctrip.com Int'l ADR	(NDQ)	CTRP	44.50	3	3	3	1.25	55- 85 (25- 90%)	49.4	NIL	.90	NIL	79	3/31	.29	.02	6/30	NIL	NIL	YES
	1327	Cubic Corp.		CUB	69.00	5	3	2	1.05	55- 85 (N- 25%)	71.1	0.4	.97	.27	63	3/31	d.12	.02	6/30	NIL	NIL	YES
	2513	Cullen/Frost Bankers		CFR	112.76	3	3	2	1.10	95- 145 (N- 30%)	17.1	2.4	6.60	2.68	19	3/31	1.61	1.28	6/30	▲.67	.57	YES
	1150	Culp Inc.		CULP	24.95	4	3	3	.90	30- 45 (20- 80%)	15.0	1.4	1.66	.36	77	4/30	.37	.49	9/30	.09	.08	YES
	156	Cummins Inc.		CMI	135.88	3	2	3	1.10	195- 260 (45- 90%)	11.2	3.4	12.10	4.56	28	3/31	2.43	2.36	9/30	▲1.14	1.08	YES
	1709	Curtiss-Wright		CW	125.76	2	3	3	1.15	110- 165 (N- 30%)	22.1	0.5	5.70	.60	21	3/31	.98	.73	9/30	.15	.13	YES
	205	Cutera, Inc.	(NDQ)	CUTR	43.25	3	3	3	.95	45- 70 (5- 60%)	54.1	NIL	.80	NIL	78	3/31	d.02	d.07	6/30	NIL	NIL	YES
	1356	Cypress Semic.	(NDQ)	CY	16.80	2	3	2	1.45	25- 40 (50-140%)	13.4	2.6	1.25	.44	17	3/31	.27	.13	9/30	.11	.11	YES

(•) All data adjusted for announced stock split or stock dividend. See back page of Ratings & Reports.
◆ New figure this week.
(b) Canadian Dollars.
(d) Deficit.
(f) The estimate may reflect a probable increase or decrease. If a dividend boost or cut is possible but not probable, two figures are shown, the first is the more likely.
(g) Dividends subject to foreign withholding tax for U.S. residents.
(h) Est'd Earnings & Est'd Dividends after conversion to U.S. dollars at Value Line estimated translation rate.
(j) All Index data expressed in hundreds.
(p) 6 months (q) Asset Value
N=Negative figure NA=Not available NMF=No meaningful figure

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Recent Price		NAME OF STOCK		Ticker Symbol	Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential			Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	627	**DCP Midstream LP**		DCP	**41.85**	5	3	3	1.55	40-	60	(N- 45%)	**46.5**	**7.5**	.90	3.12	50	3/31	**.08**	.41	6/30	.78	.78	YES
	1518	DDR Corp.		DDR	**14.35**	–	3	–	.95	25-	40	(75-180%)	**NMF**	**10.6**	d.55	1.52	96	3/31	**d.34**	d.32	9/30	.38	.38	YES
	732	DMC Global	(NDQ)	BOOM	**47.50**	3	4	3	1.20	40-	70	(N- 45%)	**25.0**	**0.2**	1.90	.08	40	3/31	**.49**	d.21	9/30	.02	.02	YES
	1207	DNP Select Inc. Fund		DNP	**10.89**	–	2	3	.65	10-	14	(N- 30%)	**NMF**	**2.8**	NMF	.30	–	10/31	**9.98(q)**	9.40(q)	12/31	NIL	NIL	
	601	DSP Group	(NDQ)	DSPG	**12.95**	4	3	3	.80	13-	20	(N- 55%)	**NMF**	**NIL**	d.10	NIL	86	3/31	**d.08**	d.13	6/30	NIL	NIL	YES
853	2205	DSW Inc.		DSW	**27.07**	3	3	3	.95	▲ 30-	45	(10- 65%)	**16.9**	**3.7**	1.60	1.00	61	4/30	**.39**	.31	9/30	.25	.20	YES
	908	DTE Energy		DTE	**106.38**	3	2	5	.65	90-	125	(N- 20%)	**18.2**	**3.5**	5.85	3.72	52	3/31	**2.00**	2.23	12/31	.883	.825	YES
	2619	DXC Technology		DXC	**86.54**	–	3	–	NMF	80-	125	(N- 45%)	**11.1**	**0.9**	7.78	.76	47	3/31	**2.28**	1.15	9/30	▲.19	.18	YES
	102	Daimler AG	(PNK)	DDAIF	**67.66**	3	3	3	1.15	105-	155	(55-130%)	**5.8**	**6.7**	11.60	4.50	46	3/31	**2.61**	3.04	6/30	4.487	3.71	
852	2009	Daktronics Inc.	(NDQ)	DAKT	**8.44**	5	3	4	1.20	14-	20	(65-135%)	**36.7**	**3.6**	.23	.30	91	4/30	**d.09**	.02	6/30	.07	.07	YES
	982	Dana Inc.		DAN	**21.01**	1	3	3	1.55	40-	55	(90-160%)	**6.9**	**1.9**	3.05	.40	8	3/31	**.75**	.63	6/30	.10	.06	YES
	1750	Danaher Corp.		DHR	**99.58**	–	2	–	.90	130-	175	(30- 75%)	**22.4**	**0.6**	4.45	.64	32	3/31	**.80**	.69	9/30	.16	.14	YES
1417	358	Darden Restaurants		DRI	**110.38**	3	3	4	.85	100-	150	(N- 35%)	**20.5**	**2.7**	5.38	3.00	67	5/31	**1.39**	1.18	9/30	▲.75	.63	YES
	412	Darling Ingredients		DAR	**19.94**	2	3	4	1.15	25-	35	(25- 75%)	**16.6**	**NIL**	1.20	NIL	27	3/31	**.58**	.04	6/30	NIL	NIL	YES
1246	359	Dave & Buster's Ent.	(NDQ)	PLAY	**48.26**	2	3	3	1.20	90-	135	(85-180%)	**16.9**	**NIL**	2.85	NIL	67	4/30	**1.04**	.94	6/30	NIL	NIL	YES
	804	DaVita Inc.		DVA	**71.32**	–	3	–	.90	90-	135	(25- 90%)	**17.6**	**NIL**	4.05	NIL	9	3/31	**1.05**	.79	6/30	NIL	NIL	YES
	1909	Dean Foods		DF	**10.56**	3	4	5	1.10	12-	20	(15- 90%)	**16.2**	**3.4**	.65	.36	81	3/31	**.14**	.13	6/30	.09	.09	YES
	2156	Deckers Outdoor		DECK	**115.40**	3	3	2	1.10	105-	160	(N- 40%)	**18.4**	**NIL**	6.26	NIL	58	3/31	**.51**	.11	6/30	NIL	NIL	YES
	157	Deere & Co.		DE	**138.00**	2	1	2	.90	185-	230	(35- 65%)	**14.1**	**2.0**	9.79	2.76	28	4/30	**3.14**	2.49	9/30	▲.69	.60	YES
	508	Delek US Holdings		DK	**47.39**	3	3	1	1.50	45-	65	(N- 35%)	**27.9**	**2.1**	1.70	1.00	29	3/31	**.33**	.16	6/30	▲.25	.15	YES
1843	2620	Dell Technologies		DVMT	**94.86**	–	3	–	NMF	85-	130	(N- 35%)	**22.9**	**NIL**	4.15	NIL	47	4/30	**2.33**	.56	6/30	NIL	NIL	YES
	308	Delta Air Lines		DAL	**51.14**	3	3	2	1.25	70-	105	(35-105%)	**8.2**	**2.8**	6.20	1.44	25	6/30	◆**1.77**	1.64	9/30	▲.35	.305	YES
	2376	Deluxe Corp.		DLX	**65.70**	3	3	4	1.20	90-	135	(35-105%)	**11.7**	**1.8**	5.60	1.20	69	3/31	**1.31**	1.16	6/30	.30	.30	YES
	2406	Denbury Resources		DNR	**4.54**	2	5	3	2.25	7-	13	(55-185%)	**8.3**	**NIL**	.55	NIL	11	3/31	**.12**	d.02	6/30	NIL	NIL	YES
	360	Denny's Corp.	(NDQ)	DENN	**15.71**	2	3	3	.95	20-	30	(25- 90%)	**22.4**	**NIL**	.70	NIL	67	3/31	**.15**	.11	6/30	NIL	NIL	YES
	178	Dentsply Sirona	(NDQ)	XRAY	**45.70**	4	2	5	.95	80-	105	(75-130%)	**17.2**	**0.8**	2.65	.35	75	3/31	**.45**	.49	12/31	.088	.088	YES
	1033	Deutsche Telekom ADR	(PNK)	DTEGY	**15.95**	3	2	4	1.00	20-	30	(25- 90%)	**13.9**	**5.3**	1.15	.85	89	3/31	**.26**	.18	6/30	.768	NIL	
	533	Devon Energy		DVN	**44.08**	4	3	3	1.75	65-	95	(45-115%)	**30.4**	**0.7**	1.45	.32	24	3/31	**.20**	.41	9/30	.08	.06	YES
	206	DexCom Inc.	(NDQ)	DXCM	**101.74**	3	4	3	.95	40-	65	(N- N%)	**NMF**	**NIL**	d.45	NIL	78	3/31	**d.28**	d.49	6/30	NIL	NIL	YES
	1975	Diageo plc		DEO	**148.15**	3	1	2	1.00	130-	160	(N- 10%)	**24.1**	**2.2**	6.16	3.20	74	12/31	**4.44(p)**	2.59(p)	6/30	1.35	1.181	YES
	2422	Diamond Offshore		DO	**19.45**	4	3	2	1.25	20-	30	(5- 55%)	**NMF**	**NIL**	d.20	NIL	92	3/31	**.14**	.17	6/30	NIL	NIL	YES
	2407	Diamondback Energy	(NDQ)	FANG	**130.65**	▼2	3	3	1.50	140-	210	(5- 60%)	**19.1**	**0.4**	6.85	.50	11	3/31	**1.65**	1.46	6/30	▲.125	NIL	YES
	331	Diana Shipping		DSX	**4.51**	–	5	–	1.60	5-	8	(10- 75%)	**NMF**	**NIL**	d.15	NIL	83	3/31	**d.04**	d.34	6/30	NIL	NIL	YES
853	2170	Dick's Sporting Goods		DKS	**33.94**	3	3	3	1.00	45-	65	(35- 90%)	**11.1**	**2.7**	3.05	.90	44	4/30	**.59**	.54	6/30	.225	.17	YES
	1410	Diebold Nixdorf		DBD	**12.50**	4	3	4	1.35	30-	45	(140-260%)	**11.9**	**NIL**	1.05	NIL	68	3/31	**d.12**	.08	6/30	▼NIL	.10	YES
	1519	Digital Realty Trust		DLR	**115.93**	3	3	5	.85	115-	175	(N- 50%)	**74.8**	**3.6**	1.55	4.18	96	3/31	**.42**	.41	6/30	1.01	.93	YES
	2139	Dillard's, Inc.		DDS	**85.62**	2	3	1	1.10	90-	135	(5- 60%)	**14.0**	**0.5**	▲6.10	.40	48	4/30	**2.89**	2.12	9/30	.10	.07	YES
	361	Dine Brands Global		DIN	**70.55**	4	3	2	.80	75-	115	(5- 65%)	**14.1**	**3.6**	5.00	2.52	67	3/31	**.92**	.79	9/30	.63	.97	YES
	966	Diplomat Pharmacy		DPLO	**25.89**	4	4	2	1.25	35-	55	(35-110%)	**NMF**	**NIL**	.20	NIL	26	3/31	**.02**	.07	6/30	NIL	NIL	YES
	2551	Discover Fin'l Svcs.		DFS	**71.10**	2	2	1	1.10	105-	140	(50- 95%)	**9.2**	**2.0**	7.75	1.40	20	3/31	**1.82**	1.43	6/30	.35	.30	YES
	2329	Discovery, Inc.	(NDQ)	DISCA	**26.38**	2	3	3	1.20	60-	90	(125-240%)	**10.1**	**NIL**	2.60	NIL	22	3/31	**.53**	.37	6/30	NIL	NIL	YES
	1023	Dish Network 'A'	(NDQ)	DISH	**31.78**	4	3	4	1.15	30-	45	(N- 40%)	**13.2**	**NIL**	2.40	NIL	38	3/31	**.70**	.76	6/30	NIL	NIL	YES
1418	2330	Disney (Walt)		DIS	**110.30**	2	1	4	1.00	150-	180	(35- 65%)	**16.7**	**1.5**	6.61	1.68	22	3/31	**1.95**	1.50	9/30	.84	.78	YES
	2010	Dolby Labs.		DLB	**62.60**	4	2	3	.90	75-	100	(20- 60%)	**26.0**	**1.0**	2.41	.64	91	3/31	**.66**	.49	6/30	.16	.14	YES
	2140	Dollar General		DG	**99.40**	2	3	3	.90	115-	175	(15- 75%)	**16.4**	**1.2**	6.05	1.16	48	4/30	**1.36**	1.02	6/30	▲.29	.26	YES
853	2141	Dollar Tree, Inc.	(NDQ)	DLTR	**86.73**	3	3	3	.85	▼ 110-	165	(25- 90%)	**17.0**	**NIL**	5.10	NIL	48	4/30	**.67**	.98	6/30	NIL	NIL	YES
	141	Dominion Energy		D	**70.38**	3	2	5	.65	85-	115	(20- 65%)	**19.3**	**5.0**	3.65	3.51	53	3/31	**.77**	1.01	6/30	.835	.755	YES
	362	Domino's Pizza		DPZ	**282.04**	3	3	3	.85	305-	455	(10- 60%)	**33.8**	**0.8**	8.35	2.20	67	3/31	**2.00**	1.26	6/30	.55	.46	YES
	1165	Domtar Corp.		UFS	**48.41**	2	3	3	1.20	60-	95	(25- 95%)	**13.4**	**3.6**	3.60	1.74	10	3/31	**.87**	.32	9/30	.435	.415	YES
	1710	Donaldson Co.		DCI	**45.43**	3	2	2	1.15	55-	80	(20- 75%)	**20.1**	**1.7**	2.26	.76	21	4/30	**.53**	.45	6/30	▲.19	.175	YES
	2392	Donnelley (R.R) & Sons	(NDQ)	RRD	**5.50**	–	3	–	NMF	9-	13	(65-135%)	**5.0**	**10.2**	1.10	.56	34	3/31	**d.14**	d.71	6/30	.14	.14	YES
	983	Dorman Products	(NDQ)	DORM	**70.99**	2	3	4	.85	90-	135	(25- 90%)	**16.9**	**NIL**	4.20	NIL	8	3/31	**.96**	.83	6/30	NIL	NIL	YES
	158	Douglas Dynamics		PLOW	**47.60**	3	3	3	1.20	45-	70	(N- 45%)	**25.1**	**2.2**	1.90	1.06	28	3/31	**d.03**	d.14	6/30	.265	.24	YES
	1711	Dover Corp.		DOV	**74.53**	–	2	–	1.25	110-	145	(50- 95%)	**15.4**	**2.5**	4.85	1.88	21	3/31	**1.16**	1.04	6/30	.47	.44	YES
2668	1600	DowDuPont Inc.		DWDP	**67.06**	–	2	–	NMF	75-	105	(10- 55%)	**17.2**	**2.4**	3.90	1.60	76	3/31	**1.01**	NA	9/30	.38	NIL	YES
	1976	Dr Pepper Snapple		DPS						SEE FINAL REPORT														
	2423	Dril-Quip, Inc.		DRQ	**58.25**	5	3	5	1.30	85-	125	(45-115%)	**NMF**	**NIL**	d.25	NIL	92	3/31	**d.20**	NIL	6/30	NIL	NIL	YES
	142	Duke Energy		DUK	**80.65**	2	2	5	.60	85-	110	(5- 35%)	**16.8**	**4.6**	4.80	3.71	53	3/31	**1.17**	1.02	9/30	▲.928	.89	YES
	1520	Duke Realty Corp.		DRE	**28.27**	4	3	2	.90	30-	45	(5- 60%)	**31.4**	**2.9**	.90	.83	96	3/31	**.20**	.20	6/30	.20	.19	YES
	438	Dun & Bradstreet		DNB	**128.93**	3	3	3	1.10	135-	200	(5- 55%)	**15.1**	**1.6**	8.55	2.09	36	3/31	**1.24**	.95	6/30	.523	.503	YES
	363	Dunkin' Brands Group	(NDQ)	DNKN	**72.17**	3	3	3	.65	90-	135	(25- 85%)	**26.2**	**2.0**	2.75	1.44	67	3/31	**.62**	.54	6/30	.348	.323	YES
643	923	Dycom Inds.		DY	**98.09**	3	3	3	1.30	155-	230	(60-135%)	**20.9**	**NIL**	4.70	NIL	60	4/30	**.65**	1.30	6/30	NIL	NIL	YES
	1009	**e.l.f. Beauty**		ELF	**15.42**	–	3	–	NMF	16-	25	(5- 60%)	**25.7**	**NIL**	.60	NIL	72	3/31	**.11**	.09	6/30	NIL	NIL	YES
	1797	E*Trade Fin'l	(NDQ)	ETFC	**61.14**	2	3	1	1.35	65-	100	(5- 65%)	**18.8**	**NIL**	3.25	NIL	23	3/31	**.88**	.48	6/30	NIL	NIL	YES
	534	EOG Resources		EOG	**124.32**	3	3	3	1.40	130-	200	(5- 60%)	**27.3**	**0.6**	4.55	.75	24	3/31	**1.19**	.15	9/30	.185	.168	YES
	2621	EPAM Systems		EPAM	**133.78**	3	3	3	1.10	110-	170	(N- 25%)	**39.3**	**NIL**	3.40	NIL	47	3/31	**.75**	.44	6/30	NIL	NIL	YES
	535	EQT Corp.		EQT	**54.94**	–	3	–	1.05	90-	140	(65-155%)	**22.9**	**0.2**	2.40	.12	24	3/31	**1.01**	.43	9/30	◆.03	.03	YES
	628	EQT Midstream Part.		EQM	**54.02**	2	3	3	1.20	85-	130	(55-140%)	**9.1**	**8.6**	5.95	4.66	50	3/31	**1.61**	1.36	6/30	▲1.065	.89	YES
	1109	Eagle Materials		EXP	**107.83**	3	3	2	1.45	120-	180	(10- 65%)	**18.1**	**0.4**	5.97	.43	30	3/31	**.92**	.81	9/30	.10	.10	YES
	2514	East West Bancorp	(NDQ)	EWBC	**65.47**	2	3	1	1.25	60-	90	(N- 35%)	**14.9**	**1.2**	4.40	.80	19	3/31	**1.13**	1.16	6/30	.20	.20	YES
	2447	Eastman Chemical		EMN	**100.66**	1	3	1	1.20	105-	155	(5- 55%)	**11.9**	**2.2**	8.45	2.24	4	3/31	**2.00**	1.89	9/30	.56	.51	YES
	984	Eaton Corp. plc		ETN	**77.82**	3	2	2	1.15	100-	135	(30- 75%)	**14.8**	**3.4**	5.25	2.64	8	3/31	**1.10**	.96	6/30	.66	.60	YES
	2552	Eaton Vance Corp.		EV	**53.24**	3	3	1	1.35	60-	95	(15- 80%)	**15.5**	**2.5**	3.44	1.34	20	4/30	**.78**	.62	9/30	.31	.28	YES
★★	2639	eBay Inc.	(NDQ)	EBAY	**37.81**	3	3	2	.95	40-	60	(5- 60%)	**21.6**	**NIL**	1.75	NIL	79	3/31	**.40**	.94	6/30	NIL	NIL	YES
	1024	EchoStar Corp.	(NDQ)	SATS	**46.01**	3	3	3	1.10	50-	75	(10- 65%)	**34.1**	**NIL**	1.35	NIL	38	3/31	**.16**	.41	6/30	NIL	NIL	YES
	569	Ecolab Inc.		ECL	**143.72**	3	1	3	1.00	160-	200	(10- 40%)	**26.6**	**1.1**	5.40	1.64	15	3/31	**.91**	.80	9/30	.41	.37	YES
	1194	Edgewell Personal Care		EPC	**52.24**	3	3	4	1.00	75-	115	(45-120%)	**13.1**	**NIL**	4.00	NIL	88	3/31	**1.31**	1.21	6/30	NIL	NIL	YES
	2222	Edison Int'l		EIX	**65.55**	4	2	5	.60	75-	100	(15- 55%)	**14.9**	**3.8**	4.40	2.51	84	3/31	**.81**	1.11	9/30	.605	.543	YES
	179	Edwards Lifesciences		EW	**149.20**	3	3	3	.85	170-	250	(15- 70%)	**32.1**	**NIL**	4.65	NIL	75	3/31	**1.22**	.94	6/30	NIL	NIL	YES
	2223	El Paso Electric		EE	**60.30**	4	2	3	.75	45-	60	(N- N%)	**24.6**	**2.4**	2.45	1.47	84	3/31	**d.17**	d.10	6/30	▲.36	.335	YES
	709	Elbit Systems	(NDQ)	ESLT	**120.71**	3	3	4	.80	95-	145	(N- 20%)	**20.1**	**1.5**	6.00	1.84	59	3/31	**1.16**	1.07	9/30	.44	.44	
	2353	Eldorado Resorts	(NDQ)	ERI	**45.00**	3	3	3	.90	45-	65	(N- 45%)	**25.0**	**NIL**	1.80	NIL	31	3/31	**.27**	.02	6/30	NIL	NIL	YES

★★ Supplementary Report in this week's issue.
▲ Arrow indicates the direction of a change. When it appears with the Latest Dividend, the arrow signals that a change in the regular payment rate has occurred in the latest quarter.

For Timeliness, 3-5 year Target Price Range, or Estimated Earnings 12 months to 12-31-18, the arrow indicates a change since the preceding week. When a diamond ◆ (indicating a new figure) appears alongside the latest quarterly earnings results, the rank change probably was primarily caused by the earnings report. In other cases, the change is due to the dynamics of the ranking system and could simply be the result of the improvement or weakening of other stocks.

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Bold type refers to Ratings and Reports

Recent Price		NAME OF STOCK		Ticker Symbol	Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential			Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	1381	Electro Scientific	(NDQ)	ESIO	17.85	1	3	1.05	40-	65	(125-265%)	6.2	NIL	2.87	NIL	3	3/31	1.02	.09	6/30	NIL	NIL	YES
	2011	Electronic Arts	(NDQ)	EA	148.74	3	3	.95	125-	185	(N- 25%)	36.7	NIL	4.05	NIL	91	3/31	1.95	1.81	6/30	NIL	NIL	YES
	1411	Electr. for Imaging	(NDQ)	EFII	34.80	4	3	1.15	55-	80	(60-130%)	16.2	NIL	2.15	NIL	68	3/31	.38	.55	6/30	NIL	NIL	YES
1846	710	Embraer SA		ERJ	22.30	–	3	.95	30-	50	(35-125%)	24.8	1.3	.90	.28	59	3/31	d.07	.23	6/30	.101	.18	YES
	388	EMCOR Group		EME	76.30	3	3	1.10	70-	105	(N- 40%)	17.1	0.4	4.45	.32	55	3/31	.94	.88	9/30	.08	.08	YES
	1219	Emera Inc.	(TSE)	EMA.TO	42.69b	3	2	.65	65-	90	(50-110%)	14.0	5.3	3.05	2.26	71	3/31	1.17(b)	1.47(b)	9/30	.565(b)	.523(b)	YES
	1305	Emerson Electric		EMR	69.48	3	1	1.15	85-	105	(20- 50%)	21.2	2.8	3.27	1.95	51	3/31	.76	.58	6/30	.485	.48	YES
	1949	Empire Company Ltd.	(TSE)	EMPA.TO	26.85b	3	3	.60	25-	40	(N- 50%)	18.5	1.6	1.45	.44	39	4/30	.35(b)	.11(b)	9/30	▲.11(b)	.105(b)	YES
	629	Enable Midstream Part.		ENBL	17.81	4	4	1.25	25-	45	(40-155%)	18.7	7.2	.95	1.28	50	3/31	.24	.25	6/30	.318	.32	YES
452	630	Enbridge Energy Part.		EEP	10.67	–	4	1.40	17-	30	(60-180%)	13.3	13.1	.80	1.40-.84	50	3/31	.15	.16	6/30	.35	.35	YES
	614	Enbridge Inc.	(TSE)	ENB.TO	45.49b	3	3	1.00	55-	80	(20- 75%)	17.5	5.9	2.60	2.68	57	3/31	.82(b)	.57(b)	6/30	.671(b)	.61(b)	YES
	536	Encana Corp.		ECA	13.00	2	5	1.75	17-	30	(30-130%)	20.0	0.5	.65	.06	24	3/31	.16	.11	6/30	.015	.015	YES
	805	Encompass Health		EHC	69.39	2	3	1.00	65-	95	(N- 35%)	21.4	1.4	3.25	1.00	9	3/31	.85	.70	9/30	.25	.24	YES
1038	1614	Endo Int'l plc	(NDQ)	ENDP	10.83	4	5	1.10	9-	16	(N- 50%)	4.5	NIL	2.40	NIL	73	3/31	.67	1.23	6/30	NIL	NIL	YES
	1820	Endurance Int'l Group	(NDQ)	EIGI	10.80	3	4	1.20	9-	15	(N- 40%)	NMF	NIL	d.35	NIL	64	3/31	d.05	d.26	6/30	NIL	NIL	YES
	2408	Energen Corp.		EGN	73.42	2	3	1.60	70-	105	(N- 45%)	24.9	NIL	2.95	NIL	11	3/31	1.22	.34	6/30	NIL	NIL	YES
	1195	Energizer Holdings		ENR	64.01	3	3	.75	70-	100	(10- 55%)	18.8	1.8	3.40	1.16	88	3/31	.45	.50	6/30	.29	.275	YES
	631	Energy Transfer Equity		ETE	17.08	1	4	2.05	25-	40	(45-135%)	13.7	7.4	1.25	1.26	50	3/31	.31	.21	6/30	.305	.285	YES
	632	Energy Transfer Part.		ETP	19.26	–	3	1.50	20-	30	(5- 55%)	20.3	11.7	.95	2.26	50	3/31	.05	.01	6/30	.565	.535	YES
	537	Enerplus Corp.	(TSE)	ERF.TO	16.96b	4	4	2.05	20-	35	(20-105%)	14.7	0.7	1.15	.12	24	3/31	.12(b)	.31(b)	6/30	.03(b)	.03(b)	
	1220	EnerSys		ENS	77.46	5	3	1.35	90-	130	(15- 70%)	15.8	0.9	4.89	.70	71	3/31	1.29	.76	6/30	.175	.175	YES
	633	EnLink Midstream Part.		ENLK	14.93	2	4	1.70	20-	35	(35-135%)	37.3	10.4	.40	1.56	50	3/31	.06	d.03	6/30	.39	.39	YES
	1752	EnPro Industries		NPO	71.87	1	3	1.30	135-	200	(90-180%)	20.5	1.3	3.50	.96	32	3/31	.58	.30	6/30	.24	.22	YES
	2424	Ensco plc		ESV	7.15	5	4	1.65	7-	11	(N- 55%)	NMF	0.6	d1.10	.04	92	3/31	d.32	d.09	6/30	.01	.01	YES
	1382	Entegris, Inc.	(NDQ)	ENTG	36.50	2	3	1.20	40-	60	(10- 65%)	19.7	0.8	1.85	.28	3	3/31	.47	.28	9/30	◆.07	NIL	YES
	909	Entergy Corp.		ETR	81.70	3	3	.65	65-	100	(N- 20%)	19.9	4.4	4.10	3.62	52	3/31	.73	.46	6/30	.89	.87	YES
	634	Enterprise Products		EPD	28.22	3	3	1.30	40-	60	(40-115%)	17.6	6.2	1.60	1.76	50	3/31	.41	.36	9/30	▲.43	.42	YES
	2331	Entravision Communic.		EVC	4.70	5	4	1.25	7-	11	(50-135%)	23.5	4.3	.20	.20	22	3/31	d.02	.03	6/30	.05	.031	YES
1243	806	Envision Healthcare		EVHC	44.85	–	3	NMF	70-	105	(55-135%)	12.5	NIL	3.60	NIL	9	3/31	.71	.66	6/30	NIL	NIL	YES
	439	Equifax, Inc.		EFX	125.88	4	3	.95	145-	220	(15- 75%)	21.2	1.2	5.95	1.56	36	3/31	1.43	1.44	6/30	.39	.39	YES
	1821	Equinix, Inc.	(NDQ)	EQIX	438.45	3	3	.95	245-	370	(N- N%)	NMF	2.1	3.85	9.12	64	3/31	.79	.57	6/30	2.28	2.00	YES
	1521	Equity Residential		EQR	63.86	4	2	.75	70-	95	(10- 50%)	38.7	3.4	1.65	2.16	96	3/31	.57	.39	9/30	.54	.504	YES
2456	947	Ericsson ADR(g)	(NDQ)	ERIC	7.64	4	3	1.05	7-	11	(N- 45%)	76.4	1.6	.10	.12	85	3/31	d.02	d.35	6/30	.119	.111	YES
	768	Erie Indemnity	(NDQ)	ERIE	118.10	3	2	.80	125-	170	(5- 45%)	24.1	2.8	4.90	3.36	56	3/31	1.26	.91	9/30	.84	.783	YES
	1751	ESCO Technologies		ESE	60.45	3	3	1.00	75-	115	(25- 90%)	20.7	0.5	2.92	.32	32	3/31	.48	.45	9/30	.08	.08	YES
455	1412	Essendant Inc.	(NDQ)	ESND	14.19	–	3	1.20	18-	25	(25- 75%)	94.6	3.9	.15	.56	68	3/31	d.12	.25	9/30	.14	.14	YES
	1522	Essex Property Trust		ESS	232.74	4	3	.75	245-	370	(5- 60%)	50.6	3.2	4.60	7.54	96	3/31	1.38	2.72	9/30	1.86	1.75	YES
	711	Esterline Technologies		ESL	74.65	4	3	1.45	85-	130	(15- 75%)	18.9	NIL	3.96	NIL	59	3/31	.80	1.21	6/30	NIL	NIL	YES
	1151	Ethan Allen Interiors		ETH	24.40	4	3	1.15	35-	55	(45-125%)	17.1	3.1	1.43	.76	77	3/31	.11	.23	9/30	.19	.19	YES
	424	European Equity Fund		EEA	9.58	–	3	.95	10-	16	(5- 65%)	NMF	1.0	NMF	.10	–	12/31	10.97(q)	8.76(q)	6/30	.03	.051	
	2024	Everest Re Group Ltd.		RE	235.11	5	1	.75	290-	355	(25- 50%)	10.6	2.3	22.25	5.35	95	3/31	5.14	7.12	6/30	1.30	1.25	YES
	143	Eversource Energy		ES	58.87	4	1	.65	60-	75	(N- 25%)	18.1	3.5	3.25	2.05	53	3/31	.85	.82	6/30	.505	.475	YES
	839	Exelixis, Inc.	(NDQ)	EXEL	21.34	3	4	1.25	30-	55	(40-160%)	23.7	NIL	.90	NIL	90	3/31	.37	.05	6/30	NIL	NIL	YES
	144	Exelon Corp.		EXC	41.92	2	3	.70	35-	55	(N- 30%)	16.1	3.5	2.60	1.45	53	3/31	.60	.83	6/30	.345	.328	YES
	2640	Expedia Group	(NDQ)	EXPE	128.79	4	3	1.20	145-	215	(15- 65%)	49.5	0.9	2.60	1.20	79	3/31	d.91	d.57	6/30	.30	.28	YES
	389	Expeditors Int'l	(NDQ)	EXPD	72.25	3	1	.90	105-	125	(45- 75%)	24.9	1.2	2.90	.90	55	3/31	.76	.51	6/30	.45	.42	YES
	2206	Express, Inc.		EXPR	10.07	3	4	1.10 ▲	12-	20	(20-100%)	22.4	NIL	▲.45	NIL	61	4/30	.01	d.07	6/30	NIL	NIL	YES
	967	Express Scripts	(NDQ)	ESRX	79.88	–	3	.95	100-	150	(25- 90%)	12.3	NIL	6.50	NIL	26	3/31	1.10	.90	6/30	NIL	NIL	YES
	2354	Extended Stay America		STAY	21.31	3	3	1.15	30-	50	(40-135%)	23.4	4.1	.91	.88	31	3/31	.19	.12	6/30	▲.22	.21	YES
	1523	Extra Space Storage		EXR	94.68	3	3	.80	95-	140	(N- 50%)	30.5	3.7	3.10	3.48	96	3/31	.70	.64	6/30	▲.86	.78	YES
	538	Extraction Oil & Gas	(NDQ)	XOG	13.82	–	3	– NMF	18-	25	(30- 80%)	NMF	NIL	d.50	NIL	24	3/31	d.32	.03	6/30	NIL	NIL	YES
	1395	Extreme Networks	(NDQ)	EXTR	8.63	3	4	1.25	12-	20	(40-130%)	10.5	NIL	.82	NIL	43	3/31	.16	.10	6/30	NIL	NIL	YES
2665	509	Exxon Mobil Corp.		XOM	82.31	3	1	1.00	100-	125	(20- 50%)	17.7	4.0	4.65	3.30	29	3/31	1.09	.95	6/30	▲.82	.77	YES
	2553	EZCORP, Inc.	(NDQ)	EZPW	11.75	2	4	1.40	11-	18	(N- 55%)	13.5	NIL	.87	NIL	20	3/31	.23	.15	6/30	NIL	NIL	YES
	948	**F5 Networks**	(NDQ)	FFIV	176.75	3	3	1.00	195-	295	(10- 65%)	23.6	NIL	7.49	NIL	85	3/31	1.77	1.43	6/30	NIL	NIL	YES
	119	FARO Technologies	(NDQ)	FARO	56.95	4	3	1.45	55-	85	(N- 50%)	63.3	NIL	.90	NIL	62	3/31	.03	d.09	6/30	NIL	NIL	YES
	1306	FLIR Systems	(NDQ)	FLIR	53.28	3	3	.90	50-	75	(N- 40%)	24.8	1.2	2.15	.66	51	3/31	.48	.36	6/30	.16	.15	YES
	1601	FMC Corp.		FMC	87.75	2	3	1.25	85-	130	(N- 50%)	14.4	0.8	6.10	.70	76	3/31	1.84	.43	9/30	.165	.165	YES
	1196	FTD Companies	(NDQ)	FTD	4.64	5	5	1.20	20-	35	(330-655%)	NMF	NIL	d2.50	NIL	88	3/31	d.24	.32	6/30	NIL	NIL	YES
	390	FTI Consulting		FCN	67.83	3	3	1.00	50-	75	(N- 10%)	25.6	NIL	2.65	NIL	55	3/31	1.04	.34	6/30	NIL	NIL	YES
2465	2641	Facebook Inc.	(NDQ)	FB	209.99	2	3	1.00	370-	555	(75-165%)	26.2	NIL	8.00	NIL	79	3/31	1.69	1.04	6/30	NIL	NIL	YES
	440	FactSet Research		FDS	205.13	3	2	.95	225-	305	(10- 50%)	28.8	1.2	7.13	2.56	36	5/31	1.91	1.66	6/30	▲.64	.56	YES
	2622	Fair Isaac		FICO	206.47	3	3	1.15	150-	225	(N- 10%)	37.7	NIL	5.47	NIL	47	3/31	1.03	.78	6/30	NIL	NIL	YES
2031	1139	Fastenal Co.	(NDQ)	FAST	55.94	3	2	1.00	60-	80	(5- 45%)	22.4	2.9	2.50	1.60	37	6/30	.74	.52	9/30	▲.40	.32	YES
	1524	Federal Rlty. Inv. Trust		FRT	123.98	4	1	3 .75	180-	220	(45- 75%)	39.4	3.3	3.15	4.06	96	3/31	.81	.78	9/30	1.00	.98	YES
	159	Federal Signal		FSS	23.95	3	3	3 1.15	30-	45	(25- 90%)	20.0	1.3	1.20	.32	28	3/31	.23	.14	6/30	▲.08	.07	YES
	2554	Federated Investors		FII	23.42	3	3	4 1.10	40-	60	(70-155%)	8.8	4.6	2.65	1.08	20	3/31	.60	.49	6/30	▲.27	.25	YES
	309	FedEx Corp.		FDX	231.15	1	1	2 1.10	305-	375	(30- 60%)	13.1	1.1	17.61	2.60	25	5/31	5.91	4.25	9/30	▲.65	.50	YES
	103	Ferrari N.V.		RACE	143.68	3	3	2 1.00	120-	180	(N- 25%)	36.4	0.6	3.95	.85	46	3/31	.96	.78	6/30	.867	.635	YES
	570	Ferro Corp.		FOE	21.26	1	3	3 1.30	25-	40	(20- 90%)	13.3	NIL	1.60	NIL	15	3/31	.36	.31	6/30	NIL	NIL	YES
	104	Fiat Chrysler		FCAU	19.67	–	3	– 2.10	25-	35	(25- 80%)	5.2	NIL	3.80	NIL	46	3/31	.80	.41	6/30	NIL	NIL	YES
	2555	Fidelity Nat'l Fin'l		FNF	37.53	–	2	– NMF	50-	70	(35- 85%)	14.2	3.2	2.65	1.20	20	6/30	◆.90	.63	9/30	◆.30	.25	YES
	2556	Fidelity Nat'l Info.		FIS	108.34	3	2	3 .95	95-	130	(N- 20%)	33.3	1.2	3.25	1.28	20	3/31	.54	.41	6/30	.32	.29	YES
	364	Fiesta Restaurant	(NDQ)	FRGI	29.50	5	4	3 1.00	40-	65	(35-120%)	29.5	NIL	1.00	NIL	67	3/31	.16	.25	6/30	NIL	NIL	YES
645	784	Fifth Third Bancorp	(NDQ)	FITB	29.52	2	3	1 1.15	30-	45	(N- 50%)	11.1	2.4	2.65	.72	14	3/31	.97	.38	9/30	▲.18	.14	YES
	602	Finisar Corp.	(NDQ)	FNSR	17.92	5	4	4 1.20	25-	45	(40-150%)	89.6	NIL	.20	NIL	86	4/30	d.16	.23	6/30	NIL	NIL	YES
	1417	Finish Line (The)		FINL	SEE FINAL SUPPLEMENT																		
	160	Finning Int'l	(TSE)	FTT.TO	32.48b	3	3	2 1.10	40-	60	(25- 85%)	18.6	2.5	1.75	.80	28	3/31	.39(b)	.28(b)	6/30	▲.20(b)	.183(b)	
	2594	FireEye Inc.	(NDQ)	FEYE	16.93	3	5	2 1.70	20-	40	(20-135%)	NMF	NIL	d1.40	NIL	54	3/31	d.39	d.48	6/30	NIL	NIL	YES
	2515	First Commonwealth		FCF	15.88	3	3	3 1.00	19-	30	(20- 90%)	15.9	2.3	1.00	.36	19	3/31	.24	.18	6/30	▲.09	.08	YES
	2557	First Data Corp.		FDC	22.55	3	3	3 1.50	25-	35	(10- 55%)	16.8	NIL	1.34	NIL	20	3/31	.29	.04	6/30	NIL	NIL	YES
	785	First Horizon National		FHN	17.18	3	3	1 1.10	18-	25	(5- 45%)	14.9	2.9	1.15	.50	14	6/30	◆.25	.38	9/30	.12	.09	YES

(•) All data adjusted for announced stock split or stock dividend. See back page of Ratings & Reports.
◆ New figure this week.
(b) Canadian Dollars.
(d) Deficit.
(f) The estimate may reflect a probable increase or decrease. If a dividend boost or cut is possible but not probable, two figures are shown, the first is the more likely.
(g) Dividends subject to foreign withholding tax for U.S. residents.
(h) Est'd Earnings & Est'd Dividends after conversion to U.S. dollars at Value Line estimated translation rate.
(j) All Index data expressed in hundreds.
(p) 6 months (q) Asset Value
N=Negative figure NA=Not available NMF=No meaningful figure

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Recent Price		NAME OF STOCK		Ticker Symbol	Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	786	First Midwest Bancorp	(NDQ)	FMBI	25.86	3	3	2	1.10	30- 45 (15- 75%)	15.7	1.7	1.65	.45	14	3/31	.33	.23	9/30	.11	.10	YES
	2516	First Republic Bank		FRC	97.41	3	3	2	1.00	105- 155 (10- 60%)	19.6	0.7	4.98	.72	19	6/30	◆1.20	1.06	9/30	◆.18	.17	YES
	1221	First Solar, Inc.	(NDQ)	FSLR	53.75	3	3	3	1.40	90- 140 (65-160%)	31.6	NIL	1.70	NIL	71	3/31	.78	.09	6/30	NIL	NIL	YES
	2558	FirstCash, Inc.		FCFS	91.80	–	3	–	.85	70- 105 (N- 15%)	27.8	1.0	3.30	.88	20	3/31	.90	.67	6/30	.22	.19	YES
	145	FirstEnergy Corp.		FE	36.26	4	3	3	.65	30- 50 (N- 40%)	36.3	4.0	1.00	1.44	53	3/31	.04	.71	9/30	◆.36	.36	YES
	2623	Fiserv Inc.	(NDQ)	FISV	77.15	2	2	3	.95	60- 80 (N- 5%)	14.3	NIL	5.40	NIL	47	3/31	.76	.63	6/30	NIL	NIL	YES
	1328	Fitbit Inc.		FIT	6.74	5	4	3	1.40	8- 13 (20- 95%)	NMF	NIL	d.40	NIL	63	3/31	d.17	d.15	6/30	NIL	NIL	YES
1041	2142	Five Below, Inc.	(NDQ)	FIVE	102.24	3	3	3	.95	▲ 110- 160 (10- 55%)	40.9	NIL	2.50	NIL	48	4/30	.39	.15	6/30	NIL	NIL	YES
	2559	FleetCor Technologies		FLT	216.22	2	3	3	1.25	260- 390 (20- 80%)	21.1	NIL	10.25	NIL	20	3/31	2.50	1.96	6/30	NIL	NIL	YES
	1329	Flex Ltd.	(NDQ)	FLEX	15.01	3	3	4	1.20	18- 25 (20- 65%)	12.6	NIL	1.19	NIL	63	3/31	.28	.29	6/30	NIL	NIL	YES
	1140	Floor & Decor Hldgs.		FND	48.97	–	3	–	NMF	65- 95 (35- 95%)	49.0	NIL	1.00	NIL	37	3/31	.26	.13	6/30	NIL	NIL	YES
	1910	Flowers Foods		FLO	20.49	3	3	2	.90	25- 35 (20- 70%)	18.6	3.6	1.10	.73	81	3/31	.30	.25	6/30	▲.18	.17	YES
	1712	Flowserve Corp.		FLS	42.02	4	3	4	1.35	45- 65 (5- 55%)	24.0	1.8	1.75	.76	21	3/31	.27	.25	9/30	.19	.19	YES
229	1234	Fluor Corp.		FLR	48.39	5	3	3	1.35	60- 90 (25- 85%)	21.0	1.7	2.30	.84	82	3/31	d.13	.43	9/30	.21	.21	YES
	1503	Flushing Financial	(NDQ)	FFIC	26.41	4	3	4	1.00	30- 40 (15- 50%)	14.3	3.1	1.85	.81	80	3/31	.39	.42	6/30	.20	.18	YES
853	2207	Foot Locker		FL	52.56	3	3	2	.90	80- 120 (50-130%)	11.8	2.6	4.45	1.38	61	4/30	1.45	1.36	9/30	.345	.31	YES
	105	Ford Motor		F	10.86	3	3	3	1.20	15- 25 (40-130%)	6.6	5.5	1.65	.60	46	3/31	.43	.40	9/30	◆.15	.15	YES
1418	1525	Forest City Realty		FCEA	22.67	4	3	4	1.10	20- 35 (N- 55%)	17.4	3.2	1.30	.72	96	3/31	.73	.16	6/30	.18	.09	YES
	441	Forrester Research	(NDQ)	FORR	43.00	5	3	3	.70	40- 60 (N- 40%)	30.7	1.9	1.40	.80	36	3/31	d.01	.17	6/30	.20	.19	YES
	2595	Fortinet Inc.	(NDQ)	FTNT	66.94	3	3	3	1.15	60- 90 (N- 35%)	78.8	NIL	.85	NIL	54	3/31	.24	.06	6/30	NIL	NIL	YES
	910	Fortis Inc.	(TSE)	FTS.TO	42.89b	4	2	5	.70	40- 55 (N- 30%)	15.9	4.2	2.70	1.78	52	3/31	.69(b)	.72(b)	6/30	.425(b)	.40(b)	YES
	120	Fortive Corp.		FTV	77.57	–	2	–	1.05	80- 110 (5- 40%)	23.9	0.4	3.25	.28	62	3/31	.74	.57	6/30	.07	.07	YES
	1152	Fortune Brands Home		FBHS	56.18	3	3	4	1.30	90- 135 (60-140%)	15.6	1.4	3.60	.80	77	3/31	.56	.53	9/30	◆.20	.36	YES
	321	Forward Air	(NDQ)	FWRD	58.29	2	3	3	1.00	80- 120 (35-105%)	19.4	1.0	3.00	.60	18	3/31	.60	.48	6/30	.15	.15	YES
	2171	Fossil Group	(NDQ)	FOSL	26.39	5	5	2	1.35	20- 40 (N- 50%)	NMF	NIL	▼d.05	NIL	44	3/31	d.99	d1.00	6/30	NIL	NIL	YES
	2208	Francesca's Hldgs.	(NDQ)	FRAN	7.48	4	4	4	.75	17- 30 (125-300%)	12.5	NIL	.60	NIL	61	4/30	d.11	.12	6/30	NIL	NIL	YES
	1570	Franco-Nevada Corp.		FNV	73.63	3	3	4	.60	70- 105 (N- 45%)	58.9	1.3	1.25	.96	66	3/31	.35	.25	6/30	▲.24	.23	YES
	1307	Franklin Electric	(NDQ)	FELE	45.70	3	3	2	1.25	50- 80 (10- 75%)	19.9	1.1	2.30	.48	51	3/31	.45	.33	6/30	▲.12	.108	YES
	2560	Franklin Resources		BEN	32.11	4	2	3	1.35	55- 75 (70-135%)	9.6	3.1	3.35	.98	20	3/31	.79	.74	9/30	.23	.20	YES
	851	Fred's Inc.		FRED						SEE FINAL SUPPLEMENT											
2456	1588	Freep't-McMoRan Inc.		FCX	16.77	2	5	2	2.00	25- 50 (50-200%)	8.2	1.2	2.05	.20	35	3/31	.46	.15	9/30	.05	NIL	YES
	807	Fresenius Medical ADR		FMS	50.04	4	2	2	.80	75- 100 (50-100%)	18.9	1.2	2.65	.62	9	3/31	.55	.50	6/30	.62	.53	YES
	1911	Fresh Del Monte Prod.		FDP	43.45	4	3	4	.85	50- 75 (15- 75%)	15.0	1.4	2.90	.60	81	3/31	.85	.90	6/30	.15	.15	YES
	1912	Freshpet, Inc.	(NDQ)	FRPT	28.90	5	4	4	1.20	18- 30 (N- 5%)	NMF	NIL	d.05	NIL	81	3/31	d.10	d.09	6/30	NIL	NIL	YES
	1034	Frontier Communic.	(NDQ)	FTR	4.99	3	5	2	1.20	25- 50 (400-900%)	NMF	NIL	d1.70	NIL	89	3/31	d.58	d1.20	6/30	NIL	.60	YES
	332	Frontline Ltd.		FRO	5.18	4	5	4	1.25	9- 18 (75-245%)	NMF	NIL	.05	NIL-.20	83	3/31	d.08	.16	6/30	NIL	.15	YES
454	1986	FUJIFILM Hldgs. ADR(g)	(PNK)	FUJIY	39.21	–	3	–	.95	50- 75 (30- 90%)	12.6	1.7	3.10	.67	33	3/31	.52	1.16	6/30	NIL	NIL	
	571	Fuller (H.B.)		FUL	55.40	3	3	3	1.35	55- 85 (N- 55%)	20.5	1.1	2.70	.62	15	5/31	.86	.50	9/30	◆.155	.15	YES
1038	2105	**G-III Apparel Group**	(NDQ)	GIII	46.73	3	3	2	1.25	50- 80 (5- 70%)	20.3	NIL	▲2.30	NIL	65	4/30	.20	d.21	6/30	NIL	NIL	YES
★★	344	GATX Corp.		GATX	76.98	3	3	3	1.25	75- 110 (N- 45%)	16.4	2.3	4.70	1.76	42	3/31	1.98	1.44	6/30	.44	.42	YES
	572	GCP Applied Technologies		GCP	29.50	–	3	–	1.20	30- 40 (N- 35%)	29.5	NIL	1.00	NIL	15	3/31	.01	d.06	6/30	NIL	NIL	YES
	1526	GEO Group (The)		GEO	26.64	4	3	3	1.15	30- 45 (15- 70%)	19.7	7.1	1.35	1.90	96	3/31	.29	.35	9/30	.47	.47	YES
	1527	GGP Inc.		GGP	20.70	–	3	–	.95	25- 40 (20- 95%)	41.4	4.4	.50	.92	96	3/31	.06	.11	9/30	.22	.22	YES
	603	GTT Communications		GTT	46.55	4	4	2	1.20	50- 70 (5- 50%)	NMF	NIL	d1.00	NIL	86	3/31	d.69	d.32	6/30	NIL	NIL	YES
	1208	Gabelli Equity		GAB	6.34	–	3	3	1.15	7- 10 (10- 60%)	NMF	0.8	NMF	.05	–	12/31	6.47(q)	5.84(q)	6/30	.01	.01	
	2561	Gallagher (Arthur J.)		AJG	69.69	3	1	3	1.00	105- 130 (50- 85%)	20.8	2.4	3.35	1.64	20	3/31	1.48	.31	6/30	.41	.39	YES
1418	2172	GameStop Corp.		GME	14.58	–	3	–	1.10	16- 25 (10- 70%)	5.0	10.4	2.90	1.52	44	4/30	.28	.58	6/30	.38	.38	YES
	1528	Gaming and Leisure Prop.	(NDQ)	GLPI	36.02	4	3	4	.85	45- 65 (25- 80%)	18.0	7.1	2.00	2.54	96	3/31	.45	.45	6/30	.63	.62	YES
	2383	Gannett Co.		GCI	10.12	4	3	3	1.05	30- 40 (195-295%)	16.9	6.3	.60	.64	93	3/31	NIL	d.02	6/30	.16	.16	YES
854	2209	Gap (The), Inc.		GPS	29.90	3	3	2	1.00	35- 55 (15- 85%)	11.5	3.2	2.60	.97	61	4/30	.42	.36	9/30	.243	.23	YES
	1308	Garmin Ltd.	(NDQ)	GRMN	64.06	3	3	3	1.00	55- 85 (N- 35%)	21.0	3.3	3.05	2.12	51	3/31	.68	.52	6/30	▲.53	.51	YES
	442	Gartner Inc.		IT	139.97	3	2	3	.95	165- 225 (20- 60%)	37.8	NIL	3.70	NIL	36	3/31	.72	.60	6/30	NIL	NIL	YES
	333	GasLog Ltd.		GLOG	17.10	4	4	3	1.75	25- 45 (45-165%)	34.2	3.5	.50	.60	83	3/31	d.01	.06	6/30	▲.15	.14	YES
	1222	Generac Holdings		GNRC	50.42	3	3	3	1.15	70- 100 (40-100%)	18.0	NIL	2.80	NIL	71	3/31	.42	.21	6/30	NIL	NIL	YES
	1209	Gen'l Amer. Invest		GAM	35.19	–	3	3	1.00	45- 65 (30- 85%)	NMF	1.6	NMF	.56	–	3/31	39.75(q)	39.93(q)	6/30	NIL	NIL	
	1036	Gen'l Cable		BGC						SEE FINAL SUPPLEMENT											
	712	Gen'l Dynamics		GD	192.32	4	1	2	.90	215- 265 (10- 40%)	17.3	1.9	11.10	3.72	59	3/31	2.65	2.48	9/30	.93	.84	YES
1421	1753	Gen'l Electric		GE	13.69	4	4	4	1.00	25- 40 (85-190%)	14.4	3.5	.95	.48	32	3/31	.16	.21	9/30	.12	.24	YES
	1913	Gen'l Mills		GIS	44.23	4	1	4	.80	55- 70 (25- 60%)	14.5	4.4	3.04	1.96	81	5/31	.79	.73	9/30	.49	.49	YES
854	106	Gen'l Motors		GM	40.03	3	3	2	1.20	50- 75 (25- 85%)	6.2	3.9	6.45	1.56	46	3/31	1.43	1.75	6/30	.38	.38	YES
1038	2157	Genesco Inc.		GCO	39.90	4	3	1	1.05	70- 105 (75-165%)	12.3	NIL	3.25	NIL	58	4/30	d.06	.06	6/30	NIL	NIL	YES
	345	Genesee & Wyoming		GWR	80.71	3	3	3	1.50	85- 125 (5- 55%)	21.8	NIL	3.70	NIL	42	3/31	.70	.53	6/30	NIL	NIL	YES
1038	207	Genomic Health	(NDQ)	GHDX	56.07	3	3	3	.95	35- 50 (N- N%)	NMF	NIL	.20	NIL	78	3/31	d.11	d.02	6/30	NIL	NIL	YES
	391	Genpact Limited		G	30.10	3	3	3	.75	40- 60 (35-100%)	17.2	1.0	1.75	.30	55	3/31	.39	.31	6/30	.075	.06	YES
	985	Gentex Corp.	(NDQ)	GNTX	23.67	2	3	2	1.15	30- 45 (25- 90%)	14.3	1.9	1.65	.44	8	3/31	.40	.33	9/30	.11	.10	YES
	986	Gentherm Inc.	(NDQ)	THRM	40.75	4	3	3	1.45	60- 85 (45-110%)	19.0	NIL	2.15	NIL	8	3/31	.35	.69	6/30	NIL	NIL	YES
	987	Genuine Parts		GPC	94.18	–	1	–	1.00	125- 155 (35- 65%)	16.5	3.1	5.70	2.88	8	3/31	1.27	1.08	9/30	.72	.675	YES
1244	1556	Genworth Fin'l		GNW	4.62	–	5	–	1.85	4- 8 (N- 75%)	4.6	NIL	1.00	NIL	13	3/31	.25	.29	6/30	NIL	NIL	YES
	121	Geospace Technologies	(NDQ)	GEOS	14.76	3	4	5	1.60	20- 35 (35-135%)	NMF	NIL	d1.46	NIL	62	3/31	d.36	d.88	6/30	NIL	NIL	YES
	747	Gibraltar Inds.	(NDQ)	ROCK	39.20	2	3	2	1.35	45- 65 (15- 65%)	21.8	NIL	1.80	NIL	6	3/31	.26	.12	6/30	NIL	NIL	YES
	2106	Gildan Activewear		GIL	28.73	4	3	4	.95	35- 55 (20- 90%)	15.5	1.6	1.85	.47	65	3/31	.34	.39	6/30	.112	.094	YES
	1615	Gilead Sciences	(NDQ)	GILD	77.20	3	3	5	1.05	70- 110 (N- 40%)	13.2	3.0	5.85	2.28	73	3/31	1.17	2.05	6/30	.57	.52	YES
	2663	Gladstone Capital	(NDQ)	GLAD	9.25	3	3	4	1.05	15- 25 (60-170%)	10.3	9.1	.90	.84	97	3/31	.35	.18	9/30	.21	.21	YES
	1166	Glatfelter		GLT	20.19	4	3	4	1.05	35- 55 (75-170%)	57.7	2.6	.35	.52	10	3/31	.13	.26	9/30	.13	.13	YES
	1616	GlaxoSmithKline ADR(g)		GSK	41.14	4	1	2	.95	45- 55 (10- 35%)	20.6	6.1	2.00	2.53	73	3/31	.31	.54	6/30	.652	.571	YES
	733	Global Brass & Copper		BRSS	30.85	2	3	2	1.05	40- 60 (30- 95%)	11.6	0.8	2.65	.24	40	3/31	.71	.77	6/30	.06	.038	YES
	2562	Global Payments		GPN	117.94	3	3	3	1.15	115- 170 (N- 45%)	46.3	NIL	2.55	.04	20	3/31	.57	.32	6/30	.01	.01	YES
	180	Globus Medical		GMED	52.88	3	3	2	.80	40- 60 (N- 15%)	36.5	NIL	1.45	NIL	75	3/31	.39	.30	6/30	NIL	NIL	YES
	2012	Glu Mobile	(NDQ)	GLUU	6.27	4	5	1	1.15	4- 8 (N- 30%)	NMF	NIL	d.10	NIL	91	3/31	d.05	d.17	6/30	NIL	NIL	YES
	1822	GoDaddy Inc.		GDDY	78.20	3	3	3	1.00	80- 125 (N- 60%)	NMF	NIL	.60	NIL	64	3/31	.02	d.01	6/30	NIL	NIL	YES
★★	924	Gogo Inc.	(NDQ)	GOGO	3.77	5	4	3	1.20	11- 18 (190-375%)	NMF	NIL	d1.85	NIL	60	3/31	d.34	d.52	6/30	NIL	NIL	YES
	334	Golar LNG Ltd.	(NDQ)	GLNG	27.07	3	4	3	1.95	35- 55 (30-105%)	NMF	0.7	d.35	.20	83	3/31	d.21	d.65	9/30	.05	.05	YES

★★ Supplementary Report in this week's issue.
▲ Arrow indicates the direction of a change. When it appears with the Latest Dividend, the arrow signals that a change in the regular payment rate has occurred in the latest quarter.

For Timeliness, 3-5 year Target Price Range, or Estimated Earnings 12 months to 12-31-18, the arrow indicates a change since the preceding week. When a diamond ◆ (indicating a new figure) appears alongside the latest quarterly earnings results, the rank change probably was primarily caused by the earnings report. In other cases, the change is due to the dynamics of the ranking system and could simply be the result of the improvement or weakening of other stocks.

PAGE NUMBERS
Bold type refers to Ratings and Reports

		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	1571	Goldcorp Inc.		GG	13.25	4	3	3	.75	30- 45 (125-240%)	29.4	0.6	.45	.08	66	3/31	.08	.10	6/30	.02	.02	YES
★★	1807	Goldman Sachs		GS	231.02	▲1	1	2	1.20	305- 375 (30- 60%)	9.6	1.4	24.00	3.20	5	6/30	◆5.98	3.95	9/30	◆.80	.75	YES
	988	Goodyear Tire	(NDQ)	GT	22.00	3	3	3	1.40	55- 85 (150-285%)	5.9	3.0	3.75	.65	8	3/31	.50	.74	9/30	◆.14	.10	YES
	1330	GoPro, Inc.	(NDQ)	GPRO	6.51	4	4	4	1.35	5- 8 (N- 25%)	NMF	NIL	d.45	NIL	63	3/31	d.55	d.78	6/30	NIL	NIL	YES
	161	Gorman-Rupp Co.		GRC	36.04	3	3	4	1.15	40- 60 (10- 65%)	25.7	1.4	1.40	.50	28	3/31	.38	.23	6/30	.125	.115	YES
	573	Grace (W.R.) & Co.		GRA	75.05	–	3	–	1.10	95- 145 (25- 95%)	19.5	1.3	3.85	1.00	15	3/31	.82	.68	6/30	.24	.21	YES
	1713	Graco Inc.		GGG	46.17	2	3	1	1.15	45- 65 (N- 40%)	24.3	1.1	1.90	.53	21	3/31	.49	.35	9/30	.133	.12	YES
	1754	Graham Hldgs.		GHC	565.35	3	2	3	.90	835-1130 (50-100%)	17.1	0.9	33.00	5.32	32	3/31	7.78	3.75	9/30	1.33	1.27	
	1309	Grainger (W.W.)		GWW	304.96	3	2	1	.90	295- 400 (N- 30%)	20.9	1.8	14.60	5.44	51	6/30	◆4.37	2.74	6/30	▲1.36	1.28	YES
	2003	Grand Canyon Education	(NDQ)	LOPE	118.74	3	3	3	1.10	100- 150 (N- 25%)	24.5	NIL	4.85	NIL	87	3/31	1.52	1.16	6/30	NIL	NIL	YES
	1235	Granite Construction		GVA	54.50	2	3	2	1.30	65- 100 (20- 85%)	16.8	1.0	3.25	.52	82	3/31	d.13	d.60	9/30	.13	.13	YES
	1180	Graphic Packaging		GPK	14.80	3	3	3	1.05	25- 35 (70-135%)	16.4	2.0	.90	.30	16	3/31	.10	.12	9/30	.075	.075	YES
	2332	Gray Television		GTN	15.45	1	4	5	1.45	20- 35 (30-125%)	11.0	NIL	1.40	NIL	22	3/31	.22	.14	6/30	NIL	NIL	YES
	911	G't Plains Energy		GXP						SEE FINAL REPORT												
	1223	Green Plains Inc.	(NDQ)	GPRE	15.80	4	4	3	1.85	20- 35 (25-120%)	NMF	3.0	d.40	.48	71	3/31	d.60	d.09	6/30	.12	.12	YES
1844	346	Greenbrier (The) Cos.		GBX	55.10	3	4	3	1.80	60- 100 (10- 80%)	12.6	1.8	4.37	1.00	42	5/31	1.30	1.03	9/30	.25	.22	YES
	1808	Greenhill & Co.		GHL	31.70	3	4	3	1.35	40- 70 (25-120%)	23.5	0.6	1.35	.20	5	3/31	.34	.04	6/30	.05	.45	YES
	2025	Greenlight Capital Re	(NDQ)	GLRE	14.00	5	4	3	1.10	25- 35 (80-150%)	NMF	NIL	d2.50	NIL	95	3/31	d3.85	.22	6/30	NIL	NIL	YES
	1181	Greif, Inc.		GEF	52.19	3	3	1	1.35	70- 105 (35-100%)	14.9	3.2	3.51	1.68	16	4/30	.76	.67	9/30	.42	.42	YES
1244	1755	Griffon Corp.		GFF	18.50	4	3	3	1.35	30- 50 (60-170%)	22.0	1.7	.84	.32	32	3/31	.06	.15	6/30	.07	.06	YES
	2125	Group 1 Automotive		GPI	66.79	3	3	2	1.30	95- 140 (40-110%)	7.7	1.6	8.70	1.06	7	3/31	1.70	1.53	6/30	.26	.24	YES
2034	2642	Groupon, Inc.	(NDQ)	GRPN	4.64	3	5	3	1.50	5- 9 (10- 95%)	46.4	NIL	.10	NIL	79	3/31	d.01	d.04	6/30	NIL	NIL	YES
856	2107	Guess?, Inc.		GES	23.18	3	3	3	.95	25- 40 (10- 75%)	23.2	3.9	1.00	.90	65	4/30	d.23	d.24	6/30	.225	.45	YES
	808	**HCA Holdings**		HCA	108.41	1	3	3	.85	130- 195 (20- 80%)	12.2	1.3	8.90	1.40	9	3/31	2.33	1.73	6/30	.35	NIL	YES
	1529	HCP Inc.		HCP	25.57	5	3	4	.80	25- 40 (N- 55%)	36.5	5.9	.70	1.50	96	3/31	.08	.97	6/30	.37	.37	YES
	1110	HD Supply Holdings	(NDQ)	HDS	44.22	2	3	3	1.40	50- 70 (15- 60%)	15.0	NIL	2.95	NIL	30	4/30	.70	.63	6/30	NIL	NIL	YES
	1153	HNI Corp.		HNI	38.56	4	3	4	1.35	70- 110 (80-185%)	16.1	3.1	2.40	1.18	77	3/31	.10	.26	6/30	▲.295	.285	YES
	1396	HP Inc.		HPQ	23.59	–	4	–	1.55	25- 40 (5- 70%)	11.8	2.4	2.00	.57	43	4/30	.64	.33	12/31	.139	.133	YES
	2517	HSBC Holdings PLC		HSBC	47.04	5	3	2	1.05	45- 65 (N- 40%)	10.5	5.5	4.50	2.60	19	3/31	.75	.80	9/30	.50	.50	YES
	208	Haemonetics Corp.		HAE	96.96	3	3	3	.90	75- 115 (N- 20%)	47.3	NIL	2.05	NIL	78	3/31	.43	.39	6/30	NIL	NIL	YES
	1914	Hain Celestial Group	(NDQ)	HAIN	29.58	3	3	5	1.05	40- 65 (35-120%)	23.9	NIL	1.24	NIL	81	3/31	.37	.33	6/30	NIL	NIL	YES
	2425	Halliburton Co.		HAL	45.06	3	3	2	1.40	60- 90 (35-100%)	22.5	1.6	2.00	.72	92	3/31	.05	d.04	9/30	◆.18	.18	YES
		Halyard Health								NAME CHANGED TO AVANOS MEDICAL												
		Hancock Holding								NAME CHANGED TO HANCOCK WHITNEY CORP.												
	787	Hancock Whitney Corp.	(NDQ)	HWC	48.45	3	3	2	1.20	55- 85 (15- 75%)	12.8	2.0	3.80	.96	14	6/30	◆.82	.60	6/30	.24	.24	YES
	2108	Hanesbrands, Inc.		HBI	22.06	3	3	4	1.00	25- 35 (15- 60%)	12.6	2.7	1.75	.60	65	3/31	.26	.29	6/30	.15	.15	YES
	769	Hanover Insurance		THG	124.23	3	2	3	.95	105- 145 (N- 15%)	14.9	1.7	8.35	2.16	56	3/31	1.95	.95	6/30	.54	.50	YES
	2309	Harley-Davidson		HOG	42.65	3	3	3	1.10	85- 130 (100-205%)	12.7	3.5	3.35	1.48	45	3/31	1.24	1.05	6/30	.37	.365	YES
	949	Harmonic, Inc.	(NDQ)	HLIT	4.35	–	4	–	1.25	6- 10 (40-130%)	43.5	NIL	.10	NIL	85	3/31	d.01	d.14	6/30	NIL	NIL	YES
	1331	Harris Corp.		HRS	151.64	3	2	3	1.00	160- 220 (5- 45%)	21.5	1.6	7.04	2.40	63	3/31	1.67	1.31	6/30	.57	.53	YES
	392	Harsco Corp.		HSC	23.05	2	4	2	1.75	30- 45 (30- 95%)	20.0	NIL	1.15	NIL	55	3/31	.22	.11	6/30	NIL	NIL	YES
	2563	Hartford Fin'l Svcs.		HIG	53.26	3	2	3	1.00	55- 70 (5- 30%)	10.6	1.9	5.04	1.00	20	3/31	1.27	1.00	9/30	.25	.23	YES
	2310	Hasbro, Inc.	(NDQ)	HAS	94.02	4	3	4	.85	105- 155 (10- 65%)	19.2	2.7	4.90	2.52	45	3/31	.10	.54	9/30	.63	.57	YES
	2173	Haverty Furniture		HVT	21.20	3	3	4	1.00	30- 50 (40-135%)	15.1	3.4	1.40	.72	44	3/31	.29	.28	6/30	.18	.12	YES
	2224	Hawaiian Elec.		HE	34.56	3	2	3	.65	25- 35 (N- N%)	18.2	3.6	1.90	1.24	84	3/31	.37	.31	6/30	.31	.31	YES
	310	Hawaiian Hldgs.	(NDQ)	HA	36.50	3	4	4	1.20	50- 85 (35-135%)	7.6	1.3	4.80	.48	25	3/31	.56	.68	6/30	.12	NIL	YES
1843	925	Hawaiian Telcom		HCOM						SEE FINAL SUPPLEMENT												
	734	Haynes International	(NDQ)	HAYN	38.23	5	3	2	1.30	50- 75 (30- 95%)	70.8	2.3	.54	.88	40	3/31	d.17	d.15	6/30	.22	.22	YES
	1530	Healthcare R'lty Trust		HR	28.66	5	3	4	.70	35- 50 (20- 75%)	95.5	4.2	.30	1.20	96	3/31	.07	.28	6/30	.30	.30	YES
★★	393	Healthcare Svcs.	(NDQ)	HCSG	42.38	▲4	2	4	.90	60- 80 (40- 90%)	38.5	1.9	1.10	.80	55	6/30	◆.35	.31	9/30	▲.194	.189	YES
	322	Heartland Express	(NDQ)	HTLD	18.30	▲3	3	3	.90	25- 35 (35- 90%)	26.1	0.4	.70	.08	18	3/31	.16	.17	9/30	.02	.02	YES
	713	HEICO Corp.(•)		HEI	77.10	3	3	2	.90	75- 115 (N- 50%)	40.8	0.2	1.89	.14	59	4/30	.44	.34	9/30	▲.06	.051	YES
2457	1640	Heidrick & Struggles	(NDQ)	HSII	35.40	3	3	1	.90	35- 55 (N- 55%)	20.2	1.5	1.75	.52	12	3/31	.53	.03	6/30	.13	.13	YES
2031	1010	Helen of Troy Ltd.	(NDQ)	HELE	116.05	3	3	4	1.05	95- 140 (N- 20%)	15.7	NIL	7.37	NIL	72	5/31	1.87	1.37	6/30	NIL	NIL	YES
	2426	Helix Energy Solutions		HLX	8.65	3	4	3	2.00	16- 25 (85-190%)	57.7	NIL	.15	NIL	92	3/31	d.02	d.11	6/30	NIL	NIL	YES
	2427	Helmerich & Payne		HP	62.13	3	3	2	1.50	70- 105 (15- 70%)	NMF	4.6	.52	2.84	92	3/31	d.05	d.45	6/30	.70	.70	YES
	2624	Henry (Jack) & Assoc.	(NDQ)	JKHY	136.27	3	1	4	.85	100- 120 (N- N%)	37.0	1.1	3.68	1.48	47	3/31	.93	.77	6/30	.37	.31	YES
855	1915	Herbalife Nutrition		HLF	53.81	4	4	3	1.30	50- 85 (N- 60%)	19.9	NIL	2.70	NIL	81	3/31	.57	.62	6/30	NIL	NIL	YES
	1916	Hershey Co.		HSY	93.56	3	2	4	.80	105- 145 (10- 55%)	17.5	3.0	5.35	2.80	81	3/31	1.41	1.31	6/30	.656	.618	YES
	2174	Hertz Global Hldgs.		HTZ	13.62	–	4	–	NMF ▼	18- 30 (30-120%)	NMF	NIL	▼d1.80	NIL	44	3/31	d2.43	d2.69	6/30	NIL	NIL	YES
	510	Hess Corp.		HES	63.46	3	3	3	1.60	60- 90 (N- 40%)	NMF	1.6	d.45	1.00	29	3/31	d.27	d1.07	6/30	.25	.25	YES
644	1397	Hewlett Packard Ent.		HPE	15.66	–	3	–	NMF	25- 35 (60-125%)	11.0	2.9	1.43	.45	43	4/30	.34	.17	9/30	▲.113	.065	YES
	2448	Hexcel Corp.		HXL	68.93	3	3	1	1.15	70- 100 (N- 45%)	23.0	0.7	3.00	.50	4	3/31	.68	.70	6/30	.125	.11	YES
854	2175	Hibbett Sports	(NDQ)	HIBB	24.10	3	3	2	.95	20- 30 (N- 25%)	13.0	NIL	1.85	NIL	44	4/30	1.12	.97	6/30	NIL	NIL	YES
	210	Hill-Rom Hldgs.		HRC	94.23	▲1	3	2	1.00	95- 140 (N- 50%)	19.7	0.8	4.78	.80	78	3/31	1.05	.88	6/30	.20	.18	YES
	1839	Hillenbrand, Inc.		HI	49.35	2	3	3	1.15	50- 75 (N- 50%)	44.5	1.7	1.11	.83	2	3/31	d.34	.51	6/30	.208	.205	YES
	2355	Hilton Grand Vacations		HGV	35.25	–	3	–	NMF	50- 75 (40-115%)	12.2	NIL	2.90	NIL	31	3/31	.30	.51	6/30	NIL	NIL	YES
	2356	Hilton Worldwide Hldgs.		HLT	81.07	–	3	–	NMF	70- 105 (N- 30%)	36.0	0.7	2.25	.60	31	3/31	.51	.22	6/30	.15	.15	YES
	1987	Hitachi, Ltd. ADR(g)	(PNK)	HTHIY	70.94	1	3	2	1.15	75- 110 (5- 55%)	9.9	2.1	7.15	1.52	33	3/31	2.40	.90	6/30	.737	.63	
	511	HollyFrontier Corp.		HFC	70.57	3	3	2	1.15	50- 80 (N- 15%)	16.6	1.9	4.25	1.37	29	3/31	.77	d.19	6/30	.33	.33	YES
	211	Hologic, Inc.	(NDQ)	HOLX	41.50	3	3	5	1.00	50- 75 (20- 80%)	29.2	NIL	1.42	NIL	78	3/31	.53	.24	6/30	NIL	NIL	YES
453	1141	Home Depot		HD	201.10	2	1	3	1.00	215- 260 (5- 30%)	21.5	2.2	9.35	4.36	37	4/30	2.08	1.67	6/30	1.03	.89	YES
	107	Honda Motor ADR(g)		HMC	29.64	3	3	2	1.05	55- 80 (85-170%)	7.8	3.4	3.82	1.00	46	3/31	.57	.48	6/30	.248	.216	YES
	1756	Honeywell Int'l		HON	148.49	–	1	–	1.05	175- 210 (20- 40%)	18.6	2.0	8.00	2.98	32	3/31	1.89	1.71	6/30	.745	.665	YES
★★	989	Horizon Global Corp.		HZN						SEE FINAL SUPPLEMENT												
	1917	Hormel Foods		HRL	36.72	3	2	2	.75	45- 60 (25- 65%)	19.4	2.1	1.89	.78	81	4/30	.44	.39	9/30	.188	.17	YES
	1126	Horton D.R.		DHI	43.22	1	3	3	1.30	45- 70 (5- 60%)	11.0	1.3	3.94	.55	1	3/31	.91	.60	6/30	.125	.10	YES
	1531	Hospitality Properties		HPT	28.67	4	3	3	1.15	30- 45 (5- 55%)	15.5	7.4	1.85	2.13	96	3/31	.49	.16	6/30	▲.53	.52	YES
	1532	Host Hotels & Resorts		HST	21.03	4	3	2	1.25	19- 30 (N- 45%)	24.7	3.9	.85	.81	96	3/31	.34	.21	9/30	.20	.20	YES
	1918	Hostess Brands	(NDQ)	TWNK	13.75	–	3	–	NMF	20- 30 (45-120%)	19.6	NIL	.70	NIL	81	3/31	.14	.15	6/30	NIL	NIL	YES
	1809	Houlihan Lokey		HLI	51.14	3	3	3	1.00	45- 65 (N- 25%)	22.4	2.1	2.28	1.08	5	3/31	.58	.51	6/30	▲.27	.20	YES
	1127	Hovnanian Enterpr. 'A'		HOV	1.76	–	5	–	1.70	5- 9 (185-410%)	NMF	NIL	d.04	NIL	1	4/30	d.07	d.05	6/30	NIL	NIL	YES

(•) All data adjusted for announced stock split or stock dividend. See back page of Ratings & Reports.
◆ New figure this week.
(b) Canadian Dollars.
(d) Deficit.
(f) The estimate may reflect a probable increase or decrease. If a dividend boost or cut is possible but not probable, two figures are shown, the first is the more likely.
(g) Dividends subject to foreign withholding tax for U.S. residents.
(h) Est'd Earnings & Est'd Dividends after conversion to U.S. dollars at Value Line estimated translation rate.
(j) All Index data expressed in hundreds.
(p) 6 months (q) Asset Value
N=Negative figure NA=Not available NMF=No meaningful figure

WP-42
McKenzie

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		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	394	Howard Hughes Corp.		HHC	142.24	5	3	3	1.25	140- 210 (N- 50%)	61.8	NIL	2.30	NIL	55	3/31	.03	.14	6/30	NIL	NIL	YES
	323	Hub Group	(NDQ)	HUBG	49.15	▼4	3	3	1.10	65- 95 (30- 95%)	20.5	NIL	2.40	NIL	18	3/31	.48	.34	6/30	NIL	NIL	YES
	1310	Hubbell Inc.		HUBB	113.36	3	2	4	1.15	145- 195 (30- 70%)	16.0	2.8	7.10	3.15	51	3/31	1.39	1.23	6/30	.77	.70	YES
	1823	HubSpot, Inc.		HUBS	133.70	3	4	3	1.35	75- 125 (N- N%)	NMF	NIL	d1.30	NIL	64	3/31	d.41	d.22	6/30	NIL	NIL	YES
	809	Humana Inc.		HUM	313.89	3	3	3	.85	270- 410 (N- 30%)	22.5	0.6	13.95	2.00	9	3/31	3.36	2.75	9/30	.50	.40	YES
	324	Hunt (J.B.)	(NDQ)	JBHT	121.56	2	2	2	1.00	145- 195 (20- 60%)	23.8	0.8	5.10	.97	18	6/30	◆1.37	.88	6/30	.24	.23	YES
	788	Huntington Bancshs.	(NDQ)	HBAN	14.92	2	3	1	1.10	16- 25 (5- 70%)	13.0	3.8	1.15	.56	14	3/31	.28	.17	12/31	▲.14	.08	YES
	714	Huntington Ingalls		HII	227.60	2	3	3	1.10	235- 350 (5- 55%)	14.1	1.3	16.15	2.88	59	3/31	3.48	2.56	6/30	.72	.60	YES
	2449	Huntsman Corp.		HUN	30.59	1	4	2	1.80	35- 55 (15- 80%)	10.5	2.1	2.90	.65	4	3/31	1.11	.31	6/30	.163	.125	YES
	395	Huron Consulting	(NDQ)	HURN	43.80	4	3	5	1.00	65- 100 (50-130%)	19.5	NIL	2.25	NIL	55	3/31	.19	.55	6/30	NIL	NIL	YES
	512	Husky Energy	(TSE)	HSE.TO	20.57b	2	3	3	1.10	20- 30 (N- 45%)	21.7	1.5	.95	.30	29	3/31	.24(b)	.06(b)	9/30	.075	NIL(b)	YES
	2357	Hyatt Hotels		H	81.28	4	3	2	1.10	75- 110 (N- 35%)	45.2	0.7	1.80	.60	31	3/31	.33	.73	6/30	.15	NIL	YES
	162	Hyster-Yale Materials		HY	64.43	4	3	4	1.35	95- 140 (45-115%)	15.0	1.9	4.30	1.24	28	3/31	.90	1.10	6/30	▲.31	.303	YES
	2643	**IAC/InterActiveCorp**	(NDQ)	IAC	154.90	3	3	2	1.15	115- 175 (N- 15%)	51.6	NIL	3.00	NIL	79	3/31	.71	.29	6/30	NIL	NIL	YES
	810	ICON plc	(NDQ)	ICLR	137.21	3	3	3	.80	125- 185 (N- 35%)	22.7	NIL	6.05	NIL	9	3/31	1.42	1.29	6/30	NIL	NIL	YES
	181	ICU Medical	(NDQ)	ICUI	296.55	2	3	3	.85	275- 415 (N- 40%)	40.9	NIL	7.25	NIL	75	3/31	2.26	1.68	6/30	NIL	NIL	YES
	926	IDT Corp.		IDT	5.74	–	3	–	NMF	13- 19 (125-230%)	17.9	6.3	.32	.36	60	4/30	.07	.09	6/30	.09	.19	YES
	443	IHS Markit	(NDQ)	INFO	52.84	–	3	–	1.05	55- 85 (5- 60%)	23.5	NIL	2.25	NIL	36	5/31	.61	.52	6/30	NIL	NIL	YES
	122	II-VI Inc.	(NDQ)	IIVI	44.20	4	3	3	1.20	45- 70 (N- 60%)	24.8	NIL	1.78	NIL	62	3/31	.36	.35	6/30	NIL	NIL	YES
2665	2311	ILG, Inc.	(NDQ)	ILG	34.26	–	3	–	1.00	30- 50 (N- 45%)	27.4	2.0	1.25	.70	45	3/31	.34	.35	6/30	.175	.15	YES
	1383	IPG Photonics	(NDQ)	IPGP	239.48	2	3	2	1.15	225- 335 (N- 40%)	28.2	NIL	8.50	NIL	3	3/31	1.93	1.38	6/30	NIL	NIL	YES
	811	IQVIA Holdings		IQV	109.00	1	3	3	.90	140- 210 (30- 95%)	19.8	NIL	5.50	NIL	9	3/31	1.34	1.01	6/30	NIL	NIL	YES
	1757	ITT Inc.		ITT	52.66	2	3	3	1.40	60- 90 (15- 70%)	17.0	1.0	3.10	.54	32	3/31	.77	.64	9/30	.134	.128	YES
	2225	IDACORP, Inc.		IDA	92.48	3	2	3	.65	65- 90 (N- N%)	21.8	2.7	4.25	2.48	84	3/31	.72	.66	6/30	.59	.55	YES
	1714	IDEX Corp.		IEX	138.63	2	2	1	1.05	140- 190 (N- 35%)	27.2	1.2	5.10	1.72	21	3/31	1.27	.99	9/30	.43	.37	YES
	212	IDEXX Labs.	(NDQ)	IDXX	239.79	3	3	3	.90	200- 300 (N- 25%)	58.5	NIL	4.10	NIL	78	3/31	1.01	.77	6/30	NIL	NIL	YES
	735	Illinois Tool Works		ITW	143.20	2	1	2	1.10	190- 235 (35- 65%)	18.4	2.2	7.80	3.12	40	3/31	1.90	1.54	9/30	.78	.65	YES
	213	Illumina Inc.	(NDQ)	ILMN	305.49	3	3	3	1.05	255- 385 (N- 25%)	67.9	NIL	4.50	NIL	78	3/31	1.41	2.48	6/30	NIL	NIL	YES
	2312	IMAX Corp.		IMAX	23.60	4	3	4	1.00	40- 60 (70-155%)	27.8	NIL	.85	NIL	45	3/31	.13	NIL	6/30	NIL	NIL	YES
	2013	Immersion Corp.	(NDQ)	IMMR	15.54	2	5	2	1.50	12- 20 (N- 30%)	7.8	NIL	2.00	NIL	91	3/31	2.29	d.44	6/30	NIL	NIL	YES
	513	Imperial Oil Ltd.	(ASE)	IMO	33.36	3	3	2	1.20	40- 60 (20- 80%)	18.5	1.8	1.80	.59	29	3/31	.48	.17	9/30	▲.147	.128	YES
	840	Incyte Corp.	(NDQ)	INCY	70.23	4	4	4	1.35	135- 230 (90-225%)	82.6	NIL	.85	NIL	90	3/31	d.19	d.96	6/30	NIL	NIL	YES
	425	India Fund (The)		IFN	24.74	–	3	3	.95	30- 45 (20- 80%)	NMF	0.5	NMF	.12	–	12/31	29.50(q)	24.24(q)	6/30	.122	NIL	YES
230	950	Infinera Corp.	(NDQ)	INFN	8.88	4	4	3	1.40	15- 25 (70-180%)	NMF	NIL	d.45	NIL	85	3/31	d.17	d.28	6/30	NIL	NIL	YES
	2625	Infosys Ltd. ADR		INFY	19.90	▼4	2	3	.85	35- 45 (75-125%)	17.2	2.8	1.16	.56	47	6/30	◆.25	.24	6/30	.446	.228	YES
	1758	Ingersoll-Rand		IR	90.89	2	3	3	1.20	115- 170 (25- 85%)	17.1	2.3	5.30	2.12	32	3/31	.70	.57	9/30	▲.53	.45	YES
	574	Ingevity Corp.		NGVT	90.75	–	3	–	1.30	90- 140 (N- 55%)	27.1	NIL	3.35	NIL	15	3/31	.72	.49	6/30	NIL	NIL	YES
	1950	Ingles Markets	(NDQ)	IMKTA	30.15	3	3	4	.90	35- 50 (15- 65%)	10.5	2.2	2.86	.66	39	3/31	.46	.45	9/30	.165	.165	YES
	1919	Ingredion Inc.		INGR	97.25	▲3	3	3	.95	130- 200 (35-105%)	12.0	2.7	8.10	2.60	81	3/31	1.94	1.83	9/30	.60	.50	YES
	575	Innospec Inc.	(NDQ)	IOSP	82.70	4	3	3	1.05	75- 115 (N- 40%)	19.0	1.1	4.35	.95	15	3/31	.90	.70	6/30	.44	.38	YES
	2176	Insight Enterprises	(NDQ)	NSIT	49.32	1	3	2	1.30 ▲	65- 100 (30-105%)	11.7	NIL	▲4.20	NIL	44	3/31	.90	.38	6/30	NIL	NIL	YES
	1641	Insperity Inc.		NSP	98.90	3	3	3	1.00	75- 115 (N- 15%)	34.1	0.8	2.90	.80	12	3/31	1.18	.85	6/30	.20	.15	YES
★★	748	Insteel Industries	(NDQ)	IIIN	33.49	▲3	3	2	1.35	35- 50 (5- 50%)	21.1	0.4	1.59	.12	6	3/31	.31	.39	6/30	.03	.03	YES
	182	Insulet Corp.	(NDQ)	PODD	87.36	3	3	1	1.20	80- 120 (N- 35%)	NMF	NIL	d.20	NIL	75	3/31	d.11	d.17	6/30	NIL	NIL	YES
	1332	Integer Holdings		ITGR	72.85	2	3	3	1.30	60- 90 (N- 25%)	21.7	NIL	3.35	NIL	63	3/31	.61	.41	6/30	NIL	NIL	YES
	183	Integra LifeSciences	(NDQ)	IART	63.31	3	3	2	.80	55- 80 (N- 25%)	84.4	NIL	.75	NIL	75	3/31	.14	.09	6/30	NIL	NIL	YES
	1357	Integrated Device	(NDQ)	IDTI	34.97	3	3	2	1.25	40- 60 (15- 70%)	20.6	NIL	1.70	NIL	17	3/31	.44	.33	6/30	NIL	NIL	YES
2669	1358	Intel Corp.	(NDQ)	INTC	51.75	1	1	2	1.05	80- 95 (55- 85%)	12.9	2.3	4.00	1.20	17	3/31	.87	.66	6/30	.30	.273	YES
	1011	Inter Parfums	(NDQ)	IPAR	55.75	3	3	3	1.10	60- 90 (10- 60%)	34.8	1.5	1.60	.84	72	3/31	.53	.43	9/30	.21	.17	YES
	1798	Interactive Brokers	(NDQ)	IBKR	64.69	▼4	3	1	1.15	65- 95 (N- 45%)	28.8	0.6	2.25	.40	23	6/30	◆.58	.32	9/30	◆.10	.10	YES
	841	Intercept Pharmac.	(NDQ)	ICPT	96.00	4	4	5	1.55	160- 270 (65-180%)	NMF	NIL	d12.10	NIL	90	3/31	d3.22	d3.61	6/30	NIL	NIL	YES
	1799	Intercontinental Exch.		ICE	75.61	2	2	3	.80	90- 120 (20- 60%)	21.6	1.3	3.50	.96	23	3/31	.90	.74	6/30	.24	.20	YES
	604	InterDigital Inc.	(NDQ)	IDCC	82.90	4	3	2	1.00	80- 120 (N- 45%)	29.6	1.7	2.80	1.40	86	3/31	.84	.93	9/30	.35	.30	YES
	1154	Interface Inc. 'A'	(NDQ)	TILE	23.30	2	3	3	1.15	25- 40 (5- 70%)	16.6	1.1	1.40	.26	77	3/31	.25	.21	6/30	.065	.06	YES
★★	1398	Int'l Business Mach.		IBM	143.49	▲3	1	4	.90	170- 205 (20- 45%)	12.4	4.4	11.60	6.36	43	3/31	1.81	1.85	6/30	▲1.57	1.50	YES
	576	Int'l Flavors & Frag.		IFF	128.99	3	1	4	.95	145- 180 (10- 40%)	20.5	2.3	6.30	2.92	15	3/31	1.69	1.52	9/30	.69	.64	YES
	2358	Int'l Game Tech. PLC		IGT	24.63	3	3	2	1.20	35- 55 (40-125%)	17.0	3.2	1.45	.80	31	3/31	.15	.29	6/30	.20	.40	YES
	1167	Int'l Paper		IP	53.12	1	3	3	1.15	90- 135 (70-155%)	11.0	3.6	4.85	1.90	10	3/31	.86	.50	9/30	.475	.463	YES
	2313	Int'l Speedway 'A'	(NDQ)	ISCA	44.55	▲2	3	3	1.15	35- 55 (N- 25%)	23.4	1.1	1.90	.47	45	5/31	.38	.29	6/30	▲.47	.43	YES
	2393	Interpublic Group		IPG	22.26	3	3	2	1.05	35- 50 (55-125%)	13.9	3.8	1.60	.84	34	3/31	.03	.05	6/30	.21	.18	YES
	2596	Intuit Inc.	(NDQ)	INTU	216.48	3	2	4	1.15	180- 240 (N- 10%)	39.8	0.7	5.44	1.56	54	4/30	4.82	3.90	9/30	.39	.34	YES
	184	Intuitive Surgical	(NDQ)	ISRG	523.78	3	3	3	.85	435- 650 (N- 25%)	51.4	NIL	10.20	NIL	75	3/31	2.44	1.56	6/30	NIL	NIL	YES
	214	Invacare Corp.		IVC	17.75	4	4	2	1.15	16- 25 (N- 40%)	NMF	0.3	d.85	.05	78	3/31	d.35	d.47	9/30	.013	.013	YES
	2564	Invesco Ltd.		IVZ	25.46	3	3	4	1.40	45- 70 (75-175%)	8.9	4.7	2.85	1.20	20	3/31	.62	.52	6/30	▲.30	.29	YES
	1800	Investment Techn.		ITG	22.31	3	3	2	1.25	45- 70 (100-215%)	26.2	1.3	.85	.28	23	3/31	.13	.16	6/30	.07	.07	YES
	1504	Investors Bancorp	(NDQ)	ISBC	12.64	3	3	2	.85	16- 25 (25-100%)	16.4	2.8	.77	.36	80	3/31	.20	.16	6/30	.09	.08	YES
	842	Ionis Pharmac.	(NDQ)	IONS	44.11	5	4	4	1.45	70- 115 (60-160%)	NMF	NIL	d.10	NIL	90	3/31	d.01	.03	6/30	NIL	NIL	YES
	927	Iridium Communic.	(NDQ)	IRDM	18.20	4	4	3	1.05	14- 25 (N- 35%)	60.7	NIL	.30	NIL	60	3/31	.07	.19	6/30	NIL	NIL	YES
	1333	iRobot Corp.	(NDQ)	IRBT	79.84	2	3	4	1.05	110- 160 (40-100%)	34.0	NIL	2.35	NIL	63	3/31	.71	.58	6/30	NIL	NIL	YES
	396	Iron Mountain		IRM	35.03	4	3	5	1.05	50- 75 (45-115%)	31.8	6.7	1.10	2.36	55	3/31	.24	.24	9/30	.588	.55	YES
	1617	Ironwood Pharmac.	(NDQ)	IRWD	21.07	4	4	3	1.35	15- 25 (N- 20%)	NMF	NIL	d.70	NIL	73	3/31	d.29	d.36	6/30	NIL	NIL	YES
	605	Itron Inc.	(NDQ)	ITRI	59.50	5	3	4	1.15	75- 115 (25- 95%)	NMF	NIL	d2.15	NIL	86	3/31	d3.74	.40	6/30	NIL	NIL	YES
	1920	**J&J Snack Foods**	(NDQ)	JJSF	156.76	3	1	4	.80	155- 190 (N- 20%)	31.7	1.2	4.94	1.89	81	3/31	.95	.85	9/30	.45	.42	
★★	2518	JPMorgan Chase		JPM	110.50	▲1	2	2	1.10	105- 140 (N- 25%)	12.6	2.9	8.75	3.20	19	6/30	◆2.29	1.70	12/31	▲.80	.56	YES
	928	j2 Global	(NDQ)	JCOM	87.74	4	3	3	1.10	95- 140 (10- 60%)	39.0	2.0	2.25	1.76	60	3/31	.38	.52	6/30	▲.415	.375	YES
	1334	Jabil Inc.		JBL	28.85	2	3	3	1.05	45- 65 (55-125%)	10.6	1.1	2.72	.32	63	5/31	.46	.31	6/30	.08	.08	YES
	365	Jack in the Box	(NDQ)	JACK	84.61	4	3	4	.80	100- 150 (20- 75%)	20.3	2.0	4.17	1.65	67	3/31	.80	.98	6/30	.40	.40	YES
	1236	Jacobs Engineering		JEC	66.00	3	3	3	1.30	70- 105 (5- 60%)	14.1	0.9	4.68	.60	82	3/31	1.00	.78	6/30	.15	.15	YES
	2565	Janus Henderson plc		JHG	30.90	–	3	–	1.35	40- 60 (30- 95%)	11.2	4.7	2.75	1.44	20	3/31	.82	.38	6/30	▲.36	.233	YES
	426	Japan Smaller Cap Fd		JOF	11.39	–	3	3	.90	15- 25 (30-120%)	NMF	0.4	NMF	.05	–	2/28	14.01(q)	12.09(q)	6/30	NIL	NIL	
	843	Jazz Pharmac. plc	(NDQ)	JAZZ	175.60	2	3	2	1.30	220- 330 (25- 90%)	13.5	NIL	13.05	NIL	90	3/31	2.98	2.31	6/30	NIL	NIL	YES
	451	Jean Coutu Group		PJCA.TO	SEE FINAL SUPPLEMENT																	

★★ Supplementary Report in this week's issue.
▲ Arrow indicates the direction of a change. When it appears with the Latest Dividend, the arrow signals that a change in the regular payment rate has occurred in the latest quarter.

For Timeliness, 3-5 year Target Price Range, or Estimated Earnings 12 months to 12-31-18, the arrow indicates a change since the preceding week. When a diamond ◆ (indicating a new figure) appears alongside the latest quarterly earnings results, the rank change probably was primarily caused by the earnings report. In other cases, the change is due to the dynamics of the ranking system and could simply be the result of the improvement or weakening of other stocks.

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Bold type refers to Ratings and Reports

		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	1759	Jefferies Fin'l Group		JEF	22.54	4	3	4	1.25	45- 65 (100-190%)	26.5	1.8	.85	.40	32	3/31	.34	.75	6/30	.10	.063	YES
	1111	JELD-WEN Holding		JELD	29.31	–	3	–	NMF	35- 50 (20- 70%)	14.3	NIL	2.05	NIL	30	3/31	.37	d.05	6/30	NIL	NIL	YES
	311	JetBlue Airways	(NDQ)	JBLU	19.52	3	3	4	1.20	25- 40 (30-105%)	10.0	NIL	1.95	NIL	25	3/31	.27	.25	6/30	NIL	NIL	YES
★★	215	Johnson & Johnson		JNJ	129.11	3	1	4	.90	170- 210 (30- 65%)	18.4	2.8	7.00	3.60	78	6/30	◆1.45	1.40	9/30	◆.90	.84	YES
	1760	Johnson Ctrls. Int'l plc		JCI	35.31	3	3	3	1.30	40- 60 (15- 70%)	11.9	2.9	2.96	1.04	32	3/31	.58	.50	9/30	.26	.25	YES
	397	Jones Lang LaSalle		JLL	170.07	2	3	2	1.20	190- 280 (10- 65%)	15.4	0.5	11.05	.82	55	3/31	.97	.45	6/30	.41	.35	YES
	951	Juniper Networks		JNPR	27.93	4	3	3	1.15	30- 45 (5- 60%)	20.7	2.6	1.35	.72	85	3/31	.10	.33	6/30	.18	.10	YES
	2126	**KAR Auction Svcs.**		KAR	61.27	1	3	3	1.00	65- 95 (5- 55%)	24.5	2.3	2.50	1.40	7	3/31	.66	.50	9/30	.35	.32	YES
	1128	KB Home		KBH	27.48	1	3	3	1.55	35- 50 (25- 80%)	9.8	0.4	2.80	.10	1	5/31	.57	.33	9/30	◆.025	.025	YES
	1237	KBR, Inc.		KBR	18.69	3	3	3	1.50	19- 30 (N- 60%)	12.9	1.7	1.45	.32	82	3/31	.34	.26	9/30	.08	.08	YES
	2664	KKR & Co.		KKR	26.90	5	3	3	1.40	40- 65 (50-140%)	9.0	1.9	3.00	.50	97	3/31	.42	.65	6/30	.17	.17	YES
	123	KLA-Tencor	(NDQ)	KLAC	105.89	2	3	2	1.15	120- 180 (15- 70%)	12.7	2.8	8.33	3.00	62	3/31	1.97	1.62	6/30	▲.75	.54	YES
2669	715	KLX Inc.	(NDQ)	KLXI	72.54	–	3	–	1.15	75- 110 (5- 50%)	24.6	NIL	2.95	NIL	59	4/30	.62	.36	6/30	NIL	NIL	YES
1245	577	KMG Chemicals		KMG	74.69	2	3	3	1.05	60- 90 (N- 20%)	22.3	0.2	3.35	.12	15	4/30	1.10	.49	6/30	.03	.03	YES
	1761	Kadant Inc.		KAI	95.95	2	3	3	1.05	105- 160 (10- 65%)	18.3	0.9	5.25	.88	32	3/31	1.07	.80	9/30	.22	.21	YES
	1762	Kaman Corp.		KAMN	66.99	3	2	1	.90	60- 80 (N- 20%)	21.3	1.2	3.15	.80	32	3/31	.55	.22	9/30	.20	.20	YES
	347	Kansas City South'n		KSU	104.68	3	3	2	1.15	135- 205 (30- 95%)	17.0	1.4	6.15	1.44	42	3/31	1.30	1.17	9/30	.36	.33	YES
	1182	KapStone Paper		KS	34.80	–	3	–	1.40	30- 45 (N- 30%)	17.0	1.1	2.05	.40	16	3/31	.33	.06	9/30	.10	.10	YES
	1921	Kellogg		K	70.65	3	1	4	.75	85- 105 (20- 50%)	15.9	3.1	4.45	2.22	81	3/31	1.19	1.06	6/30	.54	.52	YES
230	1642	Kelly Services 'A'	(NDQ)	KELYA	22.87	3	3	3	1.05	35- 50 (55-120%)	10.2	1.3	2.25	.30	12	3/31	.32	.35	6/30	.075	.075	YES
	2566	Kemper Corp.		KMPR	75.50	3	3	2	1.10	45- 70 (N- N%)	25.6	1.3	2.95	.96	20	3/31	1.02	d.08	6/30	.24	.24	YES
	736	Kennametal Inc.		KMT	37.10	2	3	3	1.40	55- 85 (50-130%)	13.1	2.2	2.83	.80	40	3/31	.70	.60	6/30	.20	.20	YES
	2519	KeyCorp		KEY	20.06	▲2	3	3	1.15	25- 35 (25- 75%)	12.2	3.4	1.65	.68	19	3/31	.38	.27	9/30	▲.17	.095	YES
855	124	Keysight Technologies		KEYS	60.30	3	3	3	1.00	50- 70 (N- 15%)	46.4	NIL	1.30	NIL	62	4/30	.34	.27	6/30	NIL	NIL	YES
	1643	Kforce Inc.	(NDQ)	KFRC	35.80	2	3	3	1.15	45- 65 (25- 80%)	15.9	1.3	2.25	.48	12	3/31	.37	.23	6/30	.12	.12	YES
	1155	Kimball Int'l	(NDQ)	KBAL	15.99	3	3	4	1.10	25- 35 (55-120%)	15.8	1.8	1.01	.28	77	3/31	.16	.19	9/30	.07	.06	YES
	1197	Kimberly-Clark		KMB	106.47	3	1	4	.75	165- 200 (55- 90%)	15.4	3.8	6.90	4.00	88	3/31	1.71	1.57	6/30	▲1.00	.97	YES
	1533	Kimco Realty		KIM	16.61	3	3	4	.90	30- 40 (80-140%)	22.1	6.9	.75	1.15	96	3/31	.30	.15	9/30	.28	.27	YES
	615	Kinder Morgan Inc.		KMI	17.69	3	3	4	1.45	45- 65 (155-265%)	20.8	4.5	.85	.80	57	3/31	.22	.18	6/30	▲.20	.125	YES
	1572	Kinross Gold		KGC	3.76	2	5	3	.90	4- 8 (5-115%)	18.8	NIL	.20	NIL	66	3/31	.10	.02	6/30	NIL	NIL	YES
	335	Kirby Corp.		KEX	84.85	3	3	1	1.15	75- 110 (N- 30%)	32.6	NIL	2.60	NIL	83	3/31	.54	.51	6/30	NIL	NIL	YES
	325	Knight-Swift Trans.		KNX	36.28	–	3	–	NMF	60- 85 (65-135%)	16.1	0.7	2.25	.24	18	3/31	.44	.18	6/30	.06	.06	YES
	1413	Knoll Inc.		KNL	21.55	3	3	4	1.15	30- 50 (40-130%)	12.7	2.8	1.70	.60	68	3/31	.35	.31	6/30	.15	.15	YES
	952	Knowles Corp.		KN	15.96	4	3	4	1.60	20- 30 (25- 90%)	17.7	NIL	.90	NIL	85	3/31	.11	.11	6/30	NIL	NIL	YES
	2143	Kohl's Corp.		KSS	70.93	2	3	1	1.10	75- 115 (5- 60%)	13.5	3.4	5.25	2.44	48	4/30	.64	.39	6/30	.61	.55	YES
	427	Korea Fund		KF	37.15	–	3	2	.90	50- 80 (35-115%)	NMF	0.7	NMF	.25	–	3/31	47.12(q)	41.53(q)	6/30	NIL	NIL	
1244	1644	Korn/Ferry Int'l		KFY	65.58	2	3	3	1.25	50- 75 (N- 15%)	21.5	0.6	3.05	.40	12	4/30	.80	.62	9/30	.10	.10	YES
	1922	Kraft Heinz Co.	(NDQ)	KHC	63.05	4	2	4	.95	90- 120 (45- 90%)	16.4	4.1	3.85	2.60	81	3/31	.89	.84	6/30	.625	.60	YES
	716	Kratos Defense & Sec.	(NDQ)	KTOS	13.11	3	4	3	1.55	14- 25 (5- 90%)	87.4	NIL	.15	NIL	59	3/31	.01	d.01	6/30	NIL	NIL	YES
1419	1951	Kroger Co.		KR	28.42	1	3	4	.85	35- 55 (25- 95%)	13.2	2.0	2.15	.58	39	4/30	.73	.58	9/30	▲.14	.125	YES
230	578	Kronos Worldwide		KRO	22.46	1	4	1	1.60	25- 45 (10-100%)	9.8	3.0	2.30	.68	15	3/31	.61	.32	6/30	.17	.15	YES
	1384	Kulicke & Soffa	(NDQ)	KLIC	28.09	1	3	4	1.05	30- 50 (5- 80%)	13.3	1.7	2.11	.48	3	3/31	.54	.40	9/30	▲.12	NIL	YES
2031	2210	**L Brands**		LB	32.06	4	3	3	.95 ▼	50- 80 (55-150%)	11.5	7.5	▼2.80	2.40	61	4/30	.17	.33	6/30	.60	.60	YES
	717	L3 Technologies		LLL	203.03	3	2	3	1.00	180- 245 (N- 20%)	21.4	1.6	9.50	3.20	59	3/31	2.34	1.93	9/30	.80	.75	YES
	990	LCI Industries		LCII	95.30	3	3	3	1.10	175- 265 (85-180%)	12.5	2.5	7.60	2.40	8	3/31	1.86	1.71	6/30	▲.60	.50	YES
2458	991	LKQ Corp.	(NDQ)	LKQ	33.66	3	3	4	1.10	55- 80 (65-140%)	15.0	NIL	2.25	NIL	8	3/31	.55	.49	6/30	NIL	NIL	YES
	1801	LPL Financial Hldgs.	(NDQ)	LPLA	67.50	2	3	1	1.05	80- 120 (20- 80%)	20.5	1.5	3.30	1.00	23	3/31	1.01	.53	6/30	.25	.25	YES
	1763	LSB Inds.		LXU	7.10	–	5	–	2.05	8- 14 (15- 95%)	NMF	NIL	d1.20	NIL	32	3/31	d.49	d.48	6/30	NIL	NIL	YES
851	2359	La Quinta Hldgs.		LQ						SEE FINAL SUPPLEMENT												
	1156	La-Z-Boy Inc.		LZB	30.65	3	3	1	1.10	45- 70 (45-130%)	14.6	1.6	2.10	.48	77	4/30	.66	.57	6/30	.12	.11	YES
	812	Laboratory Corp.		LH	184.85	2	1	3	.90	205- 250 (10- 35%)	16.0	NIL	11.55	NIL	9	3/31	2.78	2.22	6/30	NIL	NIL	YES
	1385	Lam Research	(NDQ)	LRCX	177.24	1	3	2	1.20	245- 370 (40-110%)	9.7	2.5	18.34	4.40	3	3/31	4.79	2.80	6/30	▲1.10	.45	YES
	2394	Lamar Advertising	(NDQ)	LAMR	72.16	3	3	3	.95	80- 120 (10- 65%)	21.9	5.2	3.30	3.72	34	3/31	.15	.42	6/30	▲.91	.83	YES
	1923	Lamb Weston Holdings		LW	70.73	–	3	–	NMF	65- 100 (N- 40%)	24.2	1.1	2.92	.77	81	2/28	.90	.57	6/30	▲.191	.188	YES
	1924	Lancaster Colony	(NDQ)	LANC	142.45	4	2	3	.85	120- 160 (N- 10%)	30.7	1.7	4.64	2.40	81	3/31	1.00	.53	6/30	.60	.55	YES
	2409	Laredo Petroleum		LPI	9.56	2	5	5	1.90	30- 55 (215-475%)	8.7	NIL	1.10	NIL	11	3/31	.24	.10	6/30	NIL	NIL	YES
	2360	Las Vegas Sands		LVS	74.49	3	3	3	1.40	85- 125 (15- 70%)	21.3	4.0	3.50	3.00	31	3/31	1.04	.60	6/30	.75	.73	YES
	1359	Lattice Semiconductor	(NDQ)	LSCC	6.51	4	4	4	1.30	8- 14 (25-115%)	21.7	NIL	.30	NIL	17	3/31	.05	.06	6/30	NIL	NIL	YES
	1012	Lauder (Estee)		EL	142.20	2	2	1	.80	140- 185 (N- 30%)	29.7	1.2	4.79	1.64	72	3/31	.99	.80	6/30	.38	.34	YES
	2567	Lazard Ltd.		LAZ	51.00	2	3	2	1.45	75- 115 (45-125%)	12.8	3.5	4.00	1.76	20	3/31	1.26	.83	6/30	▲.44	.41	YES
	992	Lear Corp.		LEA	190.61	1	3	2	1.20	240- 355 (25- 85%)	9.7	1.5	19.65	2.80	8	3/31	5.10	4.27	6/30	.70	.50	YES
	1157	Leggett & Platt		LEG	45.56	4	2	5	1.05	65- 85 (45- 85%)	16.3	3.3	2.80	1.52	77	3/31	.57	.62	9/30	▲.38	.36	YES
	2568	Legg Mason		LM	33.15	3	3	3	1.45	70- 105 (110-215%)	9.3	4.1	3.56	1.36	20	3/31	.86	.76	9/30	▲.34	.28	YES
	398	Leidos Hldgs.		LDOS	63.58	–	3	–	NMF	70- 105 (10- 65%)	16.5	2.0	3.85	1.28	55	3/31	1.03	.47	6/30	.32	.32	YES
	1129	Lennar Corp.		LEN	55.55	▲1	3	3	1.30	65- 95 (15- 70%)	11.3	0.3	4.90	.16	1	5/31	.94	.91	9/30	.04	.039	YES
	1715	Lennox Int'l		LII	214.52	2	3	3	1.10	220- 335 (5- 55%)	21.5	1.2	10.00	2.56	21	3/31	1.13	.90	9/30	▲.64	.51	YES
	1210	Liberty All-Star		USA	6.68	–	2	3	1.10	7- 9 (5- 35%)	NMF	8.4	NMF	.56	–	3/31	6.71(q)	6.42(q)	9/30	◆.17	.13	
	1025	Liberty Global plc	(NDQ)	LBTYA	28.84	4	3	4	1.10	30- 40 (5- 40%)	NMF	NIL	d.65	NIL	38	3/31	d1.47	d.33	6/30	NIL	NIL	YES
	1534	Liberty Property		LPT	43.90	3	3	1	.95	35- 55 (N- 25%)	13.9	3.6	3.15	1.60	96	3/31	.33	.29	9/30	.40	.40	YES
	813	LifePoint Health	(NDQ)	LPNT	49.00	3	3	3	.90	70- 105 (45-115%)	11.1	NIL	4.40	NIL	9	3/31	1.22	1.07	6/30	NIL	NIL	YES
	1618	Lilly (Eli)		LLY	89.57	3	1	3	.80	115- 140 (30- 55%)	17.2	2.5	5.20	2.25	73	3/31	1.34	.98	9/30	.563	.52	YES
	993	Linamar Corp.	(TSE)	LNR.TO	59.38b	3	3	3	1.25	105- 160 (75-170%)	6.2	0.8	9.60	.48	8	3/31	2.37(b)	2.20(b)	6/30	.12	.24	
	1716	Lincoln Elec Hldgs.	(NDQ)	LECO	89.66	3	3	2	1.20	100- 150 (10- 65%)	18.9	1.7	4.75	1.56	21	3/31	1.10	.88	9/30	.39	.35	YES
	1557	Lincoln Nat'l Corp.		LNC	64.73	3	3	3	1.40	75- 115 (15- 80%)	7.9	2.2	8.20	1.40	13	3/31	1.97	1.73	9/30	.33	.29	YES
	1717	Lindsay Corp.		LNN	92.67	3	3	2	.90	95- 145 (5- 55%)	26.5	1.3	3.50	1.24	21	5/31	1.66	1.02	9/30	▲.31	.30	YES
	2333	Lions Gate 'A'		LGFA	24.48	3	3	4	1.15	40- 60 (65-145%)	20.2	1.5	1.21	.36	22	3/31	.41	.28	9/30	.09	NIL	YES
	2127	Lithia Motors		LAD	97.03	1	3	4	1.30	135- 205 (40-110%)	9.2	1.2	10.60	1.16	7	3/31	2.07	2.01	6/30	▲.29	.27	YES
	1311	Littelfuse Inc.	(NDQ)	LFUS	229.74	2	3	3	1.05	220- 330 (N- 45%)	23.9	0.6	9.60	1.48	51	3/31	2.39	1.69	6/30	.37	.33	YES
230	2334	Live Nation Entertain.		LYV	51.44	4	3	4	1.10	20- 30 (N- N%)	NMF	NIL	.25	NIL	22	3/31	d.24	d.22	6/30	NIL	NIL	YES
	1952	Loblaw Cos. Ltd.	(TSE)	L.TO	69.73b	3	2	5	.70	75- 100 (10- 45%)	22.9	1.7	3.05	1.20	39	3/31	.98(b)	.57(b)	9/30	▲.295(b)	.27(b)	YES
	718	Lockheed Martin		LMT	317.50	2	1	3	.80	370- 455 (15- 45%)	20.0	2.6	15.90	8.40	59	3/31	4.02	2.61	9/30	2.00	1.82	YES
	2569	Loews Corp.		L	49.71	3	2	3	.95	85- 115 (70-130%)	15.8	0.5	3.15	.25	20	3/31	.87	.81	6/30	.063	.063	YES

(•) All data adjusted for announced stock split or stock dividend. See back page of Ratings & Reports.
◆ New figure this week.
(b) Canadian Dollars.
(d) Deficit.
(f) The estimate may reflect a probable increase or decrease. If a dividend boost or cut is possible but not probable, two figures are shown, the first is the more likely.
(g) Dividends subject to foreign withholding tax for U.S. residents.
(h) Est'd Earnings & Est'd Dividends after conversion to U.S. dollars at Value Line estimated translation rate.
(j) All Index data expressed in hundreds.
(p) 6 months (q) Asset Value
N=Negative figure NA=Not available NMF=No meaningful figure

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Recent Price		NAME OF STOCK		Ticker Symbol	Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	1399	Logitech Int'l	(NDQ)	LOGI	45.49	3	3	.85	55- 80 (20- 75%)	30.3	1.4	1.50	.62	43	3/31	.20	.24	6/30	NIL	NIL	YES
	1824	LogMeIn Inc.	(NDQ)	LOGM	109.70	3	3	1.20	110- 165 (N- 50%)	59.3	1.1	1.85	1.20	64	3/31	.56	.10	6/30	.30	.25	YES
	1168	Louisiana-Pacific		LPX	28.39	1	3	1.50	35- 55 (25- 95%)	10.3	1.8	2.75	.52	10	3/31	.65	.38	6/30	.13	NIL	YES
644	1142	Lowe's Cos.		LOW	100.25	3	2	1.05	115- 160 (15- 60%)	18.4	1.9	5.45	1.92	37	4/30	1.19	1.03	9/30	▲.48	.41	YES
1039	2211	lululemon athletica	(NDQ)	LULU	129.45	3	3	.95	110- 160 (N- 25%)	40.3	NIL	3.21	NIL	61	4/30	.55	.32	6/30	NIL	NIL	YES
	1143	Lumber Liquidators		LL	25.71	3	4	1.55	35- 55 (35-115%)	39.6	NIL	.65	NIL	37	3/31	d.07	d.93	6/30	NIL	NIL	YES
1245	125	Lumentum Holdings	(NDQ)	LITE	59.30	2	3	.60	65- 95 (10- 60%)	24.5	NIL	2.42	NIL	62	3/31	.04	d.92	6/30	NIL	NIL	YES
	2177	Luxottica Group ADR(g)	(PNK)	LUXTY	65.50	–	2	.90	▲ 70- 95 (5- 45%)	28.5	1.9	2.30	1.23	44	12/31	.84(p)	.77(p)	6/30	1.229	1.029	
	579	LyondellBasell Inds.		LYB	108.11	1	3	1.30	125- 185 (15- 70%)	9.4	3.7	11.55	4.00	15	3/31	3.11	1.98	6/30	1.00	.90	YES
	2520	**M&T Bank Corp.**		MTB	168.50	▲2	2	.90	200- 270 (20- 60%)	15.9	1.9	10.63	3.20	19	6/30	◆3.26	2.35	6/30	▲.80	.75	YES
645	789	MB Financial	(NDQ)	MBFI	47.74	–	3	1.15	50- 75 (5- 55%)	16.8	2.0	2.85	.96	14	3/31	.81	.62	6/30	.24	.21	YES
	1130	M.D.C. Holdings		MDC	32.56	2	3	1.30	45- 65 (40-100%)	9.9	3.7	3.30	1.20	1	3/31	.68	.39	6/30	.30	.231	YES
	539	MDU Resources		MDU	29.20	3	2	1.05	40- 55 (35- 90%)	19.5	2.7	1.50	.79	24	3/31	.22	.19	9/30	.198	.193	YES
	1211	MFS Multimarket		MMT	5.58	–	4	.60	5- 8 (N- 45%)	NMF	8.6	NMF	.48	–	4/30	6.32(q)	6.74(q)	6/30	.127	.134	
	912	MGE Energy	(NDQ)	MGEE	63.35	4	1	.70	50- 60 (N- N%)	27.0	2.1	2.35	1.35	52	3/31	.58	.56	6/30	.323	.308	YES
	2570	MGIC Investment		MTG	11.23	2	4	1.30	20- 35 (80-210%)	6.4	NIL	1.75	NIL	20	6/30	◆.49	.32	6/30	NIL	NIL	YES
	2361	MGM Resorts Int'l		MGM	31.25	3	3	1.50	40- 65 (30-110%)	24.0	1.5	1.30	.48	31	3/31	.25	.36	6/30	.12	.11	YES
	1977	MGP Ingredients	(NDQ)	MGPI	91.70	4	3	.75	60- 85 (N- N%)	44.7	0.3	2.05	.32	74	3/31	.52	.50	6/30	.08	.04	YES
	1387	MKS Instruments	(NDQ)	MKSI	100.90	1	3	1.05	140- 210 (40-110%)	12.7	0.8	7.95	.80	3	3/31	1.90	1.18	6/30	▲.20	.175	YES
	635	MPLX LP		MPLX	33.60	3	4	1.35	55- 95 (65-185%)	17.7	7.4	1.90	2.47	50	3/31	.61	.20	6/30	▲.618	.54	YES
	2428	MRC Global		MRC	21.81	4	4	1.60	35- 55 (60-150%)	24.2	NIL	.90	NIL	92	3/31	.13	NIL	6/30	NIL	NIL	YES
	1718	MSA Safety		MSA	97.90	2	3	1.25	110- 165 (10- 70%)	23.9	1.6	4.10	1.55	21	3/31	.83	.37	6/30	▲.38	.35	YES
	1719	MSC Industrial Direct		MSM	82.43	3	2	1.05	145- 195 (75-135%)	15.0	2.8	5.50	2.32	21	5/31	1.39	1.09	9/30	.58	.45	YES
	444	MSCI Inc.		MSCI	170.74	3	3	1.00	180- 270 (5- 60%)	33.5	1.1	5.10	1.80	36	3/31	1.24	.80	6/30	.38	.28	YES
	2335	MSG Networks		MSGN	23.35	–	3	NMF	45- 70 (95-200%)	9.0	NIL	2.59	NIL	22	3/31	.62	.58	6/30	NIL	NIL	YES
	126	MTS Systems	(NDQ)	MTSC	53.30	5	3	1.10	55- 80 (5- 50%)	21.0	2.3	2.54	1.20	62	3/31	.44	.38	9/30	.30	.30	YES
	1535	Macerich Comp. (The)		MAC	57.42	5	3	.85	80- 120 (40-110%)	88.3	5.3	.65	3.05	96	3/31	d.24	.48	6/30	.74	.71	YES
	1536	Mack-Cali R'lty		CLI	19.48	4	3	1.00	25- 40 (30-105%)	43.3	4.1	.45	.80	96	3/31	.35	.11	9/30	.20	.20	YES
	1386	MACOM Tech. Solutions	(NDQ)	MTSI	24.29	3	3	1.45	45- 65 (85-170%)	37.4	NIL	.65	NIL	3	3/31	.13	.63	6/30	NIL	NIL	YES
	399	Macquarie Infra.		MIC	44.60	1	3	1.00	50- 80 (10- 80%)	16.5	9.0	2.70	4.00	55	3/31	.88	.44	6/30	▼1.00	1.32	YES
	2144	Macy's Inc.		M	37.07	3	3	1.05	45- 70 (20- 90%)	9.6	4.1	3.85	1.51	48	4/30	.48	.24	9/30	.378	.378	YES
	2158	Madden (Steven) Ltd.	(NDQ)	SHOO	53.90	3	3	1.05	▲ 60- 90 (10- 65%)	20.3	1.5	2.65	.80	58	3/31	.50	.34	6/30	.20	NIL	YES
	2336	Madison Square Garden		MSG	324.60	–	2	NMF	300- 400 (N- 25%)	NMF	NIL	1.72	NIL	22	3/31	.39	d.74	6/30	NIL	NIL	YES
	636	Magellan Midstream		MMP	67.47	3	3	1.20	100- 150 (50-120%)	16.9	5.7	4.00	3.85	50	3/31	.92	.98	6/30	▲.938	.873	YES
	994	Magna Int'l 'A'		MGA	60.60	1	3	1.30	95- 145 (55-140%)	8.5	2.3	7.10	1.38(h)	8	3/31	1.84	1.55	6/30	.33	.275	YES
	2026	Maiden Hldgs. Ltd.	(NDQ)	MHLD	7.75	5	4	1.15	8- 13 (5- 70%)	31.0	7.7	.25	.60	95	3/31	.17	.23	9/30	.15	.15	YES
	1619	Mallinckrodt plc		MNK	21.61	3	4	1.30	30- 40 (40- 85%)	NMF	NIL	d1.00	NIL	73	3/31	d.50	.28	6/30	NIL	NIL	YES
	2626	Manhattan Assoc.	(NDQ)	MANH	50.32	4	3	1.20	50- 75 (N- 50%)	40.3	NIL	1.25	NIL	47	3/31	.32	.40	6/30	NIL	NIL	YES
1039	163	Manitowoc Co.		MTW	25.99	–	5	1.65	40- 65 (55-150%)	52.0	NIL	.50	NIL	28	3/31	d.12	d.68	6/30	NIL	NIL	YES
	1645	ManpowerGroup Inc.		MAN	86.21	1	3	1.45	110- 165 (30- 90%)	9.7	2.4	8.90	2.08	12	3/31	1.45	1.09	6/30	1.01	.93	YES
	2627	ManTech Int'l 'A'	(NDQ)	MANT	60.15	3	3	1.00	50- 75 (N- 25%)	30.1	1.7	2.00	1.00	47	3/31	.51	.39	6/30	.25	.21	YES
	1558	Manulife Fin'l		MFC	18.08	2	3	1.20	25- 35 (40- 95%)	9.3	4.9	1.95	.88	13	3/31	.50	.40	6/30	▲.22	.205	YES
	1925	Maple Leaf Foods	(TSE)	MFI.TO	34.45	4	2	.75	40- 55 (15- 60%)	23.0	1.6	1.50	.54	81	3/31	.22	.22	6/30	.13	.11	YES
2665	2410	Marathon Oil Corp.		MRO	20.06	2	3	1.85	30- 45 (50-125%)	26.7	1.0	.75	.20	11	3/31	.18	d.07	6/30	.05	.05	YES
	514	Marathon Petroleum		MPC	71.70	3	3	1.35	100- 150 (40-110%)	14.9	2.8	4.80	2.00	29	3/31	.08	.06	6/30	.46	.36	YES
	2362	Marcus Corp.		MCS	33.05	3	3	.95	45- 65 (35- 95%)	18.9	1.8	1.75	.60	31	3/31	.35	.33	6/30	.15	.125	YES
2465	2178	MarineMax		HZO	20.80	2	4	1.35	30- 45 (45-115%)	13.8	NIL	1.51	NIL	44	3/31	.27	.11	6/30	NIL	NIL	YES
	770	Markel Corp.		MKL	1132.47	5	1	.80	1015-1240 (N- 10%)	51.1	NIL	22.15	NIL	56	3/31	d4.25	3.90	6/30	NIL	NIL	YES
	1802	MarketAxess Holdings	(NDQ)	MKTX	207.59	3	3	.90	190- 290 (N- 40%)	46.1	0.8	4.50	1.68	23	3/31	1.27	1.11	6/30	.42	.33	YES
	2363	Marriott Int'l		MAR	130.45	2	3	1.10	140- 205 (5- 55%)	24.6	1.3	5.30	1.64	31	3/31	1.34	.94	6/30	▲.41	.33	YES
2665	2364	Marriott Vacations		VAC	119.06	3	3	1.20	155- 230 (30- 95%)	17.0	1.3	7.00	1.60	31	3/31	1.39	1.22	6/30	.40	.35	YES
	2571	Marsh & McLennan		MMC	86.93	2	1	.95	100- 120 (15- 40%)	19.4	1.9	4.49	1.66	20	3/31	1.34	1.09	9/30	▲.415	.375	YES
	1112	Martin Marietta		MLM	225.35	4	3	1.20	250- 375 (10- 65%)	24.6	0.8	9.15	1.76	30	3/31	.16	.67	6/30	.44	.42	YES
	953	Marvell Technology	(NDQ)	MRVL	21.70	3	3	1.10	35- 55 (60-155%)	16.7	1.1	1.30	.24	85	4/30	.32	.24	9/30	.06	.06	YES
	1113	Masco Corp.		MAS	38.30	3	3	1.35	50- 75 (30- 95%)	15.0	1.1	2.55	.43	30	3/31	.45	.41	9/30	.105	.10	YES
	216	Masimo Corp.	(NDQ)	MASI	101.03	4	3	1.10	70- 110 (N- 10%)	35.4	NIL	2.85	NIL	78	3/31	.75	.82	6/30	NIL	NIL	YES
	1158	Masonite Int'l		DOOR	72.05	4	3	1.00	115- 175 (60-145%)	17.6	NIL	4.10	NIL	77	3/31	.74	.77	6/30	NIL	NIL	YES
	1238	MasTec		MTZ	50.80	3	3	1.80	75- 110 (50-115%)	13.9	NIL	3.65	NIL	82	3/31	.35	.54	6/30	NIL	NIL	YES
	2572	MasterCard Inc.		MA	206.37	3	1	1.05	185- 225 (N- 10%)	35.9	0.5	5.75	1.00	20	3/31	1.50	1.00	9/30	.25	.22	YES
	2644	Match Group	(NDQ)	MTCH	39.88	3	4	1.10	25- 40 (N- N%)	46.9	NIL	.85	NIL	79	3/31	.33	.07	6/30	NIL	NIL	YES
	1589	Materion Corp.		MTRN	55.75	2	3	1.40	55- 85 (N- 50%)	26.5	0.8	2.10	.42	35	3/31	.51	.29	6/30	▲.105	.10	YES
	336	Matson, Inc.		MATX	36.60	3	3	1.10	50- 70 (35- 90%)	16.3	2.3	2.25	.84	83	3/31	.33	.16	9/30	▲.21	.20	YES
	2314	Mattel, Inc.	(NDQ)	MAT	16.36	–	3	.80	20- 30 (20- 85%)	NMF	NIL	d.50	NIL	45	3/31	d.60	d.31	6/30	NIL	.38	YES
	1840	Matthews Int'l	(NDQ)	MATW	59.35	3	3	1.05	75- 110 (25- 85%)	14.9	1.3	3.97	.76	2	3/31	.93	.84	6/30	.19	.17	YES
	719	Maxar Technologies		MAXR	52.65	–	2	NMF	130- 175 (145-230%)	13.2	2.8	4.00	1.48	59	3/31	.55	.08	6/30	▲.37	NIL	YES
	1360	Maxim Integrated	(NDQ)	MXIM	61.30	2	3	1.00	60- 90 (N- 45%)	21.9	2.7	2.80	1.68	17	3/31	.73	.56	6/30	.42	.33	YES
	400	MAXIMUS Inc.		MMS	64.83	4	3	1.10	85- 125 (30- 95%)	19.5	0.3	3.33	.18	55	3/31	.84	.80	9/30	◆.045	.045	YES
	1926	McCormick & Co.		MKC	119.42	3	1	.80	130- 160 (10- 35%)	24.1	1.8	4.95	2.10	81	5/31	1.02	.82	9/30	.52	.47	YES
451	1764	McDermott Int'l		MDR	18.03	–	4	1.80	30- 50 (65-175%)	13.9	NIL	1.30	NIL	32	3/31	.36	.24	6/30	NIL	NIL	YES
2670	366	McDonald's Corp.		MCD	159.75	3	1	.80	180- 220 (15- 40%)	20.7	2.6	7.70	4.10	67	3/31	1.72	1.47	6/30	1.01	.94	YES
	217	McKesson Corp.		MCK	134.58	3	2	1.15	280- 375 (110-180%)	10.0	1.0	13.40	1.36	78	3/31	3.49	3.39	9/30	.34	.28	YES
	1620	Medicines Company	(NDQ)	MDCO	40.38	4	3	1.10	30- 45 (N- 10%)	NMF	NIL	d3.00	NIL	73	3/31	d1.14	d1.00	6/30	NIL	NIL	YES
	814	Medidata Solutions	(NDQ)	MDSO	87.34	3	3	1.15	100- 150 (15- 70%)	49.9	NIL	1.75	NIL	9	3/31	.40	.31	6/30	NIL	NIL	YES
231	1927	Medifast, Inc.		MED	168.29	3	3	.85	80- 120 (N- N%)	47.4	1.1	3.55	1.92	81	3/31	1.01	.51	9/30	.48	.32	YES
	815	MEDNAX, Inc.		MD	44.06	2	3	.85	85- 130 (95-195%)	10.6	NIL	4.15	NIL	9	3/31	.89	.75	6/30	NIL	NIL	YES
	185	Medtronic plc		MDT	88.29	4	1	.95	110- 135 (25- 55%)	17.5	2.3	5.04	2.00	75	4/30	1.42	1.33	9/30	▲.50	.46	YES
	2365	Melco Resorts & Entert.	(NDQ)	MLCO	24.63	2	3	1.50	40- 60 (60-145%)	21.4	2.2	1.15	.54	31	3/31	.32	.23	6/30	.135	.09	YES
	1361	Mellanox Technologies	(NDQ)	MLNX	84.70	3	3	1.05	105- 160 (25- 90%)	34.6	NIL	2.45	NIL	17	6/30	◆.30	d.16	6/30	NIL	NIL	YES
	1825	Mercadolibre Inc.	(NDQ)	MELI	359.80	5	3	1.35	270- 410 (N- 15%)	NMF	NIL	.50	NIL	64	3/31	d.29	1.10	6/30	▼NIL	.15	YES
2670	1621	Merck & Co.		MRK	62.53	3	1	.90	70- 85 (10- 35%)	14.7	3.1	4.25	1.92	73	3/31	1.05	.88	9/30	.48	.47	YES
	771	Mercury General		MCY	44.24	5	2	.85	55- 80 (25- 80%)	22.1	5.7	2.00	2.50	56	3/31	.07	.20	6/30	.625	.623	YES
2458	1400	Mercury Systems	(NDQ)	MRCY	41.06	4	3	.85	45- 65 (10- 60%)	33.9	NIL	1.21	NIL	43	3/31	.23	.23	6/30	NIL	NIL	YES

★★ Supplementary Report in this week's issue.
▲ Arrow indicates the direction of a change. When it appears with the Latest Dividend, the arrow signals that a change in the regular payment rate has occurred in the latest quarter.

For Timeliness, 3-5 year Target Price Range, or Estimated Earnings 12 months to 12-31-18, the arrow indicates a change since the preceding week. When a diamond ◆ (indicating a new figure) appears alongside the latest quarterly earnings results, the rank change probably was primarily caused by the earnings report. In other cases, the change is due to the dynamics of the ranking system and could simply be the result of the improvement or weakening of other stocks.

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Bold type refers to Ratings and Reports

Recent Price		NAME OF STOCK		Ticker Symbol	RANKS: Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS: Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	2377	Meredith Corp.		MDP	51.45	4	3	4	1.15	95- 145 (85-180%)	8.8	4.2	5.87	2.18	69	3/31	.74	.87	6/30	.545	.52	YES
	218	Meridian Bioscience	(NDQ)	VIVO	15.80	5	3	3	.85	25- 35 (60-120%)	21.9	3.2	.72	.50	78	3/31	.21	.22	6/30	.125	.125	YES
	995	Meritor, Inc.		MTOR	20.49	1	4	3	1.50	30- 50 (45-145%)	7.1	NIL	2.88	NIL	8	3/31	.75	.35	6/30	NIL	NIL	YES
	1131	Meritage Homes		MTH	46.95	2	3	3	1.40	65- 100 (40-115%)	9.4	NIL	5.00	NIL	1	3/31	1.07	.56	6/30	NIL	NIL	YES
	580	Methanex Corp.	(NDQ)	MEOH	71.15	1	3	3	1.55	65- 95 (N- 35%)	11.9	1.9	6.00	1.36	15	3/31	2.03	1.56	6/30	.33	.30	YES
	1335	Methode Electronics		MEI	39.30	▼2	3	2	1.40	45- 65 (15- 65%)	12.4	1.1	3.16	.44	63	4/30	.98	.62	9/30	.11	.09	YES
	1559	MetLife Inc.		MET	44.19	4	3	3	1.30	55- 80 (25- 80%)	8.8	3.8	5.00	1.68	13	3/31	1.36	1.20	9/30	.42	.40	YES
	1953	Metro Inc.	(TSE)	MRU.TO	45.29b	2	2	3	.60	50- 65 (10- 45%)	17.6	1.8	2.58	.80	39	3/31	.47(b)	.56(b)	6/30	.18(b)	.162(b)	YES
	127	Mettler-Toledo Int'l		MTD	584.80	3	2	2	1.05	515- 695 (N- 20%)	30.3	NIL	19.30	NIL	62	3/31	3.58	3.48	6/30	NIL	NIL	YES
	428	Mexico Fund		MXF	16.05	–	4	2	1.10	20- 35 (25-120%)	NMF	0.9	NMF	.14	–	4/30	18.78(q)	18.59(q)	6/30	NIL	NIL	
855	2109	Michael Kors Hldgs.		KORS	67.67	3	3	3	.95	75- 115 (10- 70%)	15.6	NIL	4.33	NIL	65	3/31	.35	d.17	6/30	NIL	NIL	YES
1245	2179	Michaels Cos. (The)	(NDQ)	MIK	19.76	3	3	4	1.10	40- 65 (100-230%)	8.6	NIL	2.30	NIL	44	4/30	.39	.38	6/30	NIL	NIL	YES
	1362	Microchip Technology	(NDQ)	MCHP	95.05	1	3	2	1.15	125- 190 (30-100%)	15.2	1.5	6.25	1.46	17	3/31	1.40	1.16	6/30	▲.364	.362	YES
	1363	Micron Technology	(NDQ)	MU	56.96	1	3	2	1.55	60- 90 (5- 60%)	5.7	NIL	9.91	NIL	17	5/31	3.10	1.40	6/30	NIL	NIL	YES
	851	Microsemi Corp.		MSCC	SEE FINAL SUPPLEMENT																
	2597	Microsoft Corp.	(NDQ)	MSFT	105.95	3	1	3	1.00	110- 135 (5- 25%)	26.9	1.6	3.94	1.68	54	3/31	.95	.73	9/30	.42	.39	YES
	1537	Mid-America Apartment		MAA	98.45	4	2	4	.75	110- 145 (10- 45%)	51.8	3.7	1.90	3.69	96	3/31	.42	.36	9/30	.923	.87	YES
231	1720	Middleby Corp. (The)	(NDQ)	MIDD	98.85	4	3	3	1.20	160- 240 (60-145%)	16.1	NIL	6.15	NIL	21	3/31	1.18	1.26	6/30	NIL	NIL	YES
	1790	Middlesex Water	(NDQ)	MSEX	44.70	3	2	3	.80	35- 50 (N- 10%)	29.8	2.0	1.50	.91	94	3/31	.27	.27	6/30	.224	.211	YES
1845	1159	Miller (Herman)	(NDQ)	MLHR	38.50	3	3	3	1.20	50- 75 (30- 95%)	15.8	1.9	2.44	.72	77	5/31	.66	.64	9/30	.18	.17	YES
	581	Minerals Techn.		MTX	74.75	3	3	3	1.55	85- 130 (15- 75%)	14.7	0.3	5.10	.20	15	3/31	1.13	.97	9/30	◆.05	.05	YES
	401	Mobile Mini	(NDQ)	MINI	47.40	3	3	2	1.30	55- 80 (15- 70%)	28.7	2.1	1.65	1.00	55	3/31	.33	.25	6/30	.25	.227	YES
	996	Modine Mfg.		MOD	18.10	1	4	2	1.20	20- 35 (10- 95%)	11.5	NIL	1.58	NIL	8	3/31	.44	.35	6/30	NIL	NIL	YES
	1160	Mohawk Inds.		MHK	224.37	3	3	5	1.25	290- 430 (30- 90%)	14.5	NIL	15.50	NIL	77	3/31	3.01	2.72	6/30	NIL	NIL	YES
2672	1978	Molson Coors Brewing		TAP	67.00	3	3	3	.95	80- 125 (20- 85%)	11.8	2.8	5.70	1.85	74	3/31	1.28	.97	9/30	◆.41	.41	YES
	2366	Monarch Casino	(NDQ)	MCRI	47.99	2	3	3	1.10	50- 75 (5- 55%)	27.3	NIL	1.76	NIL	31	3/31	.36	.27	6/30	NIL	NIL	YES
	1928	Mondelez Int'l	(NDQ)	MDLZ	42.83	3	2	5	1.00	55- 75 (30- 75%)	17.1	2.3	2.50	1.00	81	3/31	.62	.52	9/30	.22	.19	YES
	1364	Monolithic Power Sys.	(NDQ)	MPWR	141.35	3	3	3	1.20	135- 200 (N- 40%)	56.5	0.8	2.50	1.20	17	3/31	.49	.33	9/30	.30	.20	YES
	2128	Monro, Inc.	(NDQ)	MNRO	67.55	3	3	3	.85	70- 105 (5- 55%)	27.9	1.2	2.42	.80	7	3/31	.52	.29	6/30	▲.20	.18	YES
1036	2450	Monsanto Co.		MON	SEE FINAL SUPPLEMENT																
231	1979	Monster Beverage	(NDQ)	MNST	62.17	3	3	4	.85	65- 100 (5- 60%)	36.6	NIL	1.70	NIL	74	3/31	.38	.31	6/30	NIL	NIL	YES
	445	Moody's Corp.		MCO	182.69	2	3	3	1.15	185- 280 (N- 55%)	23.7	1.0	7.70	1.76	36	3/31	2.02	1.50	9/30	.44	.38	YES
	720	Moog Inc. 'A'		MOGA	78.76	2	3	2	1.25	80- 120 (N- 50%)	16.9	1.3	4.67	1.00	59	3/31	1.16	.88	6/30	▲.25	NIL	YES
	1810	Morgan Stanley		MS	49.18	1	3	2	1.35	75- 115 (55-135%)	10.0	2.0	4.90	1.00	5	6/30	◆1.30	.89	6/30	.25	.20	YES
	1602	Mosaic Company		MOS	28.46	3	3	2	1.30	30- 45 (5- 60%)	21.9	0.5	1.30	.15	76	3/31	.11	NIL	6/30	.025	.15	YES
	997	Motorcar Parts Of Amer.	(NDQ)	MPAA	19.89	4	3	3	1.15	30- 45 (50-125%)	8.2	NIL	2.43	NIL	8	3/31	.56	.50	6/30	NIL	NIL	YES
	954	Motorola Solutions		MSI	122.45	2	3	4	.95	135- 205 (10- 65%)	18.0	1.8	6.80	2.23	85	3/31	1.10	.71	9/30	.52	.47	YES
855	2180	Movado Group		MOV	49.05	3	3	2	1.20	50- 70 (N- 45%)	20.0	1.6	2.45	.80	44	4/30	.37	.01	6/30	.40	.26	YES
	737	Mueller Inds.		MLI	29.30	4	3	3	1.25	45- 65 (55-120%)	13.0	1.4	2.25	.40	40	3/31	.42	.52	6/30	.10	.10	YES
	1721	Mueller Water Prod.		MWA	11.77	3	3	4	1.20	17- 25 (45-110%)	23.1	1.7	.51	.20	21	3/31	.06	.03	6/30	.05	.04	YES
	515	Murphy Oil Corp.		MUR	31.81	2	3	2	1.65	60- 90 (90-185%)	18.2	3.1	1.75	1.00	29	3/31	.98	.33	6/30	.25	.25	YES
	2181	Murphy USA Inc.		MUSA	79.81	3	3	4	.90	95- 145 (20- 80%)	17.7	NIL	▼4.50	NIL	44	3/31	.12	d.08	6/30	NIL	NIL	YES
	1765	Myers Inds.		MYE	18.10	3	3	2	1.25	17- 25 (N- 40%)	21.3	3.0	.85	.54	32	3/31	.22	.11	9/30	.135	.135	YES
	1622	Mylan N.V.	(NDQ)	MYL	36.37	3	3	2	1.20	45- 65 (25- 80%)	17.7	NIL	2.05	NIL	73	3/31	.17	.12	6/30	NIL	NIL	YES
	844	Myriad Genetics	(NDQ)	MYGN	42.82	4	3	3	.85	40- 60 (N- 40%)	31.7	NIL	1.35	NIL	90	3/31	.31	.27	6/30	NIL	NIL	YES
★★	1114	**NCI Bldg. Sys.**		NCS	20.70	–	3	–	1.35	25- 45 (20-115%)	20.5	NIL	1.01	NIL	30	4/30	d.09	.24	6/30	NIL	NIL	YES
	1336	NCR Corp.		NCR	31.43	3	3	4	1.40	50- 80 (60-155%)	9.5	NIL	3.30	NIL	63	3/31	.56	.55	6/30	NIL	NIL	YES
	738	NN Inc.	(NDQ)	NNBR	18.95	3	4	3	1.55	16- 25 (N- 30%)	NMF	1.5	d.25	.28	40	3/31	d.22	.07	6/30	.07	.07	YES
	1224	NRG Energy		NRG	32.27	4	3	1	1.25	35- 50 (10- 55%)	10.1	0.4	3.20	.12	71	3/31	.87	d.52	6/30	.03	.03	YES
	1132	NVR, Inc.		NVR	3168.20	2	2	3	.85	2905-3935 (N- 25%)	16.7	NIL	190.00	NIL	1	3/31	39.34	25.12	6/30	NIL	NIL	
453	1366	NXP Semiconductors NV	(NDQ)	NXPI	103.67	–	3	–	1.20	145- 215 (40-105%)	15.0	NIL	6.90	NIL	17	3/31	1.55	1.40	6/30	NIL	NIL	YES
	2429	Nabors Inds.		NBR	6.12	4	4	3	1.85	25- 45 (310-635%)	NMF	3.9	d.30	.24-NIL	92	3/31	d.46	d.52	6/30	.06	.06	YES
	1803	Nasdaq, Inc.	(NDQ)	NDAQ	94.45	3	3	2	.90	85- 130 (N- 40%)	19.5	1.9	4.85	1.76	23	3/31	1.24	1.10	6/30	▲.44	.38	YES
	2521	Nat'l Bank of Canada	(TSE)	NA.TO	63.24b	3	2	3	.85	70- 95 (10- 50%)	11.0	4.0	5.75	2.52	19	4/30	1.44(b)	1.28(b)	9/30	▲.62(b)	.58(b)	YES
	1980	National Beverage	(NDQ)	FIZZ	108.62	3	3	3	.85	100- 155 (N- 45%)	28.7	NIL	3.78	NIL	74	4/30	.78	.62	6/30	NIL	NIL	YES
	2395	National CineMedia	(NDQ)	NCMI	8.46	3	3	4	.90	13- 20 (55-135%)	33.8	8.0	.25	.68-.34	34	3/31	d.03	d.10	6/30	.17	.22	YES
	540	National Fuel Gas		NFG	54.69	3	3	5	1.00	105- 155 (90-185%)	11.7	3.1	4.68	1.70	24	3/31	1.06	1.04	9/30	▲.425	.415	YES
	128	National Instruments	(NDQ)	NATI	42.81	3	3	3	1.05	40- 60 (N- 40%)	37.2	2.1	1.15	.92	62	3/31	.18	.14	6/30	.23	.21	YES
	2430	National Oilwell Varco		NOV	43.70	4	3	3	1.15	50- 70 (15- 60%)	NMF	0.5	.20	.20	92	3/31	d.18	d.26	6/30	.05	.05	YES
	1766	National Presto Ind.		NPK	120.00	3	3	1	.95	105- 160 (N- 35%)	15.5	5.0	7.75	6.00	32	3/31	1.57	1.43	6/30	NIL	NIL	
	2182	National Vision Holdings	(NDQ)	EYE	40.30	–	3	–	NMF	40- 60 (N- 50%)	62.0	NIL	.65	NIL	44	3/31	.32	.29	6/30	NIL	NIL	YES
	1590	Natural Resource		NRP	31.85	4	5	2	1.55	35- 65 (10-105%)	6.0	5.7	5.35	1.80	35	3/31	1.16	.87	6/30	.45	.45	YES
	219	Natus Medical	(NDQ)	BABY	31.75	5	3	3	1.05	50- 70 (55-120%)	45.4	NIL	.70	NIL	78	3/31	d.10	.01	6/30	NIL	NIL	YES
	2183	Nautilus Inc.		NLS	14.50	4	4	3	1.10	17- 30 (15-105%)	13.8	NIL	1.05	NIL	44	3/31	.27	.26	6/30	NIL	NIL	YES
	2573	Navient Corp.	(NDQ)	NAVI	13.81	3	3	4	1.35	17- 25 (25- 80%)	7.5	4.6	1.85	.64	20	3/31	.40	.36	6/30	.16	.16	YES
	402	Navigant Consulting		NCI	21.10	3	3	1	1.15	25- 40 (20- 90%)	15.6	NIL	1.35	NIL	55	3/31	.30	.27	6/30	NIL	NIL	YES
	164	Navistar Int'l		NAV	42.25	▼3	5	3	2.05	45- 80 (5- 90%)	20.3	NIL	2.08	NIL	28	4/30	.55	d.86	6/30	NIL	NIL	YES
	1169	Neenah, Inc.		NP	86.75	4	3	3	1.00	100- 150 (15- 75%)	19.3	1.9	4.50	1.64	10	3/31	.95	1.03	6/30	.41	.37	YES
1039	1623	Nektar Therapeutics	(NDQ)	NKTR	48.36	3	5	2	1.25	35- 65 (N- 35%)	13.2	NIL	3.65	NIL	73	3/31	d.60	d.42	6/30	NIL	NIL	YES
	220	Neogen Corp.	(NDQ)	NEOG	84.00	3	3	3	1.00	60- 90 (N- 5%)	73.7	NIL	1.14	NIL	78	5/31	◆.33	.24	6/30	NIL	NIL	
	1929	Nestle SA ADS	(PNK)	NSRGY	79.14	5	1	5	.75	80- 100 (N- 25%)	25.1	3.1	3.15	2.45	81	12/31	.75(p)	1.42(p)	6/30	2.35	2.30	
	1401	NetApp, Inc.	(NDQ)	NTAP	82.43	3	3	3	1.05	70- 110 (N- 35%)	25.5	1.9	3.23	1.60	43	4/30	.99	.68	9/30	▲.40	.20	YES
★★	2337	Netflix, Inc.	(NDQ)	NFLX	379.48	2	3	3	1.05	290- 435 (N- 15%)	NMF	NIL	3.00	NIL	22	6/30	◆.85	.15	6/30	NIL	NIL	YES
	955	NETGEAR	(NDQ)	NTGR	77.55	4	3	3	1.00	70- 100 (N- 30%)	34.5	NIL	2.25	NIL	85	3/31	.43	.54	6/30	NIL	NIL	YES
2032	186	Nevro Corp.		NVRO	60.15	5	4	3	1.25	70- 115 (15- 90%)	NMF	NIL	d1.00	NIL	75	3/31	d.59	d.50	6/30	NIL	NIL	YES
	429	New Germany Fund		GF	18.63	–	3	3	1.05	20- 30 (5- 60%)	NMF	1.6	NMF	.30	–	12/31	21.49(q)	14.97(q)	6/30	.162	NIL	
	551	New Jersey Resources		NJR	45.60	2	1	3	.80	45- 55 (N- 20%)	17.0	2.4	2.68	1.09	41	3/31	1.62	1.21	12/31	.273	.273	YES
	2384	New Media Investment		NEWM	18.50	3	3	3	1.10	19- 30 (5- 60%)	16.8	8.0	1.10	1.48-.70	93	3/31	d.01	d.07	6/30	.37	.35	YES
	2004	New Orient. Ed. ADS		EDU	96.09	3	3	2	1.05	105- 155 (10- 60%)	37.1	NIL	2.59	NIL	87	2/28	.57	.48	6/30	NIL	NIL	YES
	1505	New York Community		NYCB	11.49	5	3	3	.90	16- 25 (40-120%)	13.8	5.9	.83	.68	80	3/31	.20	.21	6/30	.17	.17	YES
	2385	New York Times		NYT	25.85	3	3	3	1.10	25- 40 (N- 55%)	51.7	0.6	.50	.16	93	3/31	.13	.08	9/30	.04	.04	YES
	1198	Newell Brands		NWL	27.63	3	3	5	1.10	65- 95 (135-245%)	10.4	3.3	2.65	.92	88	3/31	.11	1.31	6/30	.23	.23	YES

(•) All data adjusted for announced stock split or stock dividend. See back page of Ratings & Reports.
◆ New figure this week.
(b) Canadian Dollars.
(d) Deficit.
(f) The estimate may reflect a probable increase or decrease. If a dividend boost or cut is possible but not probable, two figures are shown, the first is the more likely.
(g) Dividends subject to foreign withholding tax for U.S. residents.
(h) Est'd Earnings & Est'd Dividends after conversion to U.S. dollars at Value Line estimated translation rate.
(j) All Index data expressed in hundreds.
(p) 6 months (q) Asset Value
N=Negative figure NA=Not available NMF=No meaningful figure

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		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	541	Newfield Exploration		NFX	28.85	2	3	4	1.85	65- 100 (125-245%)	9.0	NIL	3.20	NIL	24	3/31	.82	.57	6/30	NIL	NIL	YES
	582	NewMarket Corp.		NEU	404.44	5	2	4	1.00	410- 550 (N- 35%)	18.9	1.7	21.45	7.00	15	3/31	5.14	5.40	9/30	1.75	1.75	YES
	1573	Newmont Mining		NEM	36.94	3	3	3	.90	35- 55 (N- 50%)	24.6	1.5	1.50	.56	66	3/31	.35	.25	6/30	.14	.05	YES
	2386	News Corp. 'A'	(NDQ)	NWSA	15.38	5	3	2	1.30	25- 40 (65-160%)	NMF	1.3	d1.43	.20	93	3/31	d1.94	d.01	6/30	.10	.10	YES
	2338	Nexstar Media Group	(NDQ)	NXST	77.50	1	3	3	1.20	145- 220 (85-185%)	10.3	1.9	7.50	1.50	22	3/31	1.01	.13	6/30	.375	.30	YES
	146	NextEra Energy		NEE	170.21	3	1	4	.65	160- 195 (N- 15%)	22.0	2.7	7.75	4.58	53	3/31	2.09	1.90	6/30	1.11	.982	YES
	446	Nielsen Hldgs. plc		NLSN	30.65	3	2	3	.90	45- 60 (45- 95%)	20.4	4.6	1.50	1.40	36	3/31	.20	.20	6/30	▲.35	.34	YES
1843	2159	NIKE, Inc. 'B'		NKE	77.47	3	1	3	.95	85- 105 (10- 35%)	30.1	1.0	2.57	.80	58	5/31	.69	.60	9/30	.20	.18	YES
	552	NiSource Inc.		NI	26.12	3	3	5	.60	25- 35 (N- 35%)	18.7	3.0	1.40	.78	41	3/31	.81	.65	9/30	.195	.175	YES
	108	Nissan Motor ADR(g)	(PNK)	NSANY	18.39	3	3	2	1.05	25- 40 (35-120%)	6.8	6.0	2.72	1.10	46	3/31	.82	1.12	6/30	NIL	NIL	
	2431	Noble Corp. plc		NE	6.13	4	5	3	1.85	7- 13 (15-110%)	NMF	NIL	d1.92	NIL	92	3/31	d.55	d.17	6/30	NIL	NIL	YES
	2411	Noble Energy		NBL	34.45	3	3	3	1.50	40- 60 (15- 75%)	43.1	1.3	.80	.44	11	3/31	1.14	.08	6/30	▲.11	.10	YES
	956	Nokia Corp. ADR		NOK	5.81	4	3	2	1.10	7- 11 (20- 90%)	19.4	4.0	.30	.23	85	3/31	.02	.04	6/30	.223	.19	YES
	1722	Nordson Corp.	(NDQ)	NDSN	130.06	3	3	2	1.25	150- 230 (15- 75%)	21.5	1.0	6.05	1.32	21	4/30	1.56	1.35	6/30	.30	.27	YES
644	2145	Nordstrom, Inc.		JWN	52.31	3	3	2	1.00	60- 85 (15- 60%)	15.2	2.8	3.45	1.48	48	4/30	.51	.37	6/30	.37	.37	YES
	348	Norfolk Southern		NSC	154.96	2	3	3	1.15	160- 240 (5- 55%)	17.8	1.9	8.70	2.88	42	3/31	1.93	1.48	6/30	.72	.61	YES
	790	Northern Trust Corp.	(NDQ)	NTRS	105.74	3	3	2	1.10	115- 175 (10- 65%)	16.5	2.1	6.40	2.20	14	6/30	◆1.68	1.12	12/31	▲.55	.42	YES
	1225	Northland Power	(TSE)	NPI.TO	24.93b	1	3	2	.70	30- 50 (20-100%)	19.2	4.8	1.30	1.20	71	3/31	.61(b)	.29(b)	6/30	.30(b)	.27(b)	YES
	721	Northrop Grumman		NOC	321.20	3	1	2	.85	305- 370 (N- 15%)	20.6	1.5	15.60	4.80	59	3/31	4.21	3.63	6/30	▲1.20	1.00	YES
	1506	Northwest Bancshares	(NDQ)	NWBI	17.64	3	2	2	.80	19- 25 (10- 40%)	17.6	3.9	1.00	.69	80	3/31	.24	.17	6/30	.17	.16	YES
	553	Northwest Nat. Gas		NWN	63.45	4	1	4	.70	55- 65 (N- N%)	28.2	3.0	2.25	1.89	41	3/31	1.44	1.40	9/30	.473	.47	YES
	2226	NorthWestern Corp.		NWE	58.11	4	2	5	.65	55- 75 (N- 30%)	16.6	3.9	3.50	2.25	84	3/31	1.18	1.17	6/30	.55	.525	YES
	2315	Norwegian Cruise Line		NCLH	47.57	1	3	3	1.10	85- 130 (80-175%)	9.8	NIL	4.85	NIL	45	3/31	.45	.27	6/30	NIL	NIL	YES
	1624	Novartis AG ADR		NVS	78.70	▼4	1	4	.95	100- 120 (25- 50%)	22.5	3.7	3.50	2.94	73	3/31	.87	.70	6/30	2.936	2.718	YES
	1625	Novo Nordisk ADR(g)		NVO	50.14	2	2	4	1.00	60- 85 (20- 70%)	17.9	2.4	2.80	1.20	73	3/31	.73	.65	6/30	.806	.67	YES
	1013	Nu Skin Enterprises		NUS	76.18	3	3	1	1.15	80- 120 (5- 60%)	20.9	2.0	3.65	1.52	72	3/31	.64	.51	6/30	.365	.36	YES
232	2598	Nuance Communic.	(NDQ)	NUAN	15.50	5	3	5	1.05	20- 30 (30- 95%)	NMF	NIL	d.03	NIL	54	3/31	d.56	d.12	6/30	NIL	NIL	YES
	749	Nucor Corp.		NUE	64.62	2	3	3	1.30	90- 135 (40-110%)	14.0	2.4	4.60	1.52	6	3/31	1.10	1.11	9/30	.38	.378	YES
	1826	Nutanix, Inc.	(NDQ)	NTNX	57.51	–	4	–	1.85	55- 90 (N- 55%)	NMF	NIL	d.92	NIL	64	4/30	d.27	d2.72	6/30	NIL	NIL	YES
	1603	Nutrien Ltd.		NTR	52.70	–	3	–	NMF	60- 90 (15- 70%)	22.4	3.0	2.35	1.60	76	3/31	.16	NA	9/30	.40	NIL	YES
	1930	NutriSystem Inc.	(NDQ)	NTRI	39.15	4	3	5	1.00	50- 75 (30- 90%)	19.1	2.6	2.05	1.00	81	3/31	.09	.25	6/30	.25	.175	YES
	187	NuVasive, Inc.	(NDQ)	NUVA	53.39	4	3	4	.85	75- 110 (40-105%)	71.2	NIL	.75	NIL	75	3/31	d.53	.22	6/30	NIL	NIL	YES
	1212	Nuveen Muni Value Fund		NUV	9.50	–	1	3	.45	9- 11 (N- 15%)	NMF	4.2	NMF	.40	–	4/30	10.01(q)	10.14(q)	6/30	.093	.098	
	1365	NVIDIA Corp.	(NDQ)	NVDA	253.69	3	3	3	1.15	170- 255 (N- N%)	37.6	0.2	6.75	.60	17	4/30	1.98	.79	6/30	.15	.14	YES
	913	**OGE Energy**		OGE	35.24	2	2	4	.95	35- 50 (N- 40%)	17.2	4.1	2.05	1.46	52	3/31	.27	.18	9/30	.333	.303	YES
	129	OSI Systems	(NDQ)	OSIS	78.20	4	3	4	.85	85- 125 (10- 60%)	35.7	NIL	2.19	NIL	62	3/31	.13	.80	6/30	NIL	NIL	YES
	2412	Oasis Petroleum		OAS	11.89	3	5	2	2.15	17- 30 (45-150%)	29.7	NIL	.40	NIL	11	3/31	.10	d.05	6/30	NIL	NIL	YES
	516	Occidental Petroleum		OXY	82.69	3	3	3	1.10	85- 125 (5- 50%)	21.2	3.8	3.90	3.14	29	3/31	.92	.15	12/31	▲.78	.77	YES
	2432	Oceaneering Int'l		OII	26.60	5	3	4	1.30	25- 35 (N- 30%)	NMF	NIL	d.95	NIL	92	3/31	d.50	d.08	6/30	NIL	.15	YES
	1414	Office Depot	(NDQ)	ODP	2.73	3	5	3	1.35	3- 6 (10-120%)	9.1	3.7	.30	.10	68	3/31	.06	.14	6/30	.025	.025	YES
	2433	Oil States Int'l		OIS	33.65	4	3	3	1.50	30- 45 (N- 35%)	NMF	NIL	.10	NIL	92	3/31	d.01	d.34	6/30	NIL	NIL	YES
	326	Old Dominion Freight	(NDQ)	ODFL	145.78	2	2	1	1.05	135- 185 (N- 25%)	24.5	0.4	5.95	.54	18	3/31	1.33	.80	6/30	.13	.10	YES
	791	Old Nat'l Bancorp	(NDQ)	ONB	18.80	3	3	3	1.05	18- 25 (N- 35%)	15.0	2.8	1.25	.52	14	3/31	.31	.27	6/30	.13	.13	YES
	772	Old Republic		ORI	20.23	3	3	2	1.05	35- 55 (75-170%)	11.2	3.9	1.80	.78	56	3/31	.40	.36	6/30	.195	.19	YES
	1604	Olin Corp.		OLN	28.98	3	3	3	1.30	35- 50 (20- 75%)	20.7	2.8	1.40	.80	76	3/31	.14	.17	6/30	.20	.20	YES
	2146	Ollie's Bargain Outlet	(NDQ)	OLLI	74.45	3	3	2	1.30 ▲	85- 125 (15- 70%)	42.5	NIL	1.75	NIL	48	4/30	.41	.25	6/30	NIL	NIL	YES
	221	Omnicell, Inc.	(NDQ)	OMCL	54.45	3	3	3	.95	50- 75 (N- 40%)	54.5	NIL	1.00	NIL	78	3/31	.07	d.29	6/30	NIL	NIL	YES
	2396	Omnicom Group		OMC	70.69	3	2	3	.95	110- 145 (55-105%)	12.4	3.4	5.70	2.40	34	6/30	◆1.60	1.40	9/30	.60	.55	YES
	1367	ON Semiconductor	(NDQ)	ON	23.91	1	3	2	1.40	35- 50 (45-110%)	13.3	NIL	1.80	NIL	17	3/31	.40	.27	6/30	NIL	NIL	YES
	554	ONE Gas, Inc.		OGS	75.43	1	2	3	.70	85- 115 (15- 50%)	23.6	2.5	3.20	1.92	41	3/31	1.72	1.34	6/30	.46	.42	YES
	2645	1-800-FLOWERS.COM	(NDQ)	FLWS	12.70	3	4	2	1.15	14- 25 (10- 95%)	17.4	NIL	.73	NIL	79	3/31	d.13	d.17	6/30	NIL	NIL	YES
	616	ONEOK Inc.		OKE	70.33	3	3	3	1.55	75- 115 (5- 65%)	26.5	4.6	2.65	3.25	57	3/31	.64	.41	6/30	▲.795	.615	YES
	1827	Open Text Corp.	(NDQ)	OTEX	37.43	3	3	3	.85	45- 65 (20- 75%)	34.3	1.6	1.09	.61	64	3/31	.22	.08	6/30	▲.152	.132	YES
	1626	Opko Health	(NDQ)	OPK	6.29	5	3	5	1.30	6- 9 (N- 45%)	NMF	NIL	d.40	NIL	73	3/31	d.08	d.06	6/30	NIL	NIL	YES
1419	2599	Oracle Corp.		ORCL	48.90	3	1	4	1.05	60- 70 (25- 45%)	15.4	1.6	3.18	.76	54	5/31	.99	.89	9/30	.19	.19	YES
1036	722	Orbital ATK		OA						SEE FINAL SUPPLEMENT											
	130	Orbotech Ltd.	(NDQ)	ORBK	61.96	–	3	–	1.00	55- 80 (N- 30%)	22.1	NIL	2.80	NIL	62	3/31	.61	.31	6/30	NIL	NIL	YES
2459	2129	O'Reilly Automotive	(NDQ)	ORLY	289.50	2	3	3	.95	340- 460 (15- 60%)	18.7	NIL	15.45	NIL	7	3/31	3.61	2.83	6/30	NIL	NIL	YES
	1226	Ormat Technologies		ORA	50.85	4	3	4	.90	60- 90 (20- 75%)	20.3	1.1	2.50	.55	71	3/31	.88	.70	6/30	.10	.08	YES
	165	Oshkosh Corp.		OSK	72.97	1	3	3	1.10	95- 145 (30-100%)	12.6	1.3	5.81	.96	28	3/31	1.54	.76	6/30	.24	.21	YES
	914	Otter Tail Corp.	(NDQ)	OTTR	48.45	2	2	3	.85	40- 55 (N- 15%)	23.6	2.8	2.05	1.36	52	3/31	.66	.49	6/30	.335	.32	YES
1845	2646	Overstock.com	(NDQ)	OSTK	43.05	5	4	3	1.45	20- 35 (N- N%)	NMF	NIL	d.15	NIL	79	3/31	d1.74	d.23	6/30	NIL	NIL	YES
	222	Owens & Minor		OMI	17.38	4	3	4	1.10	50- 70 (190-305%)	10.9	6.0	1.60	1.04	78	3/31	.13	.31	9/30	.26	.258	YES
2459	1115	Owens Corning		OC	64.93	3	3	4	1.20	70- 110 (10- 70%)	11.4	1.3	5.70	.84	30	3/31	.82	.89	9/30	.21	.20	YES
	1183	Owens-Illinois		OI	16.74	4	3	3	1.40	35- 55 (110-230%)	6.0	NIL	2.80	NIL	16	3/31	.59	.58	6/30	NIL	NIL	YES
	2110	Oxford Inds.		OXM	90.25	3	3	3	1.20	90- 135 (N- 50%)	19.6	1.5	4.60	1.36	65	4/30	1.28	1.12	9/30	.34	.27	YES
	517	**PBF Energy**		PBF	42.13	3	3	1	1.35	55- 80 (30- 90%)	10.9	2.8	3.85	1.20	29	3/31	.27	d.29	6/30	.30	.30	YES
	2184	PC Connection	(NDQ)	CNXN	33.82	2	3	3	1.05	35- 55 (5- 65%)	14.1	NIL	▲2.40	NIL	44	3/31	.42	.28	6/30	NIL	NIL	YES
	542	PDC Energy	(NDQ)	PDCE	59.71	3	4	2	1.55	50- 80 (N- 35%)	30.6	NIL	1.95	NIL	24	3/31	d.20	.70	6/30	NIL	NIL	YES
	1627	PDL BioPharma	(NDQ)	PDLI	2.56	4	4	3	1.20	4- 6 (55-135%)	12.8	NIL	.20	NIL	73	3/31	.01	.04	6/30	NIL	NIL	YES
1246	2227	PG&E Corp.		PCG	42.57	4	3	4	.65 ▼	40- 55 (N- 30%)	NMF	NIL	▼d1.00	NIL	84	3/31	.86	1.13	6/30	NIL	.49	YES
	2522	PNC Financial Serv.		PNC	141.48	2	2	2	1.00	150- 200 (5- 40%)	13.5	2.7	10.50	3.80	19	6/30	◆2.72	2.10	9/30	▲.95	.75	YES
	2228	PNM Resources		PNM	38.00	3	3	4	.75	25- 40 (N- 5%)	20.5	2.9	1.85	1.11	84	3/31	.19	.29	6/30	.265	.242	YES
	2451	PPG Inds.		PPG	105.41	4	1	4	1.20	125- 150 (20- 40%)	16.1	1.7	6.55	1.80	4	3/31	1.40	1.29	6/30	.45	.40	YES
	147	PPL Corp.		PPL	28.41	3	2	5	.75	35- 45 (25- 60%)	12.6	5.8	2.25	1.66	53	3/31	.65	.59	9/30	.41	.395	YES
	583	PQ Group Holdings		PQG	17.75	–	3	–	NMF	16- 25 (N- 40%)	20.9	NIL	.85	NIL	15	3/31	NIL	d.02	6/30	NIL	NIL	YES
	816	PRA Health Sciences	(NDQ)	PRAH	99.42	2	3	3	1.10	95- 140 (N- 40%)	24.2	NIL	4.10	NIL	9	3/31	.59	.62	6/30	NIL	NIL	YES
	2600	PTC Inc.	(NDQ)	PTC	98.90	3	3	3	1.10	55- 85 (N- N%)	NMF	NIL	.53	NIL	54	3/31	.07	d.01	6/30	NIL	NIL	YES
	2111	PVH Corp.		PVH	151.49	2	3	1	1.05	165- 250 (10- 65%)	16.5	0.1	9.20	.15	65	4/30	2.36	1.65	6/30	.375	.037	YES
	166	PACCAR Inc.	(NDQ)	PCAR	63.21	2	2	3	1.15	85- 115 (35- 80%)	11.1	3.6	5.70	2.29	28	3/31	1.45	.88	9/30	.28	.25	YES
	1184	Packaging Corp.		PKG	114.67	1	3	3	1.15	125- 190 (10- 65%)	16.9	2.8	6.80	3.16	16	3/31	1.55	1.24	9/30	▲.79	.63	YES
	2601	Palo Alto Networks		PANW	216.58	3	3	3	1.10	190- 290 (N- 35%)	NMF	NIL	d1.12	NIL	54	4/30	d.51	d.67	6/30	NIL	NIL	YES

★★ Supplementary Report in this week's issue.
▲ Arrow indicates the direction of a change. When it appears with the Latest Dividend, the arrow signals that a change in the regular payment rate has occurred in the latest quarter.

For Timeliness, 3-5 year Target Price Range, or Estimated Earnings 12 months to 12-31-18, the arrow indicates a change since the preceding week. When a diamond ◆ (indicating a new figure) appears alongside the latest quarterly earnings results, the rank change probably was primarily caused by the earnings report. In other cases, the change is due to the dynamics of the ranking system and could simply be the result of the improvement or weakening of other stocks.

PAGE NUMBERS
Bold type refers to Ratings and Reports

		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
232	1574	Pan Amer. Silver	(NDQ)	PAAS	16.35	3	4	2	1.05	19- 30 (15- 85%)	20.4	0.9	.80	.14	66	3/31	.20	.06	6/30	.035	.025	YES
	1988	Panasonic Corp.(g)	(PNK)	PCRFY	12.88	3	3	1	1.25	20- 30 (55-135%)	12.6	1.9	1.02	.24	33	3/31	.14	d.08	6/30	.183	.14	
	2647	Pandora Media		P	8.30	5	5	4	1.20	5- 10 (N- 20%)	NMF	NIL	d1.25	NIL	79	3/31	d.55	d.56	6/30	NIL	NIL	YES
2032	367	Papa John's Int'l	(NDQ)	PZZA	51.54	4	3	3	.90	80- 120 (55-135%)	21.9	1.9	2.35	1.00	67	3/31	.50	.77	6/30	.225	.20	YES
	518	Par Pacific Holdings		PARR	17.20	3	3	3	.85	35- 55 (105-220%)	13.2	NIL	1.30	NIL	29	3/31	.33	.58	6/30	NIL	NIL	YES
	543	Paramount Resources	(TSE)	POU.TO	14.65	3	3	4	1.90	20- 35 (35-140%)	NMF	NIL	d1.25	NIL	24	3/31	d.61	.19	6/30	NIL	NIL	YES
	584	Park Electrochemical		PKE	23.68	4	3	3	1.10	20- 30 (N- 25%)	78.9	1.7	.30	.40	15	5/31	.16	.07	9/30	.10	.10	YES
	792	Park National	(ASE)	PRK	110.12	3	2	2	.95	110- 150 (N- 35%)	15.1	3.5	7.30	3.84	14	3/31	2.02	1.31	6/30	▲.96	.94	YES
	1767	Park-Ohio	(NDQ)	PKOH	37.80	3	4	4	1.60	60- 100 (60-165%)	10.2	1.3	3.70	.50	32	3/31	.78	.79	6/30	.125	.125	YES
	1768	Parker-Hannifin		PH	158.75	2	2	2	1.30	220- 295 (40- 85%)	14.8	1.9	10.71	3.04	32	3/31	2.80	2.11	6/30	▲.76	.66	YES
	2413	Parsley Energy		PE	31.57	3	3	3	1.65	45- 55 (45- 75%)	26.3	NIL	1.20	NIL	11	3/31	.32	.13	6/30	NIL	NIL	YES
	2185	Party City Holdco		PRTY	16.65	2	4	3	1.30	20- 35 (20-110%)	9.0	NIL	1.85	NIL	44	3/31	.07	.05	6/30	NIL	NIL	YES
	1227	Pattern Energy Group	(NDQ)	PEGI	17.81	3	3	4	1.25	20- 30 (10- 70%)	39.6	9.5	.45	1.69	71	3/31	d.12	.06	9/30	.422	.418	YES
	223	Patterson Cos.	(NDQ)	PDCO	22.75	5	3	4	.95	60- 95 (165-320%)	11.3	4.6	2.01	1.04	78	4/30	.23	.65	9/30	.26	.26	YES
	2434	Patterson-UTI Energy	(NDQ)	PTEN	17.07	3	4	3	1.75	35- 50 (105-195%)	NMF	0.9	d.15	.16	92	3/31	d.16	d.42	6/30	▲.04	.02	YES
	2628	Paychex, Inc.	(NDQ)	PAYX	70.46	3	1	3	1.00	80- 100 (15- 40%)	26.3	3.2	2.68	2.24	47	5/31	.61	.54	9/30	◆.56	.50	YES
	1828	Paylocity Holding	(NDQ)	PCTY	65.81	3	4	3	1.25	60- 105 (N- 60%)	67.2	NIL	.98	NIL	64	3/31	.71	.27	6/30	NIL	NIL	YES
	2574	PayPal Holdings	(NDQ)	PYPL	88.58	3	3	3	1.20	70- 110 (N- 25%)	50.6	NIL	1.75	NIL	20	3/31	.42	.32	6/30	NIL	NIL	YES
	617	Pembina Pipeline	(TSE)	PPL.TO	45.36b	3	3	2	1.10	60- 90 (30-100%)	18.1	5.0	2.50	2.28	57	3/31	.59(b)	.49(b)	6/30	▲.55(b)	.50(b)	
	2367	Penn Nat'l Gaming	(NDQ)	PENN	35.72	2	3	3	1.20	35- 50 (N- 40%)	22.3	NIL	1.60	NIL	31	3/31	.06	.06	6/30	NIL	NIL	YES
	2147	Penney (J.C.)		JCP	2.38	4	5	2	1.50	7- 12 (195-405%)	23.8	NIL	▼.10	NIL	48	4/30	d.22	.06	6/30	NIL	NIL	YES
	1538	Penn. R.E.I.T.		PEI	10.82	5	3	3	1.10	16- 25 (50-130%)	NMF	7.9	d.30	.86	96	3/31	d.15	d.10	6/30	.21	.21	YES
	2130	Penske Auto		PAG	49.21	1	3	2	1.30	55- 85 (10- 75%)	9.6	2.9	5.15	1.44	7	3/31	1.25	.97	9/30	▲.36	.32	YES
	1769	Pentair plc		PNR	43.16	–	3	–	1.25	70- 105 (60-145%)	16.3	1.6	2.65	.70	32	3/31	.88	.65	9/30	▼.175	.345	YES
	188	Penumbra Inc.		PEN	139.45	3	3	1	1.05	95- 145 (N- 5%)	NMF	NIL	.15	NIL	75	3/31	.06	d.10	6/30	NIL	NIL	YES
	1507	People's United Fin'l	(NDQ)	PBCT	18.24	3	2	1	.95	20- 30 (10- 65%)	14.6	3.8	1.25	.70	80	3/31	.30	.22	6/30	▲.175	.173	YES
	1981	PepsiCo, Inc.		PEP	114.88	4	1	5	.80	135- 165 (20- 45%)	20.2	3.2	5.70	3.71	74	6/30	1.61	1.50	9/30	◆.928	.805	YES
	1954	Performance Food		PFGC	38.35	2	3	3	1.05	40- 65 (5- 70%)	21.9	NIL	1.75	NIL	39	3/31	.34	.20	6/30	NIL	NIL	YES
	131	PerkinElmer Inc.		PKI	76.37	3	3	3	1.10	90- 130 (20- 70%)	21.2	0.4	3.60	.28	62	3/31	.63	.55	9/30	.07	.07	YES
	1628	Perrigo Co. plc		PRGO	78.03	3	3	5	.85	105- 155 (35-100%)	14.7	1.0	5.30	.81	73	3/31	1.26	1.05	6/30	.19	.16	YES
1845	2112	Perry Ellis Int'l	(NDQ)	PERY	28.27	–	3	–	.95	25- 40 (N- 40%)	14.9	NIL	1.90	NIL	65	4/30	.78	.83	6/30	NIL	NIL	YES
	968	PetMed Express	(NDQ)	PETS	40.20	3	3	3	1.00	45- 65 (10- 60%)	19.1	2.5	2.11	1.00	26	3/31	.50	.37	6/30	.25	.20	YES
1040	519	Petroleo Brasileiro ADR		PBR	10.96	3	5	4	1.85	17- 30 (55-175%)	13.7	NIL	.80	NIL	29	3/31	.32	.22	6/30	NIL	NIL	YES
2671	1629	Pfizer, Inc.		PFE	37.65	3	1	3	.90	45- 55 (20- 45%)	17.9	3.6	2.10	1.36	73	3/31	.59	.51	9/30	.34	.32	YES
	1931	Phibro Animal Health	(NDQ)	PAHC	48.15	3	3	3	.75	40- 60 (N- 25%)	24.2	0.8	1.99	.40	81	3/31	.49	.59	6/30	.10	.10	YES
	1989	Philips Electronics NV(g)		PHG	43.57	4	3	3	1.10	45- 65 (5- 50%)	36.3	2.3	1.20	1.00	33	3/31	.12	.21	6/30	.94	.90	YES
	1994	Philip Morris Int'l		PM	82.33	▲3	2	4	.80	115- 155 (40- 90%)	15.4	5.5	5.35	4.56	70	3/31	1.00	1.02	9/30	▲1.14	1.07	YES
	520	Phillips 66		PSX	111.06	3	2	1	1.20	125- 170 (15- 55%)	21.2	2.9	5.25	3.27	29	3/31	1.07	1.02	9/30	.80	.70	YES
	637	Phillips 66 Partners		PSXP	50.10	2	3	1	1.15	80- 120 (60-140%)	14.7	6.0	3.40	3.01	50	3/31	.87	.60	9/30	▲.752	.615	YES
	1388	Photronics Inc.	(NDQ)	PLAB	8.60	2	3	4	.70	13- 19 (50-120%)	15.4	NIL	.56	NIL	3	4/30	.15	.02	6/30	NIL	NIL	YES
	2186	Pier 1 Imports		PIR						SEE FINAL REPORT												
	1932	Pilgrim's Pride Corp.	(NDQ)	PPC	18.80	3	3	3	.95	25- 40 (35-115%)	6.3	NIL	3.00	NIL	81	3/31	.48	.38	6/30	NIL	NIL	YES
	2368	Pinnacle Entertain.	(NDQ)	PNK	34.73	–	4	–	NMF	25- 40 (N- 15%)	31.6	NIL	1.10	NIL	31	3/31	.35	.28	6/30	NIL	NIL	YES
1650	1933	Pinnacle Foods		PF	65.54	–	3	–	.80	55- 85 (N- 30%)	22.6	2.0	2.90	1.30	81	3/31	.57	.50	9/30	.325	.285	YES
	2229	Pinnacle West Capital		PNW	80.24	4	1	5	.65	75- 90 (N- 10%)	17.8	3.6	4.50	2.90	84	3/31	.03	.21	9/30	.695	.655	YES
	2414	Pioneer Natural Res.		PXD	182.64	3	3	2	1.40	270- 405 (50-120%)	28.5	0.2	6.40	.32	11	3/31	1.66	.25	6/30	▲.16	.04	YES
	1811	Piper Jaffray Cos.		PJC	75.55	3	3	3	1.25	105- 155 (40-105%)	13.5	4.1	5.60	3.12	5	3/31	1.38	1.77	6/30	.375	.313	YES
	1415	Pitney Bowes		PBI	8.68	4	3	3	1.15	15- 25 (75-190%)	7.2	8.6	1.20	.75	68	3/31	.30	.36	6/30	.188	.188	YES
	638	Plains All Amer. Pipe.		PAA	23.00	5	3	3	1.50	40- 60 (75-160%)	17.7	5.2	1.30	1.20	50	3/31	.33	.56	9/30	.30	.55	YES
	2316	Planet Fitness		PLNT	49.16	3	3	3	1.05	45- 70 (N- 40%)	41.0	NIL	1.20	NIL	45	3/31	.27	.19	6/30	NIL	NIL	YES
	1337	Plantronics Inc.		PLT	77.13	3	3	3	1.05	60- 90 (N- 15%)	22.0	0.8	3.50	.60	63	3/31	1.05	.59	6/30	.15	.15	YES
	585	Platform Specialty		PAH	12.67	3	4	4	2.00	14- 25 (10- 95%)	13.3	NIL	.95	NIL	15	3/31	.21	d.09	6/30	NIL	NIL	YES
	1338	Plexus Corp.	(NDQ)	PLXS	62.13	4	3	3	1.10	60- 90 (N- 45%)	19.1	NIL	3.25	NIL	63	3/31	.74	.84	6/30	NIL	NIL	YES
	2317	Polaris Inds.		PII	124.15	3	3	2	1.25	150- 225 (20- 80%)	19.9	1.9	6.25	2.40	45	3/31	1.06	.75	6/30	.60	.58	YES
	586	PolyOne Corp.		POL	45.16	3	3	3	1.35	50- 75 (10- 65%)	17.4	1.6	2.60	.70	15	3/31	.68	.59	12/31	◆.175	.135	YES
	2318	Pool Corp.	(NDQ)	POOL	157.79	3	2	4	.95	100- 135 (N- N%)	35.9	1.1	4.40	1.80	45	3/31	.53	.52	6/30	▲.45	.37	YES
	2523	Popular Inc.	(NDQ)	BPOP	45.76	4	3	1	1.20	65- 100 (40-120%)	10.9	2.2	4.19	1.00	19	3/31	.89	.89	9/30	.25	.25	YES
	2230	Portland General		POR	43.02	4	2	5	.65	35- 50 (N- 15%)	19.6	3.4	2.20	1.47	84	3/31	.72	.82	9/30	▲.363	.34	YES
	750	POSCO ADR(g)		PKX	70.85	2	3	1	1.15	95- 145 (35-105%)	7.9	3.4	9.00	2.40	6	12/31	4.30(p)	1.78(p)	6/30	1.166	1.59	YES
	1934	Post Holdings		POST	87.82	1	3	3	1.05	120- 185 (35-110%)	18.0	NIL	4.87	NIL	81	3/31	1.06	.55	6/30	NIL	NIL	YES
	368	Potbelly Corp.	(NDQ)	PBPB	12.75	5	4	2	.90	15- 25 (20- 95%)	85.0	NIL	.15	NIL	67	3/31	d.06	.03	6/30	NIL	NIL	YES
	1170	PotlatchDeltic Corp.	(NDQ)	PCH	49.60	3	3	3	1.05	60- 90 (20- 80%)	19.1	3.2	2.60	1.60	10	3/31	.69	.41	6/30	.40	.375	YES
	1560	Power Financial	(TSE)	PWF.TO	30.73b	3	2	3	.85	40- 55 (30- 80%)	9.3	5.6	3.30	1.73	13	3/31	.82(b)	.68(b)	9/30	.433(b)	.413(b)	YES
	1389	Power Integrations	(NDQ)	POWI	77.00	4	3	3	1.15	90- 135 (15- 75%)	29.6	0.8	2.60	.64	3	3/31	.46	.47	6/30	.16	.14	YES
	587	Praxair Inc.		PX	166.86	–	1	–	.95	155- 190 (N- 15%)	24.7	2.1	6.75	3.46	15	3/31	1.59	1.35	6/30	.825	.788	YES
	829	Premier, Inc.	(NDQ)	PINC	37.37	2	3	3	.95	40- 55 (5- 45%)	14.1	NIL	2.65	NIL	49	3/31	.67	.52	6/30	NIL	NIL	YES
2032	1575	Pretium Resources		PVG	8.28	3	5	5	.50	17- 30 (105-260%)	20.7	NIL	.40	NIL	66	3/31	NIL	d.02	6/30	NIL	NIL	YES
	2575	Price (T. Rowe) Group	(NDQ)	TROW	120.41	2	1	2	1.15	135- 165 (10- 35%)	16.6	2.4	7.25	2.83	20	3/31	1.77	1.42	6/30	.70	.57	YES
2032	2148	PriceSmart	(NDQ)	PSMT	79.05	5	3	3	.90	105- 160 (35-100%)	28.1	0.9	▼2.81	.70	48	5/31	.61	.62	9/30	.35	.35	YES
	1982	Primo Water Corp.	(NDQ)	PRMW	17.57	3	4	2	.60	15- 25 (N- 40%)	50.2	NIL	.35	NIL	74	3/31	.04	d.05	6/30	NIL	NIL	YES
	1239	Primoris Services	(NDQ)	PRIM	28.11	4	3	3	1.40	35- 50 (25- 80%)	17.6	0.9	1.60	.24	82	3/31	.01	.15	9/30	.06	.055	YES
	2576	Principal Fin'l Group	(NDQ)	PFG	54.86	3	3	3	1.35	50- 80 (N- 45%)	10.0	3.8	5.50	2.08	20	3/31	1.40	1.27	6/30	▲.52	.46	YES
	1199	Procter & Gamble		PG	80.03	5	1	5	.70	105- 130 (30- 60%)	18.3	3.6	4.37	2.88	88	3/31	1.00	.96	9/30	.717	.69	YES
	773	Progressive Corp.		PGR	59.40	2	2	2	.90	65- 85 (10- 45%)	15.0	1.9	3.95	1.12	56	6/30	◆1.15	.59	6/30	NIL	NIL	YES
	1539	Prologis		PLD	63.42	3	3	2	1.00	60- 90 (N- 40%)	22.3	3.1	2.85	1.96	96	6/30	◆.62	.50	6/30	.48	.44	YES
	1508	Provident Fin'l Svcs.		PFS	27.44	3	3	2	.90	30- 40 (10- 45%)	15.2	3.0	1.80	.82	80	3/31	.43	.37	6/30	.20	.19	YES
	1561	Prudential Fin'l		PRU	96.02	3	3	3	1.30	135- 205 (40-115%)	7.8	3.7	12.35	3.60	13	3/31	3.08	2.79	6/30	.90	.75	YES
	148	Public Serv. Enterprise		PEG	51.74	3	1	3	.70	45- 60 (N- 15%)	16.7	3.5	3.10	1.82	53	3/31	1.10	.94	9/30	◆.45	.43	YES
	1540	Public Storage		PSA	219.72	5	1	3	.80	245- 300 (10- 35%)	30.3	3.9	7.25	8.60	96	3/31	1.65	1.62	6/30	2.00	2.00	YES
	1133	PulteGroup, Inc.		PHM	30.92	1	3	3	1.30	35- 55 (15- 80%)	9.5	1.2	3.25	.37	1	3/31	.59	.31	9/30	.09	.09	YES
	1402	Pure Storage		PSTG	24.43	3	4	2	.75	20- 35 (N- 45%)	NMF	NIL	d.60	NIL	43	4/30	d.29	d.30	6/30	NIL	NIL	YES
	544	**QEP Resources**		QEP	12.31	4	4	3	1.80	17- 25 (40-105%)	NMF	NIL	d.50	NIL	24	3/31	d.20	d.14	6/30	NIL	NIL	YES

(•) All data adjusted for announced stock split or stock dividend. See back page of Ratings & Reports.
◆ New figure this week.
(b) Canadian Dollars.
(d) Deficit.
(f) The estimate may reflect a probable increase or decrease. If a dividend boost or cut is possible but not probable, two figures are shown, the first is the more likely.
(g) Dividends subject to foreign withholding tax for U.S. residents.
(h) Est'd Earnings & Est'd Dividends after conversion to U.S. dollars at Value Line estimated translation rate.
(j) All Index data expressed in hundreds.
(p) 6 months (q) Asset Value
N=Negative figure NA=Not available NMF=No meaningful figure

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		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	845	QIAGEN N.V.	(NDQ)	QGEN	36.91	3	3	3	1.10	40- 65 (10- 75%)	43.4	NIL	.85	NIL	90	3/31	.14	.08	6/30	NIL	NIL	YES
	1368	Qorvo Inc.	(NDQ)	QRVO	82.72	3	3	3	1.15	55- 80 (N- N%)	NMF	NIL	.25	NIL	17	3/31	d.10	.43	6/30	NIL	NIL	YES
	2378	Quad/Graphics Inc.		QUAD	20.13	3	4	4	1.40	20- 35 (N- 75%)	9.7	6.0	2.08	1.20	69	3/31	.58	.52	6/30	.30	.30	YES
	588	Quaker Chemical		KWR	158.92	3	3	2	1.15	180- 270 (15- 70%)	27.6	0.9	5.75	1.48	15	3/31	1.38	1.18	9/30	▲.37	.355	YES
	957	Qualcomm Inc.	(NDQ)	QCOM	58.91	5	2	3	.95	80- 105 (35- 80%)	17.5	4.2	3.37	2.48	85	3/31	.80	1.34	9/30	◆.62	.57	YES
	830	Quality Systems	(NDQ)	QSII	19.77	4	3	3	.85	25- 35 (25- 75%)	27.1	NIL	.73	NIL	49	3/31	.16	.07	6/30	NIL	NIL	YES
1039	1116	Quanex Bldg. Prod.		NX	17.85	2	3	3	1.35	25- 35 (40- 95%)	22.0	0.9	.81	.16	30	4/30	.12	.04	6/30	.04	.04	YES
	1240	Quanta Services		PWR	33.19	4	3	1	1.35	50- 75 (50-125%)	13.0	NIL	2.55	NIL	82	3/31	.40	.39	6/30	NIL	NIL	YES
	817	Quest Diagnostics		DGX	114.06	3	2	3	.90	105- 145 (N- 25%)	17.3	1.8	6.60	2.00	9	3/31	1.52	1.33	9/30	.50	.45	YES
	2187	Qurate Retail	(NDQ)	QRTEA	21.95	2	3	4	1.10	45- 65 (105-195%)	12.9	NIL	1.70	NIL	44	3/31	.30	.20	6/30	NIL	NIL	YES
	1723	**RBC Bearings**	(NDQ)	ROLL	134.93	3	3	3	1.05	95- 145 (N- 5%)	30.1	NIL	4.48	NIL	21	3/31	1.08	.90	6/30	NIL	NIL	YES
	1161	RH		RH	138.40	2	4	1	1.10	120- 205 (N- 50%)	21.1	NIL	6.55	NIL	77	4/30	1.33	.05	6/30	NIL	NIL	YES
	774	RLI Corp.		RLI	68.79	▼4	3	3	.95	70- 105 (N- 55%)	31.3	1.3	2.20	.88	56	3/31	.60	.44	6/30	▲.22	.21	YES
	2435	RPC Inc.		RES	14.97	2	3	4	1.50	45- 70 (200-370%)	11.5	3.3	1.30	.50	92	3/31	.24	.02	6/30	.10	NIL	YES
	589	RPM Int'l		RPM	60.51	3	3	5	1.20	55- 80 (N- 30%)	18.4	2.1	3.28	1.28	15	2/28	.30	.09	9/30	.32	.30	YES
★★	2415	RSP Permian		RSPP	SEE FINAL SUPPLEMENT																	
645	2113	Ralph Lauren		RL	133.30	3	3	1	1.15	120- 180 (N- 35%)	21.0	1.9	6.35	2.50	65	3/31	.90	.89	9/30	▲.625	.50	YES
	1369	Rambus Inc.	(NDQ)	RMBS	12.88	▲2	3	2	1.00	19- 30 (50-135%)	15.2	NIL	.85	NIL	17	3/31	.21	.16	6/30	NIL	NIL	YES
	2416	Range Resources		RRC	16.30	2	3	4	1.15	40- 60 (145-270%)	15.5	0.5	1.05	.08	11	3/31	.46	.25	6/30	.02	.02	YES
645	1770	Raven Inds.	(NDQ)	RAVN	38.60	3	3	3	1.25	50- 70 (30- 80%)	24.9	1.3	1.55	.52	32	4/30	.61	.34	9/30	.13	.13	YES
	1812	Raymond James Fin'l		RJF	95.03	2	3	2	1.25	110- 160 (15- 70%)	13.6	1.3	6.99	1.20	5	3/31	1.63	1.28	9/30	▲.30	.22	YES
	590	Rayonier Advanced Mat.		RYAM	18.24	1	4	3	2.15	35- 55 (90-200%)	9.9	1.6	1.85	.29	15	3/31	.38	.15	6/30	.07	.07	YES
	1171	Rayonier Inc.		RYN	37.73	3	3	2	1.00	30- 40 (N- 5%)	47.2	2.9	.80	1.08	10	3/31	.31	.27	6/30	▲.27	.25	YES
	723	Raytheon Co.		RTN	200.24	3	1	2	.80	190- 235 (N- 15%)	20.6	1.7	9.70	3.47	59	3/31	2.19	1.73	9/30	.868	.798	YES
	1771	Realogy Holdings		RLGY	23.13	4	3	4	1.10	50- 75 (115-225%)	12.9	1.6	1.80	.36	32	3/31	d.51	d.20	6/30	.09	.09	YES
	1541	Realty Income Corp.		O	54.72	3	2	4	.70	65- 85 (20- 55%)	45.6	4.9	1.20	2.68	96	3/31	.29	.27	6/30	▲.658	.633	YES
	2602	Red Hat, Inc.		RHT	147.58	3	3	3	1.15	155- 230 (5- 55%)	64.7	NIL	2.28	NIL	54	5/31	.59	.40	6/30	NIL	NIL	YES
646	369	Red Robin Gourmet	(NDQ)	RRGB	48.05	4	3	3	.90	105- 160 (120-235%)	16.9	NIL	2.85	NIL	67	3/31	.69	.89	6/30	NIL	NIL	YES
	2369	Red Rock Resorts	(NDQ)	RRR	35.63	–	3	–	NMF	35- 50 (N- 40%)	29.7	1.1	1.20	.40	31	3/31	.65	.30	6/30	.10	.10	YES
	1724	Regal Beloit		RBC	82.65	3	3	3	1.20	90- 135 (10- 65%)	14.3	1.4	5.80	1.12	21	3/31	1.34	1.02	9/30	▲.28	.26	YES
	1542	Regency Centers Corp.		REG	60.77	4	3	3	.85	80- 120 (30- 95%)	40.5	3.7	1.50	2.22	96	3/31	.31	d.26	6/30	.555	.53	YES
	846	Regeneron Pharmac.	(NDQ)	REGN	365.43	3	3	5	1.25	560- 840 (55-130%)	24.0	NIL	15.25	NIL	90	3/31	4.16	2.16	6/30	NIL	NIL	YES
	2524	Regions Financial		RF	17.64	2	3	2	1.20	20- 30 (15- 70%)	12.6	2.3	1.40	.40	19	3/31	.35	.23	9/30	.09	.09	YES
	1014	Regis Corp.		RGS	17.67	3	3	3	1.05	14- 20 (N- 15%)	34.6	NIL	.51	NIL	72	3/31	.21	d.40	6/30	NIL	NIL	YES
	1562	Reinsurance Group		RGA	137.40	3	2	1	1.00	155- 210 (15- 55%)	12.8	1.6	10.70	2.20	13	3/31	1.61	1.86	6/30	.50	.41	YES
	751	Reliance Steel		RS	90.73	2	3	2	1.30	125- 185 (40-105%)	11.3	2.2	8.00	2.00	6	3/31	2.30	1.52	6/30	.50	.45	YES
	2027	RenaissanceRe Hldgs.		RNR	123.37	3	2	4	.70	125- 170 (N- 40%)	11.2	1.1	11.00	1.32	95	3/31	3.40	1.18	6/30	.33	.32	YES
1420	2149	Rent-A-Center	(NDQ)	RCII	14.77	–	4	–	1.15	14- 25 (N- 70%)	73.9	NIL	▲.20	NIL	48	3/31	d.08	.04	6/30	NIL	.08	YES
	413	Republic Services		RSG	69.31	2	2	3	.80	85- 115 (25- 65%)	22.4	2.1	3.10	1.46	27	3/31	.74	.55	9/30	.345	.32	YES
	224	ResMed Inc.		RMD	109.38	3	3	3	.90	80- 120 (N- 10%)	31.3	1.3	3.50	1.44	78	3/31	.76	.66	6/30	.35	.33	YES
	403	Resources Connection	(NDQ)	RECN	17.10	▼5	3	2	1.25	25- 35 (45-105%)	22.5	2.8	.76	.48	55	2/28	.07	.09	6/30	.12	.11	YES
	370	Restaurant Brands Int'l		QSR	63.99	3	3	4	1.05	75- 115 (15- 80%)	22.5	2.8	2.85	1.80	67	3/31	.63	.36	9/30	.45	.19	YES
	1015	Revlon Inc.		REV	16.75	5	3	3	.95	25- 35 (50-110%)	NMF	NIL	d2.20	NIL	72	3/31	d1.43	d.24	6/30	NIL	NIL	YES
	1725	Rexnord Corp.		RXN	29.27	3	3	2	1.30	40- 60 (35-105%)	88.7	NIL	.33	NIL	21	3/31	d.65	.21	6/30	NIL	NIL	YES
	958	Ribbon Communications	(NDQ)	RBBN	7.29	4	4	5	1.25	6- 10 (N- 35%)	NMF	NIL	d.95	NIL	85	3/31	d.44	d.22	6/30	NIL	NIL	YES
	1591	Rio Tinto plc		RIO	54.24	2	3	1	1.25	60- 95 (10- 75%)	10.8	5.1	5.00	2.77	35	12/31	2.64(p)	1.97(p)	6/30	1.812	1.256	YES
	969	Rite Aid Corp.		RAD	1.67	–	5	–	1.00	3- 5 (80-200%)	NMF	NIL	d.46	NIL	26	5/31	.20	d.07	6/30	NIL	NIL	YES
	1646	Robert Half Int'l		RHI	67.68	3	2	3	1.20	70- 95 (5- 40%)	20.2	1.7	3.35	1.16	12	3/31	.78	.62	6/30	.28	.24	YES
	1312	Rockwell Automation		ROK	169.30	3	2	2	1.20	180- 240 (5- 40%)	20.9	2.2	8.10	3.68	51	3/31	1.89	1.45	9/30	.92	.76	YES
	724	Rockwell Collins		COL	137.32	–	1	–	.95	160- 195 (15- 40%)	18.3	1.0	7.51	1.32	59	3/31	1.43	1.27	6/30	.33	.33	YES
	1772	Rogers Communications	(TSE)	RCIB.TO	66.62b	▼2	3	3	.55	60- 90 (N- 35%)	18.3	2.9	3.65	1.92	32	3/31	.80(b)	.57(b)	9/30	.48(b)	.48(b)	YES
	1339	Rogers Corp.		ROG	118.16	4	3	3	1.15	125- 190 (5- 60%)	19.1	NIL	6.20	NIL	63	3/31	1.48	1.68	6/30	NIL	NIL	YES
	404	Rollins, Inc.		ROL	54.93	3	2	3	.90	45- 60 (N- 10%)	49.9	1.0	1.10	.56	55	3/31	.22	.18	6/30	.14	.115	YES
	1726	Roper Tech.		ROP	283.04	3	1	2	1.00	270- 330 (N- 15%)	25.2	0.6	11.25	1.65	21	3/31	2.61	1.53	9/30	.413	.35	YES
	2005	Rosetta Stone		RST	16.88	5	4	3	.80	16- 25 (N- 50%)	NMF	NIL	d1.20	NIL	87	3/31	d.29	.02	6/30	NIL	NIL	YES
	2212	Ross Stores	(NDQ)	ROST	86.39	2	2	2	.95	85- 115 (N- 35%)	21.3	1.1	4.05	.93	61	4/30	1.11	.82	6/30	.225	.16	YES
	2436	Rowan Cos. plc		RDC	15.20	4	3	2	1.50	18- 30 (20- 95%)	NMF	NIL	d3.30	NIL	92	3/31	d.89	.07	6/30	NIL	NIL	YES
	2525	Royal Bank of Canada	(TSE)	RY.TO	102.00b	3	1	3	.80	120- 145 (20- 40%)	11.8	3.8	8.65	3.88	19	4/30	2.06(b)	1.85(b)	9/30	.94(b)	.87(b)	YES
	2319	Royal Caribbean		RCL	109.35	3	3	4	1.10	145- 220 (35-100%)	13.4	2.2	8.15	2.40	45	3/31	1.09	.99	9/30	.60	.60	YES
	521	Royal Dutch Shell 'B'		RDSB	71.89	2	2	3	1.20	85- 115 (20- 60%)	14.8	5.2	4.85	3.76	29	3/31	1.42	.86	6/30	.94	.94	YES
	1576	Royal Gold	(NDQ)	RGLD	91.18	3	3	3	1.00	135- 200 (50-120%)	46.5	1.1	1.96	1.00	66	3/31	.48	.36	9/30	.25	.24	YES
	1213	Royce Value Trust		RVT	15.69	–	3	3	1.10	17- 25 (10- 60%)	NMF	1.1	NMF	.17	–	12/31	17.50(q)	15.85(q)	12/31	NIL	NIL	
	2131	Rush Enterprises 'A'	(NDQ)	RUSHA	44.64	1	3	3	1.20	55- 80 (25- 80%)	15.9	NIL	2.80	NIL	7	3/31	.51	.36	6/30	NIL	NIL	YES
	752	Russel Metals	(TSE)	RUS.TO	26.71b	2	3	3	1.10	35- 55 (30-105%)	10.9	5.7	2.45	1.52	6	3/31	.62(b)	.48(b)	6/30	.38(b)	.38(b)	YES
	327	Ryder System		R	73.56	3	3	4	1.30	100- 150 (35-105%)	13.0	2.9	5.65	2.16	18	3/31	.91	.82	9/30	▲.54	.46	YES
	1543	Ryman Hospitality		RHP	82.55	4	3	2	1.10	75- 110 (N- 35%)	27.1	4.2	3.05	3.45	96	3/31	.53	.63	9/30	.85	.80	YES
	447	**S&P Global**		SPGI	212.59	2	2	3	1.10	225- 305 (5- 45%)	24.9	1.0	8.55	2.10	36	3/31	2.00	1.62	9/30	.50	.41	YES
	2603	SAP SE		SAP	121.64	▼4	2	3	.95	135- 185 (10- 50%)	28.0	1.3	4.35	1.60	54	3/31	.73	.52	6/30	1.655	1.358	YES
	606	SBA Communications	(NDQ)	SBAC	163.69	3	3	4	1.05	140- 210 (N- 30%)	NMF	NIL	1.00	NIL	86	3/31	.25	.20	6/30	NIL	NIL	YES
	2629	SEI Investments	(NDQ)	SEIC	64.21	2	2	2	1.20	80- 105 (25- 65%)	20.7	1.0	3.10	.62	47	3/31	.86	.55	6/30	.30	.28	YES
2460	1791	SJW Group		SJW	66.34	–	3	–	.75	60- 90 (N- 35%)	25.5	1.7	2.60	1.12	94	3/31	.06	.18	6/30	.28	.218	YES
	1544	SL Green Realty		SLG	100.21	4	3	4	1.05	105- 155 (5- 55%)	50.1	3.4	2.00	3.37	96	3/31	1.12	.11	9/30	.813	.775	YES
	2577	SLM Corporation	(NDQ)	SLM	11.67	2	3	3	1.15	25- 40 (115-245%)	11.7	NIL	1.00	NIL	20	3/31	.28	.20	6/30	NIL	NIL	YES
	1241	SNC-Lavalin Group	(TSE)	SNC.TO	57.63b	3	3	3	.85	70- 105 (20- 80%)	20.2	2.0	2.85	1.15	82	3/31	.44(b)	.60(b)	6/30	.287(b)	.273(b)	YES
	1773	SPX Corp.		SPXC	36.68	3	3	3	1.85	30- 45 (N- 25%)	19.8	NIL	1.85	NIL	32	3/31	.29	.24	6/30	NIL	NIL	YES
	1727	SPX FLOW, Inc.		FLOW	43.11	2	3	3	1.90	50- 75 (15- 75%)	17.6	NIL	2.45	NIL	21	3/31	.36	d.18	6/30	NIL	NIL	YES
	2604	SS&C Techn. Hldgs	(NDQ)	SSNC	53.97	2	3	3	1.10	55- 80 (N- 50%)	23.5	0.5	2.30	.28	54	3/31	.53	.44	6/30	.07	.063	YES
	2526	SVB Fin'l Group	(NDQ)	SIVB	308.19	2	3	2	1.35	285- 430 (N- 40%)	19.9	NIL	15.45	NIL	19	3/31	3.63	1.90	6/30	NIL	NIL	YES
	1829	Sabre Corp.	(NDQ)	SABR	26.43	▲3	3	2	1.00	55- 85 (110-220%)	17.6	2.1	1.50	.56	64	3/31	.44	.42	6/30	.14	.14	YES
	1134	St. Joe Corp.		JOE	18.00	4	3	4	.85	19- 30 (5- 65%)	90.0	NIL	.20	NIL	1	3/31	.01	.06	6/30	NIL	NIL	YES
	1830	salesforce.com		CRM	147.02	3	3	3	1.10	130- 195 (N- 35%)	NMF	NIL	1.10	NIL	64	4/30	.46	d.01	6/30	NIL	NIL	YES
	1016	Sally Beauty		SBH	15.77	2	3	4	.70	35- 55 (120-250%)	7.7	NIL	2.04	NIL	72	3/31	.49	.40	6/30	NIL	NIL	YES

★★ Supplementary Report in this week's issue.
▲ Arrow indicates the direction of a change. When it appears with the Latest Dividend, the arrow signals that a change in the regular payment rate has occurred in the latest quarter.

For Timeliness, 3-5 year Target Price Range, or Estimated Earnings 12 months to 12-31-18, the arrow indicates a change since the preceding week. When a diamond ◆ (indicating a new figure) appears alongside the latest quarterly earnings results, the rank change probably was primarily caused by the earnings report. In other cases, the change is due to the dynamics of the ranking system and could simply be the result of the improvement or weakening of other stocks.

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Bold type refers to Ratings and Reports

		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
	1935	Sanderson Farms	(NDQ)	SAFM	99.50	3	3	4	.75	105- 160 (5- 60%)	12.6	1.3	7.89	1.31	81	4/30	1.84	2.95	6/30	.32	.24	YES
2460	1340	Sanmina Corp.	(NDQ)	SANM	30.75	3	3	5	1.25	40- 60 (30- 95%)	13.1	NIL	2.35	NIL	63	3/31	.50	.76	6/30	NIL	NIL	YES
	1630	Sanofi ADR		SNY	41.94	4	1	5	.95	50- 60 (20- 45%)	17.8	4.4	2.35	1.85	73	3/31	.50	.60	6/30	1.791	1.641	YES
	1936	Saputo Inc.	(TSE)	SAP.TO	45.16b	5	1	4	.65	35- 55 (N- 20%)	24.4	1.4	1.85	.64	81	3/31	.35(b)	.42(b)	6/30	.16(b)	.15(b)	YES
	149	SCANA Corp.		SCG	39.10	4	3	4	.70	35- 45 (N- 15%)	10.7	NIL	3.65	NIL-.49	53	3/31	1.18	1.19	9/30	▼.124	.612	YES
	1403	ScanSource	(NDQ)	SCSC	41.00	4	3	3	1.25	40- 55 (N- 35%)	20.3	NIL	2.02	NIL	43	3/31	.42	.49	6/30	NIL	NIL	YES
	225	Schein (Henry)	(NDQ)	HSIC	74.67	3	3	5	.95	90- 135 (20- 80%)	18.9	NIL	3.95	NIL	78	3/31	.91	.88	6/30	NIL	NIL	YES
	2437	Schlumberger Ltd.		SLB	66.74	3	2	3	1.20	110- 150 (65-125%)	33.4	3.0	2.00	2.00	92	3/31	.38	.25	9/30	.50	.50	YES
	753	Schnitzer Steel	(NDQ)	SCHN	34.45	▼2	3	2	1.45	40- 60 (15- 75%)	10.9	2.2	3.16	.75	6	5/31	1.31	.60	6/30	.188	.188	YES
	2379	Scholastic Corp.	(NDQ)	SCHL	46.55	3	3	3	.95	40- 60 (N- 30%)	25.9	1.3	1.80	.60	69	2/28	d.30	d.36	6/30	.15	.15	YES
	591	Schulman (A.)	(NDQ)	SHLM	43.55	–	3	–	1.45	45- 65 (5- 50%)	24.6	1.9	1.77	.82	15	5/31	.11	.47	9/30	.205	.205	YES
	1804	Schwab (Charles)	(NDQ)	SCHW	52.88	3	3	1	1.30	60- 95 (15- 80%)	22.0	0.8	2.40	.40	23	6/30	◆.60	.39	6/30	.10	.08	YES
	1995	Schweitzer-Mauduit Int'l		SWM	43.25	4	3	3	.80	40- 60 (N- 40%)	14.4	4.0	3.00	1.72	70	3/31	.67	.45	6/30	.43	.42	YES
	405	Science Applications		SAIC	86.06	3	3	3	.95	70- 105 (N- 20%)	21.2	1.4	4.05	1.24	55	4/30	1.13	.72	9/30	.31	.31	YES
	2370	Scientific Games	(NDQ)	SGMS	50.70	3	5	2	1.95	50- 95 (N- 85%)	NMF	NIL	d.10	NIL	31	3/31	d2.24	d1.14	6/30	NIL	NIL	YES
	1200	Scotts Miracle-Gro		SMG	81.31	4	3	4	.95	75- 110 (N- 35%)	25.4	2.6	3.20	2.12	88	3/31	2.66	2.55	6/30	.53	.50	YES
	2339	Scripps (E.W.) 'A'	(NDQ)	SSP	12.82	5	3	4	1.15	30- 50 (135-290%)	18.3	1.6	.70	.20	22	3/31	d.10	d.03	6/30	.05	NIL	YES
	2014	SeaChange Int'l	(NDQ)	SEAC	3.22	–	4	–	.75	5- 8 (55-150%)	NMF	NIL	d.25	NIL	91	4/30	d.15	d.15	6/30	NIL	NIL	YES
2672	1404	Seagate Technology	(NDQ)	STX	58.10	2	3	3	1.35	45- 65 (N- 10%)	10.0	4.3	5.81	2.52	43	3/31	1.46	1.10	9/30	.63	.63	YES
	1185	Sealed Air		SEE	42.73	–	3	–	1.10	60- 90 (40-110%)	53.4	1.5	.80	.64	16	3/31	d1.25	d.27	9/30	◆.16	.16	YES
	2150	Sears Holdings	(NDQ)	SHLD	2.20	–	5	–	1.45	▼ 2- 4 (N- 80%)	NMF	NIL	d10.20	NIL	48	4/30	d4.62	d2.15	6/30	NIL	NIL	YES
	847	Seattle Genetics	(NDQ)	SGEN	67.94	5	4	3	1.40	75- 125 (10- 85%)	NMF	NIL	d1.75	NIL	90	3/31	d.73	d.42	6/30	NIL	NIL	YES
	2320	SeaWorld Entertainment		SEAS	22.46	4	3	3	1.00	13- 19 (N- N%)	37.4	NIL	.60	NIL	45	3/31	d.73	d.71	6/30	NIL	NIL	YES
	818	Select Med. Hldgs.		SEM	19.15	2	3	3	1.25	20- 30 (5- 55%)	17.4	NIL	1.10	NIL	9	3/31	.29	.21	6/30	NIL	NIL	YES
	775	Selective Ins. Group	(NDQ)	SIGI	57.95	4	3	3	.95	50- 75 (N- 30%)	17.3	1.2	3.35	.72	56	3/31	.46	.86	6/30	.18	.16	YES
1246	2231	Sempra Energy		SRE	115.61	4	2	4	.75	120- 160 (5- 40%)	21.0	3.2	5.50	3.72	84	3/31	1.43	1.75	9/30	.895	.823	YES
	1370	Semtech Corp.	(NDQ)	SMTC	50.65	3	3	3	1.25	50- 70 (N- 40%)	23.0	NIL	2.20	NIL	17	4/30	.47	.44	6/30	NIL	NIL	YES
	132	Sensata Techn. plc		ST	50.68	2	3	2	1.20	70- 100 (40- 95%)	13.9	NIL	3.65	NIL	62	3/31	.85	.71	6/30	NIL	NIL	YES
	1937	Sensient Techn.		SXT	71.10	3	2	4	1.10	65- 90 (N- 25%)	19.0	1.9	3.75	1.35	81	3/31	.89	.82	6/30	.33	.30	YES
	1841	Service Corp. Int'l		SCI	37.71	1	3	3	1.00	45- 65 (20- 70%)	21.0	1.8	1.80	.68	2	3/31	.47	.38	6/30	.17	.15	YES
	406	ServiceMaster Global		SERV	56.96	–	3	–	.90	55- 85 (N- 50%)	24.2	NIL	2.35	NIL	55	3/31	.30	.29	6/30	NIL	NIL	YES
	2630	ServiceNow, Inc.		NOW	191.20	3	4	3	1.15	100- 165 (N- N%)	NMF	NIL	.30	NIL	47	3/31	.06	d.24	6/30	NIL	NIL	YES
232	371	Shake Shack		SHAK	66.86	3	4	2	1.40	65- 110 (N- 65%)	70.4	NIL	.95	NIL	67	3/31	.15	.10	6/30	NIL	NIL	YES
	1026	Shaw Commun. 'B'	(TSE)	SJRB.TO	27.36b	4	2	4	.65	25- 35 (N- 30%)	21.4	4.4	1.28	1.20	38	5/31	d.18(b)	.33(b)	9/30	.296(b)	.296(b)	YES
	929	Shenandoah Telecom.	(NDQ)	SHEN	32.05	3	3	3	1.00	30- 45 (N- 40%)	64.1	0.8	.50	.27	60	3/31	.10	.13	6/30	NIL	NIL	YES
	1144	Sherwin-Williams		SHW	424.36	2	2	4	1.10	475- 645 (10- 50%)	22.6	0.8	18.80	3.48	37	3/31	3.57	2.61	6/30	.86	.85	YES
	337	Ship Finance Int'l		SFL	14.40	4	3	2	1.20	12- 18 (N- 25%)	13.7	9.7	1.05	1.40-.80	83	3/31	.24	.35	6/30	.35	.45	YES
	1831	Shopify Inc.		SHOP	169.00	3	4	3	1.50	185- 305 (10- 80%)	NMF	NIL	.20	NIL	64	3/31	.04	d.04	6/30	NIL	NIL	YES
	1774	Siemens AG (ADS)	(PNK)	SIEGY	68.63	2	2	3	1.15	90- 125 (30- 80%)	13.8	3.2	4.97	2.22	32	3/31	1.40	1.02	6/30	NIL	NIL	
	607	Sierra Wireless	(NDQ)	SWIR	16.90	▼5	4	5	1.50	30- 50 (80-195%)	NMF	NIL	d.05	NIL	86	3/31	d.23	d.01	6/30	NIL	NIL	YES
	1417	Sigma Designs		SIGM						SEE FINAL SUPPLEMENT												
	2527	Signature Bank	(NDQ)	SBNY	124.63	▲4	3	4	1.05	175- 260 (40-110%)	13.7	NIL	9.13	NIL	19	3/31	.63	2.48	6/30	NIL	NIL	YES
1040	2188	Signet Jewelers Ltd.		SIG	58.59	4	3	4	1.05	▲ 75- 110 (30- 90%)	14.5	2.6	4.05	1.55	44	4/30	.10	1.03	9/30	.37	.31	YES
	1186	Silgan Holdings	(NDQ)	SLGN	26.73	2	3	3	.90	35- 50 (30- 85%)	12.7	1.5	2.10	.40	16	3/31	.41	.21	6/30	.10	.09	YES
	1371	Silicon Labs.	(NDQ)	SLAB	105.55	3	3	2	1.15	75- 110 (N- 5%)	49.1	NIL	2.15	NIL	17	3/31	.60	.36	6/30	NIL	NIL	YES
	1545	Simon Property Group		SPG	170.48	3	2	4	.85	220- 300 (30- 75%)	25.6	4.8	6.65	8.20	96	3/31	2.00	1.53	6/30	1.95	1.75	YES
	1938	Simply Good Foods	(NDQ)	SMPL	16.82	–	3	–	NMF	14- 20 (N- 20%)	17.5	NIL	.96	NIL	81	5/31	.10	NA	6/30	NIL	NIL	YES
	1117	Simpson Manufacturing		SSD	62.91	3	3	2	1.05	60- 95 (N- 50%)	23.3	1.4	2.70	.88	30	3/31	.54	.48	9/30	▲.22	.21	YES
★★	2340	Sinclair Broadcast	(NDQ)	SBGI	28.05	4	3	4	1.25	50- 70 (80-150%)	8.8	2.6	3.20	.72	22	3/31	.42	.61	6/30	.18	.18	YES
	2341	Sirius XM Holdings	(NDQ)	SIRI	7.07	3	4	2	1.05	15- 25 (110-255%)	28.3	0.6	.25	.04	22	3/31	.06	.04	9/30	◆.011	.01	YES
	2189	SiteOne Landscape		SITE	87.86	–	3	–	.80	95- 140 (10- 60%)	45.1	NIL	1.95	NIL	44	3/31	d.43	d.26	6/30	NIL	NIL	YES
	2321	Six Flags Entertainment		SIX	70.39	3	3	2	.90	85- 130 (20- 85%)	25.2	4.5	2.79	3.15	45	3/31	d.74	d.63	6/30	.78	.64	YES
	2160	Skechers U.S.A.		SKX	31.85	3	3	4	1.35	40- 60 (25- 90%)	15.2	NIL	2.10	NIL	58	3/31	.75	.60	6/30	NIL	NIL	YES
	312	SkyWest	(NDQ)	SKYW	54.55	1	3	3	1.55	55- 85 (N- 55%)	12.0	0.7	4.55	.40	25	3/31	1.03	.65	9/30	.10	.08	YES
	1372	Skyworks Solutions	(NDQ)	SWKS	101.69	3	3	3	1.15	140- 205 (40-100%)	13.9	1.3	7.30	1.28	17	3/31	1.64	1.45	6/30	.32	.28	YES
	1955	Smart & Final Stores		SFS	5.95	4	4	5	1.10	10- 17 (70-185%)	17.0	NIL	.35	NIL	39	3/31	d.10	d.06	6/30	NIL	NIL	YES
	1728	Smith (A.O.)		AOS	59.84	2	3	2	1.30	60- 95 (N- 60%)	23.0	1.2	2.60	.72	21	3/31	.60	.50	9/30	.18	.14	YES
	1939	Smucker (J.M.)		SJM	110.99	3	1	4	.75	140- 175 (25- 60%)	15.2	3.1	7.29	3.40	81	4/30	1.99	1.46	9/30	▲.85	.78	YES
	2648	Snap Inc.	(NDQ)	SNAP	13.42	–	3	–	NMF	13- 19 (N- 40%)	NMF	NIL	d.55	NIL	79	3/31	d.30	d2.31	6/30	NIL	NIL	YES
	1729	Snap-on Inc.		SNA	159.57	▼3	2	4	1.15	175- 235 (10- 45%)	13.8	2.1	11.55	3.28	21	3/31	2.79	2.39	6/30	.82	.71	YES
	1983	SodaStream Int'l	(NDQ)	SODA	89.88	2	3	2	1.20	85- 125 (N- 40%)	25.0	NIL	3.60	NIL	74	3/31	.81	.66	6/30	NIL	NIL	YES
		Sohu.com Inc.								NAME CHANGED TO SOHU.COM LTD. ADS												
	2649	Sohu.com Ltd. ADS	(NDQ)	SOHU	34.05	5	4	3	1.20	35- 60 (5- 75%)	NMF	NIL	d5.29	NIL	79	3/31	d1.21	d1.77	6/30	NIL	NIL	YES
	2132	Sonic Automotive		SAH	20.40	▼4	3	2	1.30	30- 40 (45- 95%)	10.5	1.2	▼1.95	.24	7	3/31	.26	.23	9/30	.06	.05	YES
	372	Sonic Corp.	(NDQ)	SONC	36.37	2	3	3	1.00	40- 55 (10- 50%)	24.1	1.8	1.51	.64	67	5/31	.58	.44	9/30	◆.16	.14	YES
	1187	Sonoco Products		SON	53.00	2	2	3	1.05	50- 70 (N- 30%)	16.1	3.1	3.30	1.64	16	3/31	.74	.59	9/30	◆.41	.39	YES
2672	1990	Sony Corp. ADR(g)		SNE	53.63	3	3	3	1.20	55- 80 (5- 50%)	24.2	0.5	2.22	.25	33	3/31	.09	.19	6/30	.138	.089	YES
	2190	Sotheby's		BID	55.59	3	3	2	1.20	60- 90 (10- 60%)	19.9	NIL	2.80	NIL	44	3/31	.09	d.21	6/30	NIL	NIL	YES
	555	South Jersey Inds.		SJI	33.69	3	2	4	.85	30- 40 (N- 20%)	18.2	3.4	1.85	1.16	41	3/31	1.26	.72	12/31	.28	.553	YES
	150	Southern Co.		SO	47.65	3	2	5	.55	45- 65 (N- 35%)	16.4	5.1	2.90	2.42	53	3/31	.93	.73	9/30	◆.60	.58	YES
	1592	Southern Copper		SCCO	45.11	3	3	1	1.20	75- 110 (65-145%)	17.4	2.7	2.60	1.20	35	3/31	.61	.40	6/30	.30	.12	YES
	313	Southwest Airlines		LUV	53.22	3	3	5	1.15	80- 115 (50-115%)	11.4	1.2	4.65	.64	25	3/31	.79	.57	6/30	▲.16	.125	YES
	556	Southwest Gas		SWX	77.53	3	3	4	.80	70- 105 (N- 35%)	19.4	2.7	4.00	2.10	41	3/31	1.63	1.45	9/30	.52	.495	YES
	545	Southwestern Energy		SWN	5.24	2	4	4	1.40	18- 30 (245-475%)	6.6	NIL	.80	NIL	24	3/31	.28	.18	6/30	NIL	NIL	YES
856	1956	SpartanNash Co.	(NDQ)	SPTN	26.18	4	3	4	1.25	35- 50 (35- 90%)	13.1	2.8	2.00	.72	39	3/31	.34	.40	6/30	.18	.165	YES
	639	Spectra Energy Part.		SEP	34.60	–	3	–	.90	55- 80 (60-130%)	9.5	8.7	3.65	3.00	50	3/31	.91	.74	6/30	▲.751	.701	YES
★★	1201	Spectrum Brands		SPB						SEE FINAL SUPPLEMENT												
	2322	Speedway Motorsports		TRK	17.62	4	3	4	.90	20- 30 (15- 70%)	16.8	3.4	1.05	.60	45	3/31	d.07	d.05	6/30	.15	.15	YES
	557	Spire Inc.		SR	71.70	2	2	5	.70	75- 105 (5- 45%)	21.7	3.1	3.31	2.25	41	3/31	2.03	2.36	9/30	.563	.525	YES
	725	Spirit AeroSystems		SPR	89.31	3	3	2	1.05	95- 145 (5- 60%)	14.1	0.5	6.35	.48	59	3/31	1.10	1.17	9/30	▲.12	.10	YES
	314	Spirit Airlines		SAVE	40.06	4	3	4	1.40	50- 70 (25- 75%)	11.6	NIL	3.45	NIL	25	3/31	.44	.46	6/30	NIL	NIL	YES
	1832	Splunk Inc.	(NDQ)	SPLK	107.25	5	3	3	1.60	130- 195 (20- 80%)	NMF	NIL	d1.80	NIL	64	4/30	d.83	d.73	6/30	NIL	NIL	YES

(•) All data adjusted for announced stock split or stock dividend. See back page of Ratings & Reports.
◆ New figure this week.
(b) Canadian Dollars.
(d) Deficit.
(f) The estimate may reflect a probable increase or decrease. If a dividend boost or cut is possible but not probable, two figures are shown, the first is the more likely.
(g) Dividends subject to foreign withholding tax for U.S. residents.
(h) Est'd Earnings & Est'd Dividends after conversion to U.S. dollars at Value Line estimated translation rate.
(j) All Index data expressed in hundreds.
(p) 6 months (q) Asset Value
N=Negative figure NA=Not available NMF=No meaningful figure

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Bold type refers to Ratings and Reports

		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
2673	930	Sprint Corp.		S	5.59	–	4	–	1.20	13- 20 (135-260%)	93.2	NIL	.06	NIL	60	3/31	.02	d.07	6/30	NIL	NIL	YES
	1957	Sprouts Farmers Market	(NDQ)	SFM	22.67	2	3	3	1.00	30- 45 (30-100%)	18.1	NIL	1.25	NIL	39	3/31	.50	.33	6/30	NIL	NIL	YES
	2605	Square, Inc.		SQ	68.33	3	4	3	1.45	40- 65 (N- N%)	NMF	NIL	d.05	NIL	54	3/31	d.06	d.04	6/30	NIL	NIL	YES
	998	Standard Motor Prod.		SMP	47.57	4	3	3	1.05	60- 90 (25- 90%)	18.3	1.9	2.60	.90	8	3/31	.37	.70	6/30	.21	.19	YES
	1775	Standex Int'l		SXI	100.45	3	3	2	1.00	115- 175 (15- 75%)	18.2	0.7	5.53	.72	32	3/31	1.11	.99	6/30	.18	.16	YES
	1730	Stanley Black & Decker		SWK	135.71	3	2	3	1.00	140- 190 (5- 40%)	16.2	2.0	8.40	2.67	21	3/31	1.39	1.29	6/30	.63	.58	YES
	1242	Stantec Inc.	(TSE)	STN.TO	34.18b	3	3	5	.80	35- 55 (N- 60%)	19.5	1.6	1.75	.55	82	3/31	.42(b)	.40(b)	9/30	.138(b)	.125(b)	YES
1420	373	Starbucks Corp.	(NDQ)	SBUX	51.28	3	1	4	.95	95- 115 (85-125%)	20.0	2.8	2.57	1.44	67	3/31	.53	.45	9/30	▲.36	.25	YES
	2528	State Street Corp.		STT	93.45	3	3	1	1.25	100- 150 (5- 60%)	13.5	1.9	6.90	1.80	19	3/31	1.62	1.15	9/30	.42	.38	YES
	754	Steel Dynamics	(NDQ)	STLD	46.80	1	3	3	1.40	55- 85 (20- 80%)	13.8	1.6	3.40	.75	6	3/31	.96	.82	9/30	.188	.155	YES
1422	1162	Steelcase, Inc. 'A'		SCS	13.80	4	3	3	1.15	20- 30 (45-115%)	15.0	3.9	.92	.54	77	5/31	.14	.18	9/30	.135	.128	YES
2460	592	Stepan Company		SCL	80.51	4	3	5	1.15	90- 130 (10- 60%)	18.7	1.2	4.30	.98	15	3/31	1.31	1.37	6/30	.225	.205	YES
	414	Stericycle Inc.	(NDQ)	SRCL	67.25	4	3	4	.90	110- 170 (65-155%)	14.3	NIL	4.70	NIL	27	3/31	1.21	1.09	6/30	NIL	NIL	YES
	189	STERIS plc		STE	110.20	3	2	3	1.05	100- 140 (N- 25%)	24.2	1.1	4.56	1.24	75	3/31	1.24	1.11	6/30	.31	.28	YES
	1813	Stifel Financial Corp.		SF	53.12	2	3	1	1.35	80- 120 (50-125%)	10.5	0.9	5.05	.48	5	3/31	1.15	.74	6/30	.12	NIL	YES
	1373	STMicroelectronics		STM	23.24	2	3	3	1.15	35- 50 (50-115%)	18.6	1.0	1.25	.24	17	3/31	.26	.12	6/30	.06	NIL	YES
	1842	StoneMor Partners L.P.	(NDQ)	STON	4.07	–	5	–	.70	5- 9 (25-120%)	NMF	NIL	d.45	NIL	2	12/31	d1.19	d.15	6/30	NIL	.33	YES
	1341	Stratasys Ltd.	(NDQ)	SSYS	20.48	5	3	4	1.45	19- 30 (N- 45%)	NMF	NIL	d.65	NIL	63	3/31	d.24	d.26	6/30	NIL	NIL	YES
	2006	Strayer Education	(NDQ)	STRA	118.52	–	3	–	1.05	100- 165 (N- 40%)	30.4	0.8	3.90	1.00	87	3/31	1.23	.95	6/30	.25	.25	YES
1243	190	Stryker Corp.		SYK	176.11	3	1	3	.90	180- 220 (N- 25%)	33.5	1.1	5.25	1.88	75	3/31	1.16	1.17	9/30	.47	.425	YES
	2323	Sturm, Ruger & Co.		RGR	56.20	4	3	1	.85	55- 85 (N- 50%)	14.1	2.8	4.00	1.60	45	3/31	.81	1.21	6/30	.32	.48	YES
	640	Suburban Propane		SPH	23.27	3	4	3	1.00	35- 50 (50-115%)	13.5	10.3	1.72	2.40	50	3/31	1.74	1.37	6/30	.60	.888	YES
	1118	Summit Materials		SUM	26.24	3	3	2	1.65	35- 55 (35-110%)	17.5	NIL	1.50	NIL	30	3/31	d.49	d.49	6/30	NIL	NIL	YES
	2578	Sun Life Fin'l Svcs.	(TSE)	SLF.TO	53.71b	2	2	2	.90	50- 65 (N- 20%)	12.1	3.5	4.45	1.90	20	3/31	1.09(b)	.89(b)	6/30	▲.475(b)	.435(b)	YES
	522	Suncor Energy	(TSE)	SU.TO	54.00b	2	3	3	1.05	60- 85 (10- 55%)	20.4	2.7	2.65	1.44	29	3/31	.48(b)	.81(b)	6/30	.36(b)	.32(b)	YES
	1228	SunPower Corp.	(NDQ)	SPWR	7.52	4	5	4	1.80	16- 30 (115-300%)	NMF	NIL	d2.80	NIL	71	3/31	d.83	d.98	6/30	NIL	NIL	YES
	2529	SunTrust Banks		STI	68.91	2	3	2	1.15	80- 120 (15- 75%)	13.4	2.4	5.15	1.65	19	3/31	1.31	.92	6/30	.40	.26	YES
	2438	Superior Energy Svcs.		SPN	9.69	3	4	3	1.85	19- 30 (95-210%)	NMF	NIL	d.80	NIL	92	3/31	d.34	d.59	6/30	NIL	NIL	YES
	999	Superior Inds. Int'l		SUP	17.70	4	3	4	1.15	30- 40 (70-125%)	27.2	2.0	.65	.36	8	3/31	.15	.12	9/30	.09	.09	YES
	1958	SUPERVALU INC.		SVU	22.31	4	5	4	1.50	35- 60 (55-170%)	12.3	NIL	1.81	NIL	39	2/28	.61	.91	6/30	NIL	NIL	YES
	191	SurModics, Inc.	(NDQ)	SRDX	59.10	4	3	3	.80	35- 55 (N- N%)	NMF	NIL	d.08	NIL	75	3/31	.11	.04	6/30	NIL	NIL	YES
	430	Swiss Helvetia Fund		SWZ	12.54	–	3	3	.90	14- 20 (10- 60%)	NMF	1.2	NMF	.15	–	12/31	14.10(q)	11.66(q)	6/30	.175	NIL	
454	959	Switch, Inc.		SWCH	13.06	–	4	–	NMF	13- 19 (N- 45%)	52.2	0.5	.25	.06	85	3/31	.02	.56	6/30	.015	NIL	YES
454	2606	Symantec Corp.	(NDQ)	SYMC	21.57	3	3	4	.90	30- 50 (40-130%)	12.3	1.4	1.75	.30	54	3/31	.46	.28	6/30	.075	.075	YES
1421	960	Synaptics	(NDQ)	SYNA	48.95	–	3	–	1.30	55- 80 (10- 65%)	27.7	NIL	1.77	NIL	85	3/31	.36	.81	9/30	NIL	NIL	YES
	227	Synchronoss Techn.		SNCR						SEE FINAL SUPPLEMENT												
	2579	Synchrony Financial		SYF	32.82	3	3	2	1.10	50- 75 (50-130%)	9.8	1.8	3.35	.60	20	3/31	.83	.61	6/30	.15	.13	YES
1844	407	SYNNEX Corp.		SNX	98.65	3	3	3	1.15	140- 205 (40-110%)	9.6	1.4	10.25	1.40	55	5/31	2.38	2.08	9/30	.35	.25	YES
	2607	Synopsys, Inc.	(NDQ)	SNPS	92.11	2	1	3	1.05	90- 110 (N- 20%)	24.6	NIL	3.75	NIL	54	4/30	1.08	.88	6/30	NIL	NIL	YES
	2530	Synovus Financial		SNV	53.41	3	3	2	1.10	65- 95 (20- 80%)	20.2	1.9	2.64	1.00	19	3/31	.84	.56	9/30	.25	.15	YES
	1959	Sysco Corp.		SYY	71.07	2	1	4	.80	75- 90 (5- 25%)	21.6	2.1	3.29	1.50	39	3/31	.67	.51	9/30	.36	.33	YES
2673	931	T-Mobile US	(NDQ)	TMUS	61.21	–	3	–	1.00	90- 135 (45-120%)	17.7	NIL	3.45	NIL	60	3/31	.78	.45	6/30	NIL	NIL	YES
	793	TCF Financial		TCF	25.41	3	3	1	1.15	25- 35 (N- 40%)	14.5	2.4	1.75	.60	14	3/31	.39	.25	6/30	.15	.075	YES
	1805	TD Ameritrade Holding	(NDQ)	AMTD	56.66	3	3	1	1.20	70- 105 (25- 85%)	19.7	1.5	2.88	.84	23	3/31	.48	.40	6/30	.21	.18	YES
	1342	TE Connectivity		TEL	92.34	1	2	2	1.20	120- 165 (30- 80%)	16.2	1.9	5.70	1.76	63	3/31	1.42	1.19	6/30	▲.44	.37	YES
	2213	TJX Companies		TJX	96.30	2	1	2	.90	120- 150 (25- 55%)	19.9	1.6	4.85	1.56	61	4/30	1.13	.82	9/30	.39	.313	YES
	1229	TPI Composites	(NDQ)	TPIC	29.85	–	4	–	NMF	30- 45 (N- 50%)	66.3	NIL	.45	NIL	71	3/31	.24	.10	6/30	NIL	NIL	YES
	1135	TRI Pointe Group		TPH	17.40	2	3	3	1.35	30- 45 (70-160%)	9.2	NIL	1.90	NIL	1	3/31	.28	.05	6/30	NIL	NIL	YES
	408	TTEC Holdings	(NDQ)	TTEC	34.40	4	3	3	1.05	35- 55 (N- 60%)	16.8	1.6	2.05	.54	55	3/31	.42	.38	6/30	▲.27	.22	YES
	1577	Tahoe Resources		TAHO	4.77	4	5	2	1.20	15- 30 (215-530%)	19.1	NIL	.25	NIL	66	3/31	d.02	.24	6/30	NIL	.06	YES
1246	2214	Tailored Brands		TLRD	22.08	3	4	1	1.65	30- 55 (35-150%)	9.8	3.5	2.25	.78	61	4/30	.27	.04	9/30	.18	.18	YES
	431	Taiwan Fund		TWN	20.19	–	4	3	.85	25- 40 (25-100%)	NMF	NIL	NMF	NIL	–	2/28	23.87(q)	20.24(q)	6/30	NIL	NIL	
	1374	Taiwan Semic. ADR		TSM	38.04	3	2	3	1.00	50- 65 (30- 70%)	16.2	3.3	2.35	1.24	17	3/31	.59	.54	6/30	NIL	NIL	YES
	2015	Take-Two Interactive	(NDQ)	TTWO	126.68	3	3	3	1.05	80- 115 (N- N%)	62.7	NIL	2.02	NIL	91	3/31	.77	.89	6/30	NIL	NIL	YES
	2191	Tapestry Inc.		TPR	47.39	3	3	3	1.00	60- 90 (25- 90%)	17.2	2.8	2.76	1.35	44	3/31	.54	.46	9/30	.338	.338	YES
	546	Targa Resources		TRGP	51.60	3	3	3	1.90	60- 105 (15-105%)	NMF	7.1	.05	3.64	24	3/31	d.03	d.77	6/30	.91	.91	YES
	2151	Target Corp.		TGT	77.27	3	2	2	.90	90- 125 (15- 60%)	14.6	3.3	5.30	2.56	48	4/30	1.32	1.21	9/30	▲.64	.62	YES
	109	Tata Motors ADR		TTM	18.87	3	3	3	1.30	45- 70 (140-270%)	4.8	1.1	3.96	.20	46	3/31	.47	1.06	6/30	NIL	NIL	YES
	1136	Taylor Morrison Home		TMHC	21.97	2	3	4	1.45	30- 50 (35-130%)	8.6	NIL	2.55	NIL	1	3/31	.41	.30	6/30	NIL	NIL	YES
856	1405	Tech Data	(NDQ)	TECD	85.27	3	3	4	1.10	115- 175 (35-105%)	8.2	NIL	10.40	NIL	43	4/30	1.84	1.87	6/30	NIL	NIL	YES
	1593	Teck Resources 'B'	(TSE)	TECKB.TO	32.27b	1	4	1	1.60	65- 110 (100-240%)	6.1	0.6	5.30	.20	35	3/31	1.32(b)	.99(b)	6/30	.05(b)	.10(b)	YES
	338	Teekay Corp.		TK	7.15	3	5	3	2.10	10- 18 (40-150%)	NMF	3.1	d.10	.22	83	3/31	d.19	d.41	9/30	.055	.055	YES
	2342	TEGNA Inc.		TGNA	10.94	–	3	–	NMF	25- 40 (130-265%)	7.8	2.6	1.40	.28	22	3/31	.25	.20	9/30	.07	.07	YES
	726	Teledyne Technologies		TDY	209.48	2	3	2	1.15	180- 270 (N- 30%)	27.0	NIL	7.75	NIL	59	3/31	1.81	.84	6/30	NIL	NIL	YES
	192	Teleflex Inc.		TFX	277.62	3	2	2	.90	265- 355 (N- 30%)	50.5	0.5	5.50	1.36	75	3/31	1.18	.87	6/30	.34	.34	YES
	1035	Telefonica SA ADR(g)		TEF	8.72	4	4	3	1.10	12- 20 (40-130%)	11.6	5.3	.75	.46	89	3/31	.14	.17	6/30	.232	.223	YES
	932	Telephone & Data		TDS	25.25	2	3	5	1.20	20- 35 (N- 40%)	33.7	2.6	.75	.65	60	3/31	.34	.33	6/30	.16	.155	YES
	933	TELUS Corporation	(TSE)	T.TO	48.20b	4	2	3	.65	50- 65 (5- 35%)	19.3	4.5	2.50	2.18	60	3/31	.69(b)	.73(b)	9/30	▲.525(b)	.493(b)	YES
	432	Templeton Emerg'g		EMF	14.70	–	4	2	1.15	17- 30 (15-105%)	NMF	1.7	NMF	.25	–	2/28	18.84(q)	15.18(q)	6/30	NIL	NIL	
	1163	Tempur Sealy Int'l		TPX	52.98	4	4	4	1.30	65- 110 (25-110%)	20.4	NIL	2.60	NIL	77	3/31	.42	.62	6/30	NIL	NIL	YES
	739	Tenaris S.A. ADS		TS	37.06	3	3	3	1.30	50- 75 (35-100%)	23.9	2.2	1.55	.82	40	3/31	.40	.19	6/30	.56	.56	YES
2672	819	Tenet Healthcare		THC	34.94	3	4	2	1.15	40- 60 (15- 70%)	30.4	NIL	1.15	NIL	9	3/31	.57	d.27	6/30	NIL	NIL	YES
	1731	Tennant Co.		TNC	78.15	5	3	2	1.05	95- 140 (20- 80%)	39.1	1.1	2.00	.84	21	3/31	.27	.31	6/30	.21	.21	YES
	1000	Tenneco Inc.		TEN	44.37	3	3	4	1.45	100- 150 (125-240%)	6.0	2.3	7.35	1.00	8	3/31	1.58	1.46	6/30	.25	.25	YES
	2608	Teradata Corp.		TDC	43.33	5	3	3	1.20	35- 55 (N- 25%)	61.9	NIL	.70	NIL	54	3/31	d.06	d.02	6/30	NIL	NIL	YES
2461	1390	Teradyne Inc.		TER	40.32	4	3	3	1.20	35- 55 (N- 35%)	21.8	0.9	1.85	.36	3	3/31	.43	.42	6/30	.09	.07	YES
	167	Terex Corp.		TEX	44.11	2	3	3	1.60	55- 85 (25- 95%)	16.0	0.9	2.75	.40	28	3/31	.55	.05	9/30	◆.10	.08	YES
1421	848	TESARO, Inc.	(NDQ)	TSRO	40.34	5	4	3	1.70	125- 210 (210-420%)	NMF	NIL	d9.00	NIL	90	3/31	d2.98	d2.55	6/30	NIL	NIL	YES
	110	Tesla, Inc.	(NDQ)	TSLA	322.69	5	4	3	1.25	255- 425 (N- 30%)	NMF	NIL	d7.00	NIL	46	3/31	d4.19	d2.04	6/30	NIL	NIL	YES
	415	Tetra Tech	(NDQ)	TTEK	59.30	3	3	3	1.15	65- 100 (10- 70%)	22.0	0.8	2.70	.48	27	3/31	.54	.48	6/30	▲.12	.09	YES
	2439	TETRA Technologies		TTI	4.60	3	5	4	1.50	14- 25 (205-445%)	30.7	NIL	.15	NIL	92	3/31	d.06	d.10	6/30	NIL	NIL	YES
	1631	Teva Pharmac. ADR		TEVA	23.13	4	3	3	1.00	25- 40 (10- 75%)	9.1	NIL	2.55	NIL	73	3/31	.94	1.06	6/30	NIL	.34	YES

★★ Supplementary Report in this week's issue.
▲ Arrow indicates the direction of a change. When it appears with the Latest Dividend, the arrow signals that a change in the regular payment rate has occurred in the latest quarter.

For Timeliness, 3-5 year Target Price Range, or Estimated Earnings 12 months to 12-31-18, the arrow indicates a change since the preceding week. When a diamond ◆ (indicating a new figure) appears alongside the latest quarterly earnings results, the rank change probably was primarily caused by the earnings report. In other cases, the change is due to the dynamics of the ranking system and could simply be the result of the improvement or weakening of other stocks.

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		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
★★	1375	Texas Instruments	(NDQ)	TXN	115.80	2	1	3	1.10	115- 145 (N- 25%)	22.3	2.1	5.20	2.48	17	6/30	◆1.40	1.03	6/30	.62	.50	YES
	374	Texas Roadhouse	(NDQ)	TXRH	67.40	2	3	3	.85	85- 125 (25- 85%)	24.5	1.5	2.75	1.00	67	3/31	.76	.61	6/30	.25	.21	YES
	1776	Textron, Inc.		TXT	66.79	▲2	3	2	1.30	75- 115 (10- 70%)	21.5	0.1	3.10	.08	32	6/30	◆.87	.57	9/30	.02	.02	YES
	133	Thermo Fisher Sci.		TMO	211.04	3	2	3	1.00	185- 250 (N- 20%)	33.0	0.3	6.40	.68	62	3/31	1.43	1.40	12/31	◆.17	.15	YES
	2028	Third Point Reinsurance		TPRE	12.70	4	3	3	.90	19- 30 (50-135%)	9.8	NIL	1.30	NIL	95	3/31	d.26	.98	6/30	NIL	NIL	YES
	448	Thomson Reuters	(TSE)	TRI.TO	55.86b	–	2	–	.80	70- 90 (25- 60%)	69.8	2.5	.80	1.38	36	3/31	.28(b)	.63(b)	6/30	.345(b)	.345(b)	
	2324	Thor Inds.		THO	101.37	1	3	3	1.20	140- 210 (40-105%)	9.9	1.5	10.20	1.56	45	4/30	2.53	2.11	9/30	.37	.33	YES
	1343	3D Systems		DDD	15.11	5	4	4	1.50	11- 18 (N- 20%)	NMF	NIL	d.50	NIL	63	3/31	d.19	d.09	6/30	NIL	NIL	YES
2458	1777	3M Company		MMM	202.07	3	1	3	.95	255- 315 (25- 55%)	19.4	2.7	10.40	5.44	32	3/31	2.50	2.16	6/30	1.36	1.175	YES
646	2192	Tiffany & Co.		TIF	134.31	3	2	2	1.10	130- 180 (N- 35%)	28.6	1.7	4.70	2.25	44	4/30	1.14	.74	9/30	▲.55	.50	YES
	1145	Tile Shop Hldgs.	(NDQ)	TTS	8.10	4	5	4	1.00	12- 20 (50-145%)	40.5	2.5	.20	.20	37	3/31	.08	.16	6/30	.05	.05	YES
	2215	Tilly's, Inc.		TLYS	15.35	3	3	3	1.05	16- 25 (5- 65%)	19.2	NIL	.80	NIL	61	4/30	.04	d.01	6/30	NIL	NIL	YES
1417	2343	Time Warner		TWX						SEE FINAL SUPPLEMENT												
	740	Timken Co.		TKR	44.15	2	3	2	1.40	60- 90 (35-105%)	11.2	2.5	3.95	1.12	40	3/31	1.01	.55	6/30	▲.28	.27	YES
	1001	Titan Int'l		TWI	10.28	3	4	2	1.70	17- 30 (65-190%)	17.1	0.2	.60	.02	8	3/31	.23	d.18	9/30	.005	.005	YES
	820	Tivity Health	(NDQ)	TVTY	34.85	3	3	3	.60	45- 70 (30-100%)	16.2	NIL	2.15	NIL	9	3/31	.49	.38	6/30	NIL	NIL	YES
	2016	TiVo Corp.	(NDQ)	TIVO	12.75	5	4	3	1.45	25- 40 (95-215%)	NMF	5.6	d.30	.72	91	3/31	d.15	d.29	6/30	.18	.18	YES
	1137	Toll Brothers		TOL	38.04	3	3	3	1.30	50- 70 (30- 85%)	8.7	1.2	4.35	.46	1	4/30	.72	.73	9/30	.11	.08	YES
	1940	Tootsie Roll		TR	30.30	5	1	5	.90	30- 40 (N- 30%)	30.3	1.2	1.00	.37	81	3/31	.13	.15	9/30	▲.09	.087	YES
	1119	TopBuild Corp.		BLD	82.34	–	3	–	1.20	70- 110 (N- 35%)	22.9	NIL	3.60	NIL	30	3/31	.74	d.05	6/30	NIL	NIL	YES
	1563	Torchmark Corp.		TMK	84.56	2	1	2	.95	95- 115 (10- 35%)	14.0	0.8	6.05	.64	13	3/31	1.49	1.11	6/30	▲.16	.15	YES
	1732	Toro Co.		TTC	59.68	3	2	4	.95	55- 80 (N- 35%)	21.8	1.3	2.74	.80	21	4/30	1.21	1.08	9/30	.20	.175	YES
	2531	Toronto-Dominion	(TSE)	TD.TO	76.14b	1	1	3	.75	90- 110 (20- 45%)	12.8	3.6	5.95	2.73	19	4/30	1.54(b)	1.31(b)	9/30	.67(b)	.60(b)	YES
	523	Total ADR		TOT	61.65	3	1	3	1.25	80- 95 (30- 55%)	14.0	4.8	4.40	2.98	29	3/31	.99	1.13	6/30	.762	.649	YES
	2580	Total System Svcs.		TSS	89.59	2	3	3	1.00	60- 90 (N- N%)	30.4	0.6	2.95	.52	20	3/31	.77	.57	9/30	.13	.10	YES
	1002	Tower International		TOWR	32.80	3	3	3	1.70	35- 55 (5- 70%)	8.2	1.5	4.00	.48	8	3/31	.79	.77	9/30	◆.12	.11	YES
	111	Toyota Motor ADR(g)		TM	131.45	1	2	1	1.05	170- 230 (30- 75%)	9.3	3.5	14.06	4.55	46	3/31	3.06	2.37	6/30	2.189	1.966	YES
	1146	Tractor Supply	(NDQ)	TSCO	78.92	3	3	3	1.15	95- 140 (20- 75%)	19.2	1.6	4.10	1.24	37	3/31	.57	.46	6/30	▲.31	.27	YES
	1230	TransAlta Corp.	(TSE)	TA.TO	7.02b	4	4	4	.95	9- 16 (30-130%)	28.1	2.3	.25	.16	71	3/31	.23(b)	.15(b)	9/30	.04(b)	.04(b)	YES
	618	TransCanada Corp.		TRP	42.90	3	3	4	1.10	65- 95 (50-120%)	19.1	6.4	2.25	2.76	57	3/31	.76	.59	9/30	.69	.497	YES
	727	TransDigm Group		TDG	362.88	3	3	3	.90	290- 435 (N- 20%)	24.9	NIL	14.55	NIL	59	3/31	3.53	2.78	6/30	NIL	NIL	YES
	2440	Transocean Ltd.		RIG	12.72	5	5	3	1.65	14- 25 (10- 95%)	NMF	NIL	d.80	NIL	92	3/31	d.48	.01	6/30	NIL	NIL	YES
2461	449	TransUnion		TRU	74.95	2	3	4	.95	75- 110 (N- 45%)	30.0	0.4	2.50	.30	36	3/31	.57	.42	6/30	▲.075	NIL	YES
★★	776	Travelers Cos.		TRV	128.79	▼4	1	3	.90	175- 215 (35- 65%)	12.1	2.4	10.65	3.08	56	3/31	2.42	2.16	6/30	▲.77	.72	YES
	593	Tredegar Corp.		TG	24.00	3	3	2	1.55	25- 40 (5- 65%)	19.2	2.0	1.25	.48	15	3/31	.55	.11	9/30	.11	.11	YES
	1941	TreeHouse Foods		THS	52.25	4	3	3	.85	60- 95 (15- 80%)	24.3	NIL	2.15	NIL	81	3/31	.18	.61	6/30	NIL	NIL	YES
232	1120	Trex Co.		TREX	68.48	3	3	3	1.35	50- 75 (N- 10%)	33.4	NIL	2.05	NIL	30	3/31	.63	.48	6/30	NIL	NIL	YES
	1214	Tri-Continental		TY	27.07	–	2	3	.90	35- 45 (30- 65%)	NMF	3.4	NMF	.92	–	12/31	25.83(q)	25.83(q)	6/30	.224	.251	
★★	2344	Tribune Media Co.		TRCO	33.32	–	3	–	1.15	65- 100 (95-200%)	16.3	3.0	2.05	1.00	22	3/31	.51	d.07	6/30	.25	.25	YES
	1778	TriMas Corp.	(NDQ)	TRS	29.15	3	3	2	1.30	30- 45 (5- 55%)	16.7	NIL	1.75	NIL	32	3/31	.41	.30	6/30	NIL	NIL	YES
	1313	Trimble Inc.	(NDQ)	TRMB	34.43	3	3	4	1.25	50- 70 (45-105%)	34.4	NIL	1.00	NIL	51	3/31	.24	.20	6/30	NIL	NIL	YES
	1647	TriNet Group		TNET	55.22	2	3	3	1.10	50- 70 (N- 25%)	22.5	NIL	2.45	NIL	12	3/31	.75	.41	6/30	NIL	NIL	YES
	349	Trinity Inds.		TRN	34.68	4	3	3	1.50	30- 50 (N- 45%)	25.7	1.5	1.35	.52	42	3/31	.30	.26	9/30	.13	.13	YES
	2452	Trinseo S.A.		TSE	71.75	3	3	3	1.55	120- 185 (65-160%)	8.3	2.2	8.60	1.60	4	3/31	2.71	2.59	9/30	▲.40	.36	YES
232	2650	TripAdvisor, Inc.	(NDQ)	TRIP	60.37	4	3	3	1.15	35- 55 (N- N%)	NMF	NIL	.45	NIL	79	3/31	.04	.09	6/30	NIL	NIL	YES
	728	Triumph Group		TGI	19.65	4	3	3	1.30	25- 40 (25-105%)	8.5	0.8	2.31	.16	59	3/31	1.01	3.09	6/30	.04	.04	YES
	2387	tronc, Inc.	(NDQ)	TRNC	16.98	4	4	3	1.35	19- 30 (10- 75%)	17.0	NIL	1.00	NIL	93	3/31	d.42	d.09	6/30	NIL	NIL	YES
	1648	TrueBlue, Inc.		TBI	27.55	2	3	3	1.45	30- 40 (10- 45%)	15.7	NIL	1.75	NIL	12	3/31	.22	.11	6/30	NIL	NIL	YES
	1202	Tupperware Brands		TUP	40.73	4	3	4	1.30	80- 120 (95-195%)	9.4	6.7	4.35	2.72	88	3/31	.70	.93	9/30	.68	.68	YES
	1996	Turning Point Brands		TPB	31.64	–	4	–	1.35	20- 35 (N- 10%)	23.4	0.5	1.35	.16	70	3/31	.15	.10	9/30	.04	NIL	
1418	2345	Twenty-First Century Fox	(NDQ)	FOXA	46.47	–	3	–	1.00	50- 70 (10- 50%)	21.6	0.8	2.15	.36	22	3/31	.47	.44	6/30	.18	.18	YES
233	1833	Twilio Inc.		TWLO	65.00	–	4	–	1.85	40- 65 (N- N%)	NMF	NIL	d.10	NIL	64	3/31	d.25	d.16	6/30	NIL	NIL	YES
2033	2651	Twitter Inc.		TWTR	44.71	3	4	2	1.10	25- 45 (N- N%)	NMF	NIL	.40	NIL	79	3/31	.08	d.09	6/30	NIL	NIL	YES
	2631	Tyler Technologies		TYL	237.49	3	3	3	.95	230- 350 (N- 45%)	49.6	NIL	4.79	NIL	47	3/31	1.13	.90	6/30	NIL	NIL	YES
	1942	Tyson Foods 'A'		TSN	65.56	1	3	1	.80	95- 140 (45-115%)	10.2	1.9	6.44	1.25	81	3/31	1.27	1.01	9/30	.30	.225	YES
	1546	**UDR, Inc.**		UDR	36.98	4	3	3	.80	40- 55 (10- 50%)	74.0	3.5	.50	1.29	96	3/31	.30	.09	9/30	.323	.31	YES
	558	UGI Corp.		UGI	52.45	4	2	3	.90	45- 60 (N- 15%)	18.6	2.0	2.82	1.04	41	3/31	1.69	1.31	9/30	▲.26	.25	YES
	416	US Ecology	(NDQ)	ECOL	65.25	▼3	3	3	1.00	55- 80 (N- 25%)	29.0	1.1	2.25	.72	27	3/31	.36	.24	9/30	.18	.18	YES
	1960	US Foods Hldg.		USFD	39.90	–	3	–	1.05	50- 75 (25- 90%)	19.0	NIL	2.10	NIL	39	3/31	.35	.18	6/30	NIL	NIL	YES
2462	1943	USANA Health Sciences		USNA	109.70	3	3	1	1.00	65- 95 (N- N%)	24.4	NIL	4.50	NIL	81	3/31	1.19	.91	6/30	NIL	NIL	YES
	1121	USG Corp.		USG	43.23	–	3	–	1.35	50- 75 (15- 75%)	20.1	NIL	2.15	NIL	30	3/31	.32	.37	6/30	NIL	NIL	YES
	608	Ubiquiti Networks	(NDQ)	UBNT	88.74	2	3	3	.90	75- 110 (N- 25%)	20.3	NIL	4.38	NIL	86	3/31	1.32	.77	6/30	NIL	NIL	YES
	2193	Ulta Beauty	(NDQ)	ULTA	253.08	2	3	1	.90	330- 490 (30- 95%)	23.2	NIL	10.90	NIL	44	4/30	2.70	2.05	6/30	NIL	NIL	YES
	1834	Ultimate Software	(NDQ)	ULTI	284.66	3	3	3	1.10	285- 430 (N- 50%)	51.8	NIL	5.50	NIL	64	3/31	1.30	.75	6/30	NIL	NIL	YES
	2114	Under Armour 'A'		UAA	21.51	4	4	1	1.15	▲ 20- 35 (N- 65%)	NMF	NIL	▲.20	NIL	65	3/31	NIL	d.01	6/30	NIL	NIL	YES
	2115	Unifi, Inc.		UFI	31.49	4	3	3	1.00	▼ 30- 45 (N- 45%)	31.8	NIL	▼.99	NIL	65	3/31	.01	.50	6/30	NIL	NIL	YES
	409	UniFirst Corp.		UNF	185.55	3	2	3	1.05	185- 250 (N- 35%)	29.3	0.2	6.33	.45	55	5/31	1.58	1.36	9/30	.113	.038	YES
	1944	Unilever PLC ADR(g)		UL	54.90	3	1	3	.95	70- 85 (30- 55%)	20.0	3.6	2.75	2.00	81	12/31	1.35(p)	.94(p)	6/30	▲.479	.382	YES
	350	Union Pacific		UNP	138.26	2	1	2	1.05	170- 210 (25- 50%)	18.1	2.1	7.65	2.92	42	3/31	1.68	1.32	6/30	.73	.605	YES
	1406	Unisys Corp.		UIS	14.25	2	5	3	1.30	12- 25 (N- 75%)	35.6	NIL	.40	NIL	43	3/31	.62	d.65	6/30	NIL	NIL	YES
	315	United Cont'l Hldgs.		UAL	72.62	3	4	3	1.30	75- 125 (5- 70%)	9.1	NIL	7.95	NIL	25	6/30	◆3.23	2.75	6/30	NIL	NIL	YES
1041	1961	United Natural Foods	(NDQ)	UNFI	44.78	2	3	4	1.05	70- 105 (55-135%)	12.5	NIL	3.59	NIL	39	4/30	1.02	.72	6/30	NIL	NIL	YES
	316	United Parcel Serv.		UPS	111.07	2	1	3	.90	140- 175 (25- 60%)	15.4	3.3	7.20	3.64	25	3/31	1.55	1.32	6/30	.91	.83	YES
	1733	United Rentals		URI	152.21	1	3	2	1.65	170- 250 (10- 65%)	10.4	NIL	14.70	NIL	21	3/31	2.87	1.63	6/30	NIL	NIL	YES
	794	U.S. Bancorp		USB	51.30	3	1	4	.95	65- 80 (25- 55%)	12.8	2.5	4.00	1.28	14	6/30	◆1.02	.85	9/30	.30	.28	YES
	934	U.S. Cellular		USM	34.40	3	3	5	1.10	30- 50 (N- 45%)	43.0	NIL	.80	NIL	60	3/31	.52	.31	6/30	NIL	NIL	YES
	1594	U.S. Silica Holdings		SLCA	26.26	2	4	3	2.15	70- 120 (165-355%)	8.5	1.0	3.10	.25	35	3/31	.54	.09	12/31	◆.063	.063	YES
2668	755	U.S. Steel Corp.		X	36.41	1	4	3	1.90	60- 100 (65-175%)	11.4	0.5	3.20	.20	6	3/31	.10	d1.02	6/30	.05	.05	YES
2462	1779	United Technologies		UTX	130.71	3	1	3	1.00	150- 180 (15- 40%)	18.3	2.1	7.15	2.80	32	3/31	1.77	1.48	9/30	.70	.70	YES
	849	United Therapeutics	(NDQ)	UTHR	123.89	3	3	5	1.05	225- 335 (80-170%)	7.1	NIL	17.35	NIL	90	3/31	3.76	3.19	6/30	NIL	NIL	YES
★★	821	UnitedHealth Group		UNH	250.29	2	1	3	.95	265- 320 (5- 30%)	19.8	1.4	12.65	3.60	9	6/30	◆3.14	2.46	6/30	▲.90	.75	YES
	2453	Univar Inc.		UNVR	27.17	1	3	4	1.20	50- 75 (85-175%)	16.5	NIL	1.65	NIL	4	3/31	.42	.16	6/30	NIL	NIL	YES

(•) All data adjusted for announced stock split or stock dividend. See back page of Ratings & Reports.
◆ New figure this week.
(b) Canadian Dollars.
(d) Deficit.
(f) The estimate may reflect a probable increase or decrease. If a dividend boost or cut is possible but not probable, two figures are shown, the first is the more likely.
(g) Dividends subject to foreign withholding tax for U.S. residents.
(h) Est'd Earnings & Est'd Dividends after conversion to U.S. dollars at Value Line estimated translation rate.
(j) All Index data expressed in hundreds.
(p) 6 months (q) Asset Value
N=Negative figure NA=Not available NMF=No meaningful figure

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		NAME OF STOCK		Ticker Symbol	Recent Price	RANKS Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
646	1997	Universal Corp.		UVV	65.05	3	3	3	.90	60- 90 (N- 40%)	14.7	4.6	4.44	3.00	70	3/31	1.44	1.26	9/30	▲.75	.54	YES
	1314	Universal Display	(NDQ)	OLED	95.95	4	3	4	1.25	115- 175 (20- 80%)	51.9	0.3	1.85	.28	51	3/31	.13	.22	6/30	.06	.03	YES
233	2017	Universal Electronics	(NDQ)	UEIC	33.75	5	3	5	1.05	55- 85 (65-150%)	33.8	NIL	1.00	NIL	91	3/31	d.04	.01	6/30	NIL	NIL	YES
★★	1122	Universal Forest	(NDQ)	UFPI	38.55	2	3	3	1.30	45- 65 (15- 70%)	16.4	0.9	2.35	.36	30	3/31	.53	.34	6/30	▲.18	.15	YES
	822	Universal Health 'B'		UHS	114.97	1	3	3	.90	160- 240 (40-110%)	12.0	0.3	9.60	.40	9	3/31	2.36	2.12	6/30	.10	.10	YES
	1564	Unum Group		UNM	38.17	1	3	4	1.15	55- 80 (45-110%)	7.4	2.7	5.15	1.04	13	3/31	1.24	1.02	6/30	.23	.20	YES
	2216	Urban Outfitters	(NDQ)	URBN	45.92	3	3	2	.95	▲ 45- 65 (N- 40%)	18.4	NIL	▲2.50	NIL	61	4/30	.38	.10	6/30	NIL	NIL	YES
	2116	**V.F. Corp.**		VFC	88.51	3	2	3	1.05	▲ 80- 110 (N- 25%)	23.2	2.1	3.81	1.84	65	3/31	.65	.51	6/30	.46	.42	YES
	2371	Vail Resorts		MTN	290.38	2	3	3	.85	230- 345 (N- 20%)	36.8	2.0	7.89	5.88	31	4/30	6.17	4.40	9/30	1.47	1.053	YES
	1595	Vale S.A. ADR		VALE	13.25	4	4	3	1.60	15- 25 (15- 90%)	10.6	2.0	1.25	.27	35	3/31	.32	.50	6/30	NIL	.283	YES
		Valeant Pharm. Int'l								NAME CHANGED TO BAUSCH HEALTH												
	524	Valero Energy		VLO	106.09	3	3	1	1.15	95- 145 (N- 35%)	15.2	3.1	7.00	3.25	29	3/31	1.00	.68	6/30	.80	.70	YES
★★	2029	Validus Holdings		VR						SEE FINAL SUPPLEMENT												
	1780	Valmont Inds.		VMI	140.95	4	3	4	1.00	180- 270 (30- 90%)	18.2	1.1	7.75	1.50	32	3/31	1.72	1.72	9/30	.375	.375	YES
	1003	Valvoline Inc.		VVV	21.94	–	3	–	NMF	25- 40 (15- 80%)	15.7	1.5	1.40	.34	8	3/31	.34	.37	6/30	.075	.049	YES
	193	Varian Medical Sys.		VAR	116.03	3	1	3	.90	120- 145 (5- 25%)	27.6	NIL	4.21	NIL	75	3/31	.86	.74	6/30	NIL	NIL	YES
2464	915	Vectren Corp.		VVC	71.29	–	2	–	.70	50- 65 (N- N%)	25.0	2.6	2.85	1.87	52	3/31	.76	.67	6/30	.45	.42	YES
	134	Veeco Instruments	(NDQ)	VECO	15.65	2	4	3	1.15	25- 45 (60-190%)	NMF	NIL	d1.10	NIL	62	3/31	.20	.03	6/30	NIL	NIL	YES
	831	Veeva Systems		VEEV	82.75	3	3	3	1.30	85- 125 (5- 50%)	60.0	NIL	1.38	NIL	49	4/30	.33	.22	6/30	NIL	NIL	YES
	1547	Ventas, Inc.		VTR	57.92	5	3	4	.75	60- 90 (5- 55%)	44.6	5.6	1.30	3.22	96	3/31	.22	.44	9/30	.79	.775	YES
	2217	Vera Bradley Inc.	(NDQ)	VRA	13.64	4	3	1	1.10	13- 19 (N- 40%)	27.3	NIL	▲.50	NIL	61	4/30	d.04	d.11	6/30	NIL	NIL	YES
	961	Verifone Systems		PAY	22.89	–	3	–	1.55	30- 40 (30- 75%)	14.8	NIL	1.55	NIL	85	4/30	.25	.30	6/30	NIL	NIL	YES
	2652	VeriSign Inc.	(NDQ)	VRSN	149.79	3	3	4	.90	125- 185 (N- 25%)	35.7	NIL	4.20	NIL	79	3/31	1.09	.94	6/30	NIL	NIL	YES
	450	Verisk Analytics	(NDQ)	VRSK	112.49	3	2	3	.90	110- 150 (N- 35%)	31.2	NIL	3.60	NIL	36	3/31	.79	.64	6/30	NIL	NIL	YES
1247	935	Verizon Communic.		VZ	51.43	2	1	4	.80	80- 95 (55- 85%)	11.2	4.6	4.60	2.36	60	3/31	1.17	.95	9/30	.59	.578	YES
	1391	Versum Materials		VSM	37.90	–	3	–	NMF	50- 75 (30-100%)	16.1	0.6	2.35	.24	3	3/31	.59	.44	6/30	▲.06	.05	YES
1850	850	Vertex Pharmac.	(NDQ)	VRTX	182.59	3	3	4	1.35	215- 320 (20- 75%)	76.1	NIL	2.40	NIL	90	3/31	.81	.99	6/30	NIL	NIL	YES
	2346	Viacom Inc. 'B'	(NDQ)	VIAB	28.58	–	3	–	1.20	65- 100 (125-250%)	6.7	2.8	4.27	.80	22	3/31	.92	.79	9/30	.20	.20	YES
	1781	Viad Corp.		VVI	56.50	4	3	3	.85	55- 80 (N- 40%)	20.9	0.7	2.70	.40	32	3/31	d.49	.33	9/30	.10	.10	YES
	609	ViaSat, Inc.	(NDQ)	VSAT	68.25	5	3	4	1.10	60- 90 (N- 30%)	NMF	NIL	d.79	NIL	86	3/31	d.34	.11	6/30	NIL	NIL	YES
	1344	Viavi Solutions	(NDQ)	VIAV	10.48	–	3	–	1.05	12- 18 (15- 70%)	20.5	NIL	.51	NIL	63	3/31	.13	.09	6/30	NIL	NIL	YES
	1962	Village Super Market	(NDQ)	VLGEA	29.99	3	3	3	.75	35- 55 (15- 85%)	16.1	3.3	1.86	1.00	39	4/30	.45	.42	9/30	.25	.25	
2463	2581	Visa Inc.		V	139.64	3	1	3	1.00	155- 185 (10- 30%)	30.4	0.6	4.60	.90	20	3/31	1.11	.86	9/30	◆.21	.165	YES
1041	1345	Vishay Intertechnology		VSH	26.15	1	3	3	1.40	25- 40 (N- 55%)	14.9	1.3	1.75	.34	63	3/31	.40	.28	6/30	▲.085	.063	YES
	1004	Visteon Corp.		VC	131.71	–	3	–	NMF	135- 205 (N- 55%)	21.2	NIL	6.20	NIL	8	3/31	2.05	1.67	6/30	NIL	NIL	YES
	1231	Vistra Energy		VST	23.59	–	3	–	NMF	30- 50 (25-110%)	NMF	NIL	d.25	NIL	71	3/31	d.71	.18	6/30	NIL	NIL	YES
1843	2609	VMware, Inc.		VMW	155.11	3	3	2	1.05	135- 200 (N- 30%)	25.9	NIL	6.00	NIL	54	4/30	1.26	1.00	6/30	NIL	NIL	YES
	962	Vocera Communications		VCRA	32.10	3	4	4	1.00	30- 50 (N- 55%)	NMF	NIL	d.20	NIL	85	3/31	d.16	d.24	6/30	NIL	NIL	YES
	936	Vodafone Group ADR(g)	(NDQ)	VOD	23.88	1	3	3	1.10	35- 55 (45-130%)	15.4	7.6	1.55	1.82	60	3/31	.68(p)	.52(p)	6/30	NIL	NIL	YES
	937	Vonage Holdings		VG	13.45	3	4	4	.85	8- 14 (N- 5%)	32.0	NIL	.42	NIL	60	3/31	.12	.06	6/30	NIL	NIL	YES
	1548	Vornado R'lty Trust		VNO	72.31	4	3	4	.95	80- 115 (10- 60%)	57.8	3.5	1.25	2.52	96	3/31	d.09	.24	6/30	.63	.71	YES
	2582	Voya Financial		VOYA	48.21	4	3	2	1.25	60- 90 (25- 85%)	14.6	0.1	3.30	.04	20	3/31	.77	d.75	6/30	.01	.01	YES
	1123	Vulcan Materials		VMC	123.65	3	3	1	1.20	135- 190 (10- 55%)	31.7	0.9	3.90	1.12	30	3/31	.40	.32	9/30	◆.28	.25	YES
	1005	**WABCO Hldgs.**		WBC	120.12	▼3	3	4	1.25	125- 190 (5- 60%)	16.7	NIL	7.20	NIL	8	3/31	1.87	1.48	6/30	NIL	NIL	YES
	1203	WD-40 Co.	(NDQ)	WDFC	158.85	3	2	3	.85	90- 120 (N- N%)	38.0	1.4	4.18	2.16	88	5/31	1.15	.93	9/30	.54	.49	YES
	916	WEC Energy Group		WEC	64.92	3	1	5	.60	60- 70 (N- 10%)	19.7	3.5	3.30	2.28	52	3/31	1.23	1.12	6/30	.553	.52	YES
2030	559	WGL Holdings Inc.		WGL						SEE FINAL SUPPLEMENT												
1422	1549	W.P. Carey Inc.		WPC	65.55	3	3	3	.85	85- 130 (30-100%)	26.8	6.2	2.45	4.08	96	3/31	.60	.53	9/30	▲1.02	1.00	YES
	2397	WPP PLC ADR		WPP	77.19	3	2	3	1.10	140- 190 (80-145%)	9.6	4.1	8.00	3.15	34	12/31	6.18(p)	5.50(p)	6/30	NIL	NIL	YES
	547	WPX Energy		WPX	18.68	3	4	3	2.05	17- 30 (N- 60%)	NMF	NIL	NIL	NIL	24	3/31	d.07	.22	6/30	NIL	NIL	YES
	168	Wabash National		WNC	18.97	3	3	3	1.40	30- 50 (60-165%)	9.3	1.6	2.05	.30	28	3/31	.28	.31	9/30	.075	.06	YES
646	1734	Wabtec Corp.		WAB	102.39	–	3	–	1.20	95- 145 (N- 40%)	25.9	0.5	3.95	.48	21	3/31	.92	.77	9/30	.12	.12	YES
1649	970	Walgreens Boots	(NDQ)	WBA	65.63	▼3	2	5	.95	90- 125 (35- 90%)	10.7	2.7	6.12	1.76	26	5/31	1.53	1.33	9/30	.40	.375	YES
455	2152	Walmart Inc.		WMT	88.19	3	1	3	.75	115- 140 (30- 60%)	18.2	2.4	4.85	2.08	48	4/30	1.14	1.00	9/30	.52	.51	YES
	1509	Washington Federal	(NDQ)	WAFD	32.90	2	3	3	1.00	35- 55 (5- 65%)	13.9	2.1	2.37	.68	80	6/30	◆.61	.49	6/30	.17	.15	YES
	1550	Washington R.E.I.T.		WRE	29.93	5	2	4	.85	30- 45 (N- 50%)	66.5	4.0	.45	1.20	96	3/31	.04	.09	6/30	.30	.30	YES
	417	Waste Connections		WCN	77.25	3	2	3	.90	75- 100 (N- 30%)	35.1	0.7	2.20	.56	27	3/31	.47	.06	6/30	.14	.12	YES
	418	Waste Management		WM	83.70	2	1	3	.80	90- 110 (10- 30%)	20.9	2.2	4.00	1.86	27	3/31	.91	.66	6/30	.465	.425	YES
	135	Waters Corp.		WAT	196.01	3	2	3	.95	215- 290 (10- 50%)	23.9	NIL	8.20	NIL	62	3/31	1.59	1.46	6/30	NIL	NIL	YES
	1147	Watsco, Inc.		WSO	182.29	3	2	2	1.05	180- 240 (N- 30%)	26.8	3.2	6.80	5.80	37	3/31	.89	.71	9/30	1.45	1.25	YES
	1735	Watts Water Techn.		WTS	82.15	2	3	3	1.20	80- 120 (N- 45%)	22.2	1.1	3.70	.87	21	3/31	.82	.65	6/30	▲.21	.19	YES
	2653	Wayfair Inc.		W	124.65	5	4	3	1.15	95- 155 (N- 25%)	NMF	NIL	d1.55	NIL	79	3/31	d1.22	d.66	6/30	NIL	NIL	YES
	2441	Weatherford Int'l plc		WFT	3.40	4	5	3	1.95	7- 13 (105-280%)	NMF	NIL	d.80	NIL	92	3/31	d.25	d.45	6/30	NIL	NIL	YES
	2532	Webster Fin'l		WBS	65.05	2	3	2	1.15	60- 90 (N- 40%)	19.0	2.0	3.42	1.32	19	3/31	.85	.62	6/30	▲.33	.26	YES
	2194	Weight Watchers		WTW	92.07	3	4	2	1.25	▲ 70- 115 (N- 25%)	30.7	NIL	▲3.00	NIL	44	3/31	.56	.16	6/30	NIL	NIL	YES
	1551	Weingarten Realty		WRI	30.18	3	3	3	.95	30- 50 (N- 65%)	16.3	5.3	1.85	1.60	96	3/31	1.13	.24	6/30	.395	.385	YES
	1963	Weis Markets		WMK	52.58	3	3	2	.90	50- 75 (N- 45%)	21.5	2.3	2.45	1.20	39	3/31	.60	.44	6/30	.30	.30	
	1736	Welbilt, Inc.		WBT	22.67	–	3	–	1.20	25- 40 (10- 75%)	25.2	NIL	.90	NIL	21	3/31	.15	.08	6/30	NIL	NIL	YES
	823	WellCare Health Plans		WCG	254.03	2	3	3	1.15	255- 380 (N- 50%)	24.8	NIL	10.25	NIL	9	3/31	2.25	1.50	6/30	NIL	NIL	YES
	2533	Wells Fargo		WFC	56.56	▼4	2	4	1.10	70- 95 (25- 70%)	12.3	2.8	4.60	1.61	19	6/30	◆.98	1.08	6/30	.39	.38	YES
	1552	Welltower Inc.		WELL	62.14	5	3	4	.70	65- 100 (5- 60%)	24.4	5.7	2.55	3.52	96	3/31	1.18	.86	9/30	.87	.87	YES
	375	Wendy's Company	(NDQ)	WEN	17.43	3	3	3	.95	25- 40 (45-130%)	29.1	2.0	.60	.34	67	3/31	.11	.09	6/30	.085	.07	YES
	328	Werner Enterprises	(NDQ)	WERN	36.60	2	3	2	1.00	45- 70 (25- 90%)	18.8	1.0	1.95	.36	18	3/31	.38	.22	9/30	▲.09	.07	YES
	729	Wesco Aircraft		WAIR	11.80	5	3	2	.90	16- 25 (35-110%)	13.6	NIL	.87	NIL	59	3/31	.15	.18	6/30	NIL	NIL	YES
	1315	WESCO Int'l		WCC	58.65	3	3	3	1.35	75- 115 (30- 95%)	12.3	NIL	4.75	NIL	51	3/31	.93	.76	6/30	NIL	NIL	YES
	1172	West Fraser Timber	(TSE)	WFT.TO	94.71b	1	3	2	1.20	100- 150 (5- 60%)	11.8	0.6	8.00	.60	10	3/31	2.53(b)	1.58(b)	9/30	.15(b)	.07(b)	YES
	226	West Pharmac. Svcs.		WST	98.87	4	2	3	.90	100- 135 (N- 35%)	35.3	0.6	2.80	.61	78	3/31	.58	.80	12/31	▲.15	.14	YES
	917	Westar Energy		WR						SEE FINAL REPORT												
	1407	Western Digital	(NDQ)	WDC	78.99	1	3	2	1.30	95- 145 (20- 85%)	5.5	2.5	14.24	2.00	43	3/31	3.63	2.39	9/30	.50	.50	YES
	641	Western Gas Part.		WES	48.65	3	3	3	1.40	60- 85 (25- 75%)	26.3	8.0	1.85	3.89	50	3/31	.38	.33	6/30	▲.935	.875	YES
	2583	Western Union		WU	20.40	3	3	2	1.05	25- 35 (25- 70%)	11.3	3.7	1.80	.76	20	3/31	.46	.33	6/30	.19	.175	YES
	317	WestJet Airlines Ltd.	(TSE)	WJA.TO	18.13b	3	3	3	.80	30- 45 (65-150%)	9.1	3.1	2.00	.56	25	3/31	.32(b)	.41(b)	6/30	.14(b)	.14(b)	YES

★★ Supplementary Report in this week's issue.
▲ Arrow indicates the direction of a change. When it appears with the Latest Dividend, the arrow signals that a change in the regular payment rate has occurred in the latest quarter.

For Timeliness, 3-5 year Target Price Range, or Estimated Earnings 12 months to 12-31-18, the arrow indicates a change since the preceding week. When a diamond ◆ (indicating a new figure) appears alongside the latest quarterly earnings results, the rank change probably was primarily caused by the earnings report. In other cases, the change is due to the dynamics of the ranking system and could simply be the result of the improvement or weakening of other stocks.

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Bold type refers to Ratings and Reports

Recent Price		NAME OF STOCK	Ticker Symbol	RANKS: Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earns. 12 mos. to 12-31-18	(f) Est'd Div'd next 12 mos.	Industry Rank	LATEST RESULTS: Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Do Options Trade?
594		Westlake Chemical	WLK	107.72	1	3	2	1.40	135- 200 (25- 85%)	13.3	0.8	8.10	.84	15	3/31	2.20	1.06	6/30	.21	.191	YES
1964		Weston (George) (TSE)	WN.TO	111.11b	3	2	5	.65	115- 155 (5- 40%)	15.3	1.8	7.25	1.96	39	3/31	1.38(b)	1.42(b)	9/30	▲.49(b)	.455(b)	YES
1188		WestRock Co.	WRK	57.29	3	3	2	1.45	60- 95 (5- 65%)	13.5	3.0	4.23	1.72	16	3/31	.83	.54	6/30	.43	.40	YES
2584		WEX Inc.	WEX	196.10	2	3	3	1.35	155- 230 (N- 15%)	34.4	NIL	5.70	NIL	20	3/31	1.81	1.23	6/30	NIL	NIL	YES
1173		Weyerhaeuser Co.	WY	36.22	3	3	2	1.15	45- 70 (25- 95%)	24.1	3.5	1.50	1.28	10	3/31	.35	.21	6/30	.32	.31	YES
1578		Wheaton Precious Met.	WPM	21.89	3	3	2	1.00	25- 35 (15- 60%)	36.5	1.6	.60	.36	66	3/31	.15	.14	6/30	.09	.14	YES
1782		Whirlpool Corp.	WHR	150.76	3	3	4	1.30	200- 300 (35-100%)	9.9	3.1	15.20	4.60	32	3/31	2.81	2.50	6/30	▲1.15	1.10	YES
2417		Whiting Petroleum	WLL	49.45	2	5	2	2.40	80- 145 (60-195%)	49.5	NIL	1.00	NIL	11	3/31	.16	d.96	6/30	NIL	NIL	YES
2380		Wiley (John) & Sons	JWA	68.25	3	3	2	1.10	70- 105 (5- 55%)	21.9	1.9	3.11	1.32	69	4/30	.94	.82	9/30	▲.33	.32	YES
456 619		Williams Cos.	WMB	26.97	3	3	4	1.90	30- 50 (10- 85%)	27.0	5.0	1.00	1.36	57	3/31	.19	.14	6/30	.34	.30	YES
456 642		Williams Partners L.P.	WPZ	40.57	–	4	–	1.55	50- 85 (25-110%)	21.9	6.3	1.85	2.56	50	3/31	.37	.65	6/30	▲.614	.60	YES
647 2195		Williams-Sonoma	WSM	61.93	2	2	2	.95	65- 90 (5- 45%)	14.9	2.8	4.15	1.72	44	4/30	.54	.45	9/30	.43	.39	YES
2585		Willis Towers Watson plc (NDQ)	WLTW	157.27	–	2	–	NMF	180- 240 (15- 55%)	26.2	1.5	6.00	2.40	20	3/31	1.61	2.50	9/30	.60	.53	YES
376		Wingstop Inc. (NDQ)	WING	51.44	3	3	2	1.20	50- 75 (N- 45%)	64.3	0.5	.80	.28	67	3/31	.25	.22	6/30	.07	NIL	YES
1421 2325		Winnebago	WGO	41.90	1	3	3	1.30	55- 80 (30- 90%)	12.8	1.0	3.28	.40	45	5/31	1.02	.61	9/30	.10	.10	YES
795		Wintrust Financial (NDQ)	WTFC	88.38	2	3	1	1.10	90- 135 (N- 55%)	15.1	0.9	5.85	.76	14	6/30	◆1.53	1.11	6/30	.19	.14	YES
2161		Wolverine World Wide	WWW	35.27	3	3	2	1.15	35- 55 (N- 55%)	16.8	0.9	2.10	.32	58	3/31	.50	.37	9/30	.08	.06	YES
136		Woodward, Inc. (NDQ)	WWD	80.31	3	3	3	1.15	80- 120 (N- 50%)	22.8	0.7	3.53	.57	62	3/31	.60	.60	6/30	.143	.125	YES
1835		Workday, Inc.	WDAY	133.20	3	3	3	1.25	150- 225 (15- 70%)	NMF	NIL	d1.50	NIL	64	4/30	d.35	d.31	6/30	NIL	NIL	YES
620		World Fuel Services	INT	20.83	4	3	4	1.10	40- 65 (90-210%)	10.4	1.2	2.00	.24	57	3/31	.46	.45	9/30	.06	.06	YES
2586		Worldpay, Inc.	WP	86.92	2	3	3	1.00	90- 135 (5- 55%)	47.0	NIL	1.85	NIL	20	3/31	d.36	.17	6/30	NIL	NIL	YES
455 2347		World Wrestling Ent.	WWE	80.53	3	4	4	1.10	35- 55 (N- N%)	NMF	0.6	.80	.48	22	3/31	.18	.01	6/30	.12	.12	YES
756		Worthington Inds.	WOR	45.49	3	3	3	1.25	60- 90 (30-100%)	13.7	1.8	3.33	.84	6	5/31	.95	.87	6/30	.21	.20	YES
2372		Wyndham Destinations	WYND	46.22	–	3	–	1.10	60- 85 (30- 85%)	12.8	3.5	3.60	1.64	31	3/31	.57	1.22	6/30	.41	.58	YES
		Wyndham Worldwide		NAME CHANGED TO WYNDHAM DESTINATIONS																
2373		Wynn Resorts (NDQ)	WYNN	164.96	3	3	1	1.50	210- 315 (25- 90%)	19.4	1.8	8.50	3.00	31	3/31	2.30	.99	6/30	▲.75	.50	YES
777		**XL Group Ltd.**	XL	56.49	–	3	–	.80	40- 60 (N- 5%)	16.1	1.6	3.50	.88	56	3/31	.82	.50	9/30	.22	.22	YES
2654		XO Group	XOXO	34.29	3	3	3	.85	25- 35 (N- N%)	68.6	NIL	.50	NIL	79	3/31	.14	.01	6/30	NIL	NIL	YES
329		XPO Logistics	XPO	99.97	2	4	1	1.65	135- 225 (35-125%)	30.8	NIL	3.25	NIL	18	3/31	.50	.16	6/30	NIL	NIL	YES
2232		Xcel Energy Inc. (NDQ)	XEL	45.86	2	1	5	.60	45- 50 (N- 10%)	18.7	3.4	2.45	1.56	84	3/31	.57	.47	9/30	.38	.36	YES
137		Xcerra Corp. (NDQ)	XCRA	14.26	–	4	–	1.15	20- 35 (40-145%)	13.3	NIL	1.07	NIL	62	4/30	.21	.14	6/30	NIL	NIL	YES
454 1416		Xerox Corp.	XRX	25.00	–	3	–	NMF	40- 60 (60-140%)	11.6	4.0	2.15	1.00	68	3/31	.08	.08	9/30	.25	.25	YES
1376		Xilinx Inc. (NDQ)	XLNX	68.25	3	3	2	1.05	65- 100 (N- 45%)	24.5	2.1	2.79	1.44	17	3/31	.64	.57	6/30	▲.36	.35	YES
1377		Xperi Corp. (NDQ)	XPER	16.30	3	3	3	1.00	30- 45 (85-175%)	8.6	4.9	1.90	.80	17	3/31	d.05	d.06	6/30	.20	.20	YES
1737		Xylem Inc.	XYL	67.80	2	3	3	1.05	70- 100 (5- 45%)	23.0	1.2	2.95	.84	21	3/31	.51	.39	6/30	.21	.18	YES
1579		**Yamana Gold**	AUY	2.87	3	5	3	1.10	4- 8 (40-180%)	28.7	0.7	.10	.02	66	3/31	.01	d.01	9/30	.005	.005	YES
2655		Yelp, Inc.	YELP	40.75	3	4	3	1.50	40- 60 (N- 45%)	NMF	NIL	.35	NIL	79	3/31	d.03	d.06	6/30	NIL	NIL	YES
1792		York Water Co. (The) (NDQ)	YORW	32.10	5	3	4	.80	30- 45 (N- 40%)	30.6	2.1	1.05	.67	94	3/31	.20	.20	6/30	.167	.16	YES
377		Yum! Brands	YUM	78.72	–	3	–	NMF	90- 140 (15- 80%)	22.8	1.9	3.45	1.53	67	3/31	.90	.65	6/30	.36	.30	YES
378		Yum China Holdings	YUMC	36.65	–	3	–	NMF	45- 65 (25- 75%)	23.6	1.1	1.55	.40	67	3/31	.53	.44	6/30	.10	NIL	YES
963		**Zayo Group Holdings**	ZAYO	38.48	3	3	3	.95	30- 50 (N- 30%)	98.7	NIL	.39	NIL	85	3/31	.09	.11	6/30	NIL	NIL	YES
610		Zebra Techn. 'A' (NDQ)	ZBRA	148.22	1	3	2	1.30	150- 225 (N- 50%)	14.5	NIL	10.25	NIL	86	3/31	2.56	1.37	6/30	NIL	NIL	YES
1836		Zendesk Inc.	ZEN	60.30	3	4	3	1.10	40- 65 (N- 10%)	NMF	NIL	.05	NIL	64	3/31	d.28	d.28	6/30	NIL	NIL	YES
2656		Zillow Group 'C' (NDQ)	Z	63.53	5	4	3	1.15	35- 55 (N- N%)	NMF	NIL	.05	NIL	79	3/31	d.10	d.03	6/30	NIL	NIL	YES
194		Zimmer Biomet Hldgs.	ZBH	113.76	3	2	4	.95	130- 175 (15- 55%)	14.6	0.9	7.80	1.00	75	3/31	1.91	2.13	9/30	.24	.24	YES
2534		Zions Bancorp. (NDQ)	ZION	53.06	2	3	2	1.20	55- 80 (5- 50%)	13.8	1.8	3.85	.96	19	3/31	1.09	.61	6/30	▲.24	.08	YES
1633		Zoetis Inc.	ZTS	85.77	2	3	1	.95	85- 125 (N- 45%)	28.1	0.6	3.05	.50	73	3/31	.75	.53	9/30	.126	.105	YES
2218		Zumiez Inc. (NDQ)	ZUMZ	20.90	3	3	1	1.00	30- 50 (45-140%)	13.1	NIL	1.60	NIL	61	4/30	d.10	d.18	6/30	NIL	NIL	YES
2018		Zynga Inc. (NDQ)	ZNGA	4.31	3	4	3	1.15	6- 9 (40-110%)	71.8	NIL	.06	NIL	91	3/31	.01	d.01	6/30	NIL	NIL	YES

(•) All data adjusted for announced stock split or stock dividend. See back page of Ratings & Reports.
◆ New figure this week.
(b) Canadian Dollars.
(d) Deficit.
(f) The estimate may reflect a probable increase or decrease. If a dividend boost or cut is possible but not probable, two figures are shown, the first is the more likely.
(g) Dividends subject to foreign withholding tax for U.S. residents.
(h) Est'd Earnings & Est'd Dividends after conversion to U.S. dollars at Value Line estimated translation rate.
(j) All Index data expressed in hundreds.
(p) 6 months (q) Asset Value
N=Negative figure NA=Not available NMF=No meaningful figure

INDUSTRIES, IN ORDER OF TIMELINESS RANK*

Arrow (▲▼) before name indicates that a **significant change in Rank** has occurred since the preceding week.

1	Homebuilding	**26▼**	Pharmacy Services	**51**	Electrical Equipment	**76**	Chemical (Basic)
2	Funeral Services	**27**	Environmental	**52**	Electric Util. (Central)	**77**	Furn/Home Furnishings
3	Semiconductor Equip	**28**	Heavy Truck & Equip	**53**	Electric Utility (East)	**78**	Med Supp Non-Invasive
4	Chemical (Diversified)	**29**	Petroleum (Integrated)	**54**	Computer Software	**79**	Internet
5	Investment Banking	**30**	Building Materials	**55▲**	Industrial Services	**80**	Thrift
6	Steel	**31**	Hotel/Gaming	**56**	Insurance (Prop/Cas.)	**81**	Food Processing
7	Retail Automotive	**32**	Diversified Co.	**57**	Oil/Gas Distribution	**82**	Engineering & Const
8	Auto Parts	**33**	Foreign Electronics	**58**	Shoe	**83**	Maritime
9	Medical Services	**34**	Advertising	**59**	Aerospace/Defense	**84**	Electric Utility (West)
10	Paper/Forest Products	**35**	Metals & Mining (Div.)	**60**	Telecom. Services	**85**	Telecom. Equipment
11	Petroleum (Producing)	**36**	Information Services	**61**	Retail (Softlines)	**86**	Wireless Networking
12	Human Resources	**37**	Retail Building Supply	**62**	Precision Instrument	**87**	Educational Services
13	Insurance (Life)	**38**	Cable TV	**63▼**	Electronics	**88**	Household Products
14	Bank (Midwest)	**39**	Retail/Wholesale Food	**64**	E-Commerce	**89**	Telecom. Utility
15	Chemical (Specialty)	**40**	Metal Fabricating	**65**	Apparel	**90**	Biotechnology
16	Packaging & Container	**41**	Natural Gas Utility	**66**	Precious Metals	**91**	Entertainment Tech
17	Semiconductor	**42**	Railroad	**67**	Restaurant	**92**	Oilfield Svcs/Equip.
18	Trucking	**43**	Computers/Peripherals	**68**	Office Equip/Supplies	**93**	Newspaper
19	Bank	**44**	Retail (Hardlines)	**69**	Publishing	**94**	Water Utility
20	Financial Svcs. (Div.)	**45**	Recreation	**70**	Tobacco	**95**	Reinsurance
21	Machinery	**46**	Automotive	**71**	Power	**96**	R.E.I.T.
22	Entertainment	**47**	IT Services	**72**	Toiletries/Cosmetics	**97**	Public/Private Equity
23	Brokers & Exchanges	**48**	Retail Store	**73**	Drug		
24	Natural Gas (Div.)	**49**	Healthcare Information	**74**	Beverage		
25	Air Transport	**50**	Pipeline MLPs	**75**	Med Supp Invasive		

***Based on the Timeliness™ ranks of the stocks in the industry**

Noteworthy Rank Changes

Listed below are some of the stocks whose Timeliness ranks have changed this week. We include mostly rank changes caused by fundamentals such as new earnings reports. Even when a significant change in earnings momentum has been forecast, the stock's rank will not be affected until the actual results, confirming that forecast, are reported. In most cases, we omit stocks that have been bumped up or down in rank by the dynamism of the ranking system.

STOCKS MOVING UP IN TIMELINESS RANK

Stock Name	Old Rank	New Rank	Reason for Change	Earnings Est. 12 months to 12-31-18
Badger Meter	4	3	Earnings turnaround, as forecast. June quarter 42¢ vs. year ago 36¢. Our estimate was 43¢.	$1.45
Blackstone Group LP	4	3	Surprise factor, greater than average gain. June quarter 90¢ vs. year ago 59¢. Our estimate was 70¢.	Under Review
Goldman Sachs (B)	2	1	Higher than expected earnings. June period $5.98 vs. year ago $3.95. Our estimate was $5.00.	Under Review
Heartland Express	4	3	Surprise factor, earnings turnaround. June quarter 22¢ vs. year ago 18¢. Our estimate was 18¢.	.70
Insteel Industries (B)	4	3	Surprise factor, earnings turnaround. June quarter 67¢ vs. year ago 36¢. Our estimate was 37¢.	Under Review
Int'l Business Mach. (B)	4	3	Surprise factor, earnings turnaround. June quarter $2.61 vs. year ago $2.48. Our estimate was $2.35.	Under Review
Philip Morris Int'l	4	3	Earnings turnaround. June quarter $1.41 vs. year ago $1.14. Our estimate was $1.30.	Under Review
Signature Bank	5	4	Greater than average gain, as forecast. June quarter $2.83 vs. year ago 26¢. Our estimate was $2.81.	9.13
Textron, Inc.	3	2	Higher than expected earnings. June period 87¢ vs. year ago 57¢. Our estimate was 70¢.	Under Review

STOCKS MOVING DOWN IN TIMELINESS RANK

Stock Name	Old Rank	New Rank	Reason for Change	Earnings Est. 12 months to 12-31-18
Cabot Corp.	1	2	Dynamism of the ranking system.	
Diamondback Energy	1	2	Dynamism of the ranking system.	
Infosys Ltd. ADR	3	4	Surprise factor, decreasing profit growth. June quarter 25¢ vs. year ago 24¢. Our estimate was 28¢.	$1.16
Methode Electronics	1	2	Dynamism of the ranking system.	
Resources Connection	4	5	Lower than expected earnings. May period 12¢ vs. year ago 15¢. Our estimate was 24¢.	Under Review
Rogers Communications	1	2	Decreasing profit growth, as forecast. June quarter $1.04 vs. year ago $1.03. Our estimate was $1.03.	3.65
SAP SE	3	4	Surprise factor, flat year-to year comparison. June quarter 70¢ vs. year ago 70¢. Our estimate was 95¢.	Under Review

STOCKS MOVING DOWN IN TIMELINESS RANK

Stock Name	Old Rank	New Rank	Reason for Change	Earnings Est. 12 months to 12-31-18
Schnitzer Steel	1	2	Dynamism of the ranking system.	
Sonic Automotive	3	4	Surprise factor, earnings reversal. Management forecasts 32-36¢ for the Jun. quarter vs. year ago 40¢. Our estimate was 50¢.	(A)
Travelers Cos. (B)	3	4	Surprise factor, earnings reversal. June quarter $1.81 vs. year ago $1.92. Our estimate was $2.75.	Under Review
Wells Fargo	3	4	Surprise factor, earnings reversal. June quarter 98¢ vs. year ago $1.08. Our estimate was $1.15.	Under Review

(A) New full-page report in this week's Ratings & Reports.
(B) Supplementary report in this week's Ratings & Reports.

TIMELY STOCKS IN TIMELY INDUSTRIES

Page No.	Industry (Industry Rank)	Recent Price	RANKS Timeliness	Technical	Safety	Beta	Current P/E Ratio	% Est'd Yield	Est'd 3-5 Year Price Apprec.
	Homebuilding (INDUSTRY RANK 1)								
1125	Beazer Homes USA	15.64	2	5	4	1.75	9.8	NIL	20-125%
1126	Horton D.R.	43.22	1	3	3	1.30	11.0	1.3	5- 60%
1128	KB Home	27.48	1	3	3	1.55	9.8	0.4	25- 80%
1129	Lennar Corp.	55.55	1	3	3	1.30	11.3	0.3	15- 70%
1130	M.D.C. Holdings	32.56	2	3	3	1.30	9.9	3.7	40-100%
1131	Meritage Homes	46.95	2	3	3	1.40	9.4	NIL	40-115%
1132	NVR, Inc.	3168.20	2	2	3	0.85	16.7	NIL	N- 25%
1133	PulteGroup, Inc.	30.92	1	3	3	1.30	9.5	1.2	15- 80%
1135	TRI Pointe Group	17.40	2	3	3	1.35	9.2	NIL	70-160%
1136	Taylor Morrison Home	21.97	2	3	4	1.45	8.6	NIL	35-130%
	Funeral Services (INDUSTRY RANK 2)								
1838	Carriage Services	24.95	2	3	3	0.90	17.2	1.2	40-100%
1839	Hillenbrand, Inc.	49.35	2	3	3	1.15	44.5	1.7	N- 50%
1841	Service Corp. Int'l	37.71	1	3	3	1.00	21.0	1.8	20- 70%
	Semiconductor Equip (INDUSTRY RANK 3)								
1380	Applied Materials	47.30	1	3	2	1.20	10.0	1.7	50-120%
1381	Electro Scientific	17.85	1	3	3	1.05	6.2	NIL	125-265%
1382	Entegris, Inc.	36.50	2	3	2	1.20	19.7	0.8	10- 65%
1383	IPG Photonics	239.48	2	3	2	1.15	28.2	NIL	N- 40%
1384	Kulicke & Soffa	28.09	1	3	4	1.05	13.3	1.7	5- 80%
1385	Lam Research	177.24	1	3	2	1.20	9.7	2.5	40-110%
1387	MKS Instruments	100.90	1	3	3	1.05	12.7	0.8	40-110%
1388	Photronics Inc.	8.60	2	3	4	0.70	15.4	NIL	50-120%
	Chemical (Diversified) (INDUSTRY RANK 4)								
2444	Albemarle Corp.	96.97	2	3	4	1.30	18.6	1.4	25- 85%
2445	Cabot Corp.	65.73	2	3	3	1.30	16.0	2.0	N- 35%
2446	Celanese Corp.	110.14	1	3	3	1.30	12.2	2.0	N- 25%
2447	Eastman Chemical	100.66	1	3	1	1.20	11.9	2.2	5- 55%
2449	Huntsman Corp.	30.59	1	4	2	1.80	10.5	2.1	15- 80%
2453	Univar Inc.	27.17	1	3	4	1.20	16.5	NIL	85-175%
	Investment Banking (INDUSTRY RANK 5)								
1807	Goldman Sachs	231.02	1	1	2	1.20	9.6	1.4	30- 60%
1810	Morgan Stanley	49.18	1	3	2	1.35	10.0	2.0	55-135%
1812	Raymond James Fin'l	95.03	2	3	2	1.25	13.6	1.3	15- 70%
1813	Stifel Financial Corp.	53.12	2	3	1	1.35	10.5	0.9	50-125%
	Steel (INDUSTRY RANK 6)								
743	ArcelorMittal	30.31	1	3	2	1.65	7.2	NIL	65-145%
744	Carpenter Technology	56.93	2	3	3	1.55	24.1	1.3	5- 60%
747	Gibraltar Inds.	39.20	2	3	2	1.35	21.8	NIL	15- 65%
749	Nucor Corp.	64.62	2	3	3	1.30	14.0	2.4	40-110%
750	POSCO ADR	70.85	2	3	1	1.15	7.9	3.4	35-105%
751	Reliance Steel	90.73	2	3	2	1.30	11.3	2.2	40-105%
752	Russel Metals	26.71	2	3	3	1.10	10.9	5.7	30-105%
753	Schnitzer Steel	34.45	2	3	2	1.45	10.9	2.2	15- 75%
754	Steel Dynamics	46.80	1	3	3	1.40	13.8	1.6	20- 80%
755	U.S. Steel Corp.	36.41	1	4	3	1.90	11.4	0.5	65-175%
	Retail Automotive (INDUSTRY RANK 7)								
2119	Asbury Automotive	68.75	1	3	1	1.30	8.9	NIL	15- 75%
2121	AutoZone Inc.	699.94	2	3	3	0.80	13.1	NIL	25- 85%
2126	KAR Auction Svcs.	61.27	1	3	3	1.00	24.5	2.3	5- 55%
2127	Lithia Motors	97.03	1	3	4	1.30	9.2	1.2	40-110%
2129	O'Reilly Automotive	289.50	2	3	3	0.95	18.7	NIL	15- 60%
2130	Penske Auto	49.21	1	3	2	1.30	9.6	2.9	10- 75%
2131	Rush Enterprises 'A'	44.64	1	3	3	1.20	15.9	NIL	25- 80%
	Auto Parts (INDUSTRY RANK 8)								
973	Allison Transmission	41.62	1	3	3	1.00	10.8	1.4	70-165%
977	BorgWarner	45.67	1	3	2	1.30	10.4	1.5	40-110%
981	Cooper-Standard	134.91	1	3	3	1.00	12.0	NIL	20- 85%
982	Dana Inc.	21.01	1	3	3	1.55	6.9	1.9	90-160%
983	Dorman Products	70.99	2	3	4	0.85	16.9	NIL	25- 90%
985	Gentex Corp.	23.67	2	3	2	1.15	14.3	1.9	25- 90%
992	Lear Corp.	190.61	1	3	2	1.20	9.7	1.5	25- 85%
994	Magna Int'l 'A'	60.60	1	3	1	1.30	8.5	2.3	55-140%
995	Meritor, Inc.	20.49	1	4	3	1.50	7.1	NIL	45-145%
996	Modine Mfg.	18.10	1	4	2	1.20	11.5	NIL	10- 95%
	Medical Services (INDUSTRY RANK 9)								
801	Centene Corp.	133.91	2	3	3	1.05	19.8	NIL	N- 15%
802	Cigna Corp.	170.71	1	2	3	0.85	12.9	NIL	30- 75%
805	Encompass Health	69.39	2	3	3	1.00	21.4	1.4	N- 35%
808	HCA Holdings	108.41	1	3	3	0.85	12.2	1.3	20- 80%
811	IQVIA Holdings	109.00	1	3	3	0.90	19.8	NIL	30- 95%
812	Laboratory Corp.	184.85	2	1	3	0.90	16.0	NIL	10- 35%
815	MEDNAX, Inc.	44.06	2	3	3	0.85	10.6	NIL	95-195%
816	PRA Health Sciences	99.42	2	3	3	1.10	24.2	NIL	N- 40%
818	Select Med. Hldgs.	19.15	2	3	3	1.25	17.4	NIL	5- 55%
821	UnitedHealth Group	250.29	2	1	3	0.95	19.8	1.4	5- 30%
822	Universal Health 'B'	114.97	1	3	3	0.90	12.0	0.3	40-110%
823	WellCare Health Plans	254.03	2	3	3	1.15	24.8	NIL	N- 50%
	Paper/Forest Products (INDUSTRY RANK 10)								
1165	Domtar Corp.	48.41	2	3	3	1.20	13.4	3.6	25- 95%
1167	Int'l Paper	53.12	1	3	3	1.15	11.0	3.6	70-155%
1168	Louisiana-Pacific	28.39	1	3	3	1.50	10.3	1.8	25- 95%
1172	West Fraser Timber	94.71	1	3	2	1.20	11.8	0.6	5- 60%
	Petroleum (Producing) (INDUSTRY RANK 11)								
2400	Apache Corp.	45.26	2	3	4	1.50	28.3	2.2	75-165%
2402	Can. Natural Res.	47.60	2	3	3	1.35	15.9	2.8	15- 80%
2403	ConocoPhillips	70.28	2	3	3	1.40	18.0	1.6	20- 80%
2404	Continental Resources	60.72	2	4	2	1.80	27.6	NIL	5- 75%
2406	Denbury Resources	4.54	2	5	3	2.25	8.3	NIL	55-185%
2407	Diamondback Energy	130.65	2	3	3	1.50	19.1	0.4	5- 60%
2408	Energen Corp.	73.42	2	3	3	1.60	24.9	NIL	N- 45%
2409	Laredo Petroleum	9.56	2	5	5	1.90	8.7	NIL	215-475%
2410	Marathon Oil Corp.	20.06	2	3	3	1.85	26.7	1.0	50-125%
2416	Range Resources	16.30	2	3	4	1.15	15.5	0.5	145-270%
2417	Whiting Petroleum	49.45	2	5	2	2.40	49.5	NIL	60-195%
	Human Resources (INDUSTRY RANK 12)								
1635	AMN Healthcare	60.60	2	3	3	1.05	20.5	NIL	N- 50%
1636	ASGN Inc.	83.90	2	3	3	1.40	31.1	NIL	N- 25%
1643	Kforce Inc.	35.80	2	3	3	1.15	15.9	1.3	25- 80%
1644	Korn/Ferry Int'l	65.58	2	3	3	1.25	21.5	0.6	N- 15%
1645	ManpowerGroup Inc.	86.21	1	3	3	1.45	9.7	2.4	30- 90%
1647	TriNet Group	55.22	2	3	3	1.10	22.5	NIL	N- 25%
1648	TrueBlue, Inc.	27.55	2	3	3	1.45	15.7	NIL	10- 45%
	Insurance (Life) (INDUSTRY RANK 13)								
1555	Aflac Inc.	42.94	2	2	1	1.00	10.7	2.5	30- 75%
1558	Manulife Fin'l	18.08	2	3	3	1.20	9.3	4.9	40- 95%
1563	Torchmark Corp.	84.56	2	1	2	0.95	14.0	0.8	10- 35%
1564	Unum Group	38.17	1	3	4	1.15	7.4	2.7	45-110%

TIMELY STOCKS IN TIMELY INDUSTRIES

Page No.	Industry (Industry Rank)	Recent Price	RANKS Timeliness	Technical Safety		Beta	Current P/E Ratio	% Est'd Yield	Est'd 3-5 Year Price Apprec.
	Bank (Midwest) (INDUSTRY RANK 14)								
780	BOK Financial	96.01	2	3	2	1.10	14.3	1.9	5- 55%
781	Chemical Financial	55.62	2	3	2	1.00	14.1	2.0	10- 70%
782	Comerica Inc.	91.86	2	3	2	1.20	13.7	1.5	15- 70%
783	Commerce Bancshs.	68.29	2	1	3	0.95	19.2	1.4	N- 10%
784	Fifth Third Bancorp	29.52	2	3	1	1.15	11.1	2.4	N- 50%
788	Huntington Bancshs.	14.92	2	3	1	1.10	13.0	3.8	5- 70%
795	Wintrust Financial	88.38	2	3	1	1.10	15.1	0.9	N- 55%
	Chemical (Specialty) (INDUSTRY RANK 15)								
564	Avery Dennison	104.48	2	2	2	0.95	17.7	2.0	5- 45%
567	Cabot Microelectr's	116.19	2	3	2	1.10	24.4	1.4	10- 70%
568	Chemours Co. (The)	44.22	1	3	1	2.20	8.0	1.6	35-105%
570	Ferro Corp.	21.26	1	3	3	1.30	13.3	NIL	20- 90%
577	KMG Chemicals	74.69	2	3	3	1.05	22.3	0.2	N- 20%
578	Kronos Worldwide	22.46	1	4	1	1.60	9.8	3.0	10-100%
579	LyondellBasell Inds.	108.11	1	3	1	1.30	9.4	3.7	15- 70%
580	Methanex Corp.	71.15	1	3	3	1.55	11.9	1.9	N- 35%
590	Rayonier Advanced Mat.	18.24	1	4	3	2.15	9.9	1.6	90-200%
594	Westlake Chemical	107.72	1	3	2	1.40	13.3	0.8	25- 85%
	Packaging & Container (INDUSTRY RANK 16)								
1176	Ball Corp.	38.25	2	2	4	0.95	18.2	1.0	N- 20%
1179	Crown Holdings	45.40	2	3	5	1.05	8.4	NIL	75-155%
1184	Packaging Corp.	114.67	1	3	3	1.15	16.9	2.8	10- 65%
1186	Silgan Holdings	26.73	2	3	3	0.90	12.7	1.5	30- 85%
1187	Sonoco Products	53.00	2	2	3	1.05	16.1	3.1	N- 30%
	Semiconductor (INDUSTRY RANK 17)								
1347	Advanced Energy	59.95	1	3	4	1.20	11.5	NIL	40-110%
1350	Analog Devices	98.26	2	2	2	1.15	16.8	2.0	15- 60%
1351	Broadcom Inc.	208.31	1	3	1	1.10	14.4	3.4	N- 55%
1356	Cypress Semic.	16.80	2	3	2	1.45	13.4	2.6	50-140%
1358	Intel Corp.	51.75	1	1	2	1.05	12.9	2.3	55- 85%
1360	Maxim Integrated	61.30	2	3	3	1.00	21.9	2.7	N- 45%
1362	Microchip Technology	95.05	1	3	2	1.15	15.2	1.5	30-100%
1363	Micron Technology	56.96	1	3	2	1.55	5.7	NIL	5- 60%
1367	ON Semiconductor	23.91	1	3	2	1.40	13.3	NIL	45-110%
1369	Rambus Inc.	12.88	2	3	2	1.00	15.2	NIL	50-135%
1373	STMicroelectronics	23.24	2	3	3	1.15	18.6	1.0	50-115%
1375	Texas Instruments	115.80	2	1	3	1.10	22.3	2.1	N- 25%
	Trucking (INDUSTRY RANK 18)								
320	ArcBest Corp.	44.80	2	3	1	1.65	17.6	0.7	35-100%
321	Forward Air	58.29	2	3	3	1.00	19.4	1.0	35-105%
324	Hunt (J.B.)	121.56	2	2	2	1.00	23.8	0.8	20- 60%
326	Old Dominion Freight	145.78	2	2	1	1.05	24.5	0.4	N- 25%
328	Werner Enterprises	36.60	2	3	2	1.00	18.8	1.0	25- 90%
329	XPO Logistics	99.97	2	4	1	1.65	30.8	NIL	35-125%
	Bank (INDUSTRY RANK 19)								
2502	Ally Financial	27.55	1	3	3	1.20	9.2	2.2	65-135%
2503	BB&T Corp.	52.00	2	2	2	1.00	13.3	3.0	5- 35%
2505	Bank of America	30.01	2	3	2	1.20	12.2	1.8	15- 65%
2508	Bank of New York Mellon	54.05	2	2	1	1.10	12.9	2.1	50-105%
2511	Citigroup Inc.	69.35	2	3	3	1.25	11.4	1.9	15- 80%
2512	Citizens Fin'l Group	40.04	2	3	2	1.15	12.8	2.2	25- 75%
2514	East West Bancorp	65.47	2	3	1	1.25	14.9	1.2	N- 35%
2518	JPMorgan Chase	110.50	1	2	2	1.10	12.6	2.9	N- 25%
2519	KeyCorp	20.06	2	3	3	1.15	12.2	3.4	25- 75%
2520	M&T Bank Corp.	168.50	2	2	2	0.90	15.9	1.9	20- 60%
2522	PNC Financial Serv.	141.48	2	2	2	1.00	13.5	2.7	5- 40%
2524	Regions Financial	17.64	2	3	2	1.20	12.6	2.3	15- 70%
2526	SVB Fin'l Group	308.19	2	3	2	1.35	19.9	NIL	N- 40%
2529	SunTrust Banks	68.91	2	3	2	1.15	13.4	2.4	15- 75%
2531	Toronto-Dominion	76.14	1	1	3	0.75	12.8	3.6	20- 45%
2532	Webster Fin'l	65.05	2	3	2	1.15	19.0	2.0	N- 40%
2534	Zions Bancorp.	53.06	2	3	2	1.20	13.8	1.8	5- 50%
	Financial Svcs. (Div.) (INDUSTRY RANK 20)								
2537	Affiliated Managers	148.49	2	3	3	1.45	16.1	0.9	40-110%
2539	AllianceBernstein Hldg.	29.50	2	3	3	1.20	11.8	7.0	N- 55%
2542	Ameriprise Fin'l	142.96	1	3	3	1.35	9.9	2.5	50-125%
2543	Aon plc	145.62	1	1	3	0.95	18.2	1.1	10- 35%
2545	BlackRock, Inc.	504.88	2	2	1	1.30	17.4	2.5	25- 65%
2549	Capital One Fin'l	95.98	2	3	3	1.15	9.9	1.7	N- 30%
2551	Discover Fin'l Svcs.	71.10	2	2	1	1.10	9.2	2.0	50- 95%
2553	EZCORP, Inc.	11.75	2	4	2	1.40	13.5	NIL	N- 55%
2559	FleetCor Technologies	216.22	2	3	3	1.25	21.1	NIL	20- 80%
2567	Lazard Ltd.	51.00	2	3	2	1.45	12.8	3.5	45-125%
2570	MGIC Investment	11.23	2	4	4	1.30	6.4	NIL	80-210%
2571	Marsh & McLennan	86.93	2	1	3	0.95	19.4	1.9	15- 40%
2575	Price (T. Rowe) Group	120.41	2	1	2	1.15	16.6	2.4	10- 35%
2577	SLM Corporation	11.67	2	3	3	1.15	11.7	NIL	115-245%
2578	Sun Life Fin'l Svcs.	53.71	2	2	2	0.90	12.1	3.5	N- 20%
2580	Total System Svcs.	89.59	2	3	3	1.00	30.4	0.6	N- N%
2584	WEX Inc.	196.10	2	3	3	1.35	34.4	NIL	N- 15%
2586	Worldpay, Inc.	86.92	2	3	3	1.00	47.0	NIL	5- 55%
	Machinery (INDUSTRY RANK 21)								
1703	Albany Int'l 'A'	63.25	2	3	3	1.15	30.1	1.1	5- 50%
1705	Applied Ind'l Techn.	72.90	2	3	3	1.00	18.5	1.6	5- 60%
1707	Brooks Automation	32.42	2	3	3	1.20	19.9	1.2	10- 55%
1708	Columbus McKinnon	41.71	2	3	3	1.35	17.8	0.5	N- 45%
1709	Curtiss-Wright	125.76	2	3	3	1.15	22.1	0.5	N- 30%
1713	Graco Inc.	46.17	2	3	1	1.15	24.3	1.1	N- 40%
1714	IDEX Corp.	138.63	2	2	1	1.05	27.2	1.2	N- 35%
1715	Lennox Int'l	214.52	2	3	3	1.10	21.5	1.2	5- 55%
1718	MSA Safety	97.90	2	3	3	1.25	23.9	1.6	10- 70%
1727	SPX FLOW, Inc.	43.11	2	3	3	1.90	17.6	NIL	15- 75%
1728	Smith (A.O.)	59.84	2	3	2	1.30	23.0	1.2	N- 60%
1733	United Rentals	152.21	1	3	2	1.65	10.4	NIL	10- 65%
1735	Watts Water Techn.	82.15	2	3	3	1.20	22.2	1.1	N- 45%
1737	Xylem Inc.	67.80	2	3	3	1.05	23.0	1.2	5- 45%
	Entertainment (INDUSTRY RANK 22)								
2327	AMC Networks	61.45	1	3	2	0.95	7.4	NIL	135-260%
2328	CBS Corp. 'B'	58.02	2	3	5	1.05	11.4	1.2	5- 45%
2329	Discovery, Inc.	26.38	2	3	3	1.20	10.1	NIL	125-240%
2330	Disney (Walt)	110.30	2	1	4	1.00	16.7	1.5	35- 65%
2332	Gray Television	15.45	1	4	5	1.45	11.0	NIL	30-125%
2337	Netflix, Inc.	379.48	2	3	3	1.05	NMF	NIL	N- 15%
2338	Nexstar Media Group	77.50	1	3	3	1.20	10.3	1.9	85-185%
	Brokers & Exchanges (INDUSTRY RANK 23)								
1795	Cboe Global Markets	104.88	2	2	3	0.75	22.8	1.0	30- 75%
1797	E*Trade Fin'l	61.14	2	3	1	1.35	18.8	NIL	5- 65%
1799	Intercontinental Exch.	75.61	2	2	3	0.80	21.6	1.3	20- 60%
1801	LPL Financial Hldgs.	67.50	2	3	1	1.05	20.5	1.5	20- 80%
	Natural Gas (Div.) (INDUSTRY RANK 24)								
526	Antero Resources	21.45	2	3	4	1.30	16.5	NIL	180-295%
529	Callon Petroleum	10.87	1	4	4	2.00	12.1	NIL	85-220%
530	Chesapeake Energy	4.77	2	5	4	2.15	11.9	NIL	70-215%
531	Cimarex Energy	97.39	2	3	5	1.40	13.2	0.7	30- 95%
536	Encana Corp.	13.00	2	5	3	1.75	20.0	0.5	30-130%
541	Newfield Exploration	28.85	2	3	4	1.85	9.0	NIL	125-245%
545	Southwestern Energy	5.24	2	4	4	1.40	6.6	NIL	245-475%
	Air Transport (INDUSTRY RANK 25)								
307	Copa Holdings, S.A.	97.05	2	3	3	1.35	9.2	3.6	20- 75%
309	FedEx Corp.	231.15	1	1	2	1.10	13.1	1.1	30- 60%
312	SkyWest	54.55	1	3	3	1.55	12.0	0.7	N- 55%
316	United Parcel Serv.	111.07	2	1	3	0.90	15.4	3.3	25- 60%
	Pharmacy Services (INDUSTRY RANK 26)								
965	CVS Health	67.94	1	1	4	0.90	9.7	2.9	45- 85%
	Environmental (INDUSTRY RANK 27)								
412	Darling Ingredients	19.94	2	3	4	1.15	16.6	NIL	25- 75%
413	Republic Services	69.31	2	2	3	0.80	22.4	2.1	25- 65%
418	Waste Management	83.70	2	1	3	0.80	20.9	2.2	10- 30%

Timely Stocks

Stocks Ranked 1 (Highest) for Relative Price Performance (Next 12 Months)

Page No.	Stock Name	Ticker	Recent Price	Ranks Technical	Ranks Safety	Current P/E Ratio	Est'd % Yield	Industry Group	Industry Rank
1409	ACCO Brands	ACCO	14.10	3	3	10.4	1.7	Office Equip/Supplies	68
2327	AMC Networks	AMCX	61.45	3	2	7.4	NIL	Entertainment	22
1347	Advanced Energy	AEIS	59.95	3	4	11.5	NIL	Semiconductor	17
973	Allison Transmission	ALSN	41.62	3	3	10.8	1.4	Auto Parts	8
759	Allstate Corp.	ALL	94.26	1	3	10.9	2.0	Insurance (Prop/Cas.)	56
2502	Ally Financial	ALLY	27.55	3	3	9.2	2.2	Bank	19
2542	Ameriprise Fin'l	AMP	142.96	3	3	9.9	2.5	Financial Svcs. (Div.)	20
2543	Aon plc	AON	145.62	1	3	18.2	1.1	Financial Svcs. (Div.)	20
1380	Applied Materials	AMAT	47.30	3	2	10.0	1.7	Semiconductor Equip	3
743	ArcelorMittal	MT	30.31	3	2	7.2	NIL	Steel	6
942	Arris Int'l plc	ARRS	26.52	3	4	8.8	NIL	Telecom. Equipment	85
1322	Arrow Electronics	ARW	77.73	3	3	9.3	NIL	Electronics	63
2119	Asbury Automotive ■	ABG	68.75	3	1	8.9	NIL	Retail Automotive	7
1107	Boise Cascade	BCC	46.20	3	2	15.4	0.6	Building Materials	30
977	BorgWarner	BWA	45.67	3	2	10.4	1.5	Auto Parts	8
2350	Boyd Gaming	BYD	38.34	4	3	29.5	0.6	Hotel/Gaming	31
1351	Broadcom Inc.	AVGO	208.31	3	1	14.4	3.4	Semiconductor	17
384	CBRE Group	CBRE	49.67	3	3	15.5	NIL	Industrial Services	55
965	CVS Health	CVS	67.94	1	4	9.7	2.9	Pharmacy Services	26
1019	Cable One	CABO	749.82	3	3	24.5	0.9	Cable TV	38
529	Callon Petroleum	CPE	10.87	4	4	12.1	NIL	Natural Gas (Div.)	24
2446	Celanese Corp.	CE	110.14	3	3	12.2	2.0	Chemical (Diversified)	4
568	Chemours Co. (The)	CC	44.22	3	1	8.0	1.6	Chemical (Specialty)	15
802	Cigna Corp.	CI	170.71	2	3	12.9	NIL	Medical Services	9
1022	Comcast Corp.	CMCSA	34.27	2	5	14.0	2.2	Cable TV	38
981	Cooper-Standard	CPS	134.91	3	3	12.0	NIL	Auto Parts	8
436	CoreLogic	CLGX	53.58	3	3	19.8	NIL	Information Services	36
982	Dana Inc.	DAN	21.01	3	3	6.9	1.9	Auto Parts	8
2447	Eastman Chemical	EMN	100.66	3	1	11.9	2.2	Chemical (Diversified)	4
1381	Electro Scientific	ESIO	17.85	3	3	6.2	NIL	Semiconductor Equip	3
631	Energy Transfer Equity	ETE	17.08	4	3	13.7	7.4	Pipeline MLPs	50
1752	EnPro Industries	NPO	71.87	3	3	20.5	1.3	Diversified Co.	32
309	FedEx Corp.	FDX	231.15	1	2	13.1	1.1	Air Transport	25
570	Ferro Corp.	FOE	21.26	3	3	13.3	NIL	Chemical (Specialty)	15
1807	Goldman Sachs ■	GS	231.02	1	2	9.6	1.4	Investment Banking	5
2332	Gray Television	GTN	15.45	4	5	11.0	NIL	Entertainment	22
808	HCA Holdings	HCA	108.41	3	3	12.2	1.3	Medical Services	9
210	Hill-Rom Hldgs. ■	HRC	94.23	3	2	19.7	0.8	Med Supp Non-Invasive	78
1987	Hitachi, Ltd. ADR	HTHIY	70.94	3	2	9.9	2.1	Foreign Electronics	33
1126	Horton D.R.	DHI	43.22	3	3	11.0	1.3	Homebuilding	1
2449	Huntsman Corp.	HUN	30.59	4	2	10.5	2.1	Chemical (Diversified)	4
811	IQVIA Holdings	IQV	109.00	3	3	19.8	NIL	Medical Services	9
2176	Insight Enterprises	NSIT	49.32	3	2	11.7	NIL	Retail (Hardlines)	44
1358	Intel Corp.	INTC	51.75	1	2	12.9	2.3	Semiconductor	17
1167	Int'l Paper	IP	53.12	3	3	11.0	3.6	Paper/Forest Products	10
2518	JPMorgan Chase ■	JPM	110.50	2	2	12.6	2.9	Bank	19
2126	KAR Auction Svcs.	KAR	61.27	3	3	24.5	2.3	Retail Automotive	7
1128	KB Home	KBH	27.48	3	3	9.8	0.4	Homebuilding	1
1951	Kroger Co.	KR	28.42	3	4	13.2	2.0	Retail/Wholesale Food	39
578	Kronos Worldwide	KRO	22.46	4	1	9.8	3.0	Chemical (Specialty)	15
1384	Kulicke & Soffa	KLIC	28.09	3	4	13.3	1.7	Semiconductor Equip	3
1385	Lam Research	LRCX	177.24	3	2	9.7	2.5	Semiconductor Equip	3
992	Lear Corp.	LEA	190.61	3	2	9.7	1.5	Auto Parts	8
1129	Lennar Corp. ■	LEN	55.55	3	3	11.3	0.3	Homebuilding	1
2127	Lithia Motors	LAD	97.03	3	4	9.2	1.2	Retail Automotive	7
1168	Louisiana-Pacific	LPX	28.39	3	3	10.3	1.8	Paper/Forest Products	10
579	LyondellBasell Inds.	LYB	108.11	3	1	9.4	3.7	Chemical (Specialty)	15
1387	MKS Instruments	MKSI	100.90	3	3	12.7	0.8	Semiconductor Equip	3
399	Macquarie Infra.	MIC	44.60	3	5	16.5	9.0	Industrial Services	55
994	Magna Int'l 'A'	MGA	60.60	3	1	8.5	2.3	Auto Parts	8
1645	ManpowerGroup Inc.	MAN	86.21	3	3	9.7	2.4	Human Resources	12
995	Meritor, Inc.	MTOR	20.49	4	3	7.1	NIL	Auto Parts	8
580	Methanex Corp.	MEOH	71.15	3	3	11.9	1.9	Chemical (Specialty)	15
1362	Microchip Technology	MCHP	95.05	3	2	15.2	1.5	Semiconductor	17
1363	Micron Technology	MU	56.96	3	2	5.7	NIL	Semiconductor	17
996	Modine Mfg.	MOD	18.10	4	2	11.5	NIL	Auto Parts	8
1810	Morgan Stanley	MS	49.18	3	2	10.0	2.0	Investment Banking	5
2338	Nexstar Media Group	NXST	77.50	3	3	10.3	1.9	Entertainment	22
1225	Northland Power	NPI.TO	24.93	3	2	19.2	4.8	Power	71
2315	Norwegian Cruise Line	NCLH	47.57	3	3	9.8	NIL	Recreation	45
1367	ON Semiconductor	ON	23.91	3	2	13.3	NIL	Semiconductor	17
554	ONE Gas, Inc.	OGS	75.43	2	3	23.6	2.5	Natural Gas Utility	41
165	Oshkosh Corp.	OSK	72.97	3	3	12.6	1.3	Heavy Truck & Equip	28
1184	Packaging Corp.	PKG	114.67	3	3	16.9	2.8	Packaging & Container	16
2130	Penske Auto	PAG	49.21	3	2	9.6	2.9	Retail Automotive	7
1934	Post Holdings	POST	87.82	3	3	18.0	NIL	Food Processing	81
1133	PulteGroup, Inc.	PHM	30.92	3	3	9.5	1.2	Homebuilding	1
590	Rayonier Advanced Mat.	RYAM	18.24	4	3	9.9	1.6	Chemical (Specialty)	15
2131	Rush Enterprises 'A'	RUSHA	44.64	3	3	15.9	NIL	Retail Automotive	7
1841	Service Corp. Int'l	SCI	37.71	3	3	21.0	1.8	Funeral Services	2
312	SkyWest	SKYW	54.55	3	3	12.0	0.7	Air Transport	25
754	Steel Dynamics	STLD	46.80	3	3	13.8	1.6	Steel	6
1342	TE Connectivity	TEL	92.34	2	2	16.2	1.9	Electronics	63
1593	Teck Resources 'B'	TECKB.TO	32.27	4	1	6.1	0.6	Metals & Mining (Div.)	35
2324	Thor Inds.	THO	101.37	3	3	9.9	1.5	Recreation	45
2531	Toronto-Dominion	TD.TO	76.14	1	3	12.8	3.6	Bank	19
111	Toyota Motor ADR	TM	131.45	2	1	9.3	3.5	Automotive	46
1942	Tyson Foods 'A'	TSN	65.56	3	1	10.2	1.9	Food Processing	81
1733	United Rentals	URI	152.21	3	2	10.4	NIL	Machinery	21
755	U.S. Steel Corp.	X	36.41	4	3	11.4	0.5	Steel	6
2453	Univar Inc.	UNVR	27.17	3	4	16.5	NIL	Chemical (Diversified)	4
822	Universal Health 'B'	UHS	114.97	3	3	12.0	0.3	Medical Services	9
1564	Unum Group	UNM	38.17	3	4	7.4	2.7	Insurance (Life)	13
1345	Vishay Intertechnology	VSH	26.15	3	3	14.9	1.3	Electronics	63
936	Vodafone Group ADR	VOD	23.88	3	3	15.4	7.6	Telecom. Services	60
1172	West Fraser Timber	WFT.TO	94.71	3	2	11.8	0.6	Paper/Forest Products	10
1407	Western Digital	WDC	78.99	3	2	5.5	2.5	Computers/Peripherals	43
594	Westlake Chemical	WLK	107.72	3	2	13.3	0.8	Chemical (Specialty)	15
2325	Winnebago	WGO	41.90	3	3	12.8	1.0	Recreation	45
610	Zebra Techn. 'A'	ZBRA	148.22	3	2	14.5	NIL	Wireless Networking	86

■ **Newly added this week.**

Rank 1 Deletions:
Cabot Corp.; Diamondback Energy; Methode Electronics; Rogers Communications; Schnitzer Steel.

Rank removed–see supplement or report:
None.

Continued from preceding page

TIMELY STOCKS

Stocks Ranked 2 (Above Average) for Relative Price Performance in the Next 12 Months

Page No.	Stock Name	Ticker	Recent Price	Ranks Technical	Ranks Safety		Current P/E Ratio	Est'd % Yield	Industry Group	Industry Rank
1216	AES Corp.	AES	12.85	3	3		6.8	4.0	Power	71
1635	AMN Healthcare	AMN	60.60	3	3		20.5	NIL	Human Resources	12
1636	ASGN Inc.	ASGN	83.90	3	3		31.1	NIL	Human Resources	12
1606	AbbVie Inc.	ABBV	95.41	3	2		12.2	4.0	Drug	73
1740	Aerojet Rocketdyne	AJRD	30.59	3	3		29.1	NIL	Diversified Co.	32
2537	Affiliated Managers	AMG	148.49	3	3		16.1	0.9	Financial Svcs. (Div.)	20
1555	Aflac Inc.	AFL	42.94	2	1		10.7	2.5	Insurance (Life)	13
1703	Albany Int'l 'A'	AIN	63.25	3	3		30.1	1.1	Machinery	21
2444	Albemarle Corp.	ALB	96.97	3	4		18.6	1.4	Chemical (Diversified)	4
434	Alliance Data Sys. ▲	ADS	225.44	3	4		9.8	1.0	Information Services	36
2539	AllianceBernstein Hldg.	AB	29.50	3	3		11.8	7.0	Financial Svcs. (Div.)	20
825	Allscripts Healthcare	MDRX	12.45	3	4		16.2	NIL	Healthcare Information	49
2634	Alphabet Inc.	GOOG	1198.80	1	3		30.9	NIL	Internet	79
1992	Altria Group	MO	57.35	2	3		14.3	4.9	Tobacco	70
904	Ameren Corp.	AEE	61.27	2	4		20.1	3.1	Electric Util. (Central)	52
760	Amer. Financial Group	AFG	108.94	2	2		13.3	1.3	Insurance (Prop/Cas.)	56
1103	Amer. Woodmark	AMWD	86.30	3	3		13.9	NIL	Building Materials	30
1320	Amphenol Corp.	APH	89.01	2	2		25.4	1.0	Electronics	63
1350	Analog Devices	ADI	98.26	2	2		16.8	2.0	Semiconductor	17
526	Antero Resources	AR	21.45	3	4		16.5	NIL	Natural Gas (Div.)	24
2400	Apache Corp.	APA	45.26	3	4		28.3	2.2	Petroleum (Producing)	11
1393	Apple Inc.	AAPL	191.45	2	2		16.1	1.6	Computers/Peripherals	43
1705	Applied Ind'l Techn.	AIT	72.90	3	3		18.5	1.6	Machinery	21
320	ArcBest Corp.	ARCB	44.80	3	1		17.6	0.7	Trucking	18
1105	Armstrong World Inds.	AWI	68.00	3	3		18.9	NIL	Building Materials	30
2121	AutoZone Inc.	AZO	699.94	3	3		13.1	NIL	Retail Automotive	7
564	Avery Dennison	AVY	104.48	2	2		17.7	2.0	Chemical (Specialty)	15
2503	BB&T Corp.	BBT	52.00	2	2		13.3	3.0	Bank	19
352	BJ's Restaurants	BJRI	62.60	3	3		30.5	0.7	Restaurant	67
780	BOK Financial	BOKF	96.01	3	2		14.3	1.9	Bank (Midwest)	14
1217	BWX Technologies	BWXT	64.49	3	2		25.8	1.0	Power	71
2636	Baidu, Inc.	BIDU	270.02	3	2		29.7	NIL	Internet	79
1176	Ball Corp.	BLL	38.25	2	4		18.2	1.0	Packaging & Container	16
2505	Bank of America	BAC	30.01	3	2		12.2	1.8	Bank	19
2508	Bank of New York Mellon	BK	54.05	2	1		12.9	2.1	Bank	19
172	Baxter Int'l Inc.	BAX	74.75	1	3		25.8	1.0	Med Supp Invasive	75
1125	Beazer Homes USA	BZH	15.64	5	4		9.8	NIL	Homebuilding	1
2166	Best Buy Co.	BBY	76.56	3	3		14.0	2.4	Retail (Hardlines)	44
1611	Biogen	BIIB	354.98	3	3		15.6	NIL	Drug	73
1817	Black Knight, Inc.	BKI	55.25	3	4		31.6	NIL	E-Commerce	64
2545	BlackRock, Inc.	BLK	504.88	2	1		17.4	2.5	Financial Svcs. (Div.)	20
353	Bloomin' Brands	BLMN	20.78	3	3		12.6	1.7	Restaurant	67
706	Boeing	BA	356.88	1	2		21.3	2.1	Aerospace/Defense	59
598	Boingo Wireless	WIFI	22.96	3	3		NMF	NIL	Wireless Networking	86
2637	Booking Holdings	BKNG	2030.52	3	2		23.5	NIL	Internet	79
2001	Bright Horizons Family	BFAM	108.85	2	3		34.6	NIL	Educational Services	87
1707	Brooks Automation	BRKS	32.42	3	3		19.9	1.2	Machinery	21
2304	Brunswick Corp.	BC	67.69	3	2		14.7	1.1	Recreation	45
2136	Burlington Stores	BURL	153.29	4	2		25.5	NIL	Retail Store	48
2615	CACI Int'l	CACI	178.95	3	3		21.9	NIL	IT Services	47
708	CAE Inc.	CAE.TO	27.67	3	2		22.7	1.3	Aerospace/Defense	59
1795	Cboe Global Markets	CBOE	104.88	2	3		22.8	1.0	Brokers & Exchanges	23
2328	CBS Corp. 'B'	CBS	58.02	3	5		11.4	1.2	Entertainment	22
2390	CDK Global Inc.	CDK	66.69	3	3		22.7	0.9	Advertising	34
2616	CDW Corp.	CDW	86.18	3	3		23.3	1.0	IT Services	47
765	CNA Fin'l	CNA	48.03	2	3		11.4	2.5	Insurance (Prop/Cas.)	56
341	CSX Corp.	CSX	64.44	3	3		19.5	1.4	Railroad	42
1325	CTS Corp.	CTS	37.15	3	3		26.5	0.4	Electronics	63
505	CVR Refining LP	CVRR	23.45	3	3		12.7	8.7	Petroleum (Integrated)	29
2445	Cabot Corp. ▼	CBT	65.73	3	3		16.0	2.0	Chemical (Diversified)	4
567	Cabot Microelectr's	CCMP	116.19	3	2		24.4	1.4	Chemical (Specialty)	15
2592	Cadence Design Sys.	CDNS	45.66	3	3		27.8	NIL	Computer Software	54
2402	Can. Natural Res.	CNQ.TO	47.60	3	3		15.9	2.8	Petroleum (Producing)	11
2549	Capital One Fin'l	COF	95.98	3	3		9.9	1.7	Financial Svcs. (Div.)	20
744	Carpenter Technology	CRS	56.93	3	3		24.1	1.3	Steel	6
1838	Carriage Services	CSV	24.95	3	3		17.2	1.2	Funeral Services	2
155	Caterpillar Inc.	CAT	138.95	2	1		12.9	2.5	Heavy Truck & Equip	28
801	Centene Corp.	CNC	133.91	3	3		19.8	NIL	Medical Services	9
1190	Central Garden & Pet	CENT	43.62	3	3		19.8	NIL	Household Products	88
1747	Chemed Corp.	CHE	325.94	3	3		29.4	0.4	Diversified Co.	32
781	Chemical Financial	CHFC	55.62	3	2		14.1	2.0	Bank (Midwest)	14
530	Chesapeake Energy	CHK	4.77	5	4		11.9	NIL	Natural Gas (Div.)	24
507	Chevron Corp.	CVX	121.91	1	3		16.5	3.7	Petroleum (Integrated)	29
922	China Mobile (ADR)	CHL	43.76	3	3		9.6	4.8	Telecom. Services	60
531	Cimarex Energy	XEC	97.39	3	5		13.2	0.7	Natural Gas (Div.)	24
2204	Citi Trends	CTRN	27.97	4	3		16.5	1.2	Retail (Softlines)	61
2511	Citigroup Inc.	C	69.35	3	3		11.4	1.9	Bank	19
2512	Citizens Fin'l Group	CFG	40.04	3	2		12.8	2.2	Bank	19
2618	Cognizant Technology	CTSH	82.74	2	3		18.4	1.0	IT Services	47
1748	Colfax Corp.	CFX	30.19	3	4		14.4	NIL	Diversified Co.	32
1708	Columbus McKinnon	CMCO	41.71	3	3		17.8	0.5	Machinery	21
782	Comerica Inc.	CMA	91.86	3	2		13.7	1.5	Bank (Midwest)	14
783	Commerce Bancshs. ▲	CBSH	68.29	1	3		19.2	1.4	Bank (Midwest)	14
2403	ConocoPhillips	COP	70.28	3	3		18.0	1.6	Petroleum (Producing)	11
2404	Continental Resources	CLR	60.72	4	2		27.6	NIL	Petroleum (Producing)	11
307	Copa Holdings, S.A.	CPA	97.05	3	3		9.2	3.6	Air Transport	25
1749	Crane Co.	CR	82.01	3	3		16.9	1.7	Diversified Co.	32
1179	Crown Holdings	CCK	45.40	3	5		8.4	NIL	Packaging & Container	16
1709	Curtiss-Wright	CW	125.76	3	3		22.1	0.5	Machinery	21
1356	Cypress Semic.	CY	16.80	3	2		13.4	2.6	Semiconductor	17
412	Darling Ingredients	DAR	19.94	3	4		16.6	NIL	Environmental	27
359	Dave & Buster's Ent.	PLAY	48.26	3	3		16.9	NIL	Restaurant	67
157	Deere & Co.	DE	138.00	1	2		14.1	2.0	Heavy Truck & Equip	28
2406	Denbury Resources	DNR	4.54	5	3		8.3	NIL	Petroleum (Producing)	11
360	Denny's Corp.	DENN	15.71	3	3		22.4	NIL	Restaurant	67
2407	Diamondback Energy ▼	FANG	130.65	3	3		19.1	0.4	Petroleum (Producing)	11
2139	Dillard's, Inc.	DDS	85.62	3	1		14.0	0.5	Retail Store	48
2551	Discover Fin'l Svcs.	DFS	71.10	2	1		9.2	2.0	Financial Svcs. (Div.)	20
2329	Discovery, Inc.	DISCA	26.38	3	3		10.1	NIL	Entertainment	22
2330	Disney (Walt)	DIS	110.30	1	4		16.7	1.5	Entertainment	22
2140	Dollar General	DG	99.40	3	3		16.4	1.2	Retail Store	48
1165	Domtar Corp.	UFS	48.41	3	3		13.4	3.6	Paper/Forest Products	10
983	Dorman Products	DORM	70.99	3	4		16.9	NIL	Auto Parts	8
142	Duke Energy	DUK	80.65	2	5		16.8	4.6	Electric Utility (East)	53
1797	E*Trade Fin'l	ETFC	61.14	3	1		18.8	NIL	Brokers & Exchanges	23
628	EQT Midstream Part.	EQM	54.02	3	3		9.1	8.6	Pipeline MLPs	50
2514	East West Bancorp	EWBC	65.47	3	1		14.9	1.2	Bank	19
536	Encana Corp.	ECA	13.00	5	3		20.0	0.5	Natural Gas (Div.)	24
805	Encompass Health	EHC	69.39	3	3		21.4	1.4	Medical Services	9
2408	Energen Corp.	EGN	73.42	3	3		24.9	NIL	Petroleum (Producing)	11
633	EnLink Midstream Part.	ENLK	14.93	4	2		37.3	10.4	Pipeline MLPs	50
1382	Entegris, Inc.	ENTG	36.50	3	2		19.7	0.8	Semiconductor Equip	3
144	Exelon Corp.	EXC	41.92	3	3		16.1	3.5	Electric Utility (East)	53
2553	EZCORP, Inc.	EZPW	11.75	4	2		13.5	NIL	Financial Svcs. (Div.)	20
1601	FMC Corp.	FMC	87.75	3	3		14.4	0.8	Chemical (Basic)	76
2641	Facebook Inc.	FB	209.99	3	3		26.2	NIL	Internet	79
784	Fifth Third Bancorp	FITB	29.52	3	1		11.1	2.4	Bank (Midwest)	14
2623	Fiserv Inc.	FISV	77.15	2	3		14.3	NIL	IT Services	47
2559	FleetCor Technologies	FLT	216.22	3	3		21.1	NIL	Financial Svcs. (Div.)	20
321	Forward Air	FWRD	58.29	3	3		19.4	1.0	Trucking	18
1588	Freep't-McMoRan Inc.	FCX	16.77	5	2		8.2	1.2	Metals & Mining (Div.)	35
985	Gentex Corp.	GNTX	23.67	3	2		14.3	1.9	Auto Parts	8
747	Gibraltar Inds.	ROCK	39.20	3	2		21.8	NIL	Steel	6
733	Global Brass & Copper	BRSS	30.85	3	2		11.6	0.8	Metal Fabricating	40
1713	Graco Inc.	GGG	46.17	3	1		24.3	1.1	Machinery	21
1235	Granite Construction	GVA	54.50	3	2		16.8	1.0	Engineering & Const	82
1110	HD Supply Holdings	HDS	44.22	3	3		15.0	NIL	Building Materials	30
392	Harsco Corp.	HSC	23.05	4	2		20.0	NIL	Industrial Services	55
1839	Hillenbrand, Inc.	HI	49.35	3	3		44.5	1.7	Funeral Services	2
1141	Home Depot	HD	201.10	1	3		21.5	2.2	Retail Building Supply	37
324	Hunt (J.B.)	JBHT	121.56	2	2		23.8	0.8	Trucking	18
788	Huntington Bancshs.	HBAN	14.92	3	1		13.0	3.8	Bank (Midwest)	14
714	Huntington Ingalls	HII	227.60	3	3		14.1	1.3	Aerospace/Defense	59
512	Husky Energy	HSE.TO	20.57	3	3		21.7	1.5	Petroleum (Integrated)	29
181	ICU Medical	ICUI	296.55	3	3		40.9	NIL	Med Supp Invasive	75
1383	IPG Photonics	IPGP	239.48	3	2		28.2	NIL	Semiconductor Equip	3
1757	ITT Inc.	ITT	52.66	3	3		17.0	1.0	Diversified Co.	32
1714	IDEX Corp.	IEX	138.63	2	1		27.2	1.2	Machinery	21
735	Illinois Tool Works	ITW	143.20	1	2		18.4	2.2	Metal Fabricating	40
2013	Immersion Corp.	IMMR	15.54	5	2		7.8	NIL	Entertainment Tech	91
1758	Ingersoll-Rand	IR	90.89	3	3		17.1	2.3	Diversified Co.	32
1332	Integer Holdings	ITGR	72.85	3	3		21.7	NIL	Electronics	63
1799	Intercontinental Exch.	ICE	75.61	2	3		21.6	1.3	Brokers & Exchanges	23
1154	Interface Inc. 'A'	TILE	23.30	3	3		16.6	1.1	Furn/Home Furnishings	77
2313	Int'l Speedway 'A' ▲	ISCA	44.55	3	3		23.4	1.1	Recreation	45
1333	iRobot Corp.	IRBT	79.84	3	4		34.0	NIL	Electronics	63
1334	Jabil Inc.	JBL	28.85	3	3		10.6	1.1	Electronics	63
843	Jazz Pharmac. plc	JAZZ	175.60	3	2		13.5	NIL	Biotechnology	90
397	Jones Lang LaSalle	JLL	170.07	3	2		15.4	0.5	Industrial Services	55
123	KLA-Tencor	KLAC	105.89	3	2		12.7	2.8	Precision Instrument	62
577	KMG Chemicals	KMG	74.69	3	3		22.3	0.2	Chemical (Specialty)	15
1761	Kadant Inc.	KAI	95.95	3	3		18.3	0.9	Diversified Co.	32
736	Kennametal Inc.	KMT	37.10	3	3		13.1	2.2	Metal Fabricating	40
2519	KeyCorp ▲	KEY	20.06	3	3		12.2	3.4	Bank	19
1643	Kforce Inc.	KFRC	35.80	3	3		15.9	1.3	Human Resources	12
1572	Kinross Gold	KGC	3.76	5	3		18.8	NIL	Precious Metals	66
2143	Kohl's Corp.	KSS	70.93	3	1		13.5	3.4	Retail Store	48
1644	Korn/Ferry Int'l	KFY	65.58	3	3		21.5	0.6	Human Resources	12
1801	LPL Financial Hldgs.	LPLA	67.50	3	1		20.5	1.5	Brokers & Exchanges	23
812	Laboratory Corp.	LH	184.85	1	3		16.0	NIL	Medical Services	9
2409	Laredo Petroleum	LPI	9.56	5	5		8.7	NIL	Petroleum (Producing)	11
1012	Lauder (Estee)	EL	142.20	2	1		29.7	1.2	Toiletries/Cosmetics	72
2567	Lazard Ltd.	LAZ	51.00	3	2		12.8	3.5	Financial Svcs. (Div.)	20
1715	Lennox Int'l	LII	214.52	3	3		21.5	1.2	Machinery	21
1311	Littelfuse Inc.	LFUS	229.74	3	3		23.9	0.6	Electrical Equipment	51
718	Lockheed Martin	LMT	317.50	1	3		20.0	2.6	Aerospace/Defense	59
125	Lumentum Holdings	LITE	59.30	3	3		24.5	NIL	Precision Instrument	62
2520	M&T Bank Corp. ▲	MTB	168.50	2	2		15.9	1.9	Bank	19
1130	M.D.C. Holdings	MDC	32.56	3	3		9.9	3.7	Homebuilding	1
2570	MGIC Investment	MTG	11.23	4	4		6.4	NIL	Financial Svcs. (Div.)	20

▲ Arrow indicates the direction of a change in Timeliness. ■ Newly added this week.

Continued from preceding page

TIMELY STOCKS

Stocks Ranked 2 (Above Average) for Relative Price Performance in the Next 12 Months

Page No.	Stock Name	Ticker	Recent Price	Ranks Technical	Ranks Safety	Current P/E Ratio	% Est'd Yield	Industry Group	Industry Rank
1718	MSA Safety	MSA	97.90	3	3	23.9	1.6	Machinery	21
1558	Manulife Fin'l	MFC	18.08	3	3	9.3	4.9	Insurance (Life)	13
2410	Marathon Oil Corp.	MRO	20.06	3	3	26.7	1.0	Petroleum (Producing)	11
2178	MarineMax	HZO	20.80	4	2	13.8	NIL	Retail (Hardlines)	44
2363	Marriott Int'l	MAR	130.45	3	2	24.6	1.3	Hotel/Gaming	31
2571	Marsh & McLennan	MMC	86.93	1	3	19.4	1.9	Financial Svcs. (Div.)	20
1589	Materion Corp.	MTRN	55.75	3	3	26.5	0.8	Metals & Mining (Div.)	35
1360	Maxim Integrated	MXIM	61.30	3	3	21.9	2.7	Semiconductor	17
815	MEDNAX, Inc.	MD	44.06	3	3	10.6	NIL	Medical Services	9
2365	Melco Resorts & Entert.	MLCO	24.63	3	1	21.4	2.2	Hotel/Gaming	31
1131	Meritage Homes	MTH	46.95	3	3	9.4	NIL	Homebuilding	1
1335	Methode Electronics ▼	MEI	39.30	3	2	12.4	1.1	Electronics	63
1953	Metro Inc.	MRU.TO	45.29	2	3	17.6	1.8	Retail/Wholesale Food	39
2366	Monarch Casino	MCRI	47.99	3	3	27.3	NIL	Hotel/Gaming	31
445	Moody's Corp.	MCO	182.69	3	3	23.7	1.0	Information Services	36
720	Moog Inc. 'A'	MOGA	78.76	3	2	16.9	1.3	Aerospace/Defense	59
954	Motorola Solutions	MSI	122.45	3	4	18.0	1.8	Telecom. Equipment	85
515	Murphy Oil Corp.	MUR	31.81	3	2	18.2	3.1	Petroleum (Integrated)	29
1132	NVR, Inc.	NVR	3168.20	2	3	16.7	NIL	Homebuilding	1
2337	Netflix, Inc.	NFLX	379.48	3	3	NMF	NIL	Entertainment	22
551	New Jersey Resources	NJR	45.60	1	3	17.0	2.4	Natural Gas Utility	41
541	Newfield Exploration	NFX	28.85	3	4	9.0	NIL	Natural Gas (Div.)	24
348	Norfolk Southern	NSC	154.96	3	3	17.8	1.9	Railroad	42
1625	Novo Nordisk ADR	NVO	50.14	2	4	17.9	2.4	Drug	73
749	Nucor Corp.	NUE	64.62	3	3	14.0	2.4	Steel	6
913	OGE Energy	OGE	35.24	2	4	17.2	4.1	Electric Util. (Central)	52
326	Old Dominion Freight	ODFL	145.78	2	1	24.5	0.4	Trucking	18
2129	O'Reilly Automotive	ORLY	289.50	3	3	18.7	NIL	Retail Automotive	7
914	Otter Tail Corp.	OTTR	48.45	2	3	23.6	2.8	Electric Util. (Central)	52
2184	PC Connection	CNXN	33.82	3	3	14.1	NIL	Retail (Hardlines)	44
2522	PNC Financial Serv.	PNC	141.48	2	2	13.5	2.7	Bank	19
816	PRA Health Sciences	PRAH	99.42	3	3	24.2	NIL	Medical Services	9
2111	PVH Corp.	PVH	151.49	3	1	16.5	0.1	Apparel	65
166	PACCAR Inc.	PCAR	63.21	2	3	11.1	3.6	Heavy Truck & Equip	28
1768	Parker-Hannifin	PH	158.75	2	2	14.8	1.9	Diversified Co.	32
2185	Party City Holdco	PRTY	16.65	4	3	9.0	NIL	Retail (Hardlines)	44
2367	Penn Nat'l Gaming	PENN	35.72	3	3	22.3	NIL	Hotel/Gaming	31
1954	Performance Food	PFGC	38.35	3	3	21.9	NIL	Retail/Wholesale Food	39
637	Phillips 66 Partners	PSXP	50.10	3	1	14.7	6.0	Pipeline MLPs	50
1388	Photronics Inc.	PLAB	8.60	3	4	15.4	NIL	Semiconductor Equip	3
750	POSCO ADR	PKX	70.85	3	1	7.9	3.4	Steel	6
829	Premier, Inc.	PINC	37.37	3	3	14.1	NIL	Healthcare Information	49
2575	Price (T. Rowe) Group	TROW	120.41	1	2	16.6	2.4	Financial Svcs. (Div.)	20
773	Progressive Corp.	PGR	59.40	2	2	15.0	1.9	Insurance (Prop/Cas.)	56
1116	Quanex Bldg. Prod.	NX	17.85	3	3	22.0	0.9	Building Materials	30
2187	Qurate Retail	QRTEA	21.95	3	4	12.9	NIL	Retail (Hardlines)	44
1161	RH	RH	138.40	4	1	21.1	NIL	Furn/Home Furnishings	77
2435	RPC Inc.	RES	14.97	3	4	11.5	3.3	Oilfield Svcs/Equip.	92
1369	Rambus Inc. ▲	RMBS	12.88	3	2	15.2	NIL	Semiconductor	17
2416	Range Resources	RRC	16.30	3	4	15.5	0.5	Petroleum (Producing)	11
1812	Raymond James Fin'l	RJF	95.03	3	2	13.6	1.3	Investment Banking	5
2524	Regions Financial	RF	17.64	3	2	12.6	2.3	Bank	19
751	Reliance Steel	RS	90.73	3	2	11.3	2.2	Steel	6
413	Republic Services	RSG	69.31	2	3	22.4	2.1	Environmental	27
1591	Rio Tinto plc	RIO	54.24	3	1	10.8	5.1	Metals & Mining (Div.)	35
1772	Rogers Communications ▼	RCIB.TO	66.62	3	3	18.3	2.9	Diversified Co.	32
2212	Ross Stores	ROST	86.39	2	2	21.3	1.1	Retail (Softlines)	61
521	Royal Dutch Shell 'B'	RDSB	71.89	2	3	14.8	5.2	Petroleum (Integrated)	29
752	Russel Metals	RUS.TO	26.71	3	3	10.9	5.7	Steel	6
447	S&P Global	SPGI	212.59	2	3	24.9	1.0	Information Services	36
2629	SEI Investments	SEIC	64.21	2	2	20.7	1.0	IT Services	47
2577	SLM Corporation	SLM	11.67	3	3	11.7	NIL	Financial Svcs. (Div.)	20
1727	SPX FLOW, Inc.	FLOW	43.11	3	3	17.6	NIL	Machinery	21
2604	SS&C Techn. Hldgs	SSNC	53.97	3	3	23.5	0.5	Computer Software	54
2526	SVB Fin'l Group	SIVB	308.19	3	2	19.9	NIL	Bank	19
1016	Sally Beauty	SBH	15.77	3	4	7.7	NIL	Toiletries/Cosmetics	72
753	Schnitzer Steel ▼	SCHN	34.45	3	2	10.9	2.2	Steel	6
1404	Seagate Technology	STX	58.10	3	3	10.0	4.3	Computers/Peripherals	43
818	Select Med. Hldgs.	SEM	19.15	3	3	17.4	NIL	Medical Services	9
132	Sensata Techn. plc	ST	50.68	3	2	13.9	NIL	Precision Instrument	62
1144	Sherwin-Williams	SHW	424.36	2	4	22.6	0.8	Retail Building Supply	37
1774	Siemens AG (ADS)	SIEGY	68.63	2	3	13.8	3.2	Diversified Co.	32
1186	Silgan Holdings	SLGN	26.73	3	3	12.7	1.5	Packaging & Container	16
1728	Smith (A.O.)	AOS	59.84	3	2	23.0	1.2	Machinery	21
1983	SodaStream Int'l	SODA	89.88	3	2	25.0	NIL	Beverage	74
372	Sonic Corp.	SONC	36.37	3	3	24.1	1.8	Restaurant	67
1187	Sonoco Products	SON	53.00	2	3	16.1	3.1	Packaging & Container	16
545	Southwestern Energy	SWN	5.24	4	4	6.6	NIL	Natural Gas (Div.)	24
557	Spire Inc.	SR	71.70	2	5	21.7	3.1	Natural Gas Utility	41
1957	Sprouts Farmers Market	SFM	22.67	3	3	18.1	NIL	Retail/Wholesale Food	39
1813	Stifel Financial Corp.	SF	53.12	3	1	10.5	0.9	Investment Banking	5
1373	STMicroelectronics	STM	23.24	3	3	18.6	1.0	Semiconductor	17
2578	Sun Life Fin'l Svcs.	SLF.TO	53.71	2	2	12.1	3.5	Financial Svcs. (Div.)	20
522	Suncor Energy	SU.TO	54.00	3	3	20.4	2.7	Petroleum (Integrated)	29
2529	SunTrust Banks	STI	68.91	3	2	13.4	2.4	Bank	19
2607	Synopsys, Inc.	SNPS	92.11	1	3	24.6	NIL	Computer Software	54
1959	Sysco Corp.	SYY	71.07	1	4	21.6	2.1	Retail/Wholesale Food	39
2213	TJX Companies	TJX	96.30	1	2	19.9	1.6	Retail (Softlines)	61
1135	TRI Pointe Group	TPH	17.40	3	3	9.2	NIL	Homebuilding	1
1136	Taylor Morrison Home	TMHC	21.97	3	4	8.6	NIL	Homebuilding	1
726	Teledyne Technologies	TDY	209.48	3	2	27.0	NIL	Aerospace/Defense	59
932	Telephone & Data	TDS	25.25	3	5	33.7	2.6	Telecom. Services	60
167	Terex Corp.	TEX	44.11	3	3	16.0	0.9	Heavy Truck & Equip	28
1375	Texas Instruments	TXN	115.80	1	3	22.3	2.1	Semiconductor	17
374	Texas Roadhouse	TXRH	67.40	3	3	24.5	1.5	Restaurant	67
1776	Textron, Inc. ▲	TXT	66.79	3	2	21.5	0.1	Diversified Co.	32
740	Timken Co.	TKR	44.15	3	2	11.2	2.5	Metal Fabricating	40
1563	Torchmark Corp.	TMK	84.56	1	2	14.0	0.8	Insurance (Life)	13
2580	Total System Svcs.	TSS	89.59	3	3	30.4	0.6	Financial Svcs. (Div.)	20
449	TransUnion	TRU	74.95	3	4	30.0	0.4	Information Services	36
1647	TriNet Group	TNET	55.22	3	3	22.5	NIL	Human Resources	12
1648	TrueBlue, Inc.	TBI	27.55	3	3	15.7	NIL	Human Resources	12
608	Ubiquiti Networks	UBNT	88.74	3	3	20.3	NIL	Wireless Networking	86
2193	Ulta Beauty	ULTA	253.08	3	1	23.2	NIL	Retail (Hardlines)	44
350	Union Pacific	UNP	138.26	1	2	18.1	2.1	Railroad	42
1406	Unisys Corp.	UIS	14.25	5	3	35.6	NIL	Computers/Peripherals	43
1961	United Natural Foods	UNFI	44.78	3	4	12.5	NIL	Retail/Wholesale Food	39
316	United Parcel Serv.	UPS	111.07	1	3	15.4	3.3	Air Transport	25
1594	U.S. Silica Holdings	SLCA	26.26	4	3	8.5	1.0	Metals & Mining (Div.)	35
821	UnitedHealth Group	UNH	250.29	1	3	19.8	1.4	Medical Services	9
1122	Universal Forest	UFPI	38.55	3	3	16.4	0.9	Building Materials	30
2371	Vail Resorts	MTN	290.38	3	3	36.8	2.0	Hotel/Gaming	31
134	Veeco Instruments	VECO	15.65	4	3	NMF	NIL	Precision Instrument	62
935	Verizon Communic.	VZ	51.43	1	4	11.2	4.6	Telecom. Services	60
1509	Washington Federal	WAFD	32.90	3	3	13.9	2.1	Thrift	80
418	Waste Management	WM	83.70	1	3	20.9	2.2	Environmental	27
1735	Watts Water Techn.	WTS	82.15	3	3	22.2	1.1	Machinery	21
2532	Webster Fin'l	WBS	65.05	3	2	19.0	2.0	Bank	19
823	WellCare Health Plans	WCG	254.03	3	3	24.8	NIL	Medical Services	9
328	Werner Enterprises	WERN	36.60	3	2	18.8	1.0	Trucking	18
2584	WEX Inc.	WEX	196.10	3	3	34.4	NIL	Financial Svcs. (Div.)	20
2417	Whiting Petroleum	WLL	49.45	5	2	49.5	NIL	Petroleum (Producing)	11
2195	Williams-Sonoma	WSM	61.93	2	2	14.9	2.8	Retail (Hardlines)	44
795	Wintrust Financial	WTFC	88.38	3	1	15.1	0.9	Bank (Midwest)	14
2586	Worldpay, Inc.	WP	86.92	3	3	47.0	NIL	Financial Svcs. (Div.)	20
329	XPO Logistics	XPO	99.97	4	1	30.8	NIL	Trucking	18
2232	Xcel Energy Inc.	XEL	45.86	1	5	18.7	3.4	Electric Utility (West)	84
1737	Xylem Inc.	XYL	67.80	3	3	23.0	1.2	Machinery	21
2534	Zions Bancorp.	ZION	53.06	3	2	13.8	1.8	Bank	19
1633	Zoetis Inc.	ZTS	85.77	3	1	28.1	0.6	Drug	73

▲ Arrow indicates the direction of a change in Timeliness. ■ Newly added this week.

Rank 2 Deletions:
Abbott Labs.; Carnival Corp.; Navistar Int'l; Snap-on Inc.; US Ecology; WABCO Hldgs.; Walgreens Boots.

Rank removed–see supplement or report:
None.

Rank 3 Deletions:
Hub Group; Infosys Ltd. ADR; Interactive Brokers; Novartis AG ADR; RLI Corp.; SAP SE; Sonic Automotive; Travelers Cos.; Wells Fargo.

Rank removed–see supplement or report:
Horizon Global Corp.; NCI Bldg. Sys.

Stocks Ranked 1 (Highest) for Relative Safety

Page No.	Stock Name	Recent Price	Rank Time-liness	Rank Tech-nical	Current P/E Ratio	Current % Est'd Yield	Industry Group	Industry Rank
1966	AB InBev ADR	102.75	4	5	23.4	4.3	Beverage	74
919	AT&T Inc.	31.76	3	3	9.3	6.4	Telecom. Services	60
197	Abbott Labs.	62.80	3	1	22.0	1.8	Med Supp Non-Invasive	78
2612	Accenture Plc	168.07	3	3	23.1	1.7	IT Services	47
2443	Air Products & Chem.	156.20	3	1	20.9	2.8	Chemical (Diversified)	4
758	Alleghany Corp.	603.16	3	3	18.8	NIL	Insurance (Prop/Cas.)	56
759	Allstate Corp.	94.26	1	3	10.9	2.0	Insurance (Prop/Cas.)	56
2634	Alphabet Inc. (NDQ)	1198.80	2	3	30.9	NIL	Internet	79
2613	Amdocs Ltd. (NDQ)	68.96	4	3	21.8	1.5	IT Services	47
905	Amer. Elec. Power	70.44	4	5	18.3	3.6	Electric Util. (Central)	52
2540	Amer. Express	101.15	3	3	13.9	1.5	Financial Svcs. (Div.)	20
835	Amgen (NDQ)	193.92	3	3	14.6	2.8	Biotechnology	90
2543	Aon plc	145.62	1	3	18.2	1.1	Financial Svcs. (Div.)	20
762	Arch Capital Group (NDQ)	28.36	3	4	12.9	NIL	Insurance (Prop/Cas.)	56
549	Atmos Energy	90.80	4	3	22.0	2.3	Natural Gas Utility	41
2614	Automatic Data Proc. (NDQ)	137.36	3	3	26.7	2.1	IT Services	47
2509	Bank of Nova Scotia (TSE)	76.15	3	3	10.7	4.4	Bank	19
172	Baxter Int'l Inc.	74.75	2	3	25.8	1.0	Med Supp Invasive	75
173	Becton, Dickinson	247.75	3	4	21.6	1.2	Med Supp Invasive	75
1177	Bemis Co.	42.06	3	4	15.6	2.9	Packaging & Container	16
763	Berkley (W.R.)	73.80	3	2	20.2	0.8	Insurance (Prop/Cas.)	56
764	Berkshire Hathaway 'B'	190.41	3	2	28.0	NIL	Insurance (Prop/Cas.)	56
836	Bio-Techne Corp. (NDQ)	152.47	3	3	52.9	0.9	Biotechnology	90
706	Boeing	356.88	2	2	21.3	2.1	Aerospace/Defense	59
2547	Brown & Brown	29.15	3	3	23.3	1.0	Financial Svcs. (Div.)	20
1968	Brown-Forman 'B'	52.64	5	2	31.3	1.3	Beverage	74
965	CVS Health	67.94	1	4	9.7	2.9	Pharmacy Services	26
2510	Can. Imperial Bank (TSE)	116.38	3	3	9.8	4.7	Bank	19
1985	Canon Inc. ADR	31.80	3	3	13.5	4.5	Foreign Electronics	33
1818	Check Point Software (NDQ)	110.11	3	5	20.8	NIL	E-Commerce	64
507	Chevron Corp.	121.91	2	3	16.5	3.7	Petroleum (Integrated)	29
766	Chubb Ltd.	133.38	5	4	12.7	2.2	Insurance (Prop/Cas.)	56
1191	Church & Dwight	54.77	3	5	24.3	1.6	Household Products	88
944	Cisco Systems (NDQ)	42.34	3	2	15.5	3.1	Telecom. Equipment	85
1969	Coca-Cola	45.25	4	4	21.5	3.6	Beverage	74
1193	Colgate-Palmolive	65.56	4	4	21.1	2.6	Household Products	88
783	Commerce Bancshs. (NDQ)	68.29	2	3	19.2	1.4	Bank (Midwest)	14
140	Consol. Edison	78.96	3	5	18.6	3.7	Electric Utility (East)	53
2138	Costco Wholesale (NDQ)	215.00	3	3	30.1	1.1	Retail Store	48
157	Deere & Co.	138.00	2	2	14.1	2.0	Heavy Truck & Equip	28
1975	Diageo plc	148.15	3	2	24.1	2.2	Beverage	74
2330	Disney (Walt)	110.30	2	4	16.7	1.5	Entertainment	22
569	Ecolab Inc.	143.72	3	3	26.6	1.1	Chemical (Specialty)	15
1305	Emerson Electric	69.48	3	1	21.2	2.8	Electrical Equipment	51
2024	Everest Re Group Ltd.	235.11	5	3	10.6	2.3	Reinsurance	95
143	Eversource Energy	58.87	4	5	18.1	3.5	Electric Utility (East)	53
389	Expeditors Int'l (NDQ)	72.25	3	1	24.9	1.2	Industrial Services	55
509	Exxon Mobil Corp.	82.31	3	3	17.7	4.0	Petroleum (Integrated)	29
1524	Federal Rlty. Inv. Trust	123.98	4	3	39.4	3.3	R.E.I.T.	96
309	FedEx Corp.	231.15	1	2	13.1	1.1	Air Transport	25
2561	Gallagher (Arthur J.)	69.69	3	3	20.8	2.4	Financial Svcs. (Div.)	20
712	Gen'l Dynamics	192.32	4	2	17.3	1.9	Aerospace/Defense	59
1913	Gen'l Mills	44.23	4	4	14.5	4.4	Food Processing	81
987	Genuine Parts	94.18	–	–	16.5	3.1	Auto Parts	8
1616	GlaxoSmithKline ADR	41.14	4	2	20.6	6.1	Drug	73
1807	Goldman Sachs	231.02	1	2	9.6	1.4	Investment Banking	5
2624	Henry (Jack) & Assoc. (NDQ)	136.27	3	4	37.0	1.1	IT Services	47
1141	Home Depot	201.10	2	3	21.5	2.2	Retail Building Supply	37
1756	Honeywell Int'l	148.49	–	–	18.6	2.0	Diversified Co.	32
735	Illinois Tool Works	143.20	2	2	18.4	2.2	Metal Fabricating	40
1358	Intel Corp. (NDQ)	51.75	1	2	12.9	2.3	Semiconductor	17
1398	Int'l Business Mach.	143.49	3	4	12.4	4.4	Computers/Peripherals	43
576	Int'l Flavors & Frag.	128.99	3	4	20.5	2.3	Chemical (Specialty)	15
1920	J&J Snack Foods (NDQ)	156.76	3	4	31.7	1.2	Food Processing	81
215	Johnson & Johnson	129.11	3	4	18.4	2.8	Med Supp Non-Invasive	78
1921	Kellogg	70.65	3	4	15.9	3.1	Food Processing	81
1197	Kimberly-Clark	106.47	3	4	15.4	3.8	Household Products	88
812	Laboratory Corp.	184.85	2	3	16.0	NIL	Medical Services	9
1618	Lilly (Eli)	89.57	3	3	17.2	2.5	Drug	73
718	Lockheed Martin	317.50	2	3	20.0	2.6	Aerospace/Defense	59
912	MGE Energy (NDQ)	63.35	4	5	27.0	2.1	Electric Util. (Central)	52
770	Markel Corp.	1132.47	5	3	51.1	NIL	Insurance (Prop/Cas.)	56
2571	Marsh & McLennan	86.93	2	3	19.4	1.9	Financial Svcs. (Div.)	20
2572	MasterCard Inc.	206.37	3	3	35.9	0.5	Financial Svcs. (Div.)	20
1926	McCormick & Co.	119.42	3	3	24.1	1.8	Food Processing	81
366	McDonald's Corp.	159.75	3	3	20.7	2.6	Restaurant	67
185	Medtronic plc	88.29	4	3	17.5	2.3	Med Supp Invasive	75
1621	Merck & Co.	62.53	3	3	14.7	3.1	Drug	73
2597	Microsoft Corp. (NDQ)	105.95	3	3	26.9	1.6	Computer Software	54
1929	Nestle SA ADS (PNK)	79.14	5	5	25.1	3.1	Food Processing	81
551	New Jersey Resources	45.60	2	3	17.0	2.4	Natural Gas Utility	41
146	NextEra Energy	170.21	3	4	22.0	2.7	Electric Utility (East)	53
2159	NIKE, Inc. 'B'	77.47	3	3	30.1	1.0	Shoe	58
721	Northrop Grumman	321.20	3	2	20.6	1.5	Aerospace/Defense	59
553	Northwest Nat. Gas	63.45	4	4	28.2	3.0	Natural Gas Utility	41
1624	Novartis AG ADR	78.70	4	4	22.5	3.7	Drug	73
1212	Nuveen Muni Value Fund	9.50	–	3	NMF	4.2	Investment Co.	–
2599	Oracle Corp.	48.90	3	4	15.4	1.6	Computer Software	54
2451	PPG Inds.	105.41	4	4	16.1	1.7	Chemical (Diversified)	4
2628	Paychex, Inc. (NDQ)	70.46	3	3	26.3	3.2	IT Services	47
1981	PepsiCo, Inc.	114.88	4	5	20.2	3.2	Beverage	74
1629	Pfizer, Inc.	37.65	3	3	17.9	3.6	Drug	73
2229	Pinnacle West Capital	80.24	4	5	17.8	3.6	Electric Utility (West)	84
587	Praxair Inc.	166.86	–	–	24.7	2.1	Chemical (Specialty)	15
2575	Price (T. Rowe) Group (NDQ)	120.41	2	2	16.6	2.4	Financial Svcs. (Div.)	20
1199	Procter & Gamble	80.03	5	5	18.3	3.6	Household Products	88
148	Public Serv. Enterprise	51.74	3	3	16.7	3.5	Electric Utility (East)	53
1540	Public Storage	219.72	5	3	30.3	3.9	R.E.I.T.	96
723	Raytheon Co.	200.24	3	2	20.6	1.7	Aerospace/Defense	59
724	Rockwell Collins	137.32	–	–	18.3	1.0	Aerospace/Defense	59
1726	Roper Tech.	283.04	3	2	25.2	0.6	Machinery	21
2525	Royal Bank of Canada (TSE)	102.00	3	3	11.8	3.8	Bank	19
1630	Sanofi ADR	41.94	4	5	17.8	4.4	Drug	73
1936	Saputo Inc. (TSE)	45.16	5	4	24.4	1.4	Food Processing	81
1939	Smucker (J.M.)	110.99	3	4	15.2	3.1	Food Processing	81
373	Starbucks Corp. (NDQ)	51.28	3	4	20.0	2.8	Restaurant	67
190	Stryker Corp.	176.11	3	3	33.5	1.1	Med Supp Invasive	75
2607	Synopsys, Inc. (NDQ)	92.11	2	3	24.6	NIL	Computer Software	54
1959	Sysco Corp.	71.07	2	4	21.6	2.1	Retail/Wholesale Food	39
2213	TJX Companies	96.30	2	2	19.9	1.6	Retail (Softlines)	61
1375	Texas Instruments (NDQ)	115.80	2	3	22.3	2.1	Semiconductor	17
1777	3M Company	202.07	3	3	19.4	2.7	Diversified Co.	32
1940	Tootsie Roll	30.30	5	5	30.3	1.2	Food Processing	81
1563	Torchmark Corp.	84.56	2	2	14.0	0.8	Insurance (Life)	13
2531	Toronto-Dominion (TSE)	76.14	1	3	12.8	3.6	Bank	19
523	Total ADR	61.65	3	3	14.0	4.8	Petroleum (Integrated)	29
776	Travelers Cos.	128.79	4	3	12.1	2.4	Insurance (Prop/Cas.)	56
1944	Unilever PLC ADR	54.90	3	3	20.0	3.6	Food Processing	81
350	Union Pacific	138.26	2	2	18.1	2.1	Railroad	42
316	United Parcel Serv.	111.07	2	3	15.4	3.3	Air Transport	25
794	U.S. Bancorp	51.30	3	4	12.8	2.5	Bank (Midwest)	14
1779	United Technologies	130.71	3	3	18.3	2.1	Diversified Co.	32
821	UnitedHealth Group	250.29	2	3	19.8	1.4	Medical Services	9
193	Varian Medical Sys.	116.03	3	3	27.6	NIL	Med Supp Invasive	75
935	Verizon Communic.	51.43	2	4	11.2	4.6	Telecom. Services	60
2581	Visa Inc.	139.64	3	3	30.4	0.6	Financial Svcs. (Div.)	20
916	WEC Energy Group	64.92	3	5	19.7	3.5	Electric Util. (Central)	52
2152	Walmart Inc.	88.19	3	3	18.2	2.4	Retail Store	48
418	Waste Management	83.70	2	3	20.9	2.2	Environmental	27
2232	Xcel Energy Inc. (NDQ)	45.86	2	5	18.7	3.4	Electric Utility (West)	84

Stocks Ranked 2 (Above Average) for Relative Safety

Page No.	Stock Name	Recent Price	Rank Time-liness	Rank Tech-nical	Current P/E Ratio	Current % Est'd Yield	Industry Group	Industry Rank
1739	ABB Ltd. ADR	21.80	3	4	18.2	3.8	Diversified Co.	32
380	ABM Industries Inc.	29.34	4	4	13.7	2.4	Industrial Services	55
1206	Adams Divers. Equity Fd	15.85	–	3	NMF	1.5	Investment Co.	–
2588	Adobe Systems (NDQ)	258.31	3	3	52.7	NIL	Computer Software	54
797	Aetna Inc.	191.54	–	–	17.5	1.0	Medical Services	9
1555	Aflac Inc.	42.94	2	1	10.7	2.5	Insurance (Life)	13
902	ALLETE	77.44	4	3	22.8	3.0	Electric Util. (Central)	52
903	Alliant Energy	42.88	3	4	20.4	3.1	Electric Util. (Central)	52
1992	Altria Group	57.35	2	3	14.3	4.9	Tobacco	70
904	Ameren Corp.	61.27	2	4	20.1	3.1	Electric Util. (Central)	52
760	Amer. Financial Group	108.94	2	2	13.3	1.3	Insurance (Prop/Cas.)	56
1784	Amer. States Water	60.27	4	3	34.4	1.8	Water Utility	94
596	Amer. Tower 'A'	142.17	3	3	46.6	2.3	Wireless Networking	86
1741	AMETEK, Inc.	73.18	3	1	23.6	0.8	Diversified Co.	32
1320	Amphenol Corp.	89.01	2	2	25.4	1.0	Electronics	63
1350	Analog Devices (NDQ)	98.26	2	2	16.8	2.0	Semiconductor	17
2589	ANSYS, Inc. (NDQ)	180.64	3	3	37.2	NIL	Computer Software	54
799	Anthem, Inc.	246.03	3	3	17.0	1.2	Medical Services	9
1393	Apple Inc. (NDQ)	191.45	2	2	16.1	1.6	Computers/Peripherals	43
1175	AptarGroup	94.64	3	3	25.6	1.4	Packaging & Container	16
1786	Aqua America	36.41	4	4	26.0	2.4	Water Utility	94
1902	Archer Daniels Midl'd	47.72	3	3	15.4	2.8	Food Processing	81
2020	Argo Group Int'l	60.00	3	2	12.0	1.8	Reinsurance	95
2021	Aspen Insurance Hldgs.	40.10	4	3	9.7	2.4	Reinsurance	95
2544	Assurant Inc.	107.65	3	4	14.4	2.1	Financial Svcs. (Div.)	20
1514	AvalonBay Communities	171.37	3	4	26.4	3.5	R.E.I.T.	96
139	AVANGRID, Inc.	52.77	3	3	22.9	3.3	Electric Utility (East)	53
564	Avery Dennison	104.48	2	2	17.7	2.0	Chemical (Specialty)	15
2220	Avista Corp.	50.59	–	–	26.6	3.0	Electric Utility (West)	84
2023	AXIS Capital Hldgs.	57.59	3	4	11.5	2.7	Reinsurance	95
2503	BB&T Corp.	52.00	2	2	13.3	3.0	Bank	19
1176	Ball Corp.	38.25	2	4	18.2	1.0	Packaging & Container	16
2506	Bank of Hawaii	84.08	4	2	16.0	2.9	Bank	19
2507	Bank of Montreal (TSE)	103.67	3	3	12.6	3.7	Bank	19
2508	Bank of New York Mellon	54.05	2	1	12.9	2.1	Bank	19
200	Bio-Rad Labs. 'A'	302.62	3	2	58.8	NIL	Med Supp Non-Invasive	78
2221	Black Hills	60.89	3	5	17.4	3.2	Electric Utility (West)	84
2545	BlackRock, Inc.	504.88	2	1	17.4	2.5	Financial Svcs. (Div.)	20
2001	Bright Horizons Family	108.85	2	3	34.6	NIL	Educational Services	87
1612	Bristol-Myers Squibb	56.63	3	5	18.6	2.8	Drug	73
1993	Brit. Am. Tobacco ADR	50.19	3	4	11.7	4.6	Tobacco	70
435	Broadridge Fin'l	118.26	3	3	30.6	1.3	Information Services	36
1745	Brookfield Infrastruc.	39.77	3	4	33.1	4.7	Diversified Co.	32
2591	CA, Inc. (NDQ)	44.09	–	–	21.9	2.4	Computer Software	54
1795	Cboe Global Markets (NDQ)	104.88	2	3	22.8	1.0	Brokers & Exchanges	23
385	C.H. Robinson (NDQ)	87.70	3	3	19.5	2.1	Industrial Services	55
1796	CME Group (NDQ)	169.02	3	2	24.1	1.7	Brokers & Exchanges	23
906	CMS Energy Corp.	47.60	3	4	20.3	3.1	Electric Util. (Central)	52
765	CNA Fin'l	48.03	2	3	11.4	2.5	Insurance (Prop/Cas.)	56
1907	Campbell Soup	41.16	4	5	15.7	3.4	Food Processing	81

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Stocks Ranked 2 (Above Average) for Relative Safety

Page No.	Stock Name	Recent Price	Rank Time-liness	Rank Tech-nical	Current P/E Ratio	Current % Est'd Yield	Industry Group	Industry Rank
342	Can. National Railway	84.12	4	3	21.0	2.2	Railroad	42
2137	Canadian Tire 'A' (TSE)	173.68	3	3	14.5	2.1	Retail Store	48
1502	Capitol Fed. Fin'l (NDQ)	13.02	4	3	18.1	2.6	Thrift	80
202	Cardinal Health	49.97	4	3	13.5	3.8	Med Supp Non-Invasive	78
1746	Carlisle Cos.	112.58	4	3	19.1	1.3	Diversified Co.	32
155	Caterpillar Inc.	138.95	2	1	12.9	2.5	Heavy Truck & Equip	28
827	Cerner Corp. (NDQ)	60.98	4	4	24.4	NIL	Healthcare Information	49
550	Chesapeake Utilities	83.95	3	4	26.7	1.8	Natural Gas Utility	41
802	Cigna Corp.	170.71	1	3	12.9	NIL	Medical Services	9
767	Cincinnati Financial (NDQ)	70.55	3	4	21.7	3.0	Insurance (Prop/Cas.)	56
386	Cintas Corp. (NDQ)	194.26	3	3	30.3	0.9	Industrial Services	55
1192	Clorox Co.	135.02	5	4	22.8	2.8	Household Products	88
1021	Cogeco Communic. (TSE)	70.94	3	4	12.5	2.7	Cable TV	38
2618	Cognizant Technology (NDQ)	82.74	2	3	18.4	1.0	IT Services	47
1022	Comcast Corp. (NDQ)	34.27	1	5	14.0	2.2	Cable TV	38
1908	Conagra Brands	36.11	–	–	16.2	2.4	Food Processing	81
204	Cooper Cos.	246.07	3	3	24.3	NIL	Med Supp Non-Invasive	78
2124	Copart, Inc. (NDQ)	59.16	3	3	30.3	NIL	Retail Automotive	7
357	Cracker Barrel (NDQ)	147.31	3	2	15.0	3.4	Restaurant	67
156	Cummins Inc.	135.88	3	3	11.2	3.4	Heavy Truck & Equip	28
1207	DNP Select Inc. Fund	10.89	–	3	NMF	2.8	Investment Co.	–
908	DTE Energy	106.38	3	5	18.2	3.5	Electric Util. (Central)	52
1750	Danaher Corp.	99.58	–	–	22.4	0.6	Diversified Co.	32
178	Dentsply Sirona (NDQ)	45.70	4	5	17.2	0.8	Med Supp Invasive	75
1033	Deutsche Telekom ADR(PNK)	15.95	3	4	13.9	5.3	Telecom. Utility	89
2551	Discover Fin'l Svcs.	71.10	2	1	9.2	2.0	Financial Svcs. (Div.)	20
2010	Dolby Labs.	62.60	4	3	26.0	1.0	Entertainment Tech	91
141	Dominion Energy	70.38	3	5	19.3	5.0	Electric Utility (East)	53
1710	Donaldson Co.	45.43	3	2	20.1	1.7	Machinery	21
1711	Dover Corp.	74.53	–	–	15.4	2.5	Machinery	21
1600	DowDuPont Inc.	67.06	–	–	17.2	2.4	Chemical (Basic)	76
142	Duke Energy	80.65	2	5	16.8	4.6	Electric Utility (East)	53
984	Eaton Corp. plc	77.82	3	2	14.8	3.4	Auto Parts	8
2222	Edison Int'l	65.55	4	5	14.9	3.8	Electric Utility (West)	84
2223	El Paso Electric	60.30	4	3	24.6	2.4	Electric Utility (West)	84
1219	Emera Inc. (TSE)	42.69	3	5	14.0	5.3	Power	71
1521	Equity Residential	63.86	4	3	38.7	3.4	R.E.I.T.	96
768	Erie Indemnity (NDQ)	118.10	3	4	24.1	2.8	Insurance (Prop/Cas.)	56
440	FactSet Research	205.13	3	3	28.8	1.2	Information Services	36
1139	Fastenal Co. (NDQ)	55.94	3	2	22.4	2.9	Retail Building Supply	37
2555	Fidelity Nat'l Fin'l	37.53	–	–	14.2	3.2	Financial Svcs. (Div.)	20
2556	Fidelity Nat'l Info.	108.34	3	3	33.3	1.2	Financial Svcs. (Div.)	20
2623	Fiserv Inc. (NDQ)	77.15	2	3	14.3	NIL	IT Services	47
910	Fortis Inc. (TSE)	42.89	4	5	15.9	4.2	Electric Util. (Central)	52
120	Fortive Corp.	77.57	–	–	23.9	0.4	Precision Instrument	62
2560	Franklin Resources	32.11	4	3	9.6	3.1	Financial Svcs. (Div.)	20
807	Fresenius Medical ADR	50.04	4	2	18.9	1.2	Medical Services	9
442	Gartner Inc.	139.97	3	3	37.8	NIL	Information Services	36
1754	Graham Hldgs.	565.35	3	3	17.1	0.9	Diversified Co.	32
1309	Grainger (W.W.)	304.96	3	1	20.9	1.8	Electrical Equipment	51
769	Hanover Insurance	124.23	3	3	14.9	1.7	Insurance (Prop/Cas.)	56
1331	Harris Corp.	151.64	3	3	21.5	1.6	Electronics	63
2563	Hartford Fin'l Svcs.	53.26	3	3	10.6	1.9	Financial Svcs. (Div.)	20
2224	Hawaiian Elec.	34.56	3	3	18.2	3.6	Electric Utility (West)	84
393	Healthcare Svcs. (NDQ)	42.38	4	4	38.5	1.9	Industrial Services	55
1916	Hershey Co.	93.56	3	4	17.5	3.0	Food Processing	81
1917	Hormel Foods	36.72	3	2	19.4	2.1	Food Processing	81
1310	Hubbell Inc.	113.36	3	4	16.0	2.8	Electrical Equipment	51
324	Hunt (J.B.) (NDQ)	121.56	2	2	23.8	0.8	Trucking	18
2225	IDACORP, Inc.	92.48	3	3	21.8	2.7	Electric Utility (West)	84
1714	IDEX Corp.	138.63	2	1	27.2	1.2	Machinery	21
2625	Infosys Ltd. ADR	19.90	4	3	17.2	2.8	IT Services	47
1799	Intercontinental Exch.	75.61	2	3	21.6	1.3	Brokers & Exchanges	23
2596	Intuit Inc. (NDQ)	216.48	3	4	39.8	0.7	Computer Software	54
2518	JPMorgan Chase	110.50	1	2	12.6	2.9	Bank	19
1762	Kaman Corp.	66.99	3	1	21.3	1.2	Diversified Co.	32
1922	Kraft Heinz Co. (NDQ)	63.05	4	4	16.4	4.1	Food Processing	81
717	L3 Technologies	203.03	3	3	21.4	1.6	Aerospace/Defense	59
1924	Lancaster Colony (NDQ)	142.45	4	3	30.7	1.7	Food Processing	81
1012	Lauder (Estee)	142.20	2	1	29.7	1.2	Toiletries/Cosmetics	72
1157	Leggett & Platt	45.56	4	5	16.3	3.3	Furn/Home Furnishings	77
1210	Liberty All-Star	6.68	–	3	NMF	8.4	Investment Co.	–
1952	Loblaw Cos. Ltd. (TSE)	69.73	3	5	22.9	1.7	Retail/Wholesale Food	39
2569	Loews Corp.	49.71	3	3	15.8	0.5	Financial Svcs. (Div.)	20
1142	Lowe's Cos.	100.25	3	2	18.4	1.9	Retail Building Supply	37
2177	Luxottica Group ADR (PNK)	65.50	–	–	28.5	1.9	Retail (Hardlines)	44
2520	M&T Bank Corp.	168.50	2	2	15.9	1.9	Bank	19
539	MDU Resources	29.20	3	3	19.5	2.7	Natural Gas (Div.)	24
1719	MSC Industrial Direct	82.43	3	1	15.0	2.8	Machinery	21
2336	Madison Square Garden	324.60	–	–	NMF	NIL	Entertainment	22
1925	Maple Leaf Foods (TSE)	34.45	4	5	23.0	1.6	Food Processing	81
719	Maxar Technologies	52.65	–	–	13.2	2.8	Aerospace/Defense	59
217	McKesson Corp.	134.58	3	3	10.0	1.0	Med Supp Non-Invasive	78
771	Mercury General	44.24	5	3	22.1	5.7	Insurance (Prop/Cas.)	56
1953	Metro Inc. (TSE)	45.29	2	3	17.6	1.8	Retail/Wholesale Food	39
127	Mettler-Toledo Int'l	584.80	3	2	30.3	NIL	Precision Instrument	62
1537	Mid-America Apartment	98.45	4	4	51.8	3.7	R.E.I.T.	96
1790	Middlesex Water (NDQ)	44.70	3	3	29.8	2.0	Water Utility	94
1928	Mondelez Int'l (NDQ)	42.83	3	5	17.1	2.3	Food Processing	81
1132	NVR, Inc.	3168.20	2	3	16.7	NIL	Homebuilding	1
2521	Nat'l Bank of Canada (TSE)	63.24	3	3	11.0	4.0	Bank	19
582	NewMarket Corp.	404.44	5	4	18.9	1.7	Chemical (Specialty)	15
446	Nielsen Hldgs. plc	30.65	3	3	20.4	4.6	Information Services	36
1506	Northwest Bancshares (NDQ)	17.64	3	2	17.6	3.9	Thrift	80
2226	NorthWestern Corp.	58.11	4	5	16.6	3.9	Electric Utility (West)	84
1625	Novo Nordisk ADR	50.14	2	4	17.9	2.4	Drug	73
913	OGE Energy	35.24	2	4	17.2	4.1	Electric Util. (Central)	52
326	Old Dominion Freight (NDQ)	145.78	2	1	24.5	0.4	Trucking	18
2396	Omnicom Group	70.69	3	3	12.4	3.4	Advertising	34
554	ONE Gas, Inc.	75.43	1	3	23.6	2.5	Natural Gas Utility	41
914	Otter Tail Corp. (NDQ)	48.45	2	3	23.6	2.8	Electric Util. (Central)	52
2522	PNC Financial Serv.	141.48	2	2	13.5	2.7	Bank	19
147	PPL Corp.	28.41	3	5	12.6	5.8	Electric Utility (East)	53
166	PACCAR Inc. (NDQ)	63.21	2	3	11.1	3.6	Heavy Truck & Equip	28
792	Park National (ASE)	110.12	3	2	15.1	3.5	Bank (Midwest)	14
1768	Parker-Hannifin	158.75	2	2	14.8	1.9	Diversified Co.	32
1507	People's United Fin'l (NDQ)	18.24	3	1	14.6	3.8	Thrift	80
1994	Philip Morris Int'l	82.33	3	4	15.4	5.5	Tobacco	70
520	Phillips 66	111.06	3	1	21.2	2.9	Petroleum (Integrated)	29
2318	Pool Corp. (NDQ)	157.79	3	4	35.9	1.1	Recreation	45
2230	Portland General	43.02	4	5	19.6	3.4	Electric Utility (West)	84
1560	Power Financial (TSE)	30.73	3	3	9.3	5.6	Insurance (Life)	13
773	Progressive Corp.	59.40	2	2	15.0	1.9	Insurance (Prop/Cas.)	56
957	Qualcomm Inc. (NDQ)	58.91	5	3	17.5	4.2	Telecom. Equipment	85
817	Quest Diagnostics	114.06	3	3	17.3	1.8	Medical Services	9
1541	Realty Income Corp.	54.72	3	4	45.6	4.9	R.E.I.T.	96
1562	Reinsurance Group	137.40	3	1	12.8	1.6	Insurance (Life)	13
2027	RenaissanceRe Hldgs.	123.37	3	4	11.2	1.1	Reinsurance	95
413	Republic Services	69.31	2	3	22.4	2.1	Environmental	27
1646	Robert Half Int'l	67.68	3	3	20.2	1.7	Human Resources	12
1312	Rockwell Automation	169.30	3	2	20.9	2.2	Electrical Equipment	51
404	Rollins, Inc.	54.93	3	3	49.9	1.0	Industrial Services	55
2212	Ross Stores (NDQ)	86.39	2	2	21.3	1.1	Retail (Softlines)	61
521	Royal Dutch Shell 'B'	71.89	2	3	14.8	5.2	Petroleum (Integrated)	29
447	S&P Global	212.59	2	3	24.9	1.0	Information Services	36
2603	SAP SE	121.64	4	3	28.0	1.3	Computer Software	54
2629	SEI Investments (NDQ)	64.21	2	2	20.7	1.0	IT Services	47
2437	Schlumberger Ltd.	66.74	3	3	33.4	3.0	Oilfield Svcs/Equip.	92
2231	Sempra Energy	115.61	4	4	21.0	3.2	Electric Utility (West)	84
1937	Sensient Techn.	71.10	3	4	19.0	1.9	Food Processing	81
1026	Shaw Commun. 'B' (TSE)	27.36	4	4	21.4	4.4	Cable TV	38
1144	Sherwin-Williams	424.36	2	4	22.6	0.8	Retail Building Supply	37
1774	Siemens AG (ADS) (PNK)	68.63	2	3	13.8	3.2	Diversified Co.	32
1545	Simon Property Group	170.48	3	4	25.6	4.8	R.E.I.T.	96
1729	Snap-on Inc.	159.57	3	4	13.8	2.1	Machinery	21
1187	Sonoco Products	53.00	2	3	16.1	3.1	Packaging & Container	16
555	South Jersey Inds.	33.69	3	4	18.2	3.4	Natural Gas Utility	41
150	Southern Co.	47.65	3	5	16.4	5.1	Electric Utility (East)	53
557	Spire Inc.	71.70	2	5	21.7	3.1	Natural Gas Utility	41
1730	Stanley Black & Decker	135.71	3	3	16.2	2.0	Machinery	21
189	STERIS plc	110.20	3	3	24.2	1.1	Med Supp Invasive	75
2578	Sun Life Fin'l Svcs. (TSE)	53.71	2	2	12.1	3.5	Financial Svcs. (Div.)	20
1342	TE Connectivity	92.34	1	2	16.2	1.9	Electronics	63
1374	Taiwan Semic. ADR	38.04	3	3	16.2	3.3	Semiconductor	17
2151	Target Corp.	77.27	3	2	14.6	3.3	Retail Store	48
192	Teleflex Inc.	277.62	3	2	50.5	0.5	Med Supp Invasive	75
933	TELUS Corporation (TSE)	48.20	4	3	19.3	4.5	Telecom. Services	60
133	Thermo Fisher Sci.	211.04	3	3	33.0	0.3	Precision Instrument	62
448	Thomson Reuters (TSE)	55.86	–	–	69.8	2.5	Information Services	36
2192	Tiffany & Co.	134.31	3	2	28.6	1.7	Retail (Hardlines)	44
1732	Toro Co.	59.68	3	4	21.8	1.3	Machinery	21
111	Toyota Motor ADR	131.45	1	1	9.3	3.5	Automotive	46
1214	Tri-Continental	27.07	–	3	NMF	3.4	Investment Co.	–
558	UGI Corp.	52.45	4	3	18.6	2.0	Natural Gas Utility	41
409	UniFirst Corp.	185.55	3	3	29.3	0.2	Industrial Services	55
2116	V.F. Corp.	88.51	3	3	23.2	2.1	Apparel	65
915	Vectren Corp.	71.29	–	–	25.0	2.6	Electric Util. (Central)	52
450	Verisk Analytics (NDQ)	112.49	3	3	31.2	NIL	Information Services	36
1203	WD-40 Co. (NDQ)	158.85	3	3	38.0	1.4	Household Products	88
2397	WPP PLC ADR	77.19	3	3	9.6	4.1	Advertising	34
970	Walgreens Boots (NDQ)	65.63	3	5	10.7	2.7	Pharmacy Services	26
1550	Washington R.E.I.T.	29.93	5	4	66.5	4.0	R.E.I.T.	96
417	Waste Connections	77.25	3	3	35.1	0.7	Environmental	27
135	Waters Corp.	196.01	3	3	23.9	NIL	Precision Instrument	62
1147	Watsco, Inc.	182.29	3	2	26.8	3.2	Retail Building Supply	37
2533	Wells Fargo	56.56	4	4	12.3	2.8	Bank	19
226	West Pharmac. Svcs.	98.87	4	3	35.3	0.6	Med Supp Non-Invasive	78
1964	Weston (George) (TSE)	111.11	3	5	15.3	1.8	Retail/Wholesale Food	39
2195	Williams-Sonoma	61.93	2	2	14.9	2.8	Retail (Hardlines)	44
2585	Willis Towers Watson plc(NDQ)	157.27	–	–	26.2	1.5	Financial Svcs. (Div.)	20
194	Zimmer Biomet Hldgs.	113.76	3	4	14.6	0.9	Med Supp Invasive	75

HIGHEST DIVIDEND YIELDING STOCKS (Based upon estimated year-ahead dividends per share)

Page No.	Stock Name	Recent Price	Time-liness	Safety Rank	Current P/E Ratio	% Est'd Yield	Industry Group	Industry Rank
626	Buckeye Partners L.P.	34.95	4	3	11.7	14.4	Pipeline MLPs	50
632	Energy Transfer Part.	19.26	–	3	20.3	11.7	Pipeline MLPs	50
1583	Alliance Resource	18.55	4	3	7.1	11.6	Metals & Mining (Div.)	35
1512	Annaly Capital Mgmt.	10.41	4	3	8.8	11.5	R.E.I.T.	96
1030	CenturyLink Inc.	19.63	4	3	17.8	11.0	Telecom. Utility	89
1518	DDR Corp.	14.35	–	3	NMF	10.6	R.E.I.T.	96
633	EnLink Midstream Part.	14.93	2	4	37.3	10.4	Pipeline MLPs	50
2172	GameStop Corp.	14.58	–	3	5.0	10.4	Retail (Hardlines)	44
2659	Apollo Investment	5.80	4	3	8.4	10.3	Public/Private Equity	97
640	Suburban Propane	23.27	3	4	13.5	10.3	Pipeline MLPs	50
2392	Donnelley (R.R) & Sons	5.50	–	3	5.0	10.2	Advertising	34
1205	Aberdeen Asia-Pac. Fd.	4.34	–	4	NMF	9.7	Investment Co.	–
623	Andeavor Logistics LP	42.22	3	3	14.6	9.6	Pipeline MLPs	50
1227	Pattern Energy Group	17.81	3	3	39.6	9.5	Power	71
2663	Gladstone Capital	9.25	3	3	10.3	9.1	Public/Private Equity	97
622	AmeriGas Partners	42.35	3	3	26.8	9.0	Pipeline MLPs	50
2167	Big 5 Sporting Goods	6.70	4	4	9.6	9.0	Retail (Hardlines)	44
399	Macquarie Infra.	44.60	1	3	16.5	9.0	Industrial Services	55
505	CVR Refining LP	23.45	2	3	12.7	8.7	Petroleum (Integrated)	29
639	Spectra Energy Part.	34.60	–	3	9.5	8.7	Pipeline MLPs	50
628	EQT Midstream Part.	54.02	2	3	9.1	8.6	Pipeline MLPs	50
1211	MFS Multimarket	5.58	–	4	NMF	8.6	Investment Co.	–
1415	Pitney Bowes	8.68	4	3	7.2	8.6	Office Equip/Supplies	68
1210	Liberty All-Star	6.68	–	2	NMF	8.4	Investment Co.	–
504	CVR Energy	37.66	3	4	21.5	8.0	Petroleum (Integrated)	29
2662	Compass Diversified	17.90	3	3	11.2	8.0	Public/Private Equity	97
641	Western Gas Part.	48.65	3	3	26.3	8.0	Pipeline MLPs	50
1538	Penn. R.E.I.T.	10.82	5	3	NMF	7.9	R.E.I.T.	96
2026	Maiden Hldgs. Ltd.	7.75	5	4	31.0	7.7	Reinsurance	95
936	Vodafone Group ADR	23.88	1	3	15.4	7.6	Telecom. Services	60
627	DCP Midstream LP	41.85	5	3	46.5	7.5	Pipeline MLPs	50
2210	L Brands	32.06	4	3	11.5	7.5	Retail (Softlines)	61
2382	A.H. Belo	4.35	–	4	9.7	7.4	Newspaper	93
631	Energy Transfer Equity	17.08	1	4	13.7	7.4	Pipeline MLPs	50
1531	Hospitality Properties	28.67	4	3	15.5	7.4	R.E.I.T.	96
635	MPLX LP	33.60	3	4	17.7	7.4	Pipeline MLPs	50
629	Enable Midstream Part.	17.81	4	4	18.7	7.2	Pipeline MLPs	50
1029	BT Group ADR	14.56	3	3	7.9	7.1	Telecom. Utility	89
1517	CoreCivic, Inc.	24.26	4	3	16.7	7.1	R.E.I.T.	96
1526	GEO Group (The)	26.64	4	3	19.7	7.1	R.E.I.T.	96
1528	Gaming and Leisure Prop.	36.02	4	3	18.0	7.1	R.E.I.T.	96
546	Targa Resources	51.60	3	3	NMF	7.1	Natural Gas (Div.)	24
2539	AllianceBernstein Hldg.	29.50	2	3	11.8	7.0	Financial Svcs. (Div.)	20
2401	Black Stone Minerals	17.90	4	3	18.8	7.0	Petroleum (Producing)	11
1533	Kimco Realty	16.61	3	3	22.1	6.9	R.E.I.T.	96
102	Daimler AG	67.66	3	3	5.8	6.7	Automotive	46
396	Iron Mountain	35.03	4	3	31.8	6.7	Industrial Services	55
1202	Tupperware Brands	40.73	4	3	9.4	6.7	Household Products	88
1794	BGC Partners	11.07	–	3	9.2	6.5	Brokers & Exchanges	23
2660	Blackstone Group LP	35.71	3	3	11.3	6.5	Public/Private Equity	97
919	AT&T Inc.	31.76	3	1	9.3	6.4	Telecom. Services	60
618	TransCanada Corp.	42.90	3	3	19.1	6.4	Oil/Gas Distribution	57
2383	Gannett Co.	10.12	4	3	16.9	6.3	Newspaper	93
926	IDT Corp.	5.74	–	3	17.9	6.3	Telecom. Services	60
642	Williams Partners L.P.	40.57	–	4	21.9	6.3	Pipeline MLPs	50
1903	B&G Foods	30.80	4	3	14.3	6.2	Food Processing	81
634	Enterprise Products	28.22	3	3	17.6	6.2	Pipeline MLPs	50
1549	W.P. Carey Inc.	65.55	3	3	26.8	6.2	R.E.I.T.	96
1616	GlaxoSmithKline ADR	41.14	4	1	20.6	6.1	Drug	73
624	Antero Midstream Part.	29.96	3	3	15.0	6.0	Pipeline MLPs	50
2307	Cedar Fair L.P.	59.70	3	3	16.8	6.0	Recreation	45
108	Nissan Motor ADR	18.39	3	3	6.8	6.0	Automotive	46
222	Owens & Minor	17.38	4	3	10.9	6.0	Med Supp Non-Invasive	78
637	Phillips 66 Partners	50.10	2	3	14.7	6.0	Pipeline MLPs	50
2378	Quad/Graphics Inc.	20.13	3	4	9.7	6.0	Publishing	69
1218	Covanta Holding Corp.	16.85	3	3	9.4	5.9	Power	71
614	Enbridge Inc.	45.49	3	3	17.5	5.9	Oil/Gas Distribution	57
1529	HCP Inc.	25.57	5	3	36.5	5.9	R.E.I.T.	96
1505	New York Community	11.49	5	3	13.8	5.9	Thrift	80
147	PPL Corp.	28.41	3	2	12.6	5.8	Electric Utility (East)	53
636	Magellan Midstream	67.47	3	3	16.9	5.7	Pipeline MLPs	50
771	Mercury General	44.24	5	2	22.1	5.7	Insurance (Prop/Cas.)	56
1590	Natural Resource	31.85	4	5	6.0	5.7	Metals & Mining (Div.)	35
752	Russel Metals	26.71	2	3	10.9	5.7	Steel	6
1552	Welltower Inc.	62.14	5	3	24.4	5.7	R.E.I.T.	96
1028	BCE Inc.	42.49	4	3	15.7	5.6	Telecom. Utility	89
1560	Power Financial	30.73	3	2	9.3	5.6	Insurance (Life)	13
2016	TiVo Corp.	12.75	5	4	NMF	5.6	Entertainment Tech	91
1547	Ventas, Inc.	57.92	5	3	44.6	5.6	R.E.I.T.	96
2538	Aircastle Ltd.	20.35	3	3	8.3	5.5	Financial Svcs. (Div.)	20
105	Ford Motor	10.86	3	3	6.6	5.5	Automotive	46
2517	HSBC Holdings PLC	47.04	5	3	10.5	5.5	Bank	19
1994	Philip Morris Int'l	82.33	3	2	15.4	5.5	Tobacco	70
1637	Atento S.A.	6.25	3	4	11.4	5.4	Human Resources	12
503	BP PLC ADR	44.43	3	3	15.6	5.4	Petroleum (Integrated)	29
1033	Deutsche Telekom ADR	15.95	3	2	13.9	5.3	Telecom. Utility	89
1219	Emera Inc.	42.69	3	2	14.0	5.3	Power	71
1535	Macerich Comp. (The)	57.42	5	3	88.3	5.3	R.E.I.T.	96
1035	Telefonica SA ADR	8.72	4	4	11.6	5.3	Telecom. Utility	89
1551	Weingarten Realty	30.18	3	3	16.3	5.3	R.E.I.T.	96
2394	Lamar Advertising	72.16	3	3	21.9	5.2	Advertising	34
638	Plains All Amer. Pipe.	23.00	5	3	17.7	5.2	Pipeline MLPs	50
521	Royal Dutch Shell 'B'	71.89	2	2	14.8	5.2	Petroleum (Integrated)	29
1591	Rio Tinto plc	54.24	2	3	10.8	5.1	Metals & Mining (Div.)	35
150	Southern Co.	47.65	3	2	16.4	5.1	Electric Utility (East)	53
141	Dominion Energy	70.38	3	2	19.3	5.0	Electric Utility (East)	53
1766	National Presto Ind.	120.00	3	3	15.5	5.0	Diversified Co.	32
617	Pembina Pipeline	45.36	3	3	18.1	5.0	Oil/Gas Distribution	57
619	Williams Cos.	26.97	3	3	27.0	5.0	Oil/Gas Distribution	57
1992	Altria Group	57.35	2	2	14.3	4.9	Tobacco	70

STOCKS WITH HIGH 3- TO 5-YEAR PRICE APPRECIATION POTENTIAL

Some of the stocks tabulated below are very risky and appreciation potentialities tentative. Please read the full-page reports in Ratings & Reports to gain an understanding of the risks entailed. Some of these stocks may not be timely investment commitments. (See the Performance Ranks below.)

Page No.	Stock Name	Recent Price	3- to 5-year Potential	Time-liness	Safety Rank	Industry Group	Industry Rank
1196	FTD Companies	4.64	495%	5	5	Household Products	88
2429	Nabors Inds.	6.12	470%	4	4	Oilfield Svcs/Equip.	92
1577	Tahoe Resources	4.77	370%	4	5	Precious Metals	66
545	Southwestern Energy	5.24	360%	2	4	Natural Gas (Div.)	24
2409	Laredo Petroleum	9.56	345%	2	5	Petroleum (Producing)	11
2199	Ascena Retail Group	3.52	340%	4	5	Retail (Softlines)	61
2439	TETRA Technologies	4.60	325%	3	5	Oilfield Svcs/Equip.	92
848	TESARO, Inc.	40.34	315%	5	4	Biotechnology	90
1127	Hovnanian Enterpr. 'A'	1.76	300%	–	5	Homebuilding	1
2147	Penney (J.C.)	2.38	300%	4	5	Retail Store	48
979	Commercial Vehicle	7.05	285%	–	5	Auto Parts	8
924	Gogo Inc.	3.77	285%	5	4	Telecom. Services	60
2435	RPC Inc.	14.97	285%	2	3	Oilfield Svcs/Equip.	92
613	Clean Energy Fuels	2.63	280%	–	5	Oil/Gas Distribution	57
1594	U.S. Silica Holdings	26.26	260%	2	4	Metals & Mining (Div.)	35
2383	Gannett Co.	10.12	245%	4	3	Newspaper	93
222	Owens & Minor	17.38	245%	4	3	Med Supp Non-Invasive	78
526	Antero Resources	21.45	240%	2	3	Natural Gas (Div.)	24
223	Patterson Cos.	22.75	240%	5	3	Med Supp Non-Invasive	78
988	Goodyear Tire	22.00	220%	3	3	Auto Parts	8
1007	Avon Products	1.44	215%	4	5	Toiletries/Cosmetics	72
2208	Francesca's Hldgs.	7.48	215%	4	4	Retail (Softlines)	61
1583	Alliance Resource	18.55	210%	4	3	Metals & Mining (Div.)	35
615	Kinder Morgan Inc.	17.69	210%	3	3	Oil/Gas Distribution	57
2339	Scripps (E.W.) 'A'	12.82	210%	5	3	Entertainment	22
2416	Range Resources	16.30	205%	2	3	Petroleum (Producing)	11
1228	SunPower Corp.	7.52	205%	4	5	Power	71
109	Tata Motors ADR	18.87	205%	3	3	Automotive	46
2167	Big 5 Sporting Goods	6.70	200%	4	4	Retail (Hardlines)	44
1410	Diebold Nixdorf	12.50	200%	4	3	Office Equip/Supplies	68
2327	AMC Networks	61.45	195%	1	3	Entertainment	22
1381	Electro Scientific	17.85	195%	1	3	Semiconductor Equip	3
930	Sprint Corp.	5.59	195%	–	4	Telecom. Services	60
2342	TEGNA Inc.	10.94	195%	–	3	Entertainment	22
2441	Weatherford Int'l plc	3.40	195%	4	5	Oilfield Svcs/Equip.	92
719	Maxar Technologies	52.65	190%	–	2	Aerospace/Defense	59
1198	Newell Brands	27.63	190%	3	3	Household Products	88
2346	Viacom Inc. 'B'	28.58	190%	–	3	Entertainment	22
2000	Bridgepoint Education	7.00	185%	4	4	Educational Services	87
626	Buckeye Partners L.P.	34.95	185%	4	3	Pipeline MLPs	50
2329	Discovery, Inc.	26.38	185%	2	3	Entertainment	22
1571	Goldcorp Inc.	13.25	185%	4	3	Precious Metals	66
541	Newfield Exploration	28.85	185%	2	3	Natural Gas (Div.)	24
1575	Pretium Resources	8.28	185%	3	5	Precious Metals	66
1016	Sally Beauty	15.77	185%	2	3	Toiletries/Cosmetics	72
2341	Sirius XM Holdings	7.07	185%	3	4	Entertainment	22
926	IDT Corp.	5.74	180%	–	3	Telecom. Services	60
2577	SLM Corporation	11.67	180%	2	3	Financial Svcs. (Div.)	20
1000	Tenneco Inc.	44.37	180%	3	3	Auto Parts	8
353	Bloomin' Brands	20.78	175%	2	3	Restaurant	67
369	Red Robin Gourmet	48.05	175%	4	3	Restaurant	67
1183	Owens-Illinois	16.74	170%	4	3	Packaging & Container	16
1771	Realogy Holdings	23.13	170%	4	3	Diversified Co.	32
1593	Teck Resources 'B'	32.27	170%	1	4	Metals & Mining (Div.)	35
1106	Beacon Roofing	40.26	165%	4	3	Building Materials	30
2568	Legg Mason	33.15	165%	3	3	Financial Svcs. (Div.)	20
2179	Michaels Cos. (The)	19.76	165%	3	3	Retail (Hardlines)	44
1829	Sabre Corp.	26.43	165%	3	3	E-Commerce	64
742	AK Steel Holding	4.78	160%	3	5	Steel	6
1584	Arconic Inc.	19.24	160%	–	3	Metals & Mining (Div.)	35
332	Frontline Ltd.	5.18	160%	4	5	Maritime	83
840	Incyte Corp.	70.23	160%	4	4	Biotechnology	90
1800	Investment Techn.	22.31	160%	3	3	Brokers & Exchanges	23
518	Par Pacific Holdings	17.20	160%	3	3	Petroleum (Integrated)	29
529	Callon Petroleum	10.87	155%	1	4	Natural Gas (Div.)	24
2438	Superior Energy Svcs.	9.69	155%	3	4	Oilfield Svcs/Equip.	92
2016	TiVo Corp.	12.75	155%	5	4	Entertainment Tech	91
2135	Big Lots Inc.	42.31	150%	3	3	Retail Store	48
202	Cardinal Health	49.97	150%	4	2	Med Supp Non-Invasive	78
2309	Harley-Davidson	42.65	150%	3	3	Recreation	45
2434	Patterson-UTI Energy	17.07	150%	3	4	Oilfield Svcs/Equip.	92
2187	Qurate Retail	21.95	150%	2	3	Retail (Hardlines)	44
2344	Tribune Media Co.	33.32	150%	–	3	Entertainment	22
620	World Fuel Services	20.83	150%	4	3	Oil/Gas Distribution	57
978	China Auto. Sys.	4.08	145%	–	5	Auto Parts	8
2405	Crescent Point Energy	9.75	145%	4	4	Petroleum (Producing)	11
1759	Jefferies Fin'l Group	22.54	145%	4	3	Diversified Co.	32
2570	MGIC Investment	11.23	145%	2	4	Financial Svcs. (Div.)	20
2335	MSG Networks	23.35	145%	–	3	Entertainment	22
217	McKesson Corp.	134.58	145%	3	2	Med Supp Non-Invasive	78
815	MEDNAX, Inc.	44.06	145%	2	3	Medical Services	9
590	Rayonier Advanced Mat.	18.24	145%	1	4	Chemical (Specialty)	15
1202	Tupperware Brands	40.73	145%	4	3	Household Products	88
2382	A.H. Belo	4.35	140%	–	4	Newspaper	93
1568	AngloGold Ashanti ADS	8.47	140%	3	4	Precious Metals	66
530	Chesapeake Energy	4.77	140%	2	5	Natural Gas (Div.)	24
1032	Consol. Communic.	12.50	140%	4	3	Telecom. Utility	89
980	Cooper Tire & Rubber	25.25	140%	3	3	Auto Parts	8
540	National Fuel Gas	54.69	140%	3	3	Natural Gas (Div.)	24
969	Rite Aid Corp.	1.67	140%	–	5	Pharmacy Services	26
359	Dave & Buster's Ent.	48.26	135%	2	3	Restaurant	67
1752	EnPro Industries	71.87	135%	1	3	Diversified Co.	32
1753	Gen'l Electric	13.69	135%	4	4	Diversified Co.	32
1153	HNI Corp.	38.56	135%	4	3	Furn/Home Furnishings	77
2426	Helix Energy Solutions	8.65	135%	3	4	Oilfield Svcs/Equip.	92
2377	Meredith Corp.	51.45	135%	4	3	Publishing	69
515	Murphy Oil Corp.	31.81	135%	2	3	Petroleum (Integrated)	29
2338	Nexstar Media Group	77.50	135%	1	3	Entertainment	22
607	Sierra Wireless	16.90	135%	5	4	Wireless Networking	86
2303	Amer. Outdoor Brands	10.93	130%	4	3	Recreation	45

BIGGEST "FREE FLOW" CASH GENERATORS

Stocks of companies that have earned more "cash flow" in the last 5 years than was required to build plant and pay dividends

Page No.	Stock Name	Recent Price	Ratio "Cash Flow" To Cash Out	Time-liness	Safety Rank	Industry Group	Industry Rank
1136	Taylor Morrison Home	21.97	60.02	2	3	Homebuilding	1
1135	TRI Pointe Group	17.40	45.63	2	3	Homebuilding	1
1818	Check Point Software	110.11	38.69	3	1	E-Commerce	64
2337	Netflix, Inc.	379.48	33.18	2	3	Entertainment	22
1349	Ambarella, Inc.	38.51	25.38	5	4	Semiconductor	17
843	Jazz Pharmac. plc	175.60	24.07	2	3	Biotechnology	90
1632	Bausch Health	23.10	18.96	3	5	Drug	73
608	Ubiquiti Networks	88.74	17.98	2	3	Wireless Networking	86
1132	NVR, Inc.	3168.20	17.84	2	2	Homebuilding	1
2637	Booking Holdings	2030.52	17.55	2	3	Internet	79
1347	Advanced Energy	59.95	16.75	1	3	Semiconductor	17
2589	ANSYS, Inc.	180.64	16.70	3	2	Computer Software	54
2654	XO Group	34.29	16.15	3	3	Internet	79
2559	FleetCor Technologies	216.22	14.67	2	3	Financial Svcs. (Div.)	20
2626	Manhattan Assoc.	50.32	13.86	4	3	IT Services	47
1609	Allergan plc	175.66	13.77	3	3	Drug	73
945	CommScope Holding	29.69	13.42	4	3	Telecom. Equipment	85
967	Express Scripts	79.88	13.29	–	3	Pharmacy Services	26
1315	WESCO Int'l	58.65	13.18	3	3	Electrical Equipment	51
815	MEDNAX, Inc.	44.06	13.11	2	3	Medical Services	9
1137	Toll Brothers	38.04	13.01	3	3	Homebuilding	1
2329	Discovery, Inc.	26.38	12.43	2	3	Entertainment	22
727	TransDigm Group	362.88	11.79	3	3	Aerospace/Defense	59
844	Myriad Genetics	42.82	11.72	4	3	Biotechnology	90
219	Natus Medical	31.75	11.61	5	3	Med Supp Non-Invasive	78
2163	Avis Budget Group	31.98	11.53	3	4	Retail (Hardlines)	44
1614	Endo Int'l plc	10.83	11.51	4	5	Drug	73
1720	Middleby Corp. (The)	98.85	11.00	4	3	Machinery	21
1979	Monster Beverage	62.17	10.89	3	3	Beverage	74
2011	Electronic Arts	148.74	10.67	3	3	Entertainment Tech	91
849	United Therapeutics	123.89	10.47	3	3	Biotechnology	90
2652	VeriSign Inc.	149.79	10.36	3	3	Internet	79
1613	Celgene Corp.	85.85	9.86	3	3	Drug	73
948	F5 Networks	176.75	9.43	3	3	Telecom. Equipment	85
1010	Helen of Troy Ltd.	116.05	9.37	3	3	Toiletries/Cosmetics	72
2615	CACI Int'l	178.95	9.28	2	3	IT Services	47
729	Wesco Aircraft	11.80	9.09	5	3	Aerospace/Defense	59
225	Schein (Henry)	74.67	8.85	3	3	Med Supp Non-Invasive	78
1131	Meritage Homes	46.95	8.66	2	3	Homebuilding	1
1129	Lennar Corp.	55.55	8.30	1	3	Homebuilding	1
2176	Insight Enterprises	49.32	8.28	1	3	Retail (Hardlines)	44
1313	Trimble Inc.	34.43	8.07	3	3	Electrical Equipment	51
2592	Cadence Design Sys.	45.66	7.90	2	3	Computer Software	54
1357	Integrated Device	34.97	7.80	3	3	Semiconductor	17
2158	Madden (Steven) Ltd.	53.90	7.70	3	3	Shoe	58
942	Arris Int'l plc	26.52	7.47	1	3	Telecom. Equipment	85
1128	KB Home	27.48	7.46	1	3	Homebuilding	1
2194	Weight Watchers	92.07	7.43	3	4	Retail (Hardlines)	44
1611	Biogen	354.98	7.28	2	3	Drug	73
2327	AMC Networks	61.45	7.26	1	3	Entertainment	22
1369	Rambus Inc.	12.88	7.23	2	3	Semiconductor	17
1366	NXP Semiconductors NV	103.67	7.22	–	3	Semiconductor	17
2183	Nautilus Inc.	14.50	7.18	4	4	Retail (Hardlines)	44
610	Zebra Techn. 'A'	148.22	7.13	1	3	Wireless Networking	86
1403	ScanSource	41.00	7.10	4	3	Computers/Peripherals	43
2608	Teradata Corp.	43.33	6.98	5	3	Computer Software	54
184	Intuitive Surgical	523.78	6.93	3	3	Med Supp Invasive	75
437	CoStar Group	426.32	6.85	3	3	Information Services	36
2607	Synopsys, Inc.	92.11	6.85	2	1	Computer Software	54
937	Vonage Holdings	13.45	6.84	3	4	Telecom. Services	60
810	ICON plc	137.21	6.81	3	3	Medical Services	9
2609	VMware, Inc.	155.11	6.78	3	3	Computer Software	54
1354	Cirrus Logic	40.12	6.61	3	3	Semiconductor	17
831	Veeva Systems	82.75	6.43	3	3	Healthcare Information	49
1726	Roper Tech.	283.04	6.42	3	1	Machinery	21
1314	Universal Display	95.95	6.31	4	3	Electrical Equipment	51
2618	Cognizant Technology	82.74	6.30	2	2	IT Services	47
2588	Adobe Systems	258.31	6.29	3	2	Computer Software	54
436	CoreLogic	53.58	6.27	1	3	Information Services	36
1615	Gilead Sciences	77.20	6.25	3	3	Drug	73
955	NETGEAR	77.55	6.21	4	3	Telecom. Equipment	85
1384	Kulicke & Soffa	28.09	6.20	1	3	Semiconductor Equip	3
131	PerkinElmer Inc.	76.37	6.09	3	3	Precision Instrument	62
713	HEICO Corp.	77.10	6.06	3	3	Aerospace/Defense	59
1628	Perrigo Co. plc	78.03	6.03	3	3	Drug	73
604	InterDigital Inc.	82.90	6.01	4	3	Wireless Networking	86
1321	Anixter Int'l	64.70	5.98	4	3	Electronics	63
1636	ASGN Inc.	83.90	5.96	2	3	Human Resources	12
1797	E*Trade Fin'l	61.14	5.95	2	3	Brokers & Exchanges	23
2622	Fair Isaac	206.47	5.87	3	3	IT Services	47
2593	Citrix Sys.	110.11	5.84	3	3	Computer Software	54
384	CBRE Group	49.67	5.82	1	3	Industrial Services	55
174	Boston Scientific	33.95	5.75	3	3	Med Supp Invasive	75
2000	Bridgepoint Education	7.00	5.72	4	4	Educational Services	87
1980	National Beverage	108.62	5.69	3	3	Beverage	74
1371	Silicon Labs.	105.55	5.67	3	3	Semiconductor	17
1222	Generac Holdings	50.42	5.65	3	3	Power	71
960	Synaptics	48.95	5.65	–	3	Telecom. Equipment	85
2611	ACI Worldwide	26.40	5.60	5	3	IT Services	47
802	Cigna Corp.	170.71	5.57	1	2	Medical Services	9
2604	SS&C Techn. Hldgs	53.97	5.57	2	3	Computer Software	54
193	Varian Medical Sys.	116.03	5.57	3	1	Med Supp Invasive	75
1233	AECOM	32.41	5.56	4	3	Engineering & Const	82
135	Waters Corp.	196.01	5.55	3	2	Precision Instrument	62
2600	PTC Inc.	98.90	5.52	3	3	Computer Software	54
1134	St. Joe Corp.	18.00	5.48	4	3	Homebuilding	1
130	Orbotech Ltd.	61.96	5.42	–	3	Precision Instrument	62
1405	Tech Data	85.27	5.42	3	3	Computers/Peripherals	43
133	Thermo Fisher Sci.	211.04	5.38	3	2	Precision Instrument	62
1622	Mylan N.V.	36.37	5.34	3	3	Drug	73

BEST PERFORMING STOCKS

(Measured by Price Change in the Last 13 Weeks)

Page No.	Stock Name	Ticker	Recent Price	Percent Change In Price	Time-liness	Safety Rank
2347	World Wrestling Ent.	WWE	80.53	106.7%	3	4
1626	Opko Health	OPK	6.29	102.3%	5	3
1614	Endo Int'l plc	ENDP	10.83	94.8%	4	5
2102	Canada Goose Hldgs.	GOOS.TO	83.91	93.8%	–	3
2653	Wayfair Inc.	W	124.65	82.7%	5	4
207	Genomic Health	GHDX	56.07	71.2%	3	3
2171	Fossil Group	FOSL	26.39	68.0%	5	5
732	DMC Global	BOOM	47.50	64.9%	3	4
705	Axon Enterprise	AAXN	70.64	64.2%	3	4
1556	Genworth Fin'l	GNW	4.62	63.8%	–	5
1927	Medifast, Inc.	MED	168.29	63.1%	3	3
2208	Francesca's Hldgs.	FRAN	7.48	62.3%	4	4
2647	Pandora Media	P	8.30	61.8%	5	5
1348	Advanced Micro Dev.	AMD	16.87	60.4%	3	5
613	Clean Energy Fuels	CLNE	2.63	60.4%	–	5
2406	Denbury Resources	DNR	4.54	59.9%	2	5
1161	RH	RH	138.40	58.7%	2	4
1808	Greenhill & Co.	GHL	31.70	58.5%	3	4
1833	Twilio Inc.	TWLO	65.00	57.9%	–	4
2654	XO Group	XOXO	34.29	57.7%	3	3
530	Chesapeake Energy	CHK	4.77	56.9%	2	5
2199	Ascena Retail Group	ASNA	3.52	56.4%	4	5
1619	Mallinckrodt plc	MNK	21.61	54.7%	3	4
191	SurModics, Inc.	SRDX	59.10	53.5%	4	3
1412	Essendant Inc.	ESND	14.19	52.9%	–	3
371	Shake Shack	SHAK	66.86	52.9%	3	4
1912	Freshpet, Inc.	FRPT	28.90	50.1%	5	4
2188	Signet Jewelers Ltd.	SIG	58.59	48.5%	4	3
364	Fiesta Restaurant	FRGI	29.50	48.2%	5	4
2201	Cato Corp.	CATO	24.27	48.0%	4	3
2557	First Data Corp.	FDC	22.55	47.3%	3	3
505	CVR Refining LP	CVRR	23.45	47.0%	2	3
2395	National CineMedia	NCMI	8.46	46.6%	3	3
2012	Glu Mobile	GLUU	6.27	46.2%	4	5
844	Myriad Genetics	MYGN	42.82	46.2%	4	3
1996	Turning Point Brands	TPB	31.64	45.9%	–	4
819	Tenet Healthcare	THC	34.94	45.1%	3	4
1967	Boston Beer 'A'	SAM	320.50	44.3%	3	3
2650	TripAdvisor, Inc.	TRIP	60.37	43.8%	4	3
1145	Tile Shop Hldgs.	TTS	8.10	43.4%	4	5
1820	Endurance Int'l Group	EIGI	10.80	43.0%	3	4

WORST PERFORMING STOCKS

(Measured by Price Change in the Last 13 Weeks)

Page No.	Stock Name	Ticker	Recent Price	Percent Change In Price	Time-liness	Safety Rank
924	Gogo Inc.	GOGO	3.77	–61.1%	5	4
1007	Avon Products	AVP	1.44	–49.1%	4	5
1623	Nektar Therapeutics	NKTR	48.36	–48.4%	3	5
1034	Frontier Communic.	FTR	4.99	–43.2%	3	5
2392	Donnelley (R.R) & Sons	RRD	5.50	–40.9%	–	3
186	Nevro Corp.	NVRO	60.15	–34.9%	5	4
803	Community Health	CYH	2.75	–34.2%	–	5
2174	Hertz Global Hldgs.	HTZ	13.62	–34.2%	–	4
2163	Avis Budget Group	CAR	31.98	–32.8%	3	4
1842	StoneMor Partners L.P.	STON	4.07	–32.4%	–	5
2017	Universal Electronics	UEIC	33.75	–32.1%	5	3
1377	Xperi Corp.	XPER	16.30	–30.3%	3	3
976	Autoliv, Inc.	ALV	106.88	–30.2%	–	3
1015	Revlon Inc.	REV	16.75	–28.9%	5	3
1196	FTD Companies	FTD	4.64	–28.0%	5	5
2150	Sears Holdings	SHLD	2.20	–27.4%	–	5
945	CommScope Holding	COMM	29.69	–26.8%	4	3
109	Tata Motors ADR	TTM	18.87	–26.5%	3	3
848	TESARO, Inc.	TSRO	40.34	–26.5%	5	4
1645	ManpowerGroup Inc.	MAN	86.21	–26.1%	1	3
2554	Federated Investors	FII	23.42	–26.0%	3	3
1221	First Solar, Inc.	FSLR	53.75	–26.0%	3	3
1919	Ingredion Inc.	INGR	97.25	–25.7%	3	3
369	Red Robin Gourmet	RRGB	48.05	–25.6%	4	3
1642	Kelly Services 'A'	KELYA	22.87	–25.3%	3	3
1349	Ambarella, Inc.	AMBA	38.51	–25.0%	5	4
2160	Skechers U.S.A.	SKX	31.85	–25.0%	3	3
972	Adient plc	ADNT	49.04	–24.6%	–	3
1765	Myers Inds.	MYE	18.10	–23.9%	3	3
728	Triumph Group	TGI	19.65	–23.7%	4	3
2214	Tailored Brands	TLRD	22.08	–23.2%	3	4
950	Infinera Corp.	INFN	8.88	–23.1%	4	4
1183	Owens-Illinois	OI	16.74	–23.0%	4	3
1970	Coca-Cola Bottling	COKE	135.71	–22.7%	3	3
2606	Symantec Corp.	SYMC	21.57	–22.7%	3	3
1106	Beacon Roofing	BECN	40.26	–22.6%	4	3
620	World Fuel Services	INT	20.83	–22.1%	4	3
2147	Penney (J.C.)	JCP	2.38	–22.0%	4	5
1637	Atento S.A.	ATTO	6.25	–21.9%	3	4
2378	Quad/Graphics Inc.	QUAD	20.13	–21.9%	3	4
2365	Melco Resorts & Entert.	MLCO	24.63	–21.6%	2	3

WIDEST DISCOUNTS FROM BOOK VALUE

Stocks whose ratios of recent price to book value are lowest

Page No.	Stock Name	Ticker	Recent Price	Book Value Per sh.*	Percent Price-to-Book Value	Time-liness	Safety Rank	Beta	P/E Ratio	% Est'd Yield	Industry Group	Industry Rank
1556	Genworth Fin'l	GNW	4.62	31.00	15%	–	5	1.85	4.6	NIL	Insurance (Life)	13
1034	Frontier Communic.	FTR	4.99	28.60	17%	3	5	1.20	NMF	NIL	Telecom. Utility	89
338	Teekay Corp.	TK	7.15	31.70	23%	3	5	2.10	NMF	3.1	Maritime	83
1619	Mallinckrodt plc	MNK	21.61	77.10	28%	3	4	1.30	NMF	NIL	Drug	73
1763	LSB Inds.	LXU	7.10	22.40	32%	–	5	2.05	NMF	NIL	Diversified Co.	32
2431	Noble Corp. plc	NE	6.13	18.75	33%	4	5	1.85	NMF	NIL	Oilfield Svcs/Equip.	92
978	China Auto. Sys.	CAAS	4.08	11.40	36%	–	5	1.35	5.8	NIL	Auto Parts	8
2436	Rowan Cos. plc	RDC	15.20	41.75	36%	4	3	1.50	NMF	NIL	Oilfield Svcs/Equip.	92
2424	Ensco plc	ESV	7.15	18.60	38%	5	4	1.65	NMF	0.6	Oilfield Svcs/Equip.	92
1196	FTD Companies	FTD	4.64	11.10	42%	5	5	1.20	NMF	NIL	Household Products	88
306	Bristow Group	BRS	14.32	33.60	43%	4	5	1.60	NMF	NIL	Air Transport	25
2440	Transocean Ltd.	RIG	12.72	28.70	44%	5	5	1.65	NMF	NIL	Oilfield Svcs/Equip.	92
1627	PDL BioPharma	PDLI	2.56	5.60	46%	4	4	1.20	12.8	NIL	Drug	73
2147	Penney (J.C.)	JCP	2.38	4.60	52%	4	5	1.50	23.8	NIL	Retail Store	48
2405	Crescent Point Energy	CPG.TO	9.75	17.90	54%	4	4	1.65	10.8	3.7	Petroleum (Producing)	11
1842	StoneMor Partners L.P.	STON	4.07	7.25	56%	–	5	0.70	NMF	NIL	Funeral Services	2
1577	Tahoe Resources	TAHO	4.77	8.45	56%	4	5	1.20	19.1	NIL	Precious Metals	66
2022	Assured Guaranty	AGO	36.37	59.80	61%	3	3	1.25	10.4	1.8	Reinsurance	95
1223	Green Plains Inc.	GPRE	15.80	24.60	64%	4	4	1.85	NMF	3.0	Power	71
932	Telephone & Data	TDS	25.25	39.25	64%	2	3	1.20	33.7	2.6	Telecom. Services	60
1579	Yamana Gold	AUY	2.87	4.45	64%	3	5	1.10	28.7	0.7	Precious Metals	66
2172	GameStop Corp.	GME	14.58	22.55	65%	–	3	1.10	5.0	10.4	Retail (Hardlines)	44
2025	Greenlight Capital Re	GLRE	14.00	21.40	65%	5	4	1.10	NMF	NIL	Reinsurance	95
107	Honda Motor ADR	HMC	29.64	44.95	66%	3	3	1.05	7.8	3.4	Automotive	46
2416	Range Resources	RRC	16.30	24.15	67%	2	3	1.15	15.5	0.5	Petroleum (Producing)	11
108	Nissan Motor ADR	NSANY	18.39	27.05	68%	3	3	1.05	6.8	6.0	Automotive	46
743	ArcelorMittal	MT	30.31	43.20	70%	1	3	1.65	7.2	NIL	Steel	6
2167	Big 5 Sporting Goods	BGFV	6.70	9.55	70%	4	4	0.90	9.6	9.0	Retail (Hardlines)	44
2429	Nabors Inds.	NBR	6.12	8.70	70%	4	4	1.85	NMF	3.9	Oilfield Svcs/Equip.	92
2541	Amer. Int'l Group	AIG	54.71	77.45	71%	5	3	1.05	8.5	2.3	Financial Svcs. (Div.)	20
2422	Diamond Offshore	DO	19.45	27.30	71%	4	3	1.25	NMF	NIL	Oilfield Svcs/Equip.	92
2420	CARBO Ceramics	CRR	9.61	13.35	72%	4	5	1.70	NMF	NIL	Oilfield Svcs/Equip.	92
1759	Jefferies Fin'l Group	JEF	22.54	31.45	72%	4	3	1.25	26.5	1.8	Diversified Co.	32
2568	Legg Mason	LM	33.15	45.90	72%	3	3	1.45	9.3	4.1	Financial Svcs. (Div.)	20
1414	Office Depot	ODP	2.73	3.80	72%	3	5	1.35	9.1	3.7	Office Equip/Supplies	68
936	Vodafone Group ADR	VOD	23.88	32.95	72%	1	3	1.10	15.4	7.6	Telecom. Services	60
1642	Kelly Services 'A'	KELYA	22.87	31.50	73%	3	3	1.05	10.2	1.3	Human Resources	12
1388	Photronics Inc.	PLAB	8.60	11.75	73%	2	3	0.70	15.4	NIL	Semiconductor Equip	3
2028	Third Point Reinsurance	TPRE	12.70	17.50	73%	4	3	0.90	9.8	NIL	Reinsurance	95
2582	Voya Financial	VOYA	48.21	65.75	73%	4	3	1.25	14.6	0.1	Financial Svcs. (Div.)	20
620	World Fuel Services	INT	20.83	28.50	73%	4	3	1.10	10.4	1.2	Oil/Gas Distribution	57
1557	Lincoln Nat'l Corp.	LNC	64.73	86.65	75%	3	3	1.40	7.9	2.2	Insurance (Life)	13
2021	Aspen Insurance Hldgs.	AHL	40.10	52.80	76%	4	2	0.85	9.7	2.4	Reinsurance	95
2164	Barnes & Noble	BKS	5.45	7.15	76%	4	4	1.45	13.6	11.0	Retail (Hardlines)	44
332	Frontline Ltd.	FRO	5.18	6.75	77%	4	5	1.25	NMF	NIL	Maritime	83
813	LifePoint Health	LPNT	49.00	63.40	77%	3	3	0.90	11.1	NIL	Medical Services	9
544	QEP Resources	QEP	12.31	16.00	77%	4	4	1.80	NMF	NIL	Natural Gas (Div.)	24
2322	Speedway Motorsports	TRK	17.62	22.95	77%	4	3	0.90	16.8	3.4	Recreation	45
331	Diana Shipping	DSX	4.51	5.75	78%	–	5	1.60	NMF	NIL	Maritime	83
1590	Natural Resource	NRP	31.85	40.90	78%	4	5	1.55	6.0	5.7	Metals & Mining (Div.)	35
2386	News Corp. 'A'	NWSA	15.38	19.40	79%	5	3	1.30	NMF	1.3	Newspaper	93
934	U.S. Cellular	USM	34.40	43.50	79%	3	3	1.10	43.0	NIL	Telecom. Services	60
2538	Aircastle Ltd.	AYR	20.35	25.55	80%	3	3	1.35	8.3	5.5	Financial Svcs. (Div.)	20
527	CNX Resources	CNX	17.12	21.45	80%	–	4	1.55	31.1	NIL	Natural Gas (Div.)	24
333	GasLog Ltd.	GLOG	17.10	21.40	80%	4	4	1.75	34.2	3.5	Maritime	83
2426	Helix Energy Solutions	HLX	8.65	10.75	80%	3	4	2.00	57.7	NIL	Oilfield Svcs/Equip.	92
543	Paramount Resources	POU.TO	14.65	18.35	80%	3	3	1.90	NMF	NIL	Natural Gas (Div.)	24
2016	TiVo Corp.	TIVO	12.75	15.85	80%	5	4	1.45	NMF	5.6	Entertainment Tech	91
1230	TransAlta Corp.	TA.TO	7.02	8.75	80%	4	4	0.95	28.1	2.3	Power	71
526	Antero Resources	AR	21.45	26.55	81%	2	3	1.30	16.5	NIL	Natural Gas (Div.)	24
2659	Apollo Investment	AINV	5.80	7.20	81%	4	3	0.90	8.4	10.3	Public/Private Equity	97
1571	Goldcorp Inc.	GG	13.25	16.40	81%	4	3	0.75	29.4	0.6	Precious Metals	66
2569	Loews Corp.	L	49.71	60.75	82%	3	2	0.95	15.8	0.5	Financial Svcs. (Div.)	20
2026	Maiden Hldgs. Ltd.	MHLD	7.75	9.50	82%	5	4	1.15	31.0	7.7	Reinsurance	95
2382	A.H. Belo	AHC	4.35	5.25	83%	–	4	0.90	9.7	7.4	Newspaper	93
2502	Ally Financial	ALLY	27.55	33.25	83%	1	3	1.20	9.2	2.2	Bank	19
627	DCP Midstream LP	DCP	41.85	50.15	83%	5	3	1.55	46.5	7.5	Pipeline MLPs	50
1559	MetLife Inc.	MET	44.19	53.00	83%	4	3	1.30	8.8	3.8	Insurance (Life)	13
102	Daimler AG	DDAIF	67.66	80.65	84%	3	3	1.15	5.8	6.7	Automotive	46
519	Petroleo Brasileiro ADR	PBR	10.96	13.05	84%	3	5	1.85	13.7	NIL	Petroleum (Integrated)	29
1598	CVR Partners, LP	UAN	3.76	4.40	85%	5	4	1.35	NMF	0.5	Chemical (Basic)	76
613	Clean Energy Fuels	CLNE	2.63	3.10	85%	–	5	1.85	17.5	NIL	Oil/Gas Distribution	57
930	Sprint Corp.	S	5.59	6.60	85%	–	4	1.20	93.2	NIL	Telecom. Services	60
1986	FUJIFILM Hldgs. ADR	FUJIY	39.21	45.40	86%	–	3	0.95	12.6	1.7	Foreign Electronics	33
639	Spectra Energy Part.	SEP	34.60	40.40	86%	–	3	0.90	9.5	8.7	Pipeline MLPs	50
1564	Unum Group	UNM	38.17	44.60	86%	1	3	1.15	7.4	2.7	Insurance (Life)	13
317	WestJet Airlines Ltd.	WJA.TO	18.13	21.00	86%	3	3	0.80	9.1	3.1	Air Transport	25
2536	AerCap Hldgs. NV	AER	55.33	63.35	87%	3	3	1.35	8.2	NIL	Financial Svcs. (Div.)	20
2512	Citizens Fin'l Group	CFG	40.04	45.80	87%	2	3	1.15	12.8	2.2	Bank	19
2523	Popular Inc.	BPOP	45.76	52.45	87%	4	3	1.20	10.9	2.2	Bank	19
2302	AMC Entertainment Hldgs.	AMC	16.85	19.20	88%	3	3	1.05	84.3	4.7	Recreation	45
1125	Beazer Homes USA	BZH	15.64	17.75	88%	2	5	1.75	9.8	NIL	Homebuilding	1
2661	Carlyle Group L.P.	CG	23.75	26.95	88%	5	3	1.30	10.8	4.5	Public/Private Equity	97
2157	Genesco Inc.	GCO	39.90	45.25	88%	4	3	1.05	12.3	NIL	Shoe	58
1505	New York Community	NYCB	11.49	13.00	88%	5	3	0.90	13.8	5.9	Thrift	80
1593	Teck Resources 'B'	TECKB.TO	32.27	36.50	88%	1	4	1.60	6.1	0.6	Metals & Mining (Div.)	35
2344	Tribune Media Co.	TRCO	33.32	37.90	88%	–	3	1.15	16.3	3.0	Entertainment	22
761	AmTrust Financial Svcs.	AFSI	14.61	16.35	89%	–	3	0.95	2.8	4.7	Insurance (Prop/Cas.)	56
1512	Annaly Capital Mgmt.	NLY	10.41	11.75	89%	4	3	0.65	8.8	11.5	R.E.I.T.	96
2165	Bed Bath & Beyond	BBBY	19.13	21.50	89%	4	3	1.00	7.7	3.3	Retail (Hardlines)	44
506	Cenovus Energy	CVE.TO	13.81	15.60	89%	4	3	1.15	NMF	1.4	Petroleum (Integrated)	29
1030	CenturyLink Inc.	CTL	19.63	22.10	89%	4	3	1.05	17.8	11.0	Telecom. Utility	89
2511	Citigroup Inc.	C	69.35	76.80	90%	2	3	1.25	11.4	1.9	Bank	19
2199	Ascena Retail Group	ASNA	3.52	3.85	91%	4	5	1.50	NMF	NIL	Retail (Softlines)	61
1198	Newell Brands	NWL	27.63	29.95	92%	3	3	1.10	10.4	3.3	Household Products	88
2548	CIT Group	CIT	52.16	56.05	93%	3	3	1.10	13.8	1.9	Financial Svcs. (Div.)	20
2434	Patterson-UTI Energy	PTEN	17.07	18.35	93%	3	4	1.75	NMF	0.9	Oilfield Svcs/Equip.	92
2553	EZCORP, Inc.	EZPW	11.75	12.50	94%	2	4	1.40	13.5	NIL	Financial Svcs. (Div.)	20
974	Amer. Axle	AXL	16.73	17.55	95%	3	4	1.30	4.5	NIL	Auto Parts	8
305	Atlas Air Worldwide	AAWW	69.10	72.80	95%	3	3	1.35	10.6	NIL	Air Transport	25

***If fiscal 2018 Book Value not available, estimate used.**

LOWEST P/Es

Stocks with the lowest estimated current P/E ratios

Page No.	Stock Name	Recent Price	Current P/E Ratio	Time-liness	Safety Rank	Industry Group	Industry Rank
761	AmTrust Financial Svcs.	14.61	2.8	–	3	Insurance (Prop/Cas.)	56
974	Amer. Axle	16.73	4.5	3	4	Auto Parts	8
1614	Endo Int'l plc	10.83	4.5	4	5	Drug	73
1556	Genworth Fin'l	4.62	4.6	–	5	Insurance (Life)	13
109	Tata Motors ADR	18.87	4.8	3	3	Automotive	46
2392	Donnelley (R.R) & Sons	5.50	5.0	–	3	Advertising	34
2172	GameStop Corp.	14.58	5.0	–	3	Retail (Hardlines)	44
104	Fiat Chrysler	19.67	5.2	–	3	Automotive	46
1407	Western Digital	78.99	5.5	1	3	Computers/Peripherals	43
979	Commercial Vehicle	7.05	5.6	–	5	Auto Parts	8
1363	Micron Technology	56.96	5.7	1	3	Semiconductor	17
978	China Auto. Sys.	4.08	5.8	–	5	Auto Parts	8
102	Daimler AG	67.66	5.8	3	3	Automotive	46
988	Goodyear Tire	22.00	5.9	3	3	Auto Parts	8
1590	Natural Resource	31.85	6.0	4	5	Metals & Mining (Div.)	35
1183	Owens-Illinois	16.74	6.0	4	3	Packaging & Container	16
1000	Tenneco Inc.	44.37	6.0	3	3	Auto Parts	8
1593	Teck Resources 'B'	32.27	6.1	1	4	Metals & Mining (Div.)	35
1381	Electro Scientific	17.85	6.2	1	3	Semiconductor Equip	3
106	Gen'l Motors	40.03	6.2	3	3	Automotive	46
993	Linamar Corp.	59.38	6.2	3	3	Auto Parts	8
1932	Pilgrim's Pride Corp.	18.80	6.3	3	3	Food Processing	81
2570	MGIC Investment	11.23	6.4	2	4	Financial Svcs. (Div.)	20
972	Adient plc	49.04	6.5	–	3	Auto Parts	8
105	Ford Motor	10.86	6.6	3	3	Automotive	46
545	Southwestern Energy	5.24	6.6	2	4	Natural Gas (Div.)	24
2346	Viacom Inc. 'B'	28.58	6.7	–	3	Entertainment	22
1216	AES Corp.	12.85	6.8	2	3	Power	71
745	Cleveland-Cliffs Inc.	8.47	6.8	4	5	Steel	6
108	Nissan Motor ADR	18.39	6.8	3	3	Automotive	46
304	Amer. Airlines	37.38	6.9	3	3	Air Transport	25
1632	Bausch Health	23.10	6.9	3	5	Drug	73
982	Dana Inc.	21.01	6.9	1	3	Auto Parts	8
1583	Alliance Resource	18.55	7.1	4	3	Metals & Mining (Div.)	35
995	Meritor, Inc.	20.49	7.1	1	4	Auto Parts	8
849	United Therapeutics	123.89	7.1	3	3	Biotechnology	90
743	ArcelorMittal	30.31	7.2	1	3	Steel	6
1415	Pitney Bowes	8.68	7.2	4	3	Office Equip/Supplies	68
742	AK Steel Holding	4.78	7.4	3	5	Steel	6
2327	AMC Networks	61.45	7.4	1	3	Entertainment	22
1564	Unum Group	38.17	7.4	1	3	Insurance (Life)	13
2573	Navient Corp.	13.81	7.5	3	3	Financial Svcs. (Div.)	20
310	Hawaiian Hldgs.	36.50	7.6	3	4	Air Transport	25
2165	Bed Bath & Beyond	19.13	7.7	4	3	Retail (Hardlines)	44
2125	Group 1 Automotive	66.79	7.7	3	3	Retail Automotive	7
1016	Sally Beauty	15.77	7.7	2	3	Toiletries/Cosmetics	72
107	Honda Motor ADR	29.64	7.8	3	3	Automotive	46
2013	Immersion Corp.	15.54	7.8	2	5	Entertainment Tech	91
1561	Prudential Fin'l	96.02	7.8	3	3	Insurance (Life)	13
2342	TEGNA Inc.	10.94	7.8	–	3	Entertainment	22
1029	BT Group ADR	14.56	7.9	3	3	Telecom. Utility	89
1557	Lincoln Nat'l Corp.	64.73	7.9	3	3	Insurance (Life)	13
750	POSCO ADR	70.85	7.9	2	3	Steel	6
568	Chemours Co. (The)	44.22	8.0	1	3	Chemical (Specialty)	15
2536	AerCap Hldgs. NV	55.33	8.2	3	3	Financial Svcs. (Div.)	20
308	Delta Air Lines	51.14	8.2	3	3	Air Transport	25
1588	Freep't-McMoRan Inc.	16.77	8.2	2	5	Metals & Mining (Div.)	35
997	Motorcar Parts Of Amer.	19.89	8.2	4	3	Auto Parts	8
1405	Tech Data	85.27	8.2	3	3	Computers/Peripherals	43
1002	Tower International	32.80	8.2	3	3	Auto Parts	8
2538	Aircastle Ltd.	20.35	8.3	3	3	Financial Svcs. (Div.)	20
2406	Denbury Resources	4.54	8.3	2	5	Petroleum (Producing)	11
2452	Trinseo S.A.	71.75	8.3	3	3	Chemical (Diversified)	4
2659	Apollo Investment	5.80	8.4	4	3	Public/Private Equity	97
1179	Crown Holdings	45.40	8.4	2	3	Packaging & Container	16
2541	Amer. Int'l Group	54.71	8.5	5	3	Financial Svcs. (Div.)	20
994	Magna Int'l 'A'	60.60	8.5	1	3	Auto Parts	8
728	Triumph Group	19.65	8.5	4	3	Aerospace/Defense	59
1594	U.S. Silica Holdings	26.26	8.5	2	4	Metals & Mining (Div.)	35
2179	Michaels Cos. (The)	19.76	8.6	3	3	Retail (Hardlines)	44
1136	Taylor Morrison Home	21.97	8.6	2	3	Homebuilding	1
1377	Xperi Corp.	16.30	8.6	3	3	Semiconductor	17
2409	Laredo Petroleum	9.56	8.7	2	5	Petroleum (Producing)	11
1137	Toll Brothers	38.04	8.7	3	3	Homebuilding	1
1512	Annaly Capital Mgmt.	10.41	8.8	4	3	R.E.I.T.	96
942	Arris Int'l plc	26.52	8.8	1	3	Telecom. Equipment	85
2554	Federated Investors	23.42	8.8	3	3	Financial Svcs. (Div.)	20
2377	Meredith Corp.	51.45	8.8	4	3	Publishing	69
1559	MetLife Inc.	44.19	8.8	4	3	Insurance (Life)	13
2340	Sinclair Broadcast	28.05	8.8	4	3	Entertainment	22
2119	Asbury Automotive	68.75	8.9	1	3	Retail Automotive	7
2122	Camping World Holdings	25.37	8.9	–	3	Retail Automotive	7
2564	Invesco Ltd.	25.46	8.9	3	3	Financial Svcs. (Div.)	20
2163	Avis Budget Group	31.98	9.0	3	4	Retail (Hardlines)	44
2664	KKR & Co.	26.90	9.0	5	3	Public/Private Equity	97
2335	MSG Networks	23.35	9.0	–	3	Entertainment	22
541	Newfield Exploration	28.85	9.0	2	3	Natural Gas (Div.)	24
2185	Party City Holdco	16.65	9.0	2	4	Retail (Hardlines)	44
628	EQT Midstream Part.	54.02	9.1	2	3	Pipeline MLPs	50
1414	Office Depot	2.73	9.1	3	5	Office Equip/Supplies	68
1631	Teva Pharmac. ADR	23.13	9.1	4	3	Drug	73
315	United Cont'l Hldgs.	72.62	9.1	3	4	Air Transport	25
317	WestJet Airlines Ltd.	18.13	9.1	3	3	Air Transport	25
2502	Ally Financial	27.55	9.2	1	3	Bank	19
1794	BGC Partners	11.07	9.2	–	3	Brokers & Exchanges	23
307	Copa Holdings, S.A.	97.05	9.2	2	3	Air Transport	25
2551	Discover Fin'l Svcs.	71.10	9.2	2	2	Financial Svcs. (Div.)	20
2127	Lithia Motors	97.03	9.2	1	3	Retail Automotive	7
1135	TRI Pointe Group	17.40	9.2	2	3	Homebuilding	1
919	AT&T Inc.	31.76	9.3	3	1	Telecom. Services	60

HIGHEST P/Es

Stocks with the highest estimated current P/E ratios

Page No.	Stock Name	Recent Price	Current P/E Ratio	Time-liness	Safety Rank	Industry Group	Industry Rank
940	Acacia Communications	34.59	98.8	–	3	Telecom. Equipment	85
963	Zayo Group Holdings	38.48	98.7	3	3	Telecom. Equipment	85
177	CryoLife Inc.	29.35	97.8	5	3	Med Supp Invasive	75
1530	Healthcare R'lty Trust	28.66	95.5	5	3	R.E.I.T.	96
1412	Essendant Inc.	14.19	94.6	–	3	Office Equip/Supplies	68
930	Sprint Corp.	5.59	93.2	–	4	Telecom. Services	60
1134	St. Joe Corp.	18.00	90.0	4	3	Homebuilding	1
602	Finisar Corp.	17.92	89.6	5	4	Wireless Networking	86
600	Crown Castle Int'l	110.87	88.7	3	3	Wireless Networking	86
1725	Rexnord Corp.	29.27	88.7	3	3	Machinery	21
1535	Macerich Comp. (The)	57.42	88.3	5	3	R.E.I.T.	96
716	Kratos Defense & Sec.	13.11	87.4	3	4	Aerospace/Defense	59
368	Potbelly Corp.	12.75	85.0	5	4	Restaurant	67
183	Integra LifeSciences	63.31	84.4	3	3	Med Supp Invasive	75
2302	AMC Entertainment Hldgs.	16.85	84.3	3	3	Recreation	45
840	Incyte Corp.	70.23	82.6	4	4	Biotechnology	90
2102	Canada Goose Hldgs.	83.91	80.7	–	3	Apparel	65
1352	CEVA, Inc.	32.10	80.3	5	4	Semiconductor	17
584	Park Electrochemical	23.68	78.9	4	3	Chemical (Specialty)	15
2595	Fortinet Inc.	66.94	78.8	3	3	Computer Software	54
1819	Cornerstone OnDemand	55.09	78.7	3	4	E-Commerce	64
171	AngioDynamics	21.08	78.1	5	3	Med Supp Invasive	75
198	Align Techn.	370.53	77.2	3	3	Med Supp Non-Invasive	78
2375	Cimpress N.V.	149.26	76.5	3	3	Publishing	69
947	Ericsson ADR	7.64	76.4	4	3	Telecom. Equipment	85
850	Vertex Pharmac.	182.59	76.1	3	3	Biotechnology	90
411	Clean Harbors	56.41	75.2	3	3	Environmental	27
1519	Digital Realty Trust	115.93	74.8	3	3	R.E.I.T.	96
1020	Charter Communic.	302.03	74.6	3	3	Cable TV	38
1546	UDR, Inc.	36.98	74.0	4	3	R.E.I.T.	96
2149	Rent-A-Center	14.77	73.9	–	4	Retail Store	48
220	Neogen Corp.	84.00	73.7	3	3	Med Supp Non-Invasive	78
2018	Zynga Inc.	4.31	71.8	3	4	Entertainment Tech	91
187	NuVasive, Inc.	53.39	71.2	4	3	Med Supp Invasive	75
1327	Cubic Corp.	69.00	71.1	5	3	Electronics	63
734	Haynes International	38.23	70.8	5	3	Metal Fabricating	40
371	Shake Shack	66.86	70.4	3	4	Restaurant	67
448	Thomson Reuters	55.86	69.8	–	2	Information Services	36
2155	Crocs, Inc.	17.34	69.4	3	4	Shoe	58
2654	XO Group	34.29	68.6	3	3	Internet	79
213	Illumina Inc.	305.49	67.9	3	3	Med Supp Non-Invasive	78
209	Avanos Medical	57.55	67.7	–	3	Med Supp Non-Invasive	78
1828	Paylocity Holding	65.81	67.2	3	4	E-Commerce	64
1550	Washington R.E.I.T.	29.93	66.5	5	2	R.E.I.T.	96
1229	TPI Composites	29.85	66.3	–	4	Power	71
2602	Red Hat, Inc.	147.58	64.7	3	3	Computer Software	54
376	Wingstop Inc.	51.44	64.3	3	3	Restaurant	67
929	Shenandoah Telecom.	32.05	64.1	3	3	Telecom. Services	60
119	FARO Technologies	56.95	63.3	4	3	Precision Instrument	62
2015	Take-Two Interactive	126.68	62.7	3	3	Entertainment Tech	91
2182	National Vision Holdings	40.30	62.0	–	3	Retail (Hardlines)	44
2608	Teradata Corp.	43.33	61.9	5	3	Computer Software	54
394	Howard Hughes Corp.	142.24	61.8	5	3	Industrial Services	55
927	Iridium Communic.	18.20	60.7	4	4	Telecom. Services	60
831	Veeva Systems	82.75	60.0	3	3	Healthcare Information	49
1824	LogMeIn Inc.	109.70	59.3	3	3	E-Commerce	64
1570	Franco-Nevada Corp.	73.63	58.9	3	3	Precious Metals	66
200	Bio-Rad Labs. 'A'	302.62	58.8	3	2	Med Supp Non-Invasive	78
212	IDEXX Labs.	239.79	58.5	3	3	Med Supp Non-Invasive	78
196	Abaxis, Inc.	83.35	57.9	–	3	Med Supp Non-Invasive	78
1548	Vornado R'lty Trust	72.31	57.8	4	3	R.E.I.T.	96
1166	Glatfelter	20.19	57.7	4	3	Paper/Forest Products	10
2426	Helix Energy Solutions	8.65	57.7	3	4	Oilfield Svcs/Equip.	92
437	CoStar Group	426.32	56.8	3	3	Information Services	36
2349	Belmond Ltd.	11.30	56.5	5	3	Hotel/Gaming	31
1364	Monolithic Power Sys.	141.35	56.5	3	3	Semiconductor	17
1973	Cott Corp.	16.80	56.0	3	3	Beverage	74
1974	Craft Brew Alliance	19.60	56.0	3	4	Beverage	74
221	Omnicell, Inc.	54.45	54.5	3	3	Med Supp Non-Invasive	78
205	Cutera, Inc.	43.25	54.1	3	3	Med Supp Non-Invasive	78
1185	Sealed Air	42.73	53.4	–	3	Packaging & Container	16
836	Bio-Techne Corp.	152.47	52.9	3	1	Biotechnology	90
2588	Adobe Systems	258.31	52.7	3	2	Computer Software	54
959	Switch, Inc.	13.06	52.2	–	4	Telecom. Equipment	85
163	Manitowoc Co.	25.99	52.0	–	5	Heavy Truck & Equip	28
1314	Universal Display	95.95	51.9	4	3	Electrical Equipment	51
1537	Mid-America Apartment	98.45	51.8	4	2	R.E.I.T.	96
1834	Ultimate Software	284.66	51.8	3	3	E-Commerce	64
2385	New York Times	25.85	51.7	3	3	Newspaper	93
2352	Churchill Downs	304.60	51.6	3	3	Hotel/Gaming	31
2643	IAC/InterActiveCorp	154.90	51.6	3	3	Internet	79
1516	Camden Property Trust	89.92	51.4	4	3	R.E.I.T.	96
184	Intuitive Surgical	523.78	51.4	3	3	Med Supp Invasive	75
356	Chipotle Mex. Grill	452.54	51.1	4	3	Restaurant	67
770	Markel Corp.	1132.47	51.1	5	1	Insurance (Prop/Cas.)	56
1567	Agnico Eagle Mines	45.55	50.6	4	3	Precious Metals	66
1522	Essex Property Trust	232.74	50.6	4	3	R.E.I.T.	96
2574	PayPal Holdings	88.58	50.6	3	3	Financial Svcs. (Div.)	20
192	Teleflex Inc.	277.62	50.5	3	2	Med Supp Invasive	75
1982	Primo Water Corp.	17.57	50.2	3	4	Beverage	74
1544	SL Green Realty	100.21	50.1	4	3	R.E.I.T.	96
814	Medidata Solutions	87.34	49.9	3	3	Medical Services	9
404	Rollins, Inc.	54.93	49.9	3	2	Industrial Services	55
2631	Tyler Technologies	237.49	49.6	3	3	IT Services	47
2640	Expedia Group	128.79	49.5	4	3	Internet	79
2417	Whiting Petroleum	49.45	49.5	2	5	Petroleum (Producing)	11
2638	Ctrip.com Int'l ADR	44.50	49.4	3	3	Internet	79
1371	Silicon Labs.	105.55	49.1	3	3	Semiconductor	17
1140	Floor & Decor Hldgs.	48.97	49.0	–	3	Retail Building Supply	37
1348	Advanced Micro Dev.	16.87	48.2	3	5	Semiconductor	17

STOCKS WITH HIGHEST ANNUAL TOTAL RETURNS (NEXT 3 TO 5 YEARS)

(Estimated compound annual stock price appreciation plus estimated annual dividend income.)

Page No.	Stock Name	Recent Price	Est'd Total Return	Time-liness	Safety Rank	Industry Group	Industry Rank
1034	Frontier Communic.	4.99	66%	3	5	Telecom. Utility	89
803	Community Health	2.75	62%	–	5	Medical Services	9
1196	FTD Companies	4.64	56%	5	5	Household Products	88
2429	Nabors Inds.	6.12	56%	4	4	Oilfield Svcs/Equip.	92
1577	Tahoe Resources	4.77	47%	4	5	Precious Metals	66
545	Southwestern Energy	5.24	46%	2	4	Natural Gas (Div.)	24
2199	Ascena Retail Group	3.52	45%	4	5	Retail (Softlines)	61
2409	Laredo Petroleum	9.56	45%	2	5	Petroleum (Producing)	11
848	TESARO, Inc.	40.34	43%	5	4	Biotechnology	90
2439	TETRA Technologies	4.60	43%	3	5	Oilfield Svcs/Equip.	92
1127	Hovnanian Enterpr. 'A'	1.76	41%	–	5	Homebuilding	1
2147	Penney (J.C.)	2.38	41%	4	5	Retail Store	48
2435	RPC Inc.	14.97	41%	2	3	Oilfield Svcs/Equip.	92
613	Clean Energy Fuels	2.63	40%	–	5	Oil/Gas Distribution	57
979	Commercial Vehicle	7.05	40%	–	5	Auto Parts	8
924	Gogo Inc.	3.77	40%	5	4	Telecom. Services	60
2383	Gannett Co.	10.12	39%	4	3	Newspaper	93
222	Owens & Minor	17.38	39%	4	3	Med Supp Non-Invasive	78
1583	Alliance Resource	18.55	38%	4	3	Metals & Mining (Div.)	35
223	Patterson Cos.	22.75	38%	5	3	Med Supp Non-Invasive	78
1594	U.S. Silica Holdings	26.26	38%	2	4	Metals & Mining (Div.)	35
626	Buckeye Partners L.P.	34.95	37%	4	3	Pipeline MLPs	50
526	Antero Resources	21.45	36%	2	3	Natural Gas (Div.)	24
2167	Big 5 Sporting Goods	6.70	35%	4	4	Retail (Hardlines)	44
988	Goodyear Tire	22.00	35%	3	3	Auto Parts	8
615	Kinder Morgan Inc.	17.69	35%	3	3	Oil/Gas Distribution	57
2339	Scripps (E.W.) 'A'	12.82	34%	5	3	Entertainment	22
1007	Avon Products	1.44	33%	4	5	Toiletries/Cosmetics	72
2208	Francesca's Hldgs.	7.48	33%	4	4	Retail (Softlines)	61
2416	Range Resources	16.30	33%	2	3	Petroleum (Producing)	11
109	Tata Motors ADR	18.87	33%	3	3	Automotive	46
2342	TEGNA Inc.	10.94	33%	–	3	Entertainment	22
1410	Diebold Nixdorf	12.50	32%	4	3	Office Equip/Supplies	68
332	Frontline Ltd.	5.18	32%	4	5	Maritime	83
926	IDT Corp.	5.74	32%	–	3	Telecom. Services	60
719	Maxar Technologies	52.65	32%	–	2	Aerospace/Defense	59
1198	Newell Brands	27.63	32%	3	3	Household Products	88
1228	SunPower Corp.	7.52	32%	4	5	Power	71
2346	Viacom Inc. 'B'	28.58	32%	–	3	Entertainment	22
2327	AMC Networks	61.45	31%	1	3	Entertainment	22
1381	Electro Scientific	17.85	31%	1	3	Semiconductor Equip	3
930	Sprint Corp.	5.59	31%	–	4	Telecom. Services	60
1000	Tenneco Inc.	44.37	31%	3	3	Auto Parts	8
2441	Weatherford Int'l plc	3.40	31%	4	5	Oilfield Svcs/Equip.	92
353	Bloomin' Brands	20.78	30%	2	3	Restaurant	67
2000	Bridgepoint Education	7.00	30%	4	4	Educational Services	87
1032	Consol. Communic.	12.50	30%	4	3	Telecom. Utility	89
2329	Discovery, Inc.	26.38	30%	2	3	Entertainment	22
1571	Goldcorp Inc.	13.25	30%	4	3	Precious Metals	66
2568	Legg Mason	33.15	30%	3	3	Financial Svcs. (Div.)	20
541	Newfield Exploration	28.85	30%	2	3	Natural Gas (Div.)	24
1575	Pretium Resources	8.28	30%	3	5	Precious Metals	66
1016	Sally Beauty	15.77	30%	2	3	Toiletries/Cosmetics	72
2341	Sirius XM Holdings	7.07	30%	3	4	Entertainment	22
2016	TiVo Corp.	12.75	30%	5	4	Entertainment Tech	91
623	Andeavor Logistics LP	42.22	29%	3	3	Pipeline MLPs	50
630	Enbridge Energy Part.	10.67	29%	–	4	Pipeline MLPs	50
1771	Realogy Holdings	23.13	29%	4	3	Diversified Co.	32
369	Red Robin Gourmet	48.05	29%	4	3	Restaurant	67
2577	SLM Corporation	11.67	29%	2	3	Financial Svcs. (Div.)	20
1829	Sabre Corp.	26.43	29%	3	3	E-Commerce	64
1593	Teck Resources 'B'	32.27	29%	1	4	Metals & Mining (Div.)	35
1202	Tupperware Brands	40.73	29%	4	3	Household Products	88
2382	A.H. Belo	4.35	28%	–	4	Newspaper	93
1584	Arconic Inc.	19.24	28%	–	3	Metals & Mining (Div.)	35
1106	Beacon Roofing	40.26	28%	4	3	Building Materials	30
202	Cardinal Health	49.97	28%	4	2	Med Supp Non-Invasive	78
2405	Crescent Point Energy	9.75	28%	4	4	Petroleum (Producing)	11
1518	DDR Corp.	14.35	28%	–	3	R.E.I.T.	96
2309	Harley-Davidson	42.65	28%	3	3	Recreation	45
1800	Investment Techn.	22.31	28%	3	3	Brokers & Exchanges	23
2179	Michaels Cos. (The)	19.76	28%	3	3	Retail (Hardlines)	44
1183	Owens-Illinois	16.74	28%	4	3	Packaging & Container	16
1415	Pitney Bowes	8.68	28%	4	3	Office Equip/Supplies	68
742	AK Steel Holding	4.78	27%	3	5	Steel	6
2135	Big Lots Inc.	42.31	27%	3	3	Retail Store	48
1753	Gen'l Electric	13.69	27%	4	4	Diversified Co.	32
840	Incyte Corp.	70.23	27%	4	4	Biotechnology	90
518	Par Pacific Holdings	17.20	27%	3	3	Petroleum (Integrated)	29
590	Rayonier Advanced Mat.	18.24	27%	1	4	Chemical (Specialty)	15
2344	Tribune Media Co.	33.32	27%	–	3	Entertainment	22
620	World Fuel Services	20.83	27%	4	3	Oil/Gas Distribution	57
529	Callon Petroleum	10.87	26%	1	4	Natural Gas (Div.)	24
2663	Gladstone Capital	9.25	26%	3	3	Public/Private Equity	97
2564	Invesco Ltd.	25.46	26%	3	3	Financial Svcs. (Div.)	20
1759	Jefferies Fin'l Group	22.54	26%	4	3	Diversified Co.	32
635	MPLX LP	33.60	26%	3	4	Pipeline MLPs	50
217	McKesson Corp.	134.58	26%	3	2	Med Supp Non-Invasive	78
2377	Meredith Corp.	51.45	26%	4	3	Publishing	69
515	Murphy Oil Corp.	31.81	26%	2	3	Petroleum (Integrated)	29
540	National Fuel Gas	54.69	26%	3	3	Natural Gas (Div.)	24
2434	Patterson-UTI Energy	17.07	26%	3	4	Oilfield Svcs/Equip.	92
638	Plains All Amer. Pipe.	23.00	26%	5	3	Pipeline MLPs	50
2187	Qurate Retail	21.95	26%	2	3	Retail (Hardlines)	44
2438	Superior Energy Svcs.	9.69	26%	3	4	Oilfield Svcs/Equip.	92
1377	Xperi Corp.	16.30	26%	3	3	Semiconductor	17
761	AmTrust Financial Svcs.	14.61	25%	–	3	Insurance (Prop/Cas.)	56
1568	AngloGold Ashanti ADS	8.47	25%	3	4	Precious Metals	66
2164	Barnes & Noble	5.45	25%	4	4	Retail (Hardlines)	44
530	Chesapeake Energy	4.77	25%	2	5	Natural Gas (Div.)	24

STOCKS WITH HIGHEST PROJECTED 3- TO 5-YEAR DIVIDEND YIELD

Based upon the projected dividend per share 3 to 5 years hence divided by the recent price

Page No.	Stock Name	Recent Price	Est'd Future Yield	Time-liness	Safety Rank	Industry Group	Industry Rank
626	Buckeye Partners L.P.	34.95	17%	4	3	Pipeline MLPs	50
1512	Annaly Capital Mgmt.	10.41	16%	4	3	R.E.I.T.	96
623	Andeavor Logistics LP	42.22	14%	3	3	Pipeline MLPs	50
1583	Alliance Resource	18.55	13%	4	3	Metals & Mining (Div.)	35
628	EQT Midstream Part.	54.02	13%	2	3	Pipeline MLPs	50
637	Phillips 66 Partners	50.10	13%	2	3	Pipeline MLPs	50
2660	Blackstone Group LP	35.71	12%	3	3	Public/Private Equity	97
632	Energy Transfer Part.	19.26	12%	–	3	Pipeline MLPs	50
633	EnLink Midstream Part.	14.93	12%	2	4	Pipeline MLPs	50
2658	Apollo Global Mgmt	36.02	11%	4	3	Public/Private Equity	97
1030	CenturyLink Inc.	19.63	11%	4	3	Telecom. Utility	89
638	Plains All Amer. Pipe.	23.00	11%	5	3	Pipeline MLPs	50
639	Spectra Energy Part.	34.60	11%	–	3	Pipeline MLPs	50
622	AmeriGas Partners	42.35	10%	3	3	Pipeline MLPs	50
624	Antero Midstream Part.	29.96	10%	3	3	Pipeline MLPs	50
2659	Apollo Investment	5.80	10%	4	3	Public/Private Equity	97
2167	Big 5 Sporting Goods	6.70	10%	4	4	Retail (Hardlines)	44
2401	Black Stone Minerals	17.90	10%	4	3	Petroleum (Producing)	11
505	CVR Refining LP	23.45	10%	2	3	Petroleum (Integrated)	29
1518	DDR Corp.	14.35	10%	–	3	R.E.I.T.	96
2392	Donnelley (R.R) & Sons	5.50	10%	–	3	Advertising	34
629	Enable Midstream Part.	17.81	10%	4	4	Pipeline MLPs	50
631	Energy Transfer Equity	17.08	10%	1	4	Pipeline MLPs	50
2172	GameStop Corp.	14.58	10%	–	3	Retail (Hardlines)	44
399	Macquarie Infra.	44.60	10%	1	3	Industrial Services	55
1227	Pattern Energy Group	17.81	10%	3	3	Power	71
640	Suburban Propane	23.27	10%	3	4	Pipeline MLPs	50
641	Western Gas Part.	48.65	10%	3	3	Pipeline MLPs	50
1794	BGC Partners	11.07	9%	–	3	Brokers & Exchanges	23
102	Daimler AG	67.66	9%	3	3	Automotive	46
634	Enterprise Products	28.22	9%	3	3	Pipeline MLPs	50
2663	Gladstone Capital	9.25	9%	3	3	Public/Private Equity	97
2026	Maiden Hldgs. Ltd.	7.75	9%	5	4	Reinsurance	95
223	Patterson Cos.	22.75	9%	5	3	Med Supp Non-Invasive	78
1538	Penn. R.E.I.T.	10.82	9%	5	3	R.E.I.T.	96
1415	Pitney Bowes	8.68	9%	4	3	Office Equip/Supplies	68
546	Targa Resources	51.60	9%	3	3	Natural Gas (Div.)	24
1202	Tupperware Brands	40.73	9%	4	3	Household Products	88
936	Vodafone Group ADR	23.88	9%	1	3	Telecom. Services	60
919	AT&T Inc.	31.76	8%	3	1	Telecom. Services	60
2539	AllianceBernstein Hldg.	29.50	8%	2	3	Financial Svcs. (Div.)	20
1029	BT Group ADR	14.56	8%	3	3	Telecom. Utility	89
2661	Carlyle Group L.P.	23.75	8%	5	3	Public/Private Equity	97
2307	Cedar Fair L.P.	59.70	8%	3	3	Recreation	45
2662	Compass Diversified	17.90	8%	3	3	Public/Private Equity	97
1517	CoreCivic, Inc.	24.26	8%	4	3	R.E.I.T.	96
627	DCP Midstream LP	41.85	8%	5	3	Pipeline MLPs	50
1526	GEO Group (The)	26.64	8%	4	3	R.E.I.T.	96
2383	Gannett Co.	10.12	8%	4	3	Newspaper	93
1531	Hospitality Properties	28.67	8%	4	3	R.E.I.T.	96
926	IDT Corp.	5.74	8%	–	3	Telecom. Services	60
396	Iron Mountain	35.03	8%	4	3	Industrial Services	55
1533	Kimco Realty	16.61	8%	3	3	R.E.I.T.	96
615	Kinder Morgan Inc.	17.69	8%	3	3	Oil/Gas Distribution	57
2210	L Brands	32.06	8%	4	3	Retail (Softlines)	61
635	MPLX LP	33.60	8%	3	4	Pipeline MLPs	50
636	Magellan Midstream	67.47	8%	3	3	Pipeline MLPs	50
108	Nissan Motor ADR	18.39	8%	3	3	Automotive	46
2016	TiVo Corp.	12.75	8%	5	4	Entertainment Tech	91
2397	WPP PLC ADR	77.19	8%	3	2	Advertising	34
2382	A.H. Belo	4.35	7%	–	4	Newspaper	93
2538	Aircastle Ltd.	20.35	7%	3	3	Financial Svcs. (Div.)	20
1992	Altria Group	57.35	7%	2	2	Tobacco	70
1903	B&G Foods	30.80	7%	4	3	Food Processing	81
1598	CVR Partners, LP	3.76	7%	5	4	Chemical (Basic)	76
2405	Crescent Point Energy	9.75	7%	4	4	Petroleum (Producing)	11
141	Dominion Energy	70.38	7%	3	2	Electric Utility (East)	53
1219	Emera Inc.	42.69	7%	3	2	Power	71
614	Enbridge Inc.	45.49	7%	3	3	Oil/Gas Distribution	57
105	Ford Motor	10.86	7%	3	3	Automotive	46
1528	Gaming and Leisure Prop.	36.02	7%	4	3	R.E.I.T.	96
1753	Gen'l Electric	13.69	7%	4	4	Diversified Co.	32
2517	HSBC Holdings PLC	47.04	7%	5	3	Bank	19
2564	Invesco Ltd.	25.46	7%	3	3	Financial Svcs. (Div.)	20
771	Mercury General	44.24	7%	5	2	Insurance (Prop/Cas.)	56
218	Meridian Bioscience	15.80	7%	5	3	Med Supp Non-Invasive	78
222	Owens & Minor	17.38	7%	4	3	Med Supp Non-Invasive	78
1994	Philip Morris Int'l	82.33	7%	3	2	Tobacco	70
1560	Power Financial	30.73	7%	3	2	Insurance (Life)	13
1591	Rio Tinto plc	54.24	7%	2	3	Metals & Mining (Div.)	35
752	Russel Metals	26.71	7%	2	3	Steel	6
338	Teekay Corp.	7.15	7%	3	5	Maritime	83
1035	Telefonica SA ADR	8.72	7%	4	4	Telecom. Utility	89
618	TransCanada Corp.	42.90	7%	3	3	Oil/Gas Distribution	57
1547	Ventas, Inc.	57.92	7%	5	3	R.E.I.T.	96
1549	W.P. Carey Inc.	65.55	7%	3	3	R.E.I.T.	96
1552	Welltower Inc.	62.14	7%	5	3	R.E.I.T.	96
619	Williams Cos.	26.97	7%	3	3	Oil/Gas Distribution	57
642	Williams Partners L.P.	40.57	7%	–	4	Pipeline MLPs	50
2302	AMC Entertainment Hldgs.	16.85	6%	3	3	Recreation	45
761	AmTrust Financial Svcs.	14.61	6%	–	3	Insurance (Prop/Cas.)	56
1637	Atento S.A.	6.25	6%	3	4	Human Resources	12
1028	BCE Inc.	42.49	6%	4	3	Telecom. Utility	89
503	BP PLC ADR	44.43	6%	3	3	Petroleum (Integrated)	29
1993	Brit. Am. Tobacco ADR	50.19	6%	3	2	Tobacco	70
1745	Brookfield Infrastruc.	39.77	6%	3	2	Diversified Co.	32
1985	Canon Inc. ADR	31.80	6%	3	1	Foreign Electronics	33
202	Cardinal Health	49.97	6%	4	2	Med Supp Non-Invasive	78
2202	Chico's FAS	8.61	6%	4	3	Retail (Softlines)	61
1218	Covanta Holding Corp.	16.85	6%	3	3	Power	71

HIGH RETURNS EARNED ON TOTAL CAPITAL

Stocks with high average returns on capital in last 5 years ranked by earnings retained to common equity

Page No.	Stock Name	Ticker	Recent Price	Avg. Retained to Com. Eq.	Avg. Return On Cap.	Time-liness	Safety Rank	Beta	Current P/E Ratio	% Est'd Yield	Industry Group	Industry Rank
1715	Lennox Int'l	LII	214.52	640%	36%	2	3	1.10	21.5	1.2	Machinery	21
706	Boeing	BA	356.88	333%	46%	2	1	1.10	21.3	2.1	Aerospace/Defense	59
2546	Block (H&R)	HRB	23.97	232%	29%	3	3	0.85	14.3	4.2	Financial Svcs. (Div.)	20
316	United Parcel Serv.	UPS	111.07	216%	34%	2	1	0.90	15.4	3.3	Air Transport	25
447	S&P Global	SPGI	212.59	197%	50%	2	2	1.10	24.9	1.0	Information Services	36
445	Moody's Corp.	MCO	182.69	177%	38%	2	3	1.15	23.7	1.0	Information Services	36
442	Gartner Inc.	IT	139.97	153%	31%	3	2	0.95	37.8	NIL	Information Services	36
1915	Herbalife Nutrition	HLF	53.81	148%	35%	4	4	1.30	19.9	NIL	Food Processing	81
1192	Clorox Co.	CLX	135.02	123%	34%	5	2	0.70	22.8	2.8	Household Products	88
1141	Home Depot	HD	201.10	109%	28%	2	1	1.00	21.5	2.2	Retail Building Supply	37
1606	AbbVie Inc.	ABBV	95.41	99%	28%	2	3	1.15	12.2	4.0	Drug	73
367	Papa John's Int'l	PZZA	51.54	96%	28%	4	3	0.90	21.9	1.9	Restaurant	67
212	IDEXX Labs.	IDXX	239.79	95%	43%	3	3	0.90	58.5	NIL	Med Supp Non-Invasive	78
2421	Core Laboratories	CLB	114.90	69%	38%	4	3	1.20	43.4	1.9	Oilfield Svcs/Equip.	92
718	Lockheed Martin	LMT	317.50	63%	30%	2	1	0.80	20.0	2.6	Aerospace/Defense	59
995	Meritor, Inc.	MTOR	20.49	63%	34%	1	4	1.50	7.1	NIL	Auto Parts	8
127	Mettler-Toledo Int'l	MTD	584.80	62%	30%	3	2	1.05	30.3	NIL	Precision Instrument	62
1615	Gilead Sciences	GILD	77.20	57%	33%	3	3	1.05	13.2	3.0	Drug	73
2626	Manhattan Assoc.	MANH	50.32	56%	56%	4	3	1.20	40.3	NIL	IT Services	47
2572	MasterCard Inc.	MA	206.37	53%	42%	3	1	1.05	35.9	0.5	Financial Svcs. (Div.)	20
1144	Sherwin-Williams	SHW	424.36	53%	32%	2	2	1.10	22.6	0.8	Retail Building Supply	37
1193	Colgate-Palmolive	CL	65.56	51%	34%	4	1	0.85	21.1	2.6	Household Products	88
1627	PDL BioPharma	PDLI	2.56	51%	33%	4	4	1.20	12.8	NIL	Drug	73
608	Ubiquiti Networks	UBNT	88.74	47%	35%	2	3	0.90	20.3	NIL	Wireless Networking	86
1980	National Beverage	FIZZ	108.62	44%	36%	3	3	0.85	28.7	NIL	Beverage	74
1202	Tupperware Brands	TUP	40.73	44%	29%	4	3	1.30	9.4	6.7	Household Products	88
1916	Hershey Co.	HSY	93.56	43%	32%	3	2	0.80	17.5	3.0	Food Processing	81
1120	Trex Co.	TREX	68.48	43%	43%	3	3	1.35	33.4	NIL	Building Materials	30
2213	TJX Companies	TJX	96.30	40%	38%	2	1	0.90	19.9	1.6	Retail (Softlines)	61
1625	Novo Nordisk ADR	NVO	50.14	38%	72%	2	2	1.00	17.9	2.4	Drug	73
1795	Cboe Global Markets	CBOE	104.88	37%	57%	2	2	0.75	22.8	1.0	Brokers & Exchanges	23
2596	Intuit Inc.	INTU	216.48	37%	41%	3	2	1.15	39.8	0.7	Computer Software	54
2109	Michael Kors Hldgs.	KORS	67.67	37%	35%	3	3	0.95	15.6	NIL	Apparel	65
579	LyondellBasell Inds.	LYB	108.11	35%	28%	1	3	1.30	9.4	3.7	Chemical (Specialty)	15
2208	Francesca's Hldgs.	FRAN	7.48	34%	31%	4	4	0.75	12.5	NIL	Retail (Softlines)	61
2212	Ross Stores	ROST	86.39	34%	37%	2	2	0.95	21.3	1.1	Retail (Softlines)	61
440	FactSet Research	FDS	205.13	31%	35%	3	2	0.95	28.8	1.2	Information Services	36
1943	USANA Health Sciences	USNA	109.70	31%	31%	3	3	1.00	24.4	NIL	Food Processing	81
2612	Accenture Plc	ACN	168.07	30%	51%	3	1	1.00	23.1	1.7	IT Services	47
849	United Therapeutics	UTHR	123.89	30%	29%	3	3	1.05	7.1	NIL	Biotechnology	90
2317	Polaris Inds.	PII	124.15	29%	30%	3	3	1.25	19.9	1.9	Recreation	45
373	Starbucks Corp.	SBUX	51.28	25%	29%	3	1	0.95	20.0	2.8	Restaurant	67
1992	Altria Group	MO	57.35	24%	29%	2	2	0.70	14.3	4.9	Tobacco	70
1641	Insperity Inc.	NSP	98.90	24%	28%	3	3	1.00	34.1	0.8	Human Resources	12
2363	Marriott Int'l	MAR	130.45	24%	113%	2	3	1.10	24.6	1.3	Hotel/Gaming	31
2200	Buckle (The), Inc.	BKE	23.60	23%	34%	3	3	0.90	12.1	4.2	Retail (Softlines)	61
2323	Sturm, Ruger & Co.	RGR	56.20	22%	36%	4	3	0.85	14.1	2.8	Recreation	45
385	C.H. Robinson	CHRW	87.70	21%	29%	3	2	0.85	19.5	2.1	Industrial Services	55
1646	Robert Half Int'l	RHI	67.68	21%	31%	3	2	1.20	20.2	1.7	Human Resources	12
404	Rollins, Inc.	ROL	54.93	15%	29%	3	2	0.90	49.9	1.0	Industrial Services	55

BARGAIN BASEMENT STOCKS

Stocks with current price-earnings multiples and price-to-"net" working capital ratios that are in the bottom quartile of the Value Line universe

("Net" working capital equals current assets less all liabilities including long-term debt and preferred)

Page No.	Stock Name	Ticker	Recent Price	Percent Price-to "Net" Wkg. Capital	Current P/E Ratio	Percent Price-to Book Value	Time-liness	Safety Rank	Beta	% Est'd Yield	Industry Group	Industry Rank
978	China Auto. Sys.	CAAS	4.08	113%	5.8	36%	–	5	1.35	NIL	Auto Parts	8
1131	Meritage Homes	MTH	46.95	135%	9.4	109%	2	3	1.40	NIL	Homebuilding	1
2382	A.H. Belo	AHC	4.35	152%	9.7	83%	–	4	0.90	7.4	Newspaper	93
1125	Beazer Homes USA	BZH	15.64	152%	9.8	88%	2	5	1.75	NIL	Homebuilding	1
1135	TRI Pointe Group	TPH	17.40	153%	9.2	120%	2	3	1.35	NIL	Homebuilding	1
2167	Big 5 Sporting Goods	BGFV	6.70	154%	9.6	70%	4	4	0.90	9.0	Retail (Hardlines)	44
1130	M.D.C. Holdings	MDC	32.56	162%	9.9	122%	2	3	1.30	3.7	Homebuilding	1
1627	PDL BioPharma	PDLI	2.56	162%	12.8	46%	4	4	1.20	NIL	Drug	73
1137	Toll Brothers	TOL	38.04	171%	8.7	122%	3	3	1.30	1.2	Homebuilding	1
1323	Avnet, Inc.	AVT	43.82	179%	11.7	97%	3	3	1.20	1.7	Electronics	63
2560	Franklin Resources	BEN	32.11	184%	9.6	133%	4	2	1.35	3.1	Financial Svcs. (Div.)	20
1807	Goldman Sachs	GS	231.02	209%	9.6	92%	1	1	1.20	1.4	Investment Banking	5
1128	KB Home	KBH	27.48	213%	9.8	115%	1	3	1.55	0.4	Homebuilding	1
2175	Hibbett Sports	HIBB	24.10	223%	13.0	151%	3	3	0.95	NIL	Retail (Hardlines)	44
2184	PC Connection	CNXN	33.82	259%	14.1	169%	2	3	1.05	NIL	Retail (Hardlines)	44
1136	Taylor Morrison Home	TMHC	21.97	264%	8.6	112%	2	3	1.45	NIL	Homebuilding	1
1126	Horton D.R.	DHI	43.22	276%	11.0	180%	1	3	1.30	1.3	Homebuilding	1
1384	Kulicke & Soffa	KLIC	28.09	284%	13.3	190%	1	3	1.05	1.7	Semiconductor Equip	3
2553	EZCORP, Inc.	EZPW	11.75	292%	13.5	94%	2	4	1.40	NIL	Financial Svcs. (Div.)	20
980	Cooper Tire & Rubber	CTB	25.25	335%	12.3	107%	3	3	1.05	1.7	Auto Parts	8
2178	MarineMax	HZO	20.80	335%	13.8	141%	2	4	1.35	NIL	Retail (Hardlines)	44
752	Russel Metals	RUS.TO	26.71	335%	10.9	189%	2	3	1.10	5.7	Steel	6
137	Xcerra Corp.	XCRA	14.26	336%	13.3	211%	–	4	1.15	NIL	Precision Instrument	62
1986	FUJIFILM Hldgs. ADR	FUJIY	39.21	353%	12.6	86%	–	3	0.95	1.7	Foreign Electronics	33
1133	PulteGroup, Inc.	PHM	30.92	371%	9.5	182%	1	3	1.30	1.2	Homebuilding	1
2157	Genesco Inc.	GCO	39.90	376%	12.3	88%	4	3	1.05	NIL	Shoe	58
2176	Insight Enterprises	NSIT	49.32	382%	11.7	176%	1	3	1.30	NIL	Retail (Hardlines)	44
1129	Lennar Corp.	LEN	55.55	388%	11.3	127%	1	3	1.30	0.3	Homebuilding	1
2218	Zumiez Inc.	ZUMZ	20.90	389%	13.1	136%	3	3	1.00	NIL	Retail (Softlines)	61
1335	Methode Electronics	MEI	39.30	394%	12.4	202%	2	3	1.40	1.1	Electronics	63
1935	Sanderson Farms	SAFM	99.50	413%	12.6	143%	3	3	0.75	1.3	Food Processing	81
1811	Piper Jaffray Cos.	PJC	75.55	422%	13.5	134%	3	3	1.25	4.1	Investment Banking	5
1961	United Natural Foods	UNFI	44.78	495%	12.5	122%	2	3	1.05	NIL	Retail/Wholesale Food	39
1340	Sanmina Corp.	SANM	30.75	529%	13.1	144%	3	3	1.25	NIL	Electronics	63
2200	Buckle (The), Inc.	BKE	23.60	539%	12.1	288%	3	3	0.90	4.2	Retail (Softlines)	61

UNTIMELY STOCKS

Stocks ranked 5 (Lowest) for Relative Price Performance in the next 12 months

Page No.	Stock Name	Recent Price	Rank Safety	Rank Technical	Current P/E Ratio	% Est'd Yield	Industry Group	Industry Rank
2611	ACI Worldwide	26.40	3	3	26.4	NIL	IT Services	47
1318	AVX Corp.	17.89	3	5	21.6	2.6	Electronics	63
1999	Adtalem Global Educ.	52.70	3	3	17.1	NIL	Educational Services	87
941	ADTRAN, Inc.	16.00	3	5	NMF	2.3	Telecom. Equipment	85
834	Alnylam Pharmac.	102.27	4	3	NMF	NIL	Biotechnology	90
1349	Ambarella, Inc.	38.51	4	3	45.3	NIL	Semiconductor	17
2541	Amer. Int'l Group	54.71	3	4	8.5	2.3	Financial Svcs. (Div.)	20
171	AngioDynamics	21.08	3	3	78.1	NIL	Med Supp Invasive	75
1610	AstraZeneca PLC (ADS)	37.17	3	3	33.8	3.8	Drug	73
704	Astronics Corp.	38.47	3	3	24.0	NIL	Aerospace/Defense	59
2349	Belmond Ltd.	11.30	3	4	56.5	NIL	Hotel/Gaming	31
837	BioMarin Pharmac.	103.92	3	3	NMF	NIL	Biotechnology	90
1515	Boston Properties	125.67	3	4	37.0	2.5	R.E.I.T.	96
800	Brookdale Senior Living	9.36	4	4	NMF	NIL	Medical Services	9
1968	Brown-Forman 'B'	52.64	1	2	31.3	1.3	Beverage	74
1352	CEVA, Inc.	32.10	4	3	80.3	NIL	Semiconductor	17
1598	CVR Partners, LP	3.76	4	5	NMF	0.5	Chemical (Basic)	76
2661	Carlyle Group L.P.	23.75	3	3	10.8	4.5	Public/Private Equity	97
766	Chubb Ltd.	133.38	1	4	12.7	2.2	Insurance (Prop/Cas.)	56
1192	Clorox Co.	135.02	2	4	22.8	2.8	Household Products	88
177	CryoLife Inc.	29.35	3	3	97.8	NIL	Med Supp Invasive	75
1327	Cubic Corp.	69.00	3	2	71.1	0.4	Electronics	63
627	DCP Midstream LP	41.85	3	3	46.5	7.5	Pipeline MLPs	50
2009	Daktronics Inc.	8.44	3	4	36.7	3.6	Entertainment Tech	91
2423	Dril-Quip, Inc.	58.25	3	5	NMF	NIL	Oilfield Svcs/Equip.	92
1220	EnerSys	77.46	3	1	15.8	0.9	Power	71
2424	Ensco plc	7.15	4	4	NMF	0.6	Oilfield Svcs/Equip.	92
2331	Entravision Communic.	4.70	4	4	23.5	4.3	Entertainment	22
2024	Everest Re Group Ltd.	235.11	1	3	10.6	2.3	Reinsurance	95
1196	FTD Companies	4.64	5	2	NMF	NIL	Household Products	88
364	Fiesta Restaurant	29.50	4	3	29.5	NIL	Restaurant	67
602	Finisar Corp.	17.92	4	4	89.6	NIL	Wireless Networking	86
1328	Fitbit Inc.	6.74	4	3	NMF	NIL	Electronics	63
1234	Fluor Corp.	48.39	3	3	21.0	1.7	Engineering & Const	82
441	Forrester Research	43.00	3	3	30.7	1.9	Information Services	36
2171	Fossil Group	26.39	5	2	NMF	NIL	Retail (Hardlines)	44
1912	Freshpet, Inc.	28.90	4	4	NMF	NIL	Food Processing	81
924	Gogo Inc.	3.77	4	3	NMF	NIL	Telecom. Services	60
2025	Greenlight Capital Re	14.00	4	3	NMF	NIL	Reinsurance	95
1529	HCP Inc.	25.57	3	4	36.5	5.9	R.E.I.T.	96
2517	HSBC Holdings PLC	47.04	3	2	10.5	5.5	Bank	19
734	Haynes International	38.23	3	2	70.8	2.3	Metal Fabricating	40
1530	Healthcare R'lty Trust	28.66	3	4	95.5	4.2	R.E.I.T.	96
394	Howard Hughes Corp.	142.24	3	3	61.8	NIL	Industrial Services	55
842	Ionis Pharmac.	44.11	4	4	NMF	NIL	Biotechnology	90
605	Itron Inc.	59.50	3	4	NMF	NIL	Wireless Networking	86
2664	KKR & Co.	26.90	3	3	9.0	1.9	Public/Private Equity	97
126	MTS Systems	53.30	3	2	21.0	2.3	Precision Instrument	62
1535	Macerich Comp. (The)	57.42	3	3	88.3	5.3	R.E.I.T.	96
2026	Maiden Hldgs. Ltd.	7.75	4	3	31.0	7.7	Reinsurance	95
770	Markel Corp.	1132.47	1	3	51.1	NIL	Insurance (Prop/Cas.)	56
1825	Mercadolibre Inc.	359.80	3	3	NMF	NIL	E-Commerce	64
771	Mercury General	44.24	2	3	22.1	5.7	Insurance (Prop/Cas.)	56
218	Meridian Bioscience	15.80	3	3	21.9	3.2	Med Supp Non-Invasive	78
219	Natus Medical	31.75	3	3	45.4	NIL	Med Supp Non-Invasive	78
1929	Nestle SA ADS	79.14	1	5	25.1	3.1	Food Processing	81
186	Nevro Corp.	60.15	4	3	NMF	NIL	Med Supp Invasive	75
1505	New York Community	11.49	3	3	13.8	5.9	Thrift	80
582	NewMarket Corp.	404.44	2	4	18.9	1.7	Chemical (Specialty)	15
2386	News Corp. 'A'	15.38	3	2	NMF	1.3	Newspaper	93
2598	Nuance Communic.	15.50	3	5	NMF	NIL	Computer Software	54
2432	Oceaneering Int'l	26.60	3	4	NMF	NIL	Oilfield Svcs/Equip.	92
1626	Opko Health	6.29	3	5	NMF	NIL	Drug	73
2646	Overstock.com	43.05	4	3	NMF	NIL	Internet	79
2647	Pandora Media	8.30	5	4	NMF	NIL	Internet	79
223	Patterson Cos.	22.75	3	4	11.3	4.6	Med Supp Non-Invasive	78
1538	Penn. R.E.I.T.	10.82	3	3	NMF	7.9	R.E.I.T.	96
638	Plains All Amer. Pipe.	23.00	3	3	17.7	5.2	Pipeline MLPs	50
368	Potbelly Corp.	12.75	4	2	85.0	NIL	Restaurant	67
2148	PriceSmart	79.05	3	3	28.1	0.9	Retail Store	48
1199	Procter & Gamble	80.03	1	5	18.3	3.6	Household Products	88
1540	Public Storage	219.72	1	3	30.3	3.9	R.E.I.T.	96
957	Qualcomm Inc.	58.91	2	3	17.5	4.2	Telecom. Equipment	85
403	Resources Connection ■	17.10	3	2	22.5	2.8	Industrial Services	55
1015	Revlon Inc.	16.75	3	3	NMF	NIL	Toiletries/Cosmetics	72
2005	Rosetta Stone	16.88	4	3	NMF	NIL	Educational Services	87
1936	Saputo Inc.	45.16	1	4	24.4	1.4	Food Processing	81
2339	Scripps (E.W.) 'A'	12.82	3	4	18.3	1.6	Entertainment	22
847	Seattle Genetics	67.94	4	3	NMF	NIL	Biotechnology	90
607	Sierra Wireless ■	16.90	4	5	NMF	NIL	Wireless Networking	86
2649	Sohu.com Ltd. ADS	34.05	4	3	NMF	NIL	Internet	79
1832	Splunk Inc.	107.25	3	3	NMF	NIL	E-Commerce	64
1341	Stratasys Ltd.	20.48	3	4	NMF	NIL	Electronics	63
1731	Tennant Co.	78.15	3	2	39.1	1.1	Machinery	21
2608	Teradata Corp.	43.33	3	3	61.9	NIL	Computer Software	54
848	TESARO, Inc.	40.34	4	3	NMF	NIL	Biotechnology	90
110	Tesla, Inc.	322.69	4	3	NMF	NIL	Automotive	46
1343	3D Systems	15.11	4	4	NMF	NIL	Electronics	63
2016	TiVo Corp.	12.75	4	3	NMF	5.6	Entertainment Tech	91
1940	Tootsie Roll	30.30	1	5	30.3	1.2	Food Processing	81
2440	Transocean Ltd.	12.72	5	3	NMF	NIL	Oilfield Svcs/Equip.	92
2017	Universal Electronics	33.75	3	5	33.8	NIL	Entertainment Tech	91
1547	Ventas, Inc.	57.92	3	4	44.6	5.6	R.E.I.T.	96
609	ViaSat, Inc.	68.25	3	4	NMF	NIL	Wireless Networking	86
1550	Washington R.E.I.T.	29.93	2	4	66.5	4.0	R.E.I.T.	96
2653	Wayfair Inc.	124.65	4	3	NMF	NIL	Internet	79
1552	Welltower Inc.	62.14	3	4	24.4	5.7	R.E.I.T.	96
729	Wesco Aircraft	11.80	3	2	13.6	NIL	Aerospace/Defense	59
1792	York Water Co. (The)	32.10	3	4	30.6	2.1	Water Utility	94
2656	Zillow Group 'C'	63.53	4	3	NMF	NIL	Internet	79

■ **Newly added this week.**

HIGHEST DIVIDEND YIELDING NON-UTILITY STOCKS

Based upon estimated year-ahead dividends per share

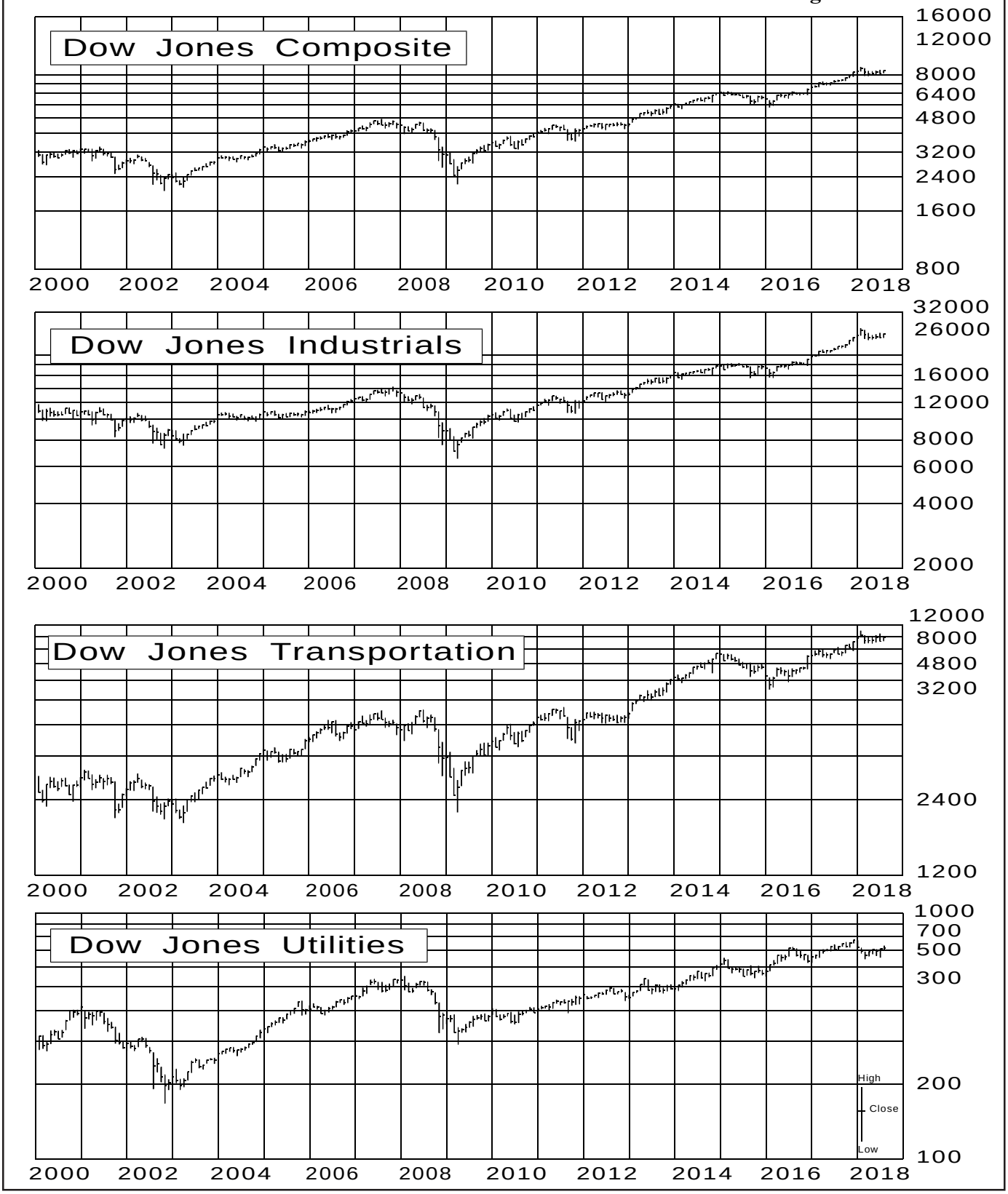
Page No.	Stock Name	Recent Price	Time-liness	Safety Rank	Current P/E Ratio	% Est'd Yield	Industry Group	Industry Rank
626	Buckeye Partners L.P.	34.95	4	3	11.7	14.4	Pipeline MLPs	50
630	Enbridge Energy Part.	10.67	–	4	13.3	13.1†	Pipeline MLPs	50
632	Energy Transfer Part.	19.26	–	3	20.3	11.7	Pipeline MLPs	50
1583	Alliance Resource	18.55	4	3	7.1	11.6	Metals & Mining (Div.)	35
1512	Annaly Capital Mgmt.	10.41	4	3	8.8	11.5	R.E.I.T.	96
2164	Barnes & Noble	5.45	4	4	13.6	11.0†	Retail (Hardlines)	44
1518	DDR Corp.	14.35	–	3	NMF	10.6	R.E.I.T.	96
633	EnLink Midstream Part.	14.93	2	4	37.3	10.4	Pipeline MLPs	50
2172	GameStop Corp.	14.58	–	3	5.0	10.4	Retail (Hardlines)	44
2659	Apollo Investment	5.80	4	3	8.4	10.3	Public/Private Equity	97
640	Suburban Propane	23.27	3	4	13.5	10.3	Pipeline MLPs	50
2392	Donnelley (R.R) & Sons	5.50	–	3	5.0	10.2	Advertising	34
1205	Aberdeen Asia-Pac. Fd.	4.34	–	4	NMF	9.7	Investment Co.	–
337	Ship Finance Int'l	14.40	4	3	13.7	9.7†	Maritime	83
623	Andeavor Logistics LP	42.22	3	3	14.6	9.6	Pipeline MLPs	50
1227	Pattern Energy Group	17.81	3	3	39.6	9.5	Power	71
2663	Gladstone Capital	9.25	3	3	10.3	9.1	Public/Private Equity	97
622	AmeriGas Partners	42.35	3	3	26.8	9.0	Pipeline MLPs	50
2167	Big 5 Sporting Goods	6.70	4	4	9.6	9.0	Retail (Hardlines)	44
399	Macquarie Infra.	44.60	1	3	16.5	9.0	Industrial Services	55
505	CVR Refining LP	23.45	2	3	12.7	8.7	Petroleum (Integrated)	29
639	Spectra Energy Part.	34.60	–	3	9.5	8.7	Pipeline MLPs	50
628	EQT Midstream Part.	54.02	2	3	9.1	8.6	Pipeline MLPs	50
1211	MFS Multimarket	5.58	–	4	NMF	8.6	Investment Co.	–
1415	Pitney Bowes	8.68	4	3	7.2	8.6	Office Equip/Supplies	68
1210	Liberty All-Star	6.68	–	2	NMF	8.4	Investment Co.	–
504	CVR Energy	37.66	3	4	21.5	8.0	Petroleum (Integrated)	29
2662	Compass Diversified	17.90	3	3	11.2	8.0	Public/Private Equity	97
2395	National CineMedia	8.46	3	3	33.8	8.0†	Advertising	34
2384	New Media Investment	18.50	3	3	16.8	8.0†	Newspaper	93
641	Western Gas Part.	48.65	3	3	26.3	8.0	Pipeline MLPs	50
1538	Penn. R.E.I.T.	10.82	5	3	NMF	7.9	R.E.I.T.	96
2026	Maiden Hldgs. Ltd.	7.75	5	4	31.0	7.7	Reinsurance	95
936	Vodafone Group ADR	23.88	1	3	15.4	7.6	Telecom. Services	60
627	DCP Midstream LP	41.85	5	3	46.5	7.5	Pipeline MLPs	50
2210	L Brands	32.06	4	3	11.5	7.5	Retail (Softlines)	61
2382	A.H. Belo	4.35	–	4	9.7	7.4	Newspaper	93
631	Energy Transfer Equity	17.08	1	4	13.7	7.4	Pipeline MLPs	50
1531	Hospitality Properties	28.67	4	3	15.5	7.4	R.E.I.T.	96
635	MPLX LP	33.60	3	4	17.7	7.4	Pipeline MLPs	50
629	Enable Midstream Part.	17.81	4	4	18.7	7.2	Pipeline MLPs	50
1517	CoreCivic, Inc.	24.26	4	3	16.7	7.1	R.E.I.T.	96
1526	GEO Group (The)	26.64	4	3	19.7	7.1	R.E.I.T.	96
1528	Gaming and Leisure Prop.	36.02	4	3	18.0	7.1	R.E.I.T.	96
546	Targa Resources	51.60	3	3	NMF	7.1	Natural Gas (Div.)	24
2539	AllianceBernstein Hldg.	29.50	2	3	11.8	7.0	Financial Svcs. (Div.)	20
2401	Black Stone Minerals	17.90	4	3	18.8	7.0	Petroleum (Producing)	11
1533	Kimco Realty	16.61	3	3	22.1	6.9	R.E.I.T.	96
102	Daimler AG	67.66	3	3	5.8	6.7	Automotive	46
396	Iron Mountain	35.03	4	3	31.8	6.7	Industrial Services	55
1202	Tupperware Brands	40.73	4	3	9.4	6.7	Household Products	88
1794	BGC Partners	11.07	–	3	9.2	6.5	Brokers & Exchanges	23
2660	Blackstone Group LP	35.71	3	3	11.3	6.5	Public/Private Equity	97
919	AT&T Inc.	31.76	3	1	9.3	6.4	Telecom. Services	60
618	TransCanada Corp.	42.90	3	3	19.1	6.4	Oil/Gas Distribution	57
2383	Gannett Co.	10.12	4	3	16.9	6.3	Newspaper	93
926	IDT Corp.	5.74	–	3	17.9	6.3	Telecom. Services	60
642	Williams Partners L.P.	40.57	–	4	21.9	6.3	Pipeline MLPs	50
1903	B&G Foods	30.80	4	3	14.3	6.2	Food Processing	81
634	Enterprise Products	28.22	3	3	17.6	6.2	Pipeline MLPs	50
1549	W.P. Carey Inc.	65.55	3	3	26.8	6.2	R.E.I.T.	96
1616	GlaxoSmithKline ADR	41.14	4	1	20.6	6.1	Drug	73
624	Antero Midstream Part.	29.96	3	3	15.0	6.0	Pipeline MLPs	50
2307	Cedar Fair L.P.	59.70	3	3	16.8	6.0	Recreation	45
108	Nissan Motor ADR	18.39	3	3	6.8	6.0	Automotive	46
222	Owens & Minor	17.38	4	3	10.9	6.0	Med Supp Non-Invasive	78
637	Phillips 66 Partners	50.10	2	3	14.7	6.0	Pipeline MLPs	50
2378	Quad/Graphics Inc.	20.13	3	4	9.7	6.0	Publishing	69
1218	Covanta Holding Corp.	16.85	3	3	9.4	5.9	Power	71
614	Enbridge Inc.	45.49	3	3	17.5	5.9	Oil/Gas Distribution	57
1529	HCP Inc.	25.57	5	3	36.5	5.9	R.E.I.T.	96
1505	New York Community	11.49	5	3	13.8	5.9	Thrift	80
636	Magellan Midstream	67.47	3	3	16.9	5.7	Pipeline MLPs	50
771	Mercury General	44.24	5	2	22.1	5.7	Insurance (Prop/Cas.)	56
1590	Natural Resource	31.85	4	5	6.0	5.7	Metals & Mining (Div.)	35
752	Russel Metals	26.71	2	3	10.9	5.7	Steel	6
1552	Welltower Inc.	62.14	5	3	24.4	5.7	R.E.I.T.	96
1560	Power Financial	30.73	3	2	9.3	5.6	Insurance (Life)	13
2016	TiVo Corp.	12.75	5	4	NMF	5.6	Entertainment Tech	91
1547	Ventas, Inc.	57.92	5	3	44.6	5.6	R.E.I.T.	96
2538	Aircastle Ltd.	20.35	3	3	8.3	5.5	Financial Svcs. (Div.)	20
105	Ford Motor	10.86	3	3	6.6	5.5	Automotive	46
2517	HSBC Holdings PLC	47.04	5	3	10.5	5.5	Bank	19
1994	Philip Morris Int'l	82.33	3	2	15.4	5.5	Tobacco	70
1637	Atento S.A.	6.25	3	4	11.4	5.4	Human Resources	12
503	BP PLC ADR	44.43	3	3	15.6	5.4	Petroleum (Integrated)	29
2201	Cato Corp.	24.27	4	3	24.3	5.4†	Retail (Softlines)	61
1219	Emera Inc.	42.69	3	2	14.0	5.3	Power	71
1535	Macerich Comp. (The)	57.42	5	3	88.3	5.3	R.E.I.T.	96
1551	Weingarten Realty	30.18	3	3	16.3	5.3	R.E.I.T.	96
2394	Lamar Advertising	72.16	3	3	21.9	5.2	Advertising	34
638	Plains All Amer. Pipe.	23.00	5	3	17.7	5.2	Pipeline MLPs	50
521	Royal Dutch Shell 'B'	71.89	2	2	14.8	5.2	Petroleum (Integrated)	29
1591	Rio Tinto plc	54.24	2	3	10.8	5.1	Metals & Mining (Div.)	35
1766	National Presto Ind.	120.00	3	3	15.5	5.0	Diversified Co.	32

† **Dividend cut possible**

HIGHEST GROWTH STOCKS

(To be included, a company's annual growth of sales, cash flow, earnings, dividends and book value must together have averaged 10% or more over the past 10 years and be expected to average at least 10% in the coming 3-5 years.)

Page No.	Stock Name	Ticker	Recent Price	Growth Past 10 Years	Est'd Growth 3-5 Years	Time-liness	Safety Rank	Beta	Current P/E Ratio	% Est'd Yield	Estimated 3-5 Year Price Appreciation	Industry Group	Industry Rank
1702	AAON, Inc.	AAON	35.75	12%	14%	4	3	1.30	39.7	0.9	10- 70%	Machinery	21
1636	ASGN Inc.	ASGN	83.90	17%	11%	2	3	1.40	31.1	NIL	N- 25%	Human Resources	12
2118	Advance Auto Parts	AAP	140.28	12%	12%	3	3	1.05	20.2	0.2	30- 90%	Retail Automotive	7
1815	Akamai Technologies	AKAM	78.63	15%	12%	3	3	1.20	41.4	NIL	40-110%	E-Commerce	64
198	Align Techn.	ALGN	370.53	26%	24%	3	3	1.20	77.2	NIL	N- N%	Med Supp Non-Invasive	78
1946	Ali. Couche-Tard	ATDB.TO	62.01	21%	15%	3	3	0.80	14.8	0.7	75-165%	Retail/Wholesale Food	39
434	Alliance Data Sys.	ADS	225.44	17%	16%	2	3	1.15	9.8	1.0	45-120%	Information Services	36
2634	Alphabet Inc.	GOOG	1198.80	22%	13%	2	1	1.10	30.9	NIL	10- 35%	Internet	79
2635	Amazon.com	AMZN	1843.93	30%	24%	3	3	1.15	NMF	NIL	N- N%	Internet	79
1393	Apple Inc.	AAPL	191.45	34%	12%	2	2	0.95	16.1	1.6	25- 65%	Computers/Peripherals	43
352	BJ's Restaurants	BJRI	62.60	16%	12%	2	3	0.85	30.5	0.7	30- 90%	Restaurant	67
2636	Baidu, Inc.	BIDU	270.02	48%	18%	2	3	1.40	29.7	NIL	20- 85%	Internet	79
566	Balchem Corp.	BCPC	98.69	18%	12%	3	3	1.10	34.0	0.4	15- 70%	Chemical (Specialty)	15
1638	Barrett Business Serv.	BBSI	95.55	12%	12%	3	3	1.05	21.5	1.0	N- 40%	Human Resources	12
2135	Big Lots Inc.	BIG	42.31	11%	12%	3	3	1.10	9.6	3.0	100-195%	Retail Store	48
2545	BlackRock, Inc.	BLK	504.88	14%	12%	2	2	1.30	17.4	2.5	25- 65%	Financial Svcs. (Div.)	20
2637	Booking Holdings	BKNG	2030.52	35%	14%	2	3	1.20	23.5	NIL	20- 80%	Internet	79
116	Bruker Corp.	BRKR	28.89	12%	14%	3	3	1.10	21.4	0.6	40-110%	Precision Instrument	62
1352	CEVA, Inc.	CEVA	32.10	13%	11%	5	4	1.20	80.3	NIL	25-100%	Semiconductor	17
1906	Calavo Growers	CVGW	95.75	13%	12%	3	3	0.65	31.2	1.0	N- 20%	Food Processing	81
201	Cantel Medical Corp.	CMD	95.80	13%	17%	3	3	0.95	37.3	0.2	5- 55%	Med Supp Non-Invasive	78
2123	CarMax, Inc.	KMX	77.67	13%	12%	3	3	1.25	18.1	NIL	20- 80%	Retail Automotive	7
2103	Carter's Inc.	CRI	115.02	13%	11%	3	3	0.85	19.8	1.6	25- 90%	Apparel	65
1747	Chemed Corp.	CHE	325.94	11%	13%	2	3	0.80	29.4	0.4	N- 15%	Diversified Co.	32
2352	Churchill Downs	CHDN	304.60	10%	11%	3	3	0.95	51.6	0.6	N- 15%	Hotel/Gaming	31
117	Cognex Corp.	CGNX	45.54	11%	13%	4	3	1.20	38.0	0.4	N- 30%	Precision Instrument	62
2618	Cognizant Technology	CTSH	82.74	24%	11%	2	2	1.05	18.4	1.0	20- 65%	IT Services	47
118	Coherent, Inc.	COHR	165.10	12%	18%	3	3	1.20	13.9	NIL	55-135%	Precision Instrument	62
1022	Comcast Corp.	CMCSA	34.27	15%	11%	1	2	0.90	14.0	2.2	60-120%	Cable TV	38
307	Copa Holdings, S.A.	CPA	97.05	12%	12%	2	3	1.35	9.2	3.6	20- 75%	Air Transport	25
2124	Copart, Inc.	CPRT	59.16	13%	13%	3	2	1.00	30.3	NIL	N- N%	Retail Automotive	7
437	CoStar Group	CSGP	426.32	17%	17%	3	3	1.15	56.8	NIL	10- 70%	Information Services	36
2638	Ctrip.com Int'l ADR	CTRP	44.50	22%	20%	3	3	1.25	49.4	NIL	25- 90%	Internet	79
2141	Dollar Tree, Inc.	DLTR	86.73	17%	15%	3	3	0.85	17.0	NIL	25- 90%	Retail Store	48
362	Domino's Pizza	DPZ	282.04	12%	17%	3	3	0.85	33.8	0.8	10- 60%	Restaurant	67
923	Dycom Inds.	DY	98.09	14%	13%	3	3	1.30	20.9	NIL	60-135%	Telecom. Services	60
179	Edwards Lifesciences	EW	149.20	15%	12%	3	3	0.85	32.1	NIL	15- 70%	Med Supp Invasive	75
440	FactSet Research	FDS	205.13	13%	11%	3	2	0.95	28.8	1.2	10- 50%	Information Services	36
2558	FirstCash, Inc.	FCFS	91.80	10%	14%	–	3	0.85	27.8	1.0	N- 15%	Financial Svcs. (Div.)	20
442	Gartner Inc.	IT	139.97	16%	14%	3	2	0.95	37.8	NIL	20- 60%	Information Services	36
393	Healthcare Svcs.	HCSG	42.38	11%	13%	4	2	0.90	38.5	1.9	40- 90%	Industrial Services	55
713	HEICO Corp.	HEI	77.10	16%	12%	3	3	0.90	40.8	0.2	N- 50%	Aerospace/Defense	59
2624	Henry (Jack) & Assoc.	JKHY	136.27	11%	11%	3	1	0.85	37.0	1.1	N- N%	IT Services	47
809	Humana Inc.	HUM	313.89	12%	12%	3	3	0.85	22.5	0.6	N- 30%	Medical Services	9
181	ICU Medical	ICUI	296.55	12%	10%	2	3	0.85	40.9	NIL	N- 40%	Med Supp Invasive	75
443	IHS Markit	INFO	52.84	16%	13%	–	3	1.05	23.5	NIL	5- 60%	Information Services	36
122	II-VI Inc.	IIVI	44.20	13%	12%	4	3	1.20	24.8	NIL	N- 60%	Precision Instrument	62
213	Illumina Inc.	ILMN	305.49	26%	16%	3	3	1.05	67.9	NIL	N- 25%	Med Supp Non-Invasive	78
2625	Infosys Ltd. ADR	INFY	19.90	14%	11%	4	2	0.85	17.2	2.8	75-125%	IT Services	47
1799	Intercontinental Exch.	ICE	75.61	22%	11%	2	2	0.80	21.6	1.3	20- 60%	Brokers & Exchanges	23
2596	Intuit Inc.	INTU	216.48	11%	13%	3	2	1.15	39.8	0.7	N- 10%	Computer Software	54
184	Intuitive Surgical	ISRG	523.78	22%	14%	3	3	0.85	51.4	NIL	N- 25%	Med Supp Invasive	75
1333	iRobot Corp.	IRBT	79.84	18%	15%	2	3	1.05	34.0	NIL	40-100%	Electronics	63
577	KMG Chemicals	KMG	74.69	11%	12%	2	3	1.05	22.3	0.2	N- 20%	Chemical (Specialty)	15
1012	Lauder (Estee)	EL	142.20	12%	10%	2	2	0.80	29.7	1.2	N- 30%	Toiletries/Cosmetics	72
2333	Lions Gate 'A'	LGFA	24.48	14%	15%	3	3	1.15	20.2	1.5	65-145%	Entertainment	22
1311	Littelfuse Inc.	LFUS	229.74	12%	12%	2	3	1.05	23.9	0.6	N- 45%	Electrical Equipment	51
444	MSCI Inc.	MSCI	170.74	12%	17%	3	3	1.00	33.5	1.1	5- 60%	Information Services	36
2158	Madden (Steven) Ltd.	SHOO	53.90	15%	12%	3	3	1.05	20.3	1.5	10- 65%	Shoe	58
1802	MarketAxess Holdings	MKTX	207.59	19%	16%	3	3	0.90	46.1	0.8	N- 40%	Brokers & Exchanges	23
1238	MasTec	MTZ	50.80	16%	12%	3	3	1.80	13.9	NIL	50-115%	Engineering & Const	82
2572	MasterCard Inc.	MA	206.37	21%	14%	3	1	1.05	35.9	0.5	N- 10%	Financial Svcs. (Div.)	20
400	MAXIMUS Inc.	MMS	64.83	17%	11%	4	3	1.10	19.5	0.3	30- 95%	Industrial Services	55
1927	Medifast, Inc.	MED	168.29	17%	16%	3	3	0.85	47.4	1.1	N- N%	Food Processing	81
1720	Middleby Corp. (The)	MIDD	98.85	19%	12%	4	3	1.20	16.1	NIL	60-145%	Machinery	21
1364	Monolithic Power Sys.	MPWR	141.35	18%	16%	3	3	1.20	56.5	0.8	N- 40%	Semiconductor	17
1979	Monster Beverage	MNST	62.17	21%	14%	3	3	0.85	36.6	NIL	5- 60%	Beverage	74
220	Neogen Corp.	NEOG	84.00	15%	12%	3	3	1.00	73.7	NIL	N- 5%	Med Supp Non-Invasive	78
2337	Netflix, Inc.	NFLX	379.48	25%	13%	2	3	1.05	NMF	NIL	N- 15%	Entertainment	22
2004	New Orient. Ed. ADS	EDU	96.09	25%	17%	3	3	1.05	37.1	NIL	10- 60%	Educational Services	87
2159	NIKE, Inc. 'B'	NKE	77.47	12%	12%	3	1	0.95	30.1	1.0	10- 35%	Shoe	58
1722	Nordson Corp.	NDSN	130.06	12%	12%	3	3	1.25	21.5	1.0	15- 75%	Machinery	21
1365	NVIDIA Corp.	NVDA	253.69	11%	19%	3	3	1.15	37.6	0.2	N- N%	Semiconductor	17
326	Old Dominion Freight	ODFL	145.78	16%	12%	2	2	1.05	24.5	0.4	N- 25%	Trucking	18
221	Omnicell, Inc.	OMCL	54.45	12%	11%	3	3	0.95	54.5	NIL	N- 40%	Med Supp Non-Invasive	78
1827	Open Text Corp.	OTEX	37.43	17%	12%	3	3	0.85	34.3	1.6	20- 75%	E-Commerce	64
2317	Polaris Inds.	PII	124.15	13%	12%	3	3	1.25	19.9	1.9	20- 80%	Recreation	45
2602	Red Hat, Inc.	RHT	147.58	15%	17%	3	3	1.15	64.7	NIL	5- 55%	Computer Software	54
404	Rollins, Inc.	ROL	54.93	11%	11%	3	2	0.90	49.9	1.0	N- 10%	Industrial Services	55
1726	Roper Tech.	ROP	283.04	12%	11%	3	1	1.00	25.2	0.6	N- 15%	Machinery	21
2212	Ross Stores	ROST	86.39	19%	12%	2	2	0.95	21.3	1.1	N- 35%	Retail (Softlines)	61
1144	Sherwin-Williams	SHW	424.36	11%	12%	2	2	1.10	22.6	0.8	10- 50%	Retail Building Supply	37
2160	Skechers U.S.A.	SKX	31.85	12%	11%	3	3	1.35	15.2	NIL	25- 90%	Shoe	58
1372	Skyworks Solutions	SWKS	101.69	26%	12%	3	3	1.15	13.9	1.3	40-100%	Semiconductor	17
1728	Smith (A.O.)	AOS	59.84	13%	11%	2	3	1.30	23.0	1.2	N- 60%	Machinery	21
313	Southwest Airlines	LUV	53.22	15%	12%	3	3	1.15	11.4	1.2	50-115%	Air Transport	25
373	Starbucks Corp.	SBUX	51.28	13%	14%	3	1	0.95	20.0	2.8	85-125%	Restaurant	67
1813	Stifel Financial Corp.	SF	53.12	15%	12%	2	3	1.35	10.5	0.9	50-125%	Investment Banking	5
407	SYNNEX Corp.	SNX	98.65	14%	11%	3	3	1.15	9.6	1.4	40-110%	Industrial Services	55
2213	TJX Companies	TJX	96.30	15%	13%	2	1	0.90	19.9	1.6	25- 55%	Retail (Softlines)	61
374	Texas Roadhouse	TXRH	67.40	14%	10%	2	3	0.85	24.5	1.5	25- 85%	Restaurant	67
2631	Tyler Technologies	TYL	237.49	22%	13%	3	3	0.95	49.6	NIL	N- 45%	IT Services	47
1834	Ultimate Software	ULTI	284.66	20%	19%	3	3	1.10	51.8	NIL	N- 50%	E-Commerce	64
821	UnitedHealth Group	UNH	250.29	12%	12%	2	1	0.95	19.8	1.4	5- 30%	Medical Services	9
822	Universal Health 'B'	UHS	114.97	13%	10%	1	3	0.90	12.0	0.3	40-110%	Medical Services	9
1734	Wabtec Corp.	WAB	102.39	16%	11%	–	3	1.20	25.9	0.5	N- 40%	Machinery	21
417	Waste Connections	WCN	77.25	11%	12%	3	2	0.90	35.1	0.7	N- 30%	Environmental	27
594	Westlake Chemical	WLK	107.72	13%	15%	1	3	1.40	13.3	0.8	25- 85%	Chemical (Specialty)	15
2584	WEX Inc.	WEX	196.10	17%	11%	2	3	1.35	34.4	NIL	N- 15%	Financial Svcs. (Div.)	20
2373	Wynn Resorts	WYNN	164.96	12%	18%	3	3	1.50	19.4	1.8	25- 90%	Hotel/Gaming	31



AVANGRID, INC. NYSE-AGR

RECENT PRICE 52.62 | P/E RATIO 22.9 (Trailing: 31.1 Median: NMF) | RELATIVE P/E RATIO 1.29 | DIV'D YLD 3.3% | VALUE LINE

TIMELINESS 3 Raised 3/23/18
SAFETY 2 Raised 2/17/17
TECHNICAL 3 Lowered 3/30/18
BETA .40 (1.00 = Market)

2021-23 PROJECTIONS

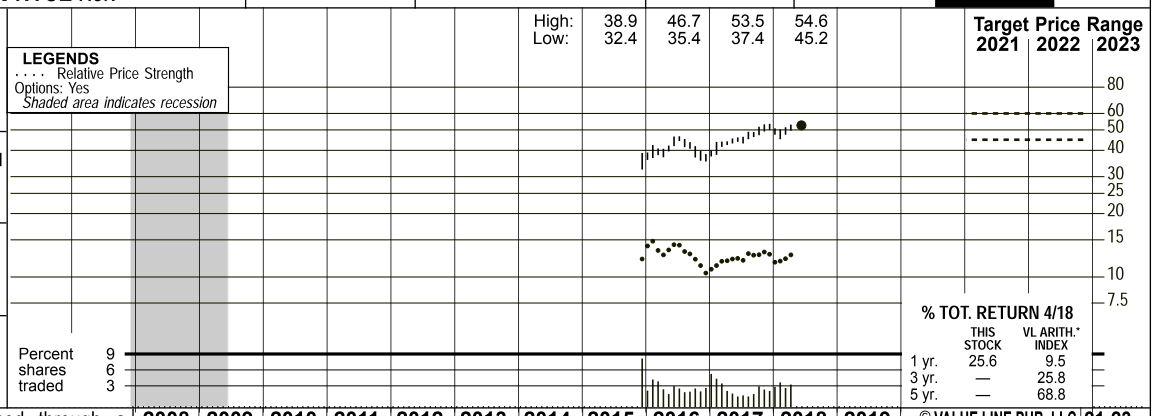
	Price	Gain	Ann'l Total Return
High	60	(+15%)	7%
Low	45	(-15%)	Nil

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	1	1	1	1	1	2	1	1	1
Options	0	0	0	0	1	0	0	0	3
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	2Q2017	3Q2017	4Q2017
to Buy	119	104	101
to Sell	96	95	69
Hld's(000)	42981	44774	43167



AVANGRID, Inc. was formed through a merger between Iberdrola USA, Inc. and UIL Holdings Corporation in December of 2015. Iberdrola S.A., a worldwide leader in the energy industry, owns 81.5% of AVANGRID. The predecessor company was founded in 1852 and is headquartered in New Gloucester, Maine. It was incorporated in 1997 in New York under the name NGE Resources, Inc. AVANGRID began trading on the NYSE on December 17, 2015.

CAPITAL STRUCTURE as of 3/31/18
Total Debt $6036 mill. **Due in 5 Yrs** $2600 mill.
LT Debt $5160 mill. **LT Interest** $213 mill.
Incl. $74 mill. capitalized leases.
(LT interest earned: 4.0x)
Leases, Uncapitalized Annual rentals $36 mill.

Pension Assets-12/17 $2865 mill.
Oblig $3593 mill.
Pfd Stock None

Common Stock 309,005,272 shs.
as of 5/1/18
MARKET CAP: $16 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	NA	NA	NA
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	+.5	+.6
Fixed Charge Cov. (%)	183	415	333

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	--	--	4.5%
"Cash Flow"	--	--	8.0%
Earnings	--	--	13.0%
Dividends	--	--	5.0%
Book Value	--	--	1.5%

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1227	939	1048	1153	4367.0
2016	1670	1439	1418	1491	6018.0
2017	1758	1331	1341	1533	5963.0
2018	1865	*1370*	*1370*	*1495*	*6100*
2019	*1875*	*1425*	*1425*	*1575*	*6300*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.42	.04	.22	.37	1.05
2016	.63	.33	.35	.67	1.98
2017	.77	.39	.32	.19	1.67
2018	.79	*.42*	*.37*	*.72*	*2.30*
2019	*.90*	*.45*	*.42*	*.78*	*2.55*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	--	--	--	--	--
2015	--	--	--	--	--
2016	--	.432	.432	.432	1.30
2017	.432	.432	.432	.432	1.73
2018	.432	.432			

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
	--	--	--	--	--	--	--	14.14	19.48	19.30	*19.75*	*20.40*	Revenues per sh	*22.75*
	--	--	--	--	--	--	--	3.44	4.74	4.49	*5.20*	*5.60*	"Cash Flow" per sh	*6.75*
	--	--	--	--	--	--	--	1.05	1.98	1.67	*2.30*	*2.55*	Earnings per sh [A]	*3.25*
	--	--	--	--	--	--	--	--	1.73	1.73	*1.74*	*1.78*	Div'd Decl'd per sh [B] ■	*2.20*
	--	--	--	--	--	--	--	3.50	5.52	7.82	*7.75*	*7.75*	Cap'l Spending per sh	*7.75*
	--	--	--	--	--	--	--	48.74	48.90	48.79	*49.35*	*50.15*	Book Value per sh [C]	*53.25*
	--	--	--	--	--	--	--	308.86	308.99	309.01	*309.00*	*309.00*	Common Shs Outst'g [D]	*309.00*
	--	--	--	--	--	--	--	33.5	20.5	27.3	*Bold figures are*		Avg Ann'l P/E Ratio	*15.5*
	--	--	--	--	--	--	--	1.69	1.08	1.37	*Value Line*		Relative P/E Ratio	*.85*
	--	--	--	--	--	--	--	--	4.3%	3.8%	*estimates*		Avg Ann'l Div'd Yield	*4.3%*
	--	--	--	--	--	--	4594.0	4367.0	6018.0	5963.0	*6100*	*6300*	Revenues ($mill)	*7050*
	--	--	--	--	--	--	424.0	267.0	611.0	516.0	*710*	*795*	Net Profit ($mill)	*1025*
	--	--	--	--	--	--	39.9%	11.3%	37.4%	32.4%	*23.0%*	*23.0%*	Income Tax Rate	*23.0%*
	--	--	--	--	--	--	6.8%	12.7%	7.5%	12.4%	*9.0%*	*8.0%*	AFUDC % to Net Profit	*7.0%*
	--	--	--	--	--	--	16.8%	23.1%	23.0%	25.6%	*28.5%*	*30.0%*	Long-Term Debt Ratio	*36.5%*
	--	--	--	--	--	--	83.2%	76.9%	77.0%	74.4%	*71.5%*	*70.0%*	Common Equity Ratio	*63.5%*
	--	--	--	--	--	--	14956	19583	19619	20273	*21375*	*22200*	Total Capital ($mill)	*26000*
	--	--	--	--	--	--	17099	20711	21548	22669	*24175*	*25625*	Net Plant ($mill)	*29800*
	--	--	--	--	--	--	3.7%	2.1%	3.8%	3.1%	*4.0%*	*4.0%*	Return on Total Cap'l	*4.5%*
	--	--	--	--	--	--	3.4%	1.8%	4.0%	3.4%	*4.5%*	*5.0%*	Return on Shr. Equity	*6.0%*
	--	--	--	--	--	--	3.4%	1.8%	4.0%	3.4%	*4.5%*	*5.0%*	Return on Com Equity [E]	*6.0%*
	--	--	--	--	--	--	3.4%	1.8%	1.4%	NMF	*1.0%*	*1.5%*	Retained to Com Eq	*2.0%*
	--	--	--	--	--	--	--	--	66%	104%	*76%*	*69%*	All Div'ds to Net Prof	*66%*

BUSINESS: AVANGRID, Inc. (formerly Iberdrola USA, Inc.), is a diversified energy and utility company that serves 2.2 million electric customers in New York, Connecticut, and Maine and 1 million gas customers in New York, Connecticut, Massachusetts and Maine. Has a nonregulated generating subsidiary focused on wind power, with 7.1 gigawatts of capacity. Revenue breakdown by customer class not available. Generating sources not available. Fuel costs: 22% of revenues. '17 depreciation rate: 2.9%. Iberdrola owns 81.5% of stock. Has 6,600 employees. Chairman: José Ignacio Sanchez Galan. CEO: James P. Torgerson. Incorporated: New York. Address: 180 Marsh Hill Road, Orange, Connecticut 06477. Telephone: 207-629-1200. Internet: www.avangrid.com.

We estimate that AVANGRID's earnings will advance significantly in 2018 and 2019. The losses from the company's noncore assets that are being sold (see below) will be lower this year than in 2017, and will be eliminated next year. The utilities are benefiting from multiyear electric and gas rate hikes in New York and Connecticut. Additional rate relief should come next year from cases that Connecticut Natural Gas and Berkshire Gas are planning to file soon. The renewable-energy subsidiary is adding wind and solar projects — 590 megawatts in the first quarter of 2018. Our 2018 share-earnings estimate is within AVANGRID's targeted range (on a GAAP basis) of $2.16-$2.46.

AVANGRID has completed the sales of its two noncore units. The company's gas trading and storage businesses have been in the red, and didn't fit management's focus on gas and electric transmission and distribution and renewable energy. The two sales raised a total of $225 million, subject to closing adjustments.

The company has a potentially large electric transmission investment opportunity. Central Maine Power was chosen to construct a transmission line to import hydro power from Quebec after the previously selected project (proposed by Eversource Energy) failed to obtain siting approval in New Hampshire. This $950 million project requires various state and federal regulatory approvals, with construction beginning as early as next year. The line would be in service in 2022, and would be allowed a federally regulated return on equity. This is significant because federally regulated ROEs exceed those allowed by the state commissions in which AVANGRID's utilities operate.

Management has stated its expectation of a dividend hike this year. We look for a slight increase, to $0.44 a share quarterly, in the fourth quarter. We do not rule out a larger (or earlier) raise. Shareholders of AVANGRID (and its predecessor, UIL Holdings) have not seen an increase since the 20th century.

We believe this stock is expensively priced. The recent quotation is well within our 2021-2023 Target Price Range. For the year ahead, the dividend yield is only about average for a utility.

Paul E. Debbas, CFA *May 18, 2018*

(A) Diluted EPS. Excl. nonrecurring gain (loss): '16, 6¢; '17, (44¢). Next earnings report due late July. **(B)** Div'ds paid in early Jan., April, July, and Oct. ■ Dividend reinvestment plan available. **(C)** Incl. intangibles. In '17: $6.2 bill., $20.04/sh. **(D)** In millions. **(E)** Rate base: net original cost. Rate allowed on com. eq. in NY in '16: 9.0%; in CT in '17: 9.1% elec.; in CT in '16: 9.36% gas; in ME in '14: 9.45%; earned on avg. common eq., '17: 3.4%. Regulatory Climate: Below Average.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	NMF
Earnings Predictability	NMF

CON. EDISON NYSE-ED

RECENT PRICE **76.23** | P/E RATIO **17.9** (Trailing: 18.2 / Median: 15.0) | RELATIVE P/E RATIO **1.01** | DIV'D YLD **3.8%** | VALUE LINE

TIMELINESS 3 Raised 3/2/18
SAFETY 1 New 7/27/90
TECHNICAL 4 Raised 5/18/18
BETA .50 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+10%)	7%
Low	70	(-10%)	2%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	11	8	8	11	8	8	11	8	8
Options	0	0	0	2	2	0	8	12	0
to Sell	0	1	0	0	0	0	0	0	1

Institutional Decisions

	2Q2017	3Q2017	4Q2017
to Buy	330	335	298
to Sell	323	322	284
Hld's(000)	196270	197384	178532

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
High:	52.9	49.3	46.3	51.0	62.7	66.0	64.0	68.9	72.3	81.9	89.7	84.9								
Low:	43.1	34.1	32.6	41.5	48.6	53.6	54.2	52.2	56.9	63.5	72.1	73.7								
	39.65	43.51	40.24	47.66	47.14	48.23	49.62	46.36	45.69	44.17	41.62	42.27	44.11	42.85	39.59	38.82	*38.80*	*39.80*	Revenues per sh	*43.25*
	5.44	5.12	4.54	5.27	5.28	5.77	5.99	5.86	6.24	6.61	7.15	7.45	7.30	7.93	7.89	8.41	*8.75*	*9.15*	"Cash Flow" per sh	*10.50*
	3.13	2.83	2.32	2.99	2.95	3.48	3.36	3.14	3.47	3.57	3.86	3.93	3.62	4.05	3.94	4.10	*4.25*	*4.40*	Earnings per sh [A]	*4.75*
	2.22	2.24	2.26	2.28	2.30	2.32	2.34	2.36	2.38	2.40	2.42	2.46	2.52	2.60	2.68	2.76	*2.86*	*2.96*	Div'd Decl'd per sh [B] ■	*3.30*
	5.68	5.72	5.60	6.59	7.17	7.09	8.50	7.80	6.96	6.72	7.06	8.67	8.26	10.42	12.07	11.11	*12.50*	*11.15*	Cap'l Spending per sh	*11.25*
	27.68	28.44	29.09	29.80	31.09	32.58	35.43	36.46	37.93	39.05	40.53	41.81	42.94	44.55	46.88	49.74	*51.70*	*53.25*	Book Value per sh [C]	*58.00*
	213.93	225.84	242.51	245.29	257.46	272.02	273.72	281.12	291.62	292.89	292.87	292.87	292.88	293.00	305.00	310.00	*317.00*	*318.00*	Common Shs Outst'g [D]	*321.00*
	13.3	14.3	18.2	15.1	15.5	13.8	12.3	12.5	13.3	15.1	15.4	14.7	15.9	15.6	18.8	19.8	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*16.5*
	.73	.82	.96	.80	.84	.73	.74	.83	.85	.95	.98	.83	.84	.79	.99	.99			Relative P/E Ratio	*.90*
	5.3%	5.5%	5.3%	5.0%	5.0%	4.8%	5.7%	6.0%	5.2%	4.5%	4.1%	4.3%	4.4%	4.1%	3.6%	3.4%			Avg Ann'l Div'd Yield	*4.2%*
	13583	13032	13325	12938	12188	12381	12919	12554	12075	12033	*12300*	*12650*	Revenues ($mill)	*13850*
	933.0	868.0	992.0	1062.0	1141.0	1157.0	1066.0	1193.0	1189.0	1266.0	*1340*	*1405*	Net Profit ($mill)	*1550*
	36.0%	34.2%	36.0%	36.1%	34.5%	31.8%	34.0%	33.6%	35.3%	36.6%	*21.5%*	*21.5%*	Income Tax Rate	*21.5%*
	1.7%	2.6%	2.4%	1.6%	.5%	.5%	.3%	.7%	1.3%	1.5%	*2.0%*	*1.0%*	AFUDC % to Net Profit	*1.0%*
	48.3%	48.5%	48.6%	46.5%	45.9%	46.1%	48.0%	47.9%	50.8%	48.9%	*49.0%*	*48.5%*	Long-Term Debt Ratio	*48.5%*
	50.6%	50.4%	50.4%	52.5%	54.1%	53.9%	52.0%	52.1%	49.2%	51.1%	*51.0%*	*51.5%*	Common Equity Ratio	*51.5%*
	19160	20330	21952	21794	21933	22735	24207	25058	29033	30149	*32150*	*32900*	Total Capital ($mill)	*36200*
	20874	22464	23863	25093	26939	28436	29827	32209	35216	37600	*40150*	*42075*	Net Plant ($mill)	*47800*
	6.2%	5.7%	5.9%	6.2%	6.5%	6.4%	5.6%	6.0%	5.3%	5.4%	*5.5%*	*5.5%*	Return on Total Cap'l	*5.5%*
	9.4%	8.3%	8.8%	9.1%	9.6%	9.4%	8.5%	9.1%	8.3%	8.2%	*8.0%*	*8.5%*	Return on Shr. Equity	*8.5%*
	9.5%	8.4%	8.9%	9.2%	9.6%	9.4%	8.5%	9.1%	8.3%	8.2%	*8.0%*	*8.5%*	Return on Com Equity [E]	*8.5%*
	3.1%	2.5%	3.2%	3.1%	3.6%	3.6%	2.6%	3.5%	3.0%	3.0%	*2.5%*	*2.5%*	Retained to Com Eq	*2.5%*
	67%	71%	65%	66%	62%	62%	69%	61%	64%	63%	*67%*	*67%*	All Div'ds to Net Prof	*68%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $17410 mill. **Due in 5 Yrs** $4935 mill.
LT Debt $14730 mill. **LT Interest** $670 mill.
(LT interest earned: 3.6x)

Leases, Uncapitalized Annual rentals $63 mill.

Pension Assets-12/17 $14274 mill.
Oblig $15536 mill.

Pfd Stock None

Common Stock 310,730,465 shs.
as of 4/30/18
MARKET CAP: $24 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	+1.9	-.4	-2.8
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NMF	NA	NA
Peak Load, Summer (Mw)	13721	NA	NA
Annual Load Factor (%)	NMF	NMF	NMF
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	370	352	354

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	-1.5%	-1.5%	*1.0%*
"Cash Flow"	4.0%	4.0%	*4.5%*
Earnings	2.5%	2.0%	*3.0%*
Dividends	1.5%	2.0%	*3.5%*
Book Value	4.0%	3.5%	*3.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	3616	2788	3443	2707	12554
2016	3157	2794	3417	2707	12075
2017	3228	2633	3211	2961	12033
2018	3364	*2750*	*3436*	*2750*	*12300*
2019	*3450*	*2850*	*3500*	*2850*	*12650*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1.26	.74	1.45	.60	4.05
2016	1.05	.77	1.47	.64	3.94
2017	1.27	.57	1.48	.78	4.10
2018	1.37	*.63*	*1.60*	*.65*	*4.25*
2019	*1.40*	*.65*	*1.65*	*.70*	*4.40*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.63	.63	.63	.63	2.52
2015	.65	.65	.65	.65	2.60
2016	.67	.67	.67	.67	2.68
2017	.69	.69	.69	.69	2.76
2018	.715				

BUSINESS: Consolidated Edison, Inc. is a holding company for Consolidated Edison Company of New York, Inc. (CECONY), which sells electricity, gas, and steam in most of New York City and Westchester County. Also owns Orange and Rockland Utilities (O&R), which operates in New York and New Jersey. Has 3.7 million electric, 1.2 million gas customers. Pursues competitive energy opportunities through three wholly owned subsidiaries. Entered into midstream gas joint venture 6/16. Purchases most of its power. Fuel costs: 22% of revenues. '17 reported depreciation rates: 2.9%-3.1%. Has 15,000 employees. Chairman, President & CEO: John McAvoy. Inc.: New York. Address: 4 Irving Place, New York, New York 10003. Tel.: 212-460-4600. Internet: www.conedison.com.

We estimate that Consolidated Edison's earnings will rise 3%-4% this year and next. ConEd's largest subsidiary, Consolidated Edison Company of New York, is benefiting from rate relief. At the start of 2018, electric and gas tariffs were boosted by $155.3 million (2.0%) and $92.3 million (5.6%), respectively. Increases of $155.2 million (1.9%) for electricity and $89.4 million (5.1%) for gas will take effect at the beginning of 2019. Orange and Rockland Utilities might also obtain a rate increase next year (see below). Customer growth is another plus. And oil-heating users continue to convert to the use of gas heat. Our 2018 earnings estimate, which we raised by a nickel a share, is at the midpoint of the company's targeted range of $4.15-$4.35 a share. We lifted our 2019 estimate by $0.10 a share, to $4.40.

Orange and Rockland has a rate case pending. The utility is asking the New York State Public Service Commission for electric and gas increases of $22.5 million and $2.7 million, respectively, based on a return of 9.75% on a common-equity ratio of 48%. New rates should take effect at the start of 2019.

A natural gas pipeline project is under way, and another is being proposed. ConEd's 12.5% stake in the pipeline represents an investment of $400 million for the company. This is scheduled for completion by yearend. ConEd also has a 6.375% stake in a much-shorter pipeline proposal.

The company has some financing needs. The utilities plan to issue $1.3 billion-$1.8 billion of long-term debt this year. ConEd will issue up to $450 million of common equity, over and above what will be raised through the dividend reinvestment and other stock plans (perhaps $80 million).

ConEd's renewable-energy subsidiary continues to add projects. A 25-megawatt wind facility went into effect in the first quarter. The company has 1,561 mw of wind and solar projects in service or under construction.

High-quality ConEd stock has a dividend yield that is a bit above average for a utility. However, with the recent price well within our 2021-2023 Target Price Range, total return potential is low.

Paul E. Debbas, CFA *May 18, 2018*

(A) Diluted EPS. Excl. nonrec. gains (losses): '02, (11¢); '03, (45¢); '13, (32¢); '14, 9¢; '16, 15¢; '17, 84¢; gain on discontinued operations: '08, $1.01. '16 EPS don't sum due to rounding. Next earnings report due early Aug. **(B)** Div'ds historically paid in mid-Mar., June, Sept., and Dec. ■ Div'd reinvestment plan avail. **(C)** Incl. intang. In '17: $16.04/sh. **(D)** In mill. **(E)** Rate base: net orig. cost. Rate allowed on com. eq. for CECONY in '17: 9.0%; O&R in '15: 9.0%; earned on avg. com. eq., '17: 8.6%. Regulatory Climate: Below Average.

Company's Financial Strength	A+
Stock's Price Stability	95
Price Growth Persistence	40
Earnings Predictability	95

DUKE ENERGY NYSE-DUK

RECENT PRICE **77.88** | P/E RATIO **16.2** (Trailing: 17.8 Median: 18.0) | RELATIVE P/E RATIO **0.91** | DIV'D YLD **4.7%** | VALUE LINE

TIMELINESS 3 Raised 3/2/18
SAFETY 2 New 6/1/07
TECHNICAL 4 Raised 5/18/18
BETA .60 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	110	(+40%)	*13%*
Low	85	(+10%)	*7%*

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	1	8	9
to Sell	0	1	0	0	1	0	0	0	1

Institutional Decisions

	2Q2017	3Q2017	4Q2017
to Buy	528	531	531
to Sell	509	494	467
Hld's(000)	435858	442941	402762

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
High:					63.9	61.8	53.8	55.8	66.4	71.1	75.5	87.3	90.0	87.8	91.8	84.4				
Low:					50.7	40.5	35.2	46.4	50.6	59.6	64.2	67.1	65.5	70.2	76.1	72.9				
	- -	- -	- -	- -	25.32	30.24	31.15	29.18	32.22	32.63	27.88	34.84	33.84	34.10	32.49	33.66	*33.45*	*34.20*	Revenues per sh	*36.50*
	- -	- -	- -	- -	7.86	8.11	7.34	7.58	8.49	8.68	6.80	8.56	9.11	9.40	9.20	10.01	*11.15*	*11.70*	"Cash Flow" per sh	*13.25*
	- -	- -	- -	- -	2.76	3.60	3.03	3.39	4.02	4.14	3.71	3.98	4.13	4.10	3.71	4.22	*4.80*	*5.00*	Earnings per sh [A]	*5.50*
	- -	- -	- -	- -	- -	2.58	2.70	2.82	2.91	2.97	3.03	3.09	3.15	3.24	3.36	3.49	*3.64*	*3.80*	Div'd Decl'd per sh [B] ■	*4.40*
	- -	- -	- -	- -	8.07	7.43	10.35	9.85	10.84	9.80	7.81	7.83	7.62	9.83	11.29	11.50	*15.05*	*15.00*	Cap'l Spending per sh	*11.75*
	- -	- -	- -	- -	62.30	50.40	49.51	49.85	50.84	51.14	58.04	58.54	57.81	57.74	58.62	59.63	*61.05*	*62.35*	Book Value per sh [C]	*66.00*
	- -	- -	- -	- -	418.96	420.62	423.96	436.29	442.96	445.29	704.00	706.00	707.00	688.00	700.00	700.00	*727.00*	*731.50*	Common Shs Outst'g [D]	*745.00*
	- -	- -	- -	- -	- -	16.1	17.3	13.3	12.7	13.8	17.5	17.4	17.9	18.2	21.3	19.9	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.0*
	- -	- -	- -	- -	- -	.85	1.04	.89	.81	.87	1.11	.98	.94	.92	1.12	.99			Relative P/E Ratio	*1.00*
	- -	- -	- -	- -	- -	4.4%	5.2%	6.2%	5.7%	5.2%	4.7%	4.4%	4.3%	4.3%	4.3%	4.2%			Avg Ann'l Div'd Yield	*4.5%*
					13207	12731	14272	14529	19624	24598	23925	23459	22743	23565	*24300*	*25000*	Revenues ($mill)	*27200*
					1279.0	1461.0	1765.0	1839.0	2136.0	2813.0	2934.0	2854.0	2560.0	2963.0	*3435*	*3640*	Net Profit ($mill)	*4100*
					32.5%	34.4%	32.6%	31.3%	30.2%	32.6%	30.6%	32.2%	31.0%	30.4%	*15.5%*	*15.5%*	Income Tax Rate	*15.5%*
					16.0%	17.5%	22.7%	23.2%	22.3%	8.8%	7.2%	9.2%	11.7%	12.3%	*11.0%*	*11.0%*	AFUDC % to Net Profit	*10.0%*
					38.7%	42.6%	44.3%	45.1%	47.0%	48.0%	47.7%	48.6%	52.6%	54.0%	*54.0%*	*55.0%*	Long-Term Debt Ratio	*56.5%*
					61.3%	57.4%	55.7%	54.9%	52.9%	52.0%	52.3%	51.4%	47.4%	46.0%	*46.0%*	*45.0%*	Common Equity Ratio	*43.5%*
					34238	37863	40457	41451	77307	79482	78088	77222	86609	90774	*97000*	*101475*	Total Capital ($mill)	*112500*
					34036	37950	40344	42661	68558	69490	70046	75709	82520	86391	*92675*	*98725*	Net Plant ($mill)	*108700*
					4.8%	4.9%	5.5%	5.6%	3.6%	4.6%	4.8%	4.8%	4.0%	4.3%	*4.5%*	*4.5%*	Return on Total Cap'l	*5.0%*
					6.1%	6.7%	7.8%	8.1%	5.2%	6.8%	7.2%	7.2%	6.2%	7.1%	*7.5%*	*8.0%*	Return on Shr. Equity	*8.5%*
					6.1%	6.7%	7.8%	8.1%	5.2%	6.8%	7.2%	7.2%	6.2%	7.1%	*7.5%*	*8.0%*	Return on Com Equity [E]	*8.5%*
					.6%	1.1%	2.1%	2.2%	.9%	1.5%	1.7%	1.5%	.6%	1.2%	*2.0%*	*2.0%*	Retained to Com Eq	*1.5%*
					89%	84%	73%	72%	82%	78%	76%	79%	91%	83%	*76%*	*76%*	All Div'ds to Net Prof	*80%*

% TOT. RETURN 4/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	1.3	9.5
3 yr.	17.6	25.8
5 yr.	32.2	68.8

CAPITAL STRUCTURE as of 12/31/17
Total Debt $54442 mill. **Due in 5 Yrs** $19439 mill.
LT Debt $49035 mill. **LT Interest** $1790 mill.
Incl. $1000 mill. capitalized leases.
(LT interest earned: 3.1x)

Leases, Uncapitalized Annual rentals $218 mill.
Pension Assets-12/17 $9003 mill.
Oblig $8448 mill.

Pfd Stock None

Common Stock 700,092,667 shs.
as of 1/31/18
MARKET CAP: $55 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	+.6	-.3	-2.0
Avg. Indust. Use (MWH)	2883	2908	2914
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	+1.2	+1.4	+1.3
Fixed Charge Cov. (%)	317	264	272

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	2.0%	1.5%	*1.5%*
"Cash Flow"	2.0%	3.5%	*5.5%*
Earnings	2.5%	.5%	*5.5%*
Dividends	10.0%	2.5%	*4.5%*
Book Value	.5%	2.0%	*2.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	6065	5589	6483	5322	23459
2016	5377	5213	6576	5577	22743
2017	5729	5555	6482	5799	23565
2018	6135	*5650*	*6665*	*5850*	*24300*
2019	*6300*	*5750*	*6950*	*6000*	*25000*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1.09	.87	1.44	.70	4.10
2016	.83	.90	1.44	.54	3.71
2017	1.02	.98	1.36	.86	4.22
2018	1.17	*1.03*	*1.55*	*1.05*	*4.80*
2019	*1.20*	*1.10*	*1.60*	*1.10*	*5.00*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.78	.78	.795	.795	3.15
2015	.795	.795	.825	.825	3.24
2016	.825	.825	.855	.855	3.36
2017	.855	.855	.89	.89	3.49
2018	.89				

BUSINESS: Duke Energy Corporation is a holding company for utilities with 7.4 mill. elec. customers in NC, FL, IN, SC, Oh, & KY, and 1.5 mill. gas customers in OH, KY, NC, SC, and TN. Owns independent power plants & has 25% stake in National Methanol in Saudi Arabia. Acq'd Progress Energy 7/12; Piedmont Natural Gas 10/16; discontinued most int'l ops. in '16. Elec. rev. breakdown: residential, 41%; commercial, 29%; industrial, 14%; other, 16%. Generating sources: coal, 27%; nuclear, 27%; gas, 23%; other, 1%; purchased, 22%. Fuel costs: 30% of revs. '17 reported deprec. rate: 2.8%. Has 29,100 employees. Chairman, President & CEO: Lynn J. Good. Inc.: DE. Address: 550 South Tryon St., Charlotte, NC 28202-1803. Tel.: 704-382-3853. Internet: www.duke-energy.com.

Duke Energy has received rate increases in two states. The settlement for its Progress Energy unit was approved by the North Carolina regulators. Rates were raised by $193 million, based on a return of 9.9% on a common-equity ratio of 52%. However, certain costs were disallowed, including some associated with coal ash basin remediation. (Ongoing coal ash costs will be deferred, to be considered for recovery in the utility's next rate case.) This forced Duke to take a pretax charge of $100 million (*included* in our earnings presentation) in the first quarter. Separately, the utility was granted a tariff increase of $8.4 million in Kentucky, based on a return of 9.725% on a common-equity ratio of 49%.

Other regulatory matters are pending. Duke Energy Carolinas is seeking a hike of $647 million, based on a return of 10.75% on a common-equity ratio of 53%. New tariffs should take effect soon. In Ohio, Duke reached a settlement that would boost electric distribution rates by $19 million, based on a return of 9.84% on a common-equity ratio of 50.75%. The company is asking for new rates to take effect on June 1st.

Earnings are likely to advance significantly in 2018 and more modestly in 2019. The third-quarter comparison should be easy, as profits in that period of 2017 were hurt by mild weather patterns and some unusual (but not nonrecurring) costs. Our 2018 estimate of $4.80 a share is near the upper end of Duke's guidance of $4.55-$4.85 a share. Besides the easy comparison, rate relief should benefit the bottom line this year and next. We figure profits will advance 4%, to $5.00 a share, in 2019.

Duke executed a forward sale of common stock. The closing, by yearend, will raise more than $1.5 billion and will increase the share count by more than 21 million. The proceeds will be used for general corporate purposes.

This stock offers an attractive dividend yield. The yield is more than one percentage point above the utility mean. The respectable dividend growth we project over the 3- to 5-year period should produce total returns that are above average for a utility, as well.

Paul E. Debbas, CFA *May 18, 2018*

(A) Dil. EPS. Excl. nonrec. losses: '12, 70¢; '13, 24¢; '14, 67¢; '17, 15¢; '18, 11¢; gain (losses) on disc. ops.: '14, (80¢); '15, 5¢; '16, (60¢). '16 EPS don't sum due to rounding. Next egs. due early Aug. **(B)** Div'ds paid mid-Mar., June, Sept., & Dec. ■ Div'd reinv. plan avail. **(C)** Incl. intang. In '17: $45.48/sh. **(D)** In mill., adj. for rev. split. **(E)** Rate base: Net orig. cost. Rates all'd on com. eq. in '13 in NC: 10.2%; in '17 in SC: 10.1%; in '09 in OH: 10.63%; in '04 in IN: 10.3%; earn. avg. com. eq., '17: 7.1%. Reg. Clim.: NC Avg.; SC, OH, IN Above Avg.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	40
Earnings Predictability	85

EVERSOURCE ENERGY NYSE-ES

RECENT PRICE 57.32 | P/E RATIO 17.6 (Trailing: 18.3 Median: 17.0) | RELATIVE P/E RATIO 0.99 | DIV'D YLD 3.6% | VALUE LINE

TIMELINESS 4 Lowered 5/18/18
SAFETY 1 Raised 5/22/15
TECHNICAL 4 Raised 5/18/18
BETA .65 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(+30%)	*10%*
Low	60	(+5%)	*5%*

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	12	8	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	2Q2017	3Q2017	4Q2017
to Buy	270	274	232
to Sell	253	232	234
Hld's(000)	253282	253377	231512

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
High:	33.6	31.6	26.5	32.2	36.5	40.9	45.7	56.7	56.8	60.4	66.1	65.0						
Low:	26.2	17.2	19.0	24.7	30.0	33.5	38.6	41.3	44.6	50.0	54.1	55.9						

LEGENDS
0.80 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2021 | 2022 | 2023
120 100 80 64 48 32 24 20 16 12 8

% TOT. RETURN 4/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	4.7	9.5
3 yr.	36.4	25.8
5 yr.	57.1	68.8

Percent shares traded 30 20 10

40.89	47.53	51.82	41.85	44.64	37.27	37.22	30.97	27.76	25.21	19.98	23.16	24.42	25.08	24.11	24.46	***25.10***	***25.70***	Revenues per sh	***28.00***
6.32	5.80	5.00	5.46	3.69	4.82	6.16	4.96	5.68	4.88	4.03	5.22	4.56	4.94	5.46	5.84	***6.45***	***6.80***	"Cash Flow" per sh	***8.00***
1.08	1.24	.91	.98	.82	1.59	1.86	1.91	2.10	2.22	1.89	2.49	2.58	2.76	2.96	3.11	***3.25***	***3.45***	Earnings per sh [A]	***4.00***
.53	.58	.63	.68	.73	.78	.83	.95	1.03	1.10	1.32	1.47	1.57	1.67	1.78	1.90	***2.02***	***2.14***	Div'd Decl'd per sh [B] ■	***2.50***
3.86	4.31	4.85	5.89	5.49	7.14	8.06	5.17	5.41	6.08	4.69	4.62	5.06	5.44	6.24	7.41	***9.60***	***9.45***	Cap'l Spending per sh	***6.25***
17.33	17.73	17.80	18.46	18.14	18.65	19.38	20.37	21.60	22.65	29.41	30.49	31.47	32.64	33.80	34.99	***36.25***	***37.55***	Book Value per sh [C]	***42.00***
127.56	127.70	129.03	131.59	154.23	156.22	155.83	175.62	176.45	177.16	314.05	315.27	316.98	317.19	316.89	316.89	***316.89***	***316.89***	Common Shs Outst'g [D]	***316.89***
16.1	13.4	20.8	19.8	27.1	18.7	13.7	12.0	13.4	15.4	19.9	16.9	17.9	18.1	18.7	19.5	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	***17.0***
.88	.76	1.10	1.05	1.46	.99	.82	.80	.85	.97	1.27	.95	.94	.91	.98	.97			Relative P/E Ratio	***.95***
3.0%	3.5%	3.3%	3.5%	3.3%	2.6%	3.2%	4.2%	3.6%	3.2%	3.5%	3.5%	3.4%	3.3%	3.2%	3.1%			Avg Ann'l Div'd Yield	***3.7%***
5800.1	5439.4	4898.2	4465.7	6273.8	7301.2	7741.9	7954.8	7639.1	7752.0	***7950***	***8150***	Revenues ($mill)	***8850***
296.2	335.6	377.8	400.3	533.0	793.7	827.1	886.0	949.8	995.5	***1040***	***1110***	Net Profit ($mill)	***1290***
29.7%	34.9%	36.6%	29.9%	34.0%	35.0%	36.2%	37.9%	36.9%	36.8%	***23.5%***	***23.5%***	Income Tax Rate	***23.5%***
15.8%	4.6%	7.1%	8.6%	2.3%	1.4%	2.4%	2.9%	3.9%	4.7%	***4.0%***	***3.0%***	AFUDC % to Net Profit	***2.0%***
60.4%	57.2%	55.1%	53.4%	43.7%	44.3%	45.9%	45.6%	44.8%	51.2%	***51.5%***	***52.5%***	Long-Term Debt Ratio	***54.5%***
38.1%	41.5%	43.6%	45.3%	55.4%	54.8%	53.2%	53.6%	54.4%	48.2%	***47.5%***	***47.0%***	Common Equity Ratio	***44.5%***
7926.2	8629.5	8741.8	8856.0	16675	17544	18738	19313	19697	23018	***24100***	***25325***	Total Capital ($mill)	***29800***
8207.9	8840.0	9567.7	10403	16605	17576	18647	19892	21351	23617	***25800***	***27900***	Net Plant ($mill)	***31600***
5.4%	5.4%	5.8%	5.9%	4.2%	5.5%	5.3%	5.5%	5.8%	5.2%	***5.5%***	***5.5%***	Return on Total Cap'l	***5.5%***
9.4%	9.1%	9.6%	9.7%	5.7%	8.1%	8.2%	8.4%	8.7%	8.9%	***9.0%***	***9.0%***	Return on Shr. Equity	***9.5%***
9.6%	9.2%	9.8%	9.8%	5.7%	8.2%	8.2%	8.5%	8.8%	8.9%	***9.0%***	***9.0%***	Return on Com Equity [E]	***9.5%***
5.3%	4.7%	5.0%	5.0%	1.6%	3.4%	3.5%	3.4%	3.5%	3.5%	***3.5%***	***3.5%***	Retained to Com Eq	***3.5%***
45%	50%	49%	50%	72%	59%	58%	61%	60%	61%	***62%***	***62%***	All Div'ds to Net Prof	***62%***

CAPITAL STRUCTURE as of 3/31/18
Total Debt $14162 mill. **Due in 5 Yrs** $4807.7 mill.
LT Debt $12016 mill. **LT Interest** $480.6 mill.
(LT interest earned: 4.5x)
Leases, Uncapitalized Annual rentals $13.2 mill.
Pension Assets-12/17 $4739.5 mill.
Oblig $5936.5 mill.
Pfd Stock $155.6 mill. **Pfd Div'd** $7.6 mill.
Incl. 2,324,000 shs $1.90-$3.28 rates ($50 par) not subject to mandatory redemption, call. at $50.50-$4.00; 430,000 shs 4.25%-4.78% not subject to mandatory redemption, call. at $102.80-$103.63.
Common Stock 316,885,808 shs. **as of 4/30/18**
MARKET CAP: $18 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	+.3	-1.8	-2.6
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	5.86	6.04	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	447	436	427

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	-5.0%	- -	***2.0%***
"Cash Flow"	1.5%	2.0%	***6.5%***
Earnings	10.0%	7.5%	***5.5%***
Dividends	9.5%	9.0%	***6.0%***
Book Value	6.5%	6.5%	***3.5%***

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	2513	1817	1933	1691	7954.8
2016	2055	1767	2039	1776	7639.1
2017	2105	1762	1988	1895	7752.0
2018	2288	***1800***	***2000***	***1862***	***7950***
2019	***2350***	***1850***	***2050***	***1900***	***8150***

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.80	.65	.74	.57	2.76
2016	.77	.64	.83	.72	2.96
2017	.82	.72	.82	.75	3.11
2018	.85	***.75***	***.90***	***.75***	***3.25***
2019	***.90***	***.80***	***.95***	***.80***	***3.45***

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.393	.393	.393	.393	1.57
2015	.4175	.4175	.4175	.4175	1.67
2016	.445	.445	.445	.445	1.78
2017	.475	.475	.475	.475	1.90
2018	.505				

BUSINESS: Eversource Energy (formerly Northeast Utilities) is the parent of utilities that have 3.1 mill. electric, 504,000 gas, 230,000 water customers. Supplies power to most of Connecticut and gas to part of Connecticut; supplies power to 3/4 of New Hampshire's population; supplies power to western Massachusetts and parts of eastern Massachusetts & gas to central & eastern Massachusetts; supplies water to CT, MA, & NH. Acq'd NSTAR 4/12; Aquarion 12/17. Electric rev. breakdown: residential, 51%; commercial, 36%; industrial, 5%; other, 8%. Fuel costs: 33% of revs. '17 reported deprec. rate: 3.0%. Has 8,100 empls. Chairman, Pres. & CEO: James J. Judge. Inc.: MA. Address: 300 Cadwell Drive, Springfield, MA 01104. Tel.: 413-785-5871. Internet: www.eversource.com.

Eversource Energy wants to expand its presence in the water utility business. The company, which acquired Aquarion in December of 2017, made a hostile takeover offer for Connecticut Water Service, which has agreed to be acquired by SJW Group, a water company in California. Eversource is offering $63.50 a share ($767 million), which shareholders may take in cash or stock, for the company, and is asking Connecticut Water stockholders to vote against the SJW deal. Connecticut Water would be a good geographic fit with Eversource's operations, but we aren't assuming that the hostile offer will turn friendly — or that regulators would approve the deal if it does turn friendly.

We estimate that earnings will climb at a mid-single-digit pace in 2018 and 2019. Eversource should benefit from rate relief in Massachusetts and Connecticut; spending on its electric transmission system, which provides an immediate return on its investment; expense-reduction measures; the addition of Aquarion; and conversions of oil-heating customers to natural gas. Our 2018 share-earnings estimate is at the midpoint of Eversource's targeted range of $3.20-$3.30. We look for profit growth in 2019 in line with management's annual goal of 5%-7%.

There is good and bad news concerning electric transmission. A few years ago, the Federal Energy Regulatory Commission (FERC) lowered the allowed return on equity for transmission owners in New England, following complaints that allowed ROEs were too generous. There is concern about additional cuts, but an administrative law judge for FERC ruled that the current allowed ROE (10.57% with an incentive cap of 11.74%) is not unjust or unreasonable. A decision from FERC is pending. On the other hand, a proposed transmission project to connect New England with Quebec failed to receive approval from the site evaluation committee in New Hampshire. Eversource has asked the committee for reconsideration, and might well appeal the matter to the state Supreme Court if this is denied.

This untimely stock has a dividend yield that is average, by utility standards. Total return potential to 2021-2023 is a cut above the mean for this industry.

Paul E. Debbas, CFA *May 18, 2018*

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	80
Earnings Predictability	85

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(A) Dil. EPS. Excl. nonrec. gains (losses): '02, 10¢; '03, (32¢); '04, (7¢); '05, ($1.36); '08, (19¢); '10, 9¢. Next earnings report due early Aug. **(B)** Div'ds historically paid late Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. **(C)** Incl. def'd charges. In '17: $28.16 sh. **(D)** In mill. **(E)** Rate allowed on com. eq. in MA: (elec) '18, 10.0%; (gas) '16, 9.8%; in CT: (elec.) '18, 9.25%; (gas) '15, 9.5%; in NH: '10, 9.67%; earned on avg. com. eq., '17: 9.1%. Regulatory Climate: CT, Below Average; NH, Average; MA, Above Average.

EXELON CORP. NYSE-EXC

RECENT PRICE 40.74 | P/E RATIO 15.7 (Trailing: 16.0 Median: 14.0) | RELATIVE P/E RATIO 0.88 | DIV'D YLD 3.6% | VALUE LINE

TIMELINESS 3 Lowered 5/18/18
SAFETY 3 Lowered 11/23/12
TECHNICAL 3 Lowered 2/23/18
BETA .70 (1.00 = Market)

2021-23 PROJECTIONS

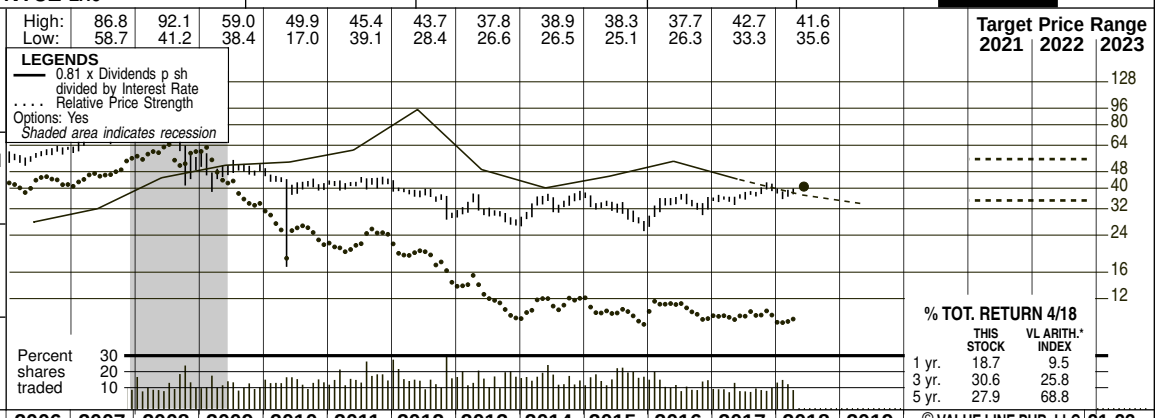
	Price	Gain	Ann'l Total Return
High	55	(+35%)	11%
Low	35	(-15%)	Nil

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	1	0	0	1	1	0	11	0	0
to Sell	1	1	2	1	1	1	0	0	1

Institutional Decisions

	2Q2017	3Q2017	4Q2017
to Buy	392	357	360
to Sell	328	363	319
Hld's(000)	815779	816164	750206



2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
23.13	24.09	21.85	23.05	23.37	28.62	28.65	26.25	28.17	28.53	27.48	29.03	31.90	32.01	33.94	34.81	*36.90*	*39.40*	Revenues per sh	*46.50*
5.03	5.06	5.68	6.19	6.71	7.43	7.64	8.25	8.32	7.23	6.61	6.72	6.61	6.80	7.01	8.37	*8.95*	*9.90*	"Cash Flow" per sh	*11.75*
2.40	2.44	2.75	3.21	3.50	4.03	4.10	4.29	3.87	3.75	1.92	2.31	2.10	2.54	1.80	2.78	*2.60*	*3.15*	Earnings per sh [A]	*3.75*
.88	.96	1.26	1.60	1.64	1.82	2.05	2.10	2.10	2.10	2.10	1.46	1.24	1.24	1.26	1.31	*1.38*	*1.45*	Div'd Decl'd per sh [B] ■	*1.70*
3.33	2.98	2.89	3.25	3.61	4.05	4.74	4.96	5.03	6.09	6.77	6.29	7.07	8.29	9.26	7.87	*8.15*	*7.20*	Cap'l Spending per sh	*7.25*
11.97	12.95	14.19	13.69	14.89	15.34	16.78	19.16	20.49	21.68	25.07	26.52	26.29	28.04	27.96	30.99	*32.25*	*34.00*	Book Value per sh [C]	*39.75*
646.63	656.37	664.19	666.37	669.86	660.88	658.15	659.76	661.85	663.37	854.78	857.29	859.83	919.92	924.04	963.34	*967.00*	*970.00*	Common Shs Outst'g [D]	*980.00*
10.5	11.8	13.0	15.4	16.5	18.2	18.0	11.5	11.0	11.3	19.1	13.4	16.0	12.6	18.7	13.4	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*12.0*
.57	.67	.69	.82	.89	.97	1.08	.77	.70	.71	1.22	.75	.84	.63	.98	.67			Relative P/E Ratio	*.65*
3.5%	3.4%	3.5%	3.2%	2.8%	2.5%	2.8%	4.3%	4.9%	5.0%	5.7%	4.7%	3.7%	3.9%	3.7%	3.5%			Avg Ann'l Div'd Yield	*3.8%*
18859	17318	18644	18924	23489	24888	27429	29447	31360	33531	*35700*	*38200*	Revenues ($mill)	*45500*
2721.0	2844.0	2567.0	2499.0	1579.0	1999.0	1826.0	2282.0	1677.0	2636.0	*2570*	*3080*	Net Profit ($mill)	*3670*
32.6%	38.8%	39.2%	36.8%	32.4%	36.5%	27.2%	32.2%	38.5%	34.2%	*8.5%*	*8.5%*	Income Tax Rate	*8.5%*
1.3%	2.3%	2.1%	3.0%	5.8%	4.5%	5.5%	5.4%	12.3%	6.5%	*8.0%*	*6.0%*	AFUDC % to Net Profit	*5.0%*
53.1%	47.2%	46.8%	45.7%	45.8%	44.4%	46.7%	48.3%	55.5%	52.2%	*52.5%*	*50.0%*	Long-Term Debt Ratio	*50.0%*
46.6%	52.4%	52.9%	54.0%	53.5%	55.2%	52.8%	51.3%	44.5%	47.8%	*47.5%*	*50.0%*	Common Equity Ratio	*50.0%*
23726	24112	25651	26661	40057	41196	42811	50272	58053	62422	*65875*	*65750*	Total Capital ($mill)	*77900*
25813	27341	29941	32570	45186	47330	52087	57439	71555	74202	*76475*	*77425*	Net Plant ($mill)	*83600*
13.1%	13.3%	11.4%	10.6%	5.1%	5.9%	5.3%	5.5%	4.1%	5.3%	*5.0%*	*6.0%*	Return on Total Cap'l	*6.0%*
24.4%	22.3%	18.8%	17.3%	7.3%	8.7%	8.0%	8.8%	6.5%	8.8%	*8.0%*	*9.0%*	Return on Shr. Equity	*9.5%*
24.6%	22.5%	18.9%	17.3%	7.3%	8.7%	8.0%	8.8%	6.5%	8.8%	*8.0%*	*9.0%*	Return on Com Equity [E]	*9.5%*
12.5%	11.5%	8.7%	7.7%	NMF	3.2%	3.3%	4.5%	1.9%	4.7%	*4.0%*	*5.0%*	Retained to Com Eq	*5.0%*
49%	49%	54%	56%	109%	63%	59%	49%	70%	47%	*52%*	*46%*	All Div'ds to Net Prof	*45%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $35762 mill. **Due in 5 Yrs** $12889 mill.
LT Debt $32905 mill. **LT Interest** $1364 mill.
Includes $389 mill. nonrecourse transition bonds.
(LT interest earned: 3.8x)
Leases, Uncapitalized Annual rentals $188 mill.

Pension Assets-12/17 $18573 mill.
Oblig $22337 mill.

Pfd Stock None

Common Stock 965,381,919 shs.

MARKET CAP: $39 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	-1.0	+25.8	-3.0
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NMF	NMF	NMF
Capacity at Peak (Mw)	NA	NA	NA
Peak Load (Mw)	NA	NA	NA
Nuclear Capacity Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.1	+33.7	+.9
Fixed Charge Cov. (%)	367	238	282

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	3.0%	3.5%	*5.5%*
"Cash Flow"	1.0%	- -	*8.0%*
Earnings	-4.0%	-5.5%	*8.0%*
Dividends	-3.0%	-9.5%	*5.0%*
Book Value	7.0%	5.5%	*5.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	8830	6514	7401	6702	29447
2016	7573	6910	9002	7875	31360
2017	8757	7623	8769	8382	33531
2018	9693	*8000*	*9207*	*8800*	*35700*
2019	*9900*	*8700*	*10000*	*9600*	*38200*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.80	.74	.69	.33	2.54
2016	.26	.45	.76	.33	1.80
2017	.83	.44	.95	.56	2.78
2018	.60	*.60*	*.90*	*.50*	*2.60*
2019	*1.00*	*.65*	*.95*	*.55*	*3.15*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.31	.31	.31	.31	1.24
2015	.31	.31	.31	.31	1.24
2016	.31	.318	.318	.318	1.26
2017	.328	.328	.328	.328	1.31
2018	.345				

BUSINESS: Exelon Corporation is a holding company for Commonwealth Edison, PECO Energy, Baltimore Gas and Electric, Pepco, Delmarva Power, & Atlantic City Electric. Has 8.8 mill. elec., 1.3 mill. gas customers. Has nonregulated generating & energy-marketing ops. Acq'd Constellation Energy 3/12; Pepco Holdings 3/16. Elec. rev. breakdown: res'l, 53%; small comm'l & ind'l, 17%; large comm'l & ind'l, 15%; other, 15%. Generating sources: nuclear, 69%; other, 12%; purch., 19%. Fuel costs: 42% of revs. '17 depr. rates: 2.8%-7.0% elec., 2.1% gas. Has 34,600 empls. Chairman: Mayo A. Shattuck III. Pres. & CEO: Christopher M. Crane. Inc.: PA. Address: 10 S. Dearborn St., P.O. Box 805379, Chicago, IL 60680-5379. Tel.: 312-394-7398. Internet: www.exeloncorp.com.

Exelon's utilities are making progress in obtaining much-needed rate relief. When the company acquired Pepco Holdings in 2016, the utilities that came with the deal were not earning adequate returns on equity. So, they have filed multiple rate cases, and have completed or are on their second cycle of applications. Delmarva Power is seeking electric and gas increases totaling $16.5 million, based on a 10.1% return on equity. Rulings are expected in the second half of 2018. Pepco has reached settlements in Maryland and Washington, DC that would provide for rate decreases because the effects of tax reform outweigh the rate hikes that otherwise would occur. Besides these cases of the former Pepco Holdings, PECO is seeking an electric rate increase of $82 million, based on a 10.95% ROE. An order is expected in December.

The company's nonutility assets continue to face a challenging environment. The profitability of nonregulated nuclear assets has declined over the past several years due to low natural gas prices, subsidized renewable energy, and little growth in the demand for power. However, help has come in the way of subsidies for nuclear energy in Illinois and New York, in recognition that nuclear plants are carbon free and provide fuel diversity. Similar subsidies might be coming to New Jersey if the governor signs a bill that the legislature passed in April.

Our 2018 earnings estimate requires an explanation. We include things such as mark-to-market accounting items and gains or losses in the nuclear decommissioning trust because they are ongoing, even though Exelon excludes these from its earnings guidance of $2.90-$3.20 a share. Exelon's first-quarter "operating" earnings excludes $0.36 a share of costs that we included. This is why we estimate an earnings decline this year.

The board of directors raised the dividend. The annual increase was $0.07 a share (5.3%). We look for the same hike next year. Exelon's goal is 5% yearly dividend growth through 2020.

This stock has a dividend yield that is average for a utility. Total return potential to 2021-2023 is slightly above average for the industry.

Paul E. Debbas, CFA *May 18, 2018*

(A) Dil. egs. Excl. nonrec. gain (losses): '03, ($1.06); '05, ($1.85); '06, ($1.15); '09, (20¢); '12, (50¢); '13, (31¢); '14, 23¢; '16, (58¢); '17, $1.19. '15-'17 EPS don't add due to rounding or chg. in shs. Next earnings report due early Aug. **(B)** Div'ds paid in early Mar., June, Sept., & Dec. ■ Div'd reinv. plan avail. **(C)** Incl. def'd chgs. In '17: $15.67/sh. **(D)** In mill. **(E)** Rate all'd on com. eq. in IL in '15: 9.25%; in MD in '16: 9.75% elec., 9.65% gas; in NJ in '16: 9.75%; earned on avg. com. eq., '17: 9.6%. Reg. Clim.: PA, NJ Avg.; IL, MD, Below Avg.

Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	10
Earnings Predictability	50

PPL CORPORATION NYSE-PPL

RECENT PRICE 27.45 | P/E RATIO 12.2 (Trailing: 12.6 Median: 13.0) | RELATIVE P/E RATIO 0.69 | DIV'D YLD 6.0% | VALUE LINE

TIMELINESS 4 Raised 5/11/18
SAFETY 2 Raised 8/21/15
TECHNICAL 4 Raised 5/18/18
BETA .75 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+65%)	*18%*
Low	35	(+30%)	*12%*

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	2	0	0	0	0	8	0	1
to Sell	1	3	0	0	0	0	3	1	3

Institutional Decisions

	2Q2017	3Q2017	4Q2017
to Buy	364	337	337
to Sell	304	329	292
Hld's(000)	537294	539614	510699

High:	54.6	55.2	34.4	33.1	30.3	30.2	33.6	38.1	36.7	39.9	40.2	32.4						
Low:	34.4	26.8	24.3	23.8	24.1	26.7	28.4	29.4	29.2	32.1	30.7	27.1						

LEGENDS
0.70 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 8/05
Options: Yes
Shaded area indicates recession

Target Price Range 2021 | 2022 | 2023

% TOT. RETURN 4/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-20.1	9.5
3 yr.	-2.1	25.8
5 yr.	9.5	68.8

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
16.38	15.75	15.37	16.36	17.92	17.41	21.47	20.03	17.63	22.02	21.11	18.82	17.27	11.38	11.06	10.74	*10.20*	*10.35*	Revenues per sh	*11.00*
3.20	3.60	3.59	3.84	4.26	5.10	4.71	3.47	3.66	4.59	4.84	4.64	4.58	3.78	4.28	3.68	*3.70*	*4.00*	"Cash Flow" per sh	*4.75*
1.54	1.84	1.87	1.92	2.29	2.63	2.45	1.19	2.29	2.61	2.61	2.38	2.38	2.37	2.79	2.11	*2.25*	*2.35*	Earnings per sh [A]	*2.75*
.72	.77	.82	.96	1.10	1.22	1.34	1.38	1.40	1.40	1.44	1.47	1.49	1.50	1.52	1.58	*1.64*	*1.68*	Div'd Decl'd per sh [B] ■	*1.80*
2.74	2.17	1.94	2.13	3.62	4.51	3.79	3.25	3.30	4.30	5.34	6.68	6.14	5.24	4.30	4.52	*4.75*	*4.35*	Cap'l Spending per sh	*3.25*
6.71	9.19	11.21	11.62	13.30	14.88	13.55	14.57	16.98	18.72	18.01	19.78	20.47	14.72	14.56	15.52	*167.00*	*17.90*	Book Value per sh [C]	*20.75*
331.47	354.72	378.14	380.15	385.04	373.27	374.58	377.18	483.39	578.41	581.94	630.32	665.85	673.86	679.73	693.40	*755.00*	*765.00*	Common Shs Outst'g [D]	*780.00*
11.1	10.6	12.5	15.1	14.1	17.3	17.6	25.7	11.9	10.5	10.9	12.8	14.1	13.9	12.8	17.6	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.0*
.61	.60	.66	.80	.76	.92	1.06	1.71	.76	.66	.69	.72	.74	.70	.67	.88			Relative P/E Ratio	*.80*
4.2%	4.0%	3.5%	3.3%	3.4%	2.7%	3.1%	4.5%	5.1%	5.1%	5.1%	4.8%	4.4%	4.5%	4.2%	4.2%			Avg Ann'l Div'd Yield	*4.6%*
8044.0	7556.0	8521.0	12737	12286	11860	11499	7669.0	7517.0	7447.0	*7700*	*7900*	Revenues ($mill)	*8600*
940.0	465.0	1009.0	1456.0	1536.0	1541.0	1583.0	1603.0	1902.0	1449.0	*1605*	*1775*	Net Profit ($mill)	*2125*
31.8%	21.8%	22.0%	31.0%	26.2%	23.1%	33.0%	22.5%	25.4%	24.2%	*20.5%*	*20.5%*	Income Tax Rate	*20.5%*
.1%	9.5%	3.5%	4.0%	4.1%	3.7%	2.8%	1.6%	1.6%	1.9%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*1.0%*
57.1%	55.2%	59.0%	61.9%	64.1%	62.3%	58.0%	65.2%	64.3%	64.8%	*61.0%*	*59.0%*	Long-Term Debt Ratio	*56.0%*
40.5%	42.5%	39.8%	37.2%	35.9%	37.7%	42.0%	34.8%	35.7%	35.2%	*39.0%*	*41.0%*	Common Equity Ratio	*44.0%*
12529	12940	20621	29071	29205	33058	32484	28482	27707	30608	*33050*	*33375*	Total Capital ($mill)	*36900*
12416	13174	20858	27266	30032	33087	34597	30382	30074	33092	*35475*	*37525*	Net Plant ($mill)	*41700*
9.2%	5.2%	6.1%	6.5%	7.0%	6.2%	6.5%	7.1%	8.4%	6.2%	*6.5%*	*6.5%*	Return on Total Cap'l	*7.0%*
17.5%	8.0%	11.9%	13.1%	14.7%	12.4%	11.6%	16.2%	19.2%	13.5%	*12.5%*	*13.0%*	Return on Shr. Equity	*13.0%*
18.2%	8.1%	12.0%	13.3%	14.6%	12.4%	11.6%	16.2%	19.2%	13.5%	*12.5%*	*13.0%*	Return on Com Equity [E]	*13.0%*
8.5%	NMF	5.2%	6.4%	6.7%	5.3%	4.5%	6.0%	8.8%	3.5%	*3.5%*	*3.5%*	Retained to Com Eq	*4.5%*
54%	115%	58%	52%	54%	57%	61%	63%	54%	74%	*74%*	*72%*	All Div'ds to Net Prof	*66%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $21921 mill. **Due in 5 Yrs** $5937 mill.
LT Debt $20214 mill. **LT Interest** $826 mill.
Incl. 23 mill. units 7.75%, $25 liq. value; 82,000 units 8.23%, $1000 face value.
(LT interest earned: 3.2x)

Leases, Uncapitalized Annual rentals $32 mill.
Pension Assets-12/17 $11978 mill.
Oblig $12507 mill.

Pfd Stock None
Common Stock 699,042,874 shs.
as of 4/25/18
MARKET CAP: $19 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	-.5	-.5	-1.5
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	321	339	336

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	-4.5%	-11.5%	*Nil*
"Cash Flow"	-1.0%	-2.0%	*3.5%*
Earnings	.5%	-.5%	*2.0%*
Dividends	3.5%	1.5%	*2.5%*
Book Value	1.0%	-3.5%	*5.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	2230	1781	1878	1780	7669.0
2016	2011	1785	1889	1832	7517.0
2017	1951	1725	1845	1926	7447.0
2018	2126	*1800*	*1874*	*1900*	*7700*
2019	*2150*	*1850*	*1950*	*1950*	*7900*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.82	.37	.59	.60	2.37
2016	.71	.71	.69	.68	2.79
2017	.59	.43	.51	.58	2.11
2018	.65	*.50*	*.57*	*.53*	*2.25*
2019	*.68*	*.52*	*.60*	*.55*	*2.35*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.368	.373	.373	.373	1.49
2015	.372	.372	.373	.378	1.50
2016	.378	.38	.38	.38	1.52
2017	.38	.395	.395	.395	1.57
2018	.395	.41			

BUSINESS: PPL Corporation (formerly PP&L Resources, Inc.) is a holding company for PPL Electric Utilities (formerly Pennsylvania Power & Light Company), which distributes electricity to 1.4 million customers in eastern & central PA. Acq'd Kentucky Utilities and Louisville Gas and Electric (1.2 million customers) 11/10. Has electric distribution sub. in U.K. (7.8 million customers). Sold gas distribution subsidiary in '08. Spun off power generating subsidiary in '15. The company no longer breaks out data on electric operating statistics. Fuel costs: 19% of revs. '17 reported deprec. rate: 2.7%. Has 12,500 employees. Chairman, President & CEO: William H. Spence. Inc.: PA. Address: Two North Ninth St., Allentown, PA 18101-1179. Tel.: 800-345-3085. Internet: www.pplweb.com.

Investors' concerns about PPL Corporation's utility operations in the United Kingdom are hurting the price of PPL's stock. The share price sank 12% in 2017—a good year for most utility equities—and has retreated another 11% so far this year. The regulatory commission in the U.K. is considering changes that would reduce the allowed return on equity for electric companies beginning in 2023. There is a separate worry that utilities in the U.K. will be nationalized if the Labour Party goes into power. And currency exchange rates are another source of uncertainty, although we note that PPL has hedged its exposure for 2018 and 2019 and half its exposure for 2020. The effects of these hedges reduced first-quarter earnings by $0.09 a share. We *included* this in our earnings presentation because these items are ongoing, even though management excludes them from its 2018 earnings guidance of $2.20-$2.40 a share.

The prospects for PPL's domestic utilities are less unclear. The utility in Pennsylvania is benefiting from increased income from electric transmission, and the utilities in Kentucky are benefiting from rate increases granted in mid-2017. The solid performance from these operations should help lift earnings modestly in 2019.

Dividend growth might be slowing. The board of directors raised the annual payout by $0.06 a share (3.8%) this year, effective with the April payment. However, PPL is no longer stating its expectation of 4% dividend growth through 2020—merely an expectation of dividend growth of some kind. We note that the new federal tax law will hurt cash flow and necessitated equity financing. PPL has executed a forward sale of 55 million common shares at $27.

The utilities in Kentucky are awaiting a ruling on their advanced metering proposal. If this is approved, they would spend $313 million to install 1.3 million meters over a three-year period. A decision is expected soon.

This untimely stock has one of the highest yields of any electric utility issue. We think the equity is attractive for income-oriented investors who are willing to bear with the risks surrounding the company's U.K. operations. Total return potential to 2021-2023 is respectable.

Paul E. Debbas, CFA *May 18, 2018*

(A) Dil. EPS. Excl. nonrec. gain (losses): '07, (12¢); '10, (8¢); '11, 8¢; '13, (62¢); gains (losses) on disc. ops.: '07, 19¢; '08, 3¢; '09, (10¢); '10, (4¢); '12, (1¢); '14, 23¢; '15, ($1.36). '15 EPS don't sum to rounding. Next earnings report due early Aug. **(B)** Div'ds historically paid in early Jan., Apr., July, & Oct. ■ Div'd reinv. plan avail. **(C)** Incl. intang. In '17: $7.87/sh. **(D)** In mill., adj. for split. **(E)** Rate base: Fair val. Rate all'd on com. eq. in PA in '16: none spec.; in KY in '17: 9.7%; earned on avg. com. eq., '17: 10.9%. Regul. Climate: Avg.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	10
Earnings Predictability	70

P.S. ENTERPRISE GP. NYSE-PEG

RECENT PRICE 51.08 | P/E RATIO 16.5 (Trailing: 17.1 Median: 13.0) | RELATIVE P/E RATIO 0.93 | DIV'D YLD 3.6% | VALUE LINE

TIMELINESS 3 Raised 3/9/18
SAFETY 1 Raised 11/23/12
TECHNICAL 3 Raised 5/4/18
BETA .70 (1.00 = Market)

2021-23 PROJECTIONS

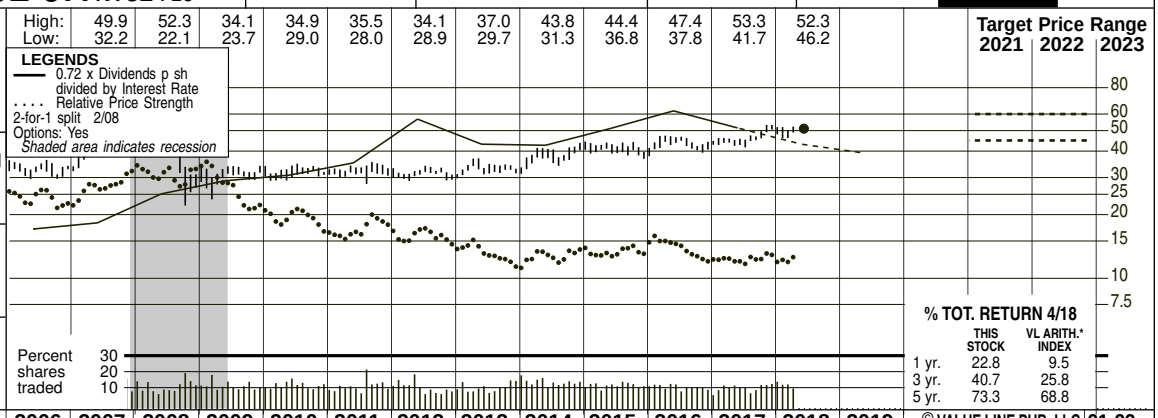
	Price	Gain	Ann'l Total Return
High	60	(+15%)	8%
Low	45	(-10%)	1%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	1	1	0	1	2	0	1	7	6
to Sell	1	2	0	1	2	1	1	1	1

Institutional Decisions

	2Q2017	3Q2017	4Q2017
to Buy	338	318	276
to Sell	300	304	307
Hld's(000)	381036	384734	343240



% TOT. RETURN 4/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	22.8	9.5
3 yr.	40.7	25.8
5 yr.	73.3	68.8

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
18.62	23.54	23.09	24.74	24.07	25.28	27.94	24.57	23.31	22.42	19.33	19.71	21.52	20.61	18.22	18.14	*18.80*	*19.40*	Revenues per sh	*22.50*
3.01	2.92	3.02	3.42	3.91	4.36	4.68	4.98	5.27	5.36	4.87	5.17	5.82	6.15	5.07	5.30	*5.80*	*6.10*	"Cash Flow" per sh	*7.50*
1.88	1.88	1.52	1.79	1.85	2.59	2.90	3.08	3.07	3.11	2.44	2.45	2.99	3.30	2.83	2.82	*3.10*	*3.20*	Earnings per sh [A]	*3.75*
1.08	1.08	1.10	1.12	1.14	1.17	1.29	1.33	1.37	1.37	1.42	1.44	1.48	1.56	1.64	1.72	*1.80*	*1.90*	Div'd Decl'd per sh [B] ■†	*2.20*
4.03	2.86	2.64	2.04	2.01	2.65	3.50	3.55	4.27	4.12	5.09	5.56	5.58	7.65	8.32	8.30	*6.35*	*5.35*	Cap'l Spending per sh	*5.25*
8.85	11.71	12.05	11.99	13.35	14.35	15.36	17.37	19.04	20.30	21.31	22.95	24.09	25.86	26.01	27.42	*28.70*	*30.05*	Book Value per sh [C]	*34.75*
450.53	472.27	476.20	502.33	505.29	508.52	506.02	505.99	505.97	505.95	505.89	505.86	505.84	505.28	504.87	505.00	*505.00*	*505.00*	Common Shs Outst'g [D]	*505.00*
10.0	10.6	14.3	16.5	17.8	16.5	13.6	10.0	10.4	10.4	12.8	13.5	12.6	12.4	15.3	16.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.0*
.55	.60	.76	.88	.96	.88	.82	.67	.66	.65	.81	.76	.66	.62	.80	.82			Relative P/E Ratio	*.80*
5.7%	5.4%	5.1%	3.8%	3.5%	2.7%	3.3%	4.3%	4.3%	4.2%	4.6%	4.4%	3.9%	3.8%	3.8%	3.7%			Avg Ann'l Div'd Yield	*4.2%*
14139	12431	11793	11343	9781.0	9968.0	10886	10415	9198.0	9161.0	*9500*	*9800*	Revenues ($mill)	*11300*
1477.0	1567.0	1557.0	1577.0	1239.0	1243.0	1518.0	1679.0	1436.0	1431.0	*1565*	*1635*	Net Profit ($mill)	*1955*
45.9%	42.3%	40.5%	40.4%	36.2%	39.5%	38.2%	37.4%	31.7%	37.3%	*26.5%*	*26.5%*	Income Tax Rate	*26.5%*
3.2%	3.8%	5.5%	2.7%	4.8%	4.6%	4.5%	5.5%	8.4%	10.6%	*8.0%*	*6.0%*	AFUDC % to Net Profit	*4.0%*
50.5%	46.3%	44.8%	42.1%	38.3%	40.4%	40.4%	40.3%	45.3%	46.6%	*47.0%*	*47.5%*	Long-Term Debt Ratio	*49.5%*
49.0%	53.2%	55.2%	57.9%	61.7%	59.6%	59.6%	59.7%	54.7%	53.4%	*53.0%*	*52.5%*	Common Equity Ratio	*50.5%*
15856	16513	17452	17731	17467	19470	20446	21900	24025	25915	*27375*	*28950*	Total Capital ($mill)	*34600*
14433	15440	16390	17849	19736	21645	23589	26539	29286	31797	*33700*	*35000*	Net Plant ($mill)	*38200*
11.2%	11.0%	10.4%	10.2%	8.1%	7.5%	8.4%	8.6%	6.8%	6.4%	*6.5%*	*6.5%*	Return on Total Cap'l	*6.5%*
18.8%	17.7%	16.2%	15.4%	11.5%	10.7%	12.5%	12.9%	10.9%	10.3%	*11.0%*	*11.0%*	Return on Shr. Equity	*11.0%*
19.0%	17.8%	16.2%	15.4%	11.5%	10.7%	12.5%	12.9%	10.9%	10.3%	*11.0%*	*11.0%*	Return on Com Equity [E]	*11.0%*
10.5%	10.1%	9.0%	8.6%	4.8%	4.4%	6.3%	6.8%	4.6%	4.1%	*4.5%*	*4.5%*	Retained to Com Eq	*5.0%*
45%	43%	45%	44%	58%	59%	49%	47%	58%	61%	*58%*	*59%*	All Div'ds to Net Prof	*57%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $13666 mill. **Due in 5 Yrs** $6287 mill.
LT Debt $12072 mill. **LT Interest** $465 mill.
(LT interest earned: 5.6x)

Leases, Uncapitalized Annual rentals $36 mill.

Pension Assets-12/17 $5812 mill.
Oblig $6359 mill.

Pfd Stock None

Common Stock 505,217,435 shs.
as of 4/17/18
MARKET CAP: $26 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	+2.4	-.3	-2.0
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH(¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	9595	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	NA	NA	NA
Fixed Charge Cov. (%)	705	522	503

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	-2.5%	-2.5%	*3.0%*
"Cash Flow"	3.5%	1.5%	*5.5%*
Earnings	3.5%	1.0%	*4.0%*
Dividends	3.5%	3.5%	*5.0%*
Book Value	7.0%	5.5%	*4.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	3135	2314	2688	2278	10415
2016	2616	1905	2587	2090	9198.0
2017	2647	2155	2263	2096	9161.0
2018	2818	*2150*	*2382*	*2150*	*9500*
2019	*2900*	*2200*	*2500*	*2200*	*9800*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1.15	.68	.87	.60	3.30
2016	.93	.37	.94	.59	2.83
2017	.94	.69	.78	.42	2.82
2018	1.10	*.60*	*.85*	*.55*	*3.10*
2019	*1.05*	*.65*	*.90*	*.60*	*3.20*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.37	.37	.37	.37	1.48
2015	.39	.39	.39	.39	1.56
2016	.41	.41	.41	.41	1.64
2017	.43	.43	.43	.43	1.72
2018	.45				

BUSINESS: Public Service Enterprise Group Incorporated is a holding company for Public Service Electric and Gas Company (PSE&G), which serves 2.2 million electric and 1.8 million gas customers in New Jersey, and PSEG Power LLC, a nonregulated power generator with nuclear, gas, and coal-fired plants in the Northeast. PSEG Energy Holdings is involved in renewable energy. The company no longer breaks out data on electric and gas operating statistics. Fuel costs: 31% of revenues. '17 reported depreciation rates (utility): 1.6%-2.5%. Has 12,900 employees. Chairman, President & Chief Executive Officer: Dr. Ralph Izzo. Inc.: New Jersey. Address: 80 Park Plaza, P.O. Box 1171, Newark, New Jersey 07101-1171. Telephone: 973-430-7000. Internet: www.pseg.com.

Public Service Enterprise Group's utility subsidiary has a general rate case pending. Public Service Electric and Gas is seeking slight (due to the effects of the new federal tax law) electric and gas tariff increases, based on a 10.3% return on a 54% common-equity ratio. The utility wants to recover costs that aren't recoverable through various regulatory mechanisms that provide for concurrent recovery; increase its depreciation rate; recoup storm-related costs that were deferred; and decouple electric revenues and volume. PSE&G is hoping for new rates and the decoupling mechanism to take effect at the start of October.

The utility has become the largest contributor to PSEG's profits. This is due to growth in PSE&G's income (helped by rising transmission investment) and a decline in margins at PSEG's primary nonutility subsidiary, PSEG Power, due to difficult conditions in the power markets. PSE&G expects its rate base to climb at an average annual rate of 7%-9% through 2022, and should reach the upper end of this range if the New Jersey Board of Public Utilities approves a settlement that would extend the utility's gas system modernization program for five years, beginning in 2019. Under this program, PSE&G would spend nearly $1.9 billion. All told, we expect a strong earnings increase in 2018 and a more modest rise next year.

PSEG Power's nuclear units in New Jersey might get some help from the state government. The company has indicated that without subsidies, market conditions might force the closing of these plants. So, the state legislature passed a law (which awaits the governor's approval) that would provide for "zero emission certificates" that recognize the benefits of nuclear energy because it has no carbon emissions and provides fuel diversity.

The board raised the dividend in February. The quarterly increase was two cents a share (4.7%). We project a similar dividend growth rate over the 3- to 5-year period.

This high-quality stock has a dividend yield that is about average for a utility. With the recent quotation well within our 2021-2023 Target Price Range, total return potential is unexciting.

Paul E. Debbas, CFA *May 18, 2018*

(A) Diluted EPS. Excl. nonrecur. gains (losses): '02, ($1.30); '05, (3¢); '06, (35¢); '08, (96¢); '09, 6¢; '11, (34¢); '12, 7¢; '16, (30¢); '17, 28¢ (net); gains (loss) from disc. ops.: '05, (33¢); '06, 12¢; '07, 3¢; '08, 40¢; '11, 13¢. '17 EPS don't sum due to rounding. Next egs. report due late July. **(B)** Div'ds historically paid in late Mar., June, Sept., & Dec. ■ Div'd reinvest. plan avail. **(C)** Incl. intang. In '17: $6.64/sh. **(D)** In mill., adj. for split. **(E)** Rate base: Net orig. cost. Rate all'd on com. eq. in '10: 10.3%; earned on avg. com. eq., '17: 10.6%. Reg. Climate: Avg.

Company's Financial Strength	A++
Stock's Price Stability	95
Price Growth Persistence	20
Earnings Predictability	65

SOUTHERN COMPANY NYSE-SO

RECENT PRICE 44.15 | P/E RATIO 15.2 (Trailing: 12.9 Median: 16.0) | RELATIVE P/E RATIO 0.85 | DIV'D YLD 5.5% | VALUE LINE

TIMELINESS 3 Raised 3/2/18
SAFETY 2 Lowered 2/21/14
TECHNICAL 4 Raised 5/18/18
BETA .55 (1.00 = Market)

2021-23 PROJECTIONS

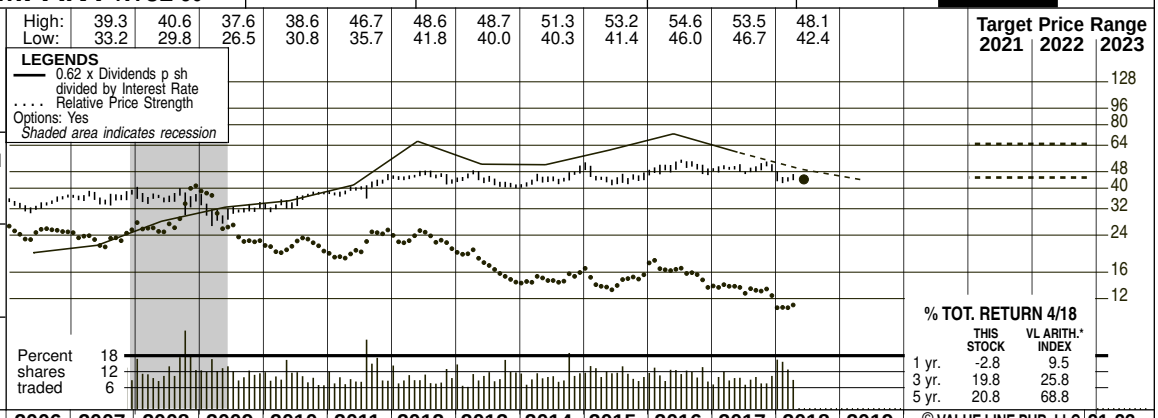
	Price	Gain	Ann'l Total Return
High	65	(+45%)	*14%*
Low	45	(Nil)	*6%*

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	1	1	0	4	2	1	2	1	4	0
to Sell	0	1	0	4	2	0	0	0	0

Institutional Decisions

	2Q2017	3Q2017	4Q2017
to Buy	553	498	480
to Sell	494	514	450
Hld's(000)	599382	603476	568350



2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
14.73	15.31	16.05	18.28	19.24	20.12	22.04	19.21	20.70	20.41	19.06	19.26	20.34	19.18	20.09	22.86	*23.80*	*24.50*	Revenues per sh	*26.75*
3.46	3.53	3.65	4.03	4.01	4.22	4.43	4.43	4.51	4.91	5.18	5.27	5.28	5.47	5.69	6.64	*6.35*	*6.60*	"Cash Flow" per sh	*7.50*
1.85	1.97	2.06	2.13	2.10	2.28	2.25	2.32	2.36	2.55	2.67	2.70	2.77	2.84	2.83	3.21	*2.90*	*3.05*	Earnings per sh A	*3.50*
1.36	1.39	1.42	1.48	1.54	1.60	1.66	1.73	1.80	1.87	1.94	2.01	2.08	2.15	2.22	2.30	*2.38*	*2.46*	Div'd Decl'd per sh B ■ †	*2.70*
3.79	2.72	2.85	3.20	4.01	4.65	5.10	5.70	4.85	5.23	5.54	6.16	6.58	6.22	7.38	7.37	*8.45*	*7.15*	Cap'l Spending per sh	*7.25*
12.16	13.13	13.86	14.42	15.24	16.23	17.08	18.15	19.21	20.32	21.09	21.43	21.98	22.59	25.00	23.98	*24.95*	*26.05*	Book Value per sh C	*29.75*
716.40	734.83	741.50	741.45	746.27	763.10	777.19	819.65	843.34	865.13	867.77	887.09	907.78	911.72	990.39	1007.6	*1030.0*	*1050.0*	Common Shs Outst'g D	*1110.0*
14.6	14.8	14.7	15.9	16.2	16.0	16.1	13.5	14.9	15.8	17.0	16.2	16.0	15.8	17.8	15.5	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*15.5*
.80	.84	.78	.85	.87	.85	.97	.90	.95	.99	1.08	.91	.84	.80	.93	.78			Relative P/E Ratio	*.85*
5.0%	4.7%	4.7%	4.4%	4.5%	4.4%	4.6%	5.5%	5.1%	4.6%	4.3%	4.6%	4.7%	4.8%	4.4%	4.6%			Avg Ann'l Div'd Yield	*4.9%*
17127	15743	17456	17657	16537	17087	18467	17489	19896	23031	*24500*	*25700*	Revenues ($mill)	*29750*
1807.0	1910.0	2040.0	2268.0	2415.0	2439.0	2567.0	2647.0	2757.0	3269.0	*3035*	*3285*	Net Profit ($mill)	*4065*
33.6%	31.9%	33.5%	35.0%	35.6%	34.8%	33.8%	33.4%	28.5%	25.2%	*11.0%*	*11.0%*	Income Tax Rate	*11.0%*
12.3%	14.9%	13.7%	10.2%	9.4%	11.6%	13.9%	13.2%	11.9%	7.6%	*5.0%*	*5.0%*	AFUDC % to Net Profit	*4.0%*
53.9%	53.2%	51.2%	50.0%	49.9%	51.5%	49.5%	52.8%	61.5%	64.5%	*62.5%*	*61.5%*	Long-Term Debt Ratio	*58.5%*
42.6%	43.6%	45.7%	47.1%	47.3%	45.8%	47.3%	44.0%	35.7%	35.0%	*37.0%*	*38.0%*	Common Equity Ratio	*41.5%*
31174	34091	35438	37307	38653	41483	42142	46788	69359	68953	*69825*	*71925*	Total Capital ($mill)	*80000*
35878	39230	42002	45010	48390	51208	54868	61114	78446	79872	*84975*	*88725*	Net Plant ($mill)	*95500*
7.1%	6.9%	7.0%	7.2%	7.3%	6.8%	7.1%	6.6%	4.9%	5.9%	*5.5%*	*5.5%*	Return on Total Cap'l	*6.0%*
12.6%	12.0%	11.8%	12.2%	12.5%	12.1%	12.1%	12.0%	10.3%	13.3%	*11.5%*	*12.0%*	Return on Shr. Equity	*12.0%*
13.1%	12.4%	12.2%	12.5%	12.8%	12.5%	12.5%	12.6%	11.0%	13.4%	*11.5%*	*12.0%*	Return on Com Equity E	*12.0%*
3.5%	3.2%	3.0%	3.4%	3.6%	3.2%	3.2%	3.1%	2.5%	3.9%	*2.0%*	*2.5%*	Retained to Com Eq	*3.0%*
74%	75%	77%	73%	73%	75%	75%	76%	78%	72%	*80%*	*78%*	All Div'ds to Net Prof	*74%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $51952 mill. **Due in 5 Yrs** $19863 mill.
LT Debt $44446 mill. **LT Interest** $1556 mill.
(LT interest earned: 3.5x)

Leases, Uncapitalized Annual rentals $149 mill.
Pension Assets-12/17 $12992 mill.
Oblig $13808 mill.
Pfd Stock $324 mill. **Pfd Div'd** $17 mill.
Incl. 10 mill. shs. 5% cum. pfd. ($25 stated value); 334,210 shs. 4.4%-5.25% cum. pfd. ($100 par).

Common Stock 1,011,624,620 shs.
MARKET CAP: $45 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	-.7	+.2	-2.6
Avg. Indust. Use (MWH)	3371	3105	3016
Avg. Indust. Revs. per KWH (¢)	5.88	6.01	6.18
Capacity at Yearend (Mw)	44223	46291	46936
Peak Load, Summer (Mw) F	36794	35781	34874
Annual Load Factor (%)	59.9	61.5	61.4
% Change Customers (yr-end)	+.9	+1.0	+1.0
Fixed Charge Cov. (%)	433	330	318

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	1.0%	.5%	*4.5%*
"Cash Flow"	4.0%	4.0%	*4.0%*
Earnings	3.0%	3.0%	*3.0%*
Dividends	4.0%	3.5%	*3.5%*
Book Value	4.5%	3.5%	*3.5%*

QUARTERLY REVENUES (mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	4183	4337	5401	3568	17489
2016	3992	4459	6264	5181	19896
2017	5771	5430	6201	5629	23031
2018	6372	*5728*	*6500*	*5900*	*24500*
2019	*6600*	*6000*	*6900*	*6200*	*25700*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.56	.71	1.16	.42	2.84
2016	.57	.71	1.22	.33	2.83
2017	.73	.73	1.08	.67	3.21
2018	.93	*.65*	*.90*	*.42*	*2.90*
2019	*.90*	*.70*	*1.00*	*.45*	*3.05*

QUARTERLY DIVIDENDS PAID B ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.5075	.525	.525	.525	2.08
2015	.525	.5425	.5425	.5425	2.15
2016	.5425	.56	.56	.56	2.22
2017	.56	.58	.58	.58	2.30
2018	.58	.60			

BUSINESS: The Southern Company, through its subs., supplies electricity to 4.6 million customers in GA, AL, FL, and MS. Also has a competitive generation business. Acq'd AGL Resources (renamed Southern Company Gas, 4.5 mill. customers in GA, FL, NJ, IL, VA, & TN) 7/16. Electric rev. breakdown: residential, 37%; commercial, 31%; industrial, 18%; other, 14%. Retail revs. by state: GA, 49%; AL, 35%; FL, 9%; MS, 7%. Generating sources: gas & oil, 42%; coal, 27%; nuclear, 15%; other, 7%; purchased, 9%. Fuel costs: 32% of revs. '17 reported depr. rate (utility): 2.9%. Has 31,300 employees. Chairman, President and CEO: Thomas A. Fanning. Inc.: DE. Address: 30 Ivan Allen Jr. Blvd., N.W., Atlanta, GA 30308. Tel.: 404-506-0747. Internet: www.southerncompany.com.

Southern Company's Georgia Power subsidiary is building two units at the site of its Vogtle nuclear station. As of March 31st, the project was slightly more than halfway complete, with expected in-service dates of November of 2021 and 2022. After delays and cost overruns, the utility's 45.7% share of the project will cost an estimated $8.8 billion. Of this amount, $1.5 billion will be offset by a guarantee from Toshiba, the parent company of Westinghouse (the original contractor that filed for bankruptcy protection).

The company has significant equity needs. Southern estimates that it will require $7 billion over the next five years. Some of this will likely be offset by the proceeds from asset sales and, perhaps, the use of third-party tax-equity financing for renewable-energy projects. Partly because the share count will be higher than we estimated three months ago, we lowered our 2018 and 2019 share-earnings estimates by $0.10 each year. Management's share-net guidance for this year is for a decline to $2.80-$2.95, due in part to the situation at Vogtle and the negative effect of tax reform. However, Southern excludes certain items that we include in our earnings presentation. These added a net of $0.05 to share profits in the first quarter.

Southern is selling two of its gas utilities. The company will receive $1.7 billion ($200 million above book value) for Elizabethtown Gas and Elkton Gas. The closing is expected by the end of the third quarter. The proceeds will offset past equity needs.

The board of directors increased the quarterly dividend by $0.02 a share (3.4%) in the second quarter. We project the same increase each year over the 3- to 5-year period.

This stock has one of the highest dividend yields in the electric utility industry. This is nearly two percentage points above the industry average. Total return potential to 2021-2023 is also above average for a utility. The stock has not performed well in recent years due to the cost overruns at Vogtle and a plant in Mississippi that was supposed to run on gasified coal, but will run as a gas-fired facility. Investors must be willing to accept some construction risk at Vogtle, however.

Paul E. Debbas, CFA *May 18, 2018*

(A) Dil. EPS. Excl. nonrec. gain (losses): '03, 6¢; '09, (25¢); '13, (83¢); '14, (59¢); '15, (25¢); '16, (28¢); '17, ($2.37). '15 EPS don't sum due to rounding. Next egs. report due early Aug. **(B)** Div'ds paid in early Mar., June, Sept., and Dec. ■ Div'd reinvest. plan avail. † Shrhldr. invest. plan avail. **(C)** Incl. def'd chgs. In '17: $16.36/sh. **(D)** In mill. **(E)** Rate base: AL, MS, fair value; FL, GA, orig. cost. All'd return on com. eq. (blended): 12.5%; earn. on avg. com. eq., '17: 12.5%. Regul. Climate: GA, AL Above Avg.; MS, FL Avg. **(F)** Winter peak in '15.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	25
Earnings Predictability	100

ALLIANT ENERGY NYSE-LNT

RECENT PRICE 39.75 | P/E RATIO 18.9 (Trailing: 19.2 Median: 15.0) | RELATIVE P/E RATIO 1.03 | DIV'D YLD 3.4% | VALUE LINE

TIMELINESS 3 Lowered 4/13/18
SAFETY 2 Raised 9/28/07
TECHNICAL 1 Raised 6/1/18
BETA .70 (1.00 = Market)

2021-23 PROJECTIONS

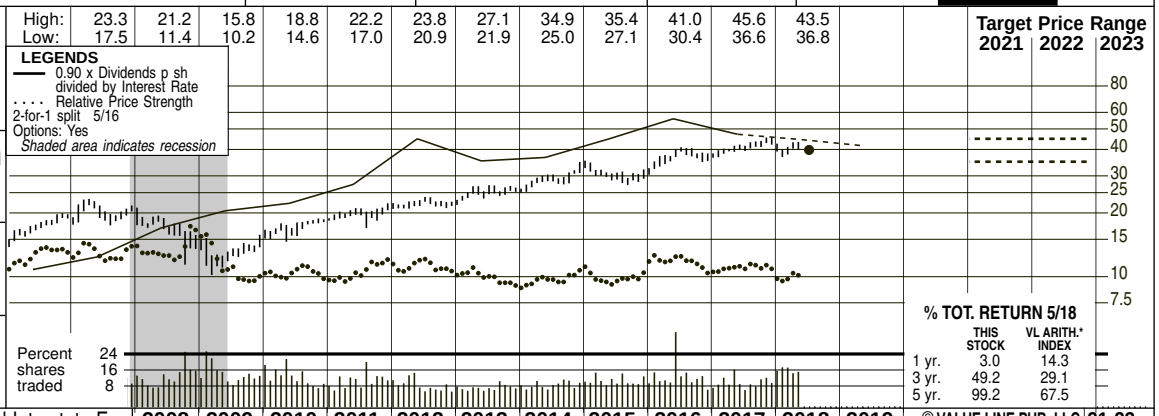
	Price	Gain	Ann'l Total Return
High	45	(+15%)	7%
Low	35	(-10%)	1%

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	5	0	0
to Sell	0	1	0	0	0	0	0	1	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	194	190	170
to Sell	187	165	239
Hld's(000)	182717	166325	168237



Alliant Energy, formerly called Interstate Energy Corporation, was formed on April 21, 1998 through the merger of WPL Holdings, IES Industries, and Interstate Power. WPL stockholders received one share of Interstate Energy stock for each WPL share, IES stockholders received 1.14 Interstate Energy shares for each IES share, and Interstate Power stockholders received 1.11 Interstate Energy shares for each Interstate Power share.

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
	16.67	15.51	15.40	16.51	13.94	14.77	15.10	14.34	14.58	14.62	*15.30*	*15.55*	Revenues per sh	*17.75*
	2.28	2.10	2.60	2.75	2.95	3.34	3.44	3.45	3.45	3.97	*4.25*	*4.45*	"Cash Flow" per sh	*5.00*
	1.27	.95	1.38	1.38	1.53	1.65	1.74	1.69	1.65	1.99	*2.10*	*2.25*	Earnings per sh A	*2.60*
	.70	.75	.79	.85	.90	.94	1.02	1.10	1.18	1.26	*1.34*	*1.42*	Div'd Decl'd per sh B ■ †	*1.66*
	3.98	5.43	3.91	3.03	5.22	3.32	3.78	4.25	5.26	6.34	*6.75*	*7.10*	Cap'l Spending per sh	*5.30*
	12.78	12.54	13.05	13.57	14.12	14.79	15.54	16.41	16.96	18.08	*19.00*	*20.25*	Book Value per sh C	*22.85*
	220.90	221.31	221.79	222.04	221.97	221.89	221.87	226.92	227.67	231.35	*233.00*	*235.00*	Common Shs Outst'g D	*235.00*
	13.4	13.9	12.5	14.5	14.5	15.3	16.6	18.1	22.3	20.6	*Bold figures are*		Avg Ann'l P/E Ratio	*15.0*
	.81	.93	.80	.91	.92	.86	.87	.91	1.17	1.01	*Value Line*		Relative P/E Ratio	*.85*
	4.1%	5.7%	4.6%	4.3%	4.1%	3.7%	3.5%	3.6%	3.2%	3.1%	*estimates*		Avg Ann'l Div'd Yield	*4.3%*
	3681.7	3432.8	3416.1	3665.3	3094.5	3276.8	3350.3	3253.6	3320.0	3382.2	*3560*	*3650*	Revenues ($mill)	*4175*
	280.0	208.6	303.9	304.4	337.8	382.1	385.5	380.7	373.8	455.9	*490*	*530*	Net Profit ($mill)	*610*
	33.4%	- -	30.1%	19.0%	21.5%	12.4%	10.1%	15.3%	13.4%	12.5%	*12.0%*	*12.0%*	Income Tax Rate	*12.0%*
	- -	- -	- -	- -	- -	- -	- -	6.5%	7.0%	7.3%	*7.5%*	*7.5%*	AFUDC % to Net Profit	*7.5%*
	36.3%	44.3%	46.3%	45.7%	48.4%	46.1%	49.7%	48.6%	52.8%	49.0%	*50.0%*	*50.0%*	Long-Term Debt Ratio	*50.0%*
	58.6%	51.2%	49.5%	50.9%	48.4%	50.8%	47.5%	51.4%	47.2%	51.0%	*50.0%*	*50.0%*	Common Equity Ratio	*50.0%*
	4815.6	5423.0	5840.8	5921.2	6476.6	6461.0	7257.2	7246.3	8177.6	8192.8	*8300*	*8400*	Total Capital ($mill)	*8700*
	5353.5	6203.0	6730.6	7037.1	7838.0	7147.3	6442.0	8970.2	9809.9	10797.9	*11125*	*11645*	Net Plant ($mill)	*12900*
	7.0%	5.1%	6.6%	6.4%	6.3%	7.0%	6.3%	6.3%	5.6%	5.6%	*6.0%*	*6.5%*	Return on Total Cap'l	*7.0%*
	9.1%	6.9%	9.7%	9.5%	10.1%	11.0%	10.6%	10.2%	9.7%	10.9%	*11.0%*	*11.0%*	Return on Shr. Equity	*11.5%*
	9.3%	6.8%	9.9%	9.5%	10.3%	11.3%	10.9%	10.2%	9.7%	10.9%	*11.0%*	*11.0%*	Return on Com Equity E	*11.5%*
	3.8%	.9%	3.8%	3.3%	3.9%	4.9%	4.3%	3.6%	2.8%	4.0%	*4.0%*	*4.0%*	Retained to Com Eq	*4.0%*
	62%	88%	64%	67%	64%	57%	59%	65%	72%	63%	*64%*	*63%*	All Div'ds to Net Prof	*64%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $5248.9 mill. **Due in 5 Yrs** $1500.0 mill.
LT Debt $4056.8 mill. **LT Interest** $180.0 mill.
(LT interest earned: 4.0x)

Pension Assets-12/17 $950.7 mill. **Oblig.** $1303.1 mill.
Pfd Stock $400.0 mill. **Pfd Div'd** $10.2 mill.
16,000,000 shs.

Common Stock 231,481,828 shs.

MARKET CAP: $9.2 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	-.1	+2.0	1.0
Avg. Indust. Use (MWH)	11735	11987	12102
Avg. Indust. Revs. per KWH (¢)	6.92	7.04	7.16
Capacity at Peak (Mw)	5385	5615	5375
Peak Load, Summer (Mw)	5385	5615	5375
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.3	+1.0	+.4
Fixed Charge Cov. (%)	315	295	319

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	.5%	-1.5%	***3.5%***
"Cash Flow"	3.5%	6.5%	***7.0%***
Earnings	5.0%	6.5%	***6.5%***
Dividends	7.5%	6.5%	***6.0%***
Book Value	4.0%	4.5%	***5.0%***

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	897.4	717.2	898.9	740.1	3253.6
2016	843.8	754.2	925.0	797.0	3320.0
2017	853.9	765.3	906.9	856.1	3382.2
2018	916.3	***790***	***1050***	***803.7***	***3560***
2019	***935***	***815***	***1025***	***875***	***3650***

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.44	.30	.80	.15	1.69
2016	.43	.37	.57	.28	1.65
2017	.44	.41	.73	.41	1.99
2018	.52	***.43***	***.82***	***.33***	***2.10***
2019	***.54***	***.45***	***.88***	***.38***	***2.25***

QUARTERLY DIVIDENDS PAID B ■†

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.255	.255	.255	.255	1.02
2015	.275	.275	.275	.275	1.10
2016	.295	.295	.295	.295	1.18
2017	.315	.315	.315	.315	1.26
2018	.335	.335			

BUSINESS: Alliant Energy Corp., formerly named Interstate Energy, is a holding company formed through the merger of WPL Holdings, IES Industries, and Interstate Power. Supplies electricity, gas, and other services in Wisconsin, Iowa, and Minnesota. Elect. revs. by state: WI, 38%; IA, 61%; MN, 1%. Elect. rev.: residential, 36%; commercial, 24%; industrial, 30%; wholesale, 8%; other, 2%. Fuel sources, 2017: coal, 40%; gas, 17%; other, 43%. Fuel costs: 45% of revs. 2017 depreciation rate: 5.5%. Estimated plant age: 15 years. Has approximately 3,989 employees. Chairman & Chief Executive Officer: Patricia L. Kampling. Incorporated: Wisconsin. Address: 4902 N. Biltmore Lane, Madison, Wisconsin 53718. Telephone: 608-458-3311. Internet: www.alliantenergy.com.

We think Alliant Energy's earnings will advance steadily in 2018 and 2019. Each year, the utility is expected to benefit from electric and gas rate increases at Interstate Power and Light (IPL) and Wisconsin Power and Light (WPL). At the start of 2018, electric tariffs were boosted by $130 million (11.6%), while gas rates are now in the process of being hiked (see below). Our 2018 share-net estimate ($2.10) is near the midpoint of management's targeted guidance range of $2.04-$2.18. For 2019, we envision earnings of $2.25 a share, representing year-on-year growth of around 7%.

The company's largest utility subsidiary has filed a rate case. Interstate Power and Light is asking the Iowa Utilities Board for an annual gas increase of $19.8 million (8.0%), based on a return of 9.8% on a common-equity ratio of 49.6%. An interim hike of approximately $11.3 million went into effect last month while the IUB debates the proposal. Alliant has said that the tariff is needed to cover natural gas improvements made over the past six years. A formal hearing should take place in the fall and a final decision from the IUB is expected in around 10 months.

Regulators have approved another 500 megawatts of wind energy expansion for Alliant. Combined with ongoing projects in western Iowa, the company expects to add 1,000 megawatts of wind energy by 2020, bringing its total renewable energy mix in that state to at least 30%.

Progress continues at the West Riverside Energy Center. The 730 megawatt facility is approximately one-third complete and is on track to be placed into service by early 2020. The plant will power nearly 500,000 homes upon completion.

The company has some financing needs. Alliant plans to issue $1 billion of long-term notes this year to help fund its construction projects and refinance $595 million of term loans that are coming due this year. The utility also said it would issue up to $200 million in equity in 2018.

This neutrally ranked stock has a dividend yield that is about equal to the average for a utility. In addition, with the recent price well within our 2021-2023 Target Price Range, total return potential is subpar.

Daniel Henigson, CFA *June 15, 2018*

(A) Diluted EPS. Excl. nonrecur. gains (losses): '08, 4¢; '09, (44¢); '10, (8¢); '11, (1¢); '12, (8¢). Next earnings report due early August. **(B)** Dividends historically paid in mid-Feb., May, Aug., and Nov. ■ Div'd reinvest. plan avail. † Shareholder invest. plan avail. **(C)** Incl. deferred chgs. In '17: $69.7 mill., $0.30/sh. **(D)** In millions, adjusted for split. **(E)** Rate base: Orig. cost. Rates all'd on com. eq. in IA in '17: 10.5%; in WI in '17 Regul. Clim.: WI, Above Avg.; IA, Avg.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	90
Earnings Predictability	85

AMEREN NYSE-AEE

RECENT PRICE 57.41 | P/E RATIO 18.8 (Trailing: 19.3 Median: 15.0) | RELATIVE P/E RATIO 1.03 | DIV'D YLD 3.3% | VALUE LINE

TIMELINESS 2 Raised 3/2/18
SAFETY 2 Raised 6/20/14
TECHNICAL 2 Raised 6/15/18
BETA .65 (1.00 = Market)

2021-23 PROJECTIONS

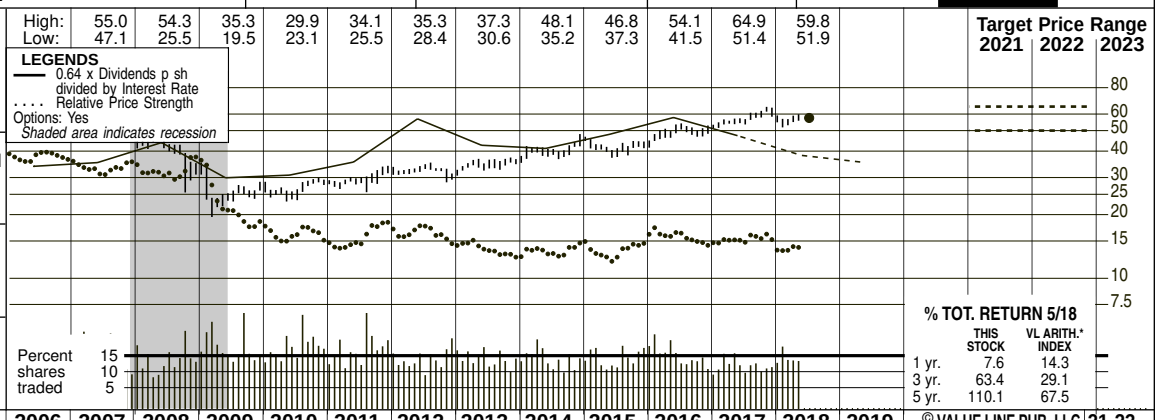
	Price	Gain	Ann'l Total Return
High	65	(+15%)	7%
Low	50	(-15%)	1%

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	21	11	5	1
to Sell	0	0	0	1	0	0	0	4	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	229	212	234
to Sell	215	192	243
Hld's(000)	186752	171005	170335



2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
24.93	28.20	26.43	33.12	33.30	36.23	36.92	29.87	31.77	31.04	28.14	24.06	24.95	25.13	25.04	25.46	*26.45*	*27.10*	Revenues per sh	*29.50*
5.28	6.29	5.57	6.10	6.02	6.76	6.44	6.06	6.33	5.87	5.87	5.25	5.77	6.08	6.59	6.80	*7.40*	*7.90*	"Cash Flow" per sh	*9.50*
2.66	3.14	2.82	3.13	2.66	2.98	2.88	2.78	2.77	2.47	2.41	2.10	2.40	2.38	2.68	2.77	*3.05*	*3.25*	Earnings per sh [A]	*4.00*
2.54	2.54	2.54	2.54	2.54	2.54	2.54	1.54	1.54	1.56	1.60	1.60	1.61	1.66	1.72	1.78	*1.85*	*1.94*	Div'd Decl'd per sh [B] ■	*2.35*
5.11	4.19	4.13	4.63	4.99	6.96	9.75	7.51	4.66	4.50	5.49	5.87	7.66	8.12	8.78	9.05	*9.80*	*11.25*	Cap'l Spending per sh	*9.50*
24.93	26.73	29.71	31.09	31.86	32.41	32.80	33.08	32.15	32.64	27.27	26.97	27.67	28.63	29.27	29.61	*31.00*	*32.50*	Book Value per sh [C]	*37.50*
154.10	162.90	195.20	204.70	206.60	208.30	212.30	237.40	240.40	242.60	242.63	242.63	242.63	242.63	242.63	242.63	*244.00*	*245.50*	Common Shs Outst'g [D]	*250.00*
15.8	13.5	16.3	16.7	19.4	17.4	14.2	9.3	9.7	11.9	13.4	16.5	16.7	17.5	18.3	20.6	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.5*
.86	.77	.86	.89	1.05	.92	.85	.62	.62	.75	.85	.93	.88	.88	.96	1.02			Relative P/E Ratio	*.80*
6.1%	6.0%	5.5%	4.9%	4.9%	4.9%	6.2%	6.0%	5.8%	5.3%	5.0%	4.6%	4.0%	4.0%	3.5%	3.1%			Avg Ann'l Div'd Yield	*4.2%*
7839.0	7090.0	7638.0	7531.0	6828.0	5838.0	6053.0	6098.0	6076.0	6177.0	*6450*	*6650*	Revenues ($mill)	*7400*
615.0	624.0	669.0	602.0	589.0	518.0	593.0	585.0	659.0	683.0	*755*	*810*	Net Profit ($mill)	*1000*
33.7%	34.7%	36.8%	37.3%	36.9%	37.5%	38.9%	38.3%	36.7%	38.2%	*22.0%*	*22.0%*	Income Tax Rate	*22.0%*
4.6%	5.8%	7.8%	5.6%	6.1%	7.1%	5.7%	5.1%	4.1%	3.5%	*4.0%*	*4.0%*	AFUDC % to Net Profit	*3.0%*
47.8%	49.7%	48.2%	45.3%	49.5%	45.2%	47.2%	49.3%	47.7%	49.2%	*49.5%*	*49.0%*	Long-Term Debt Ratio	*49.0%*
50.8%	49.1%	50.9%	53.7%	49.4%	53.7%	51.7%	49.7%	51.3%	49.8%	*49.5%*	*50.0%*	Common Equity Ratio	*50.0%*
13712	15991	15185	14738	13384	12190	12975	13968	13840	14420	*15225*	*15950*	Total Capital ($mill)	*18700*
16567	17610	17853	18127	16096	16205	17424	18799	20113	21466	*22800*	*24425*	Net Plant ($mill)	*27900*
5.7%	5.3%	6.0%	5.6%	6.0%	5.6%	5.8%	5.3%	6.0%	5.9%	*6.0%*	*6.0%*	Return on Total Cap'l	*6.5%*
8.6%	7.8%	8.5%	7.5%	8.7%	7.7%	8.7%	8.3%	9.1%	9.3%	*10.0%*	*10.0%*	Return on Shr. Equity	*10.5%*
8.7%	7.8%	8.6%	7.5%	8.8%	7.8%	8.7%	8.3%	9.2%	9.4%	*10.0%*	*10.0%*	Return on Com Equity [E]	*10.5%*
1.0%	3.5%	3.8%	2.8%	3.0%	1.9%	2.9%	2.5%	3.3%	3.4%	*4.0%*	*4.0%*	Retained to Com Eq	*4.5%*
88%	56%	56%	63%	66%	76%	67%	70%	64%	64%	*60%*	*59%*	All Div'ds to Net Prof	*59%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $8896 mill. **Due in 5 Yrs** $3338 mill.
LT Debt $6766 mill. **LT Interest** $348 mill.
(LT interest earned: 4.3x)
Leases, Uncapitalized Annual rentals $10 mill.
Pension Assets-12/17 $4293 mill.
Oblig $4827 mill.
Pfd Stock $142 mill. **Pfd Div'd** $6 mill.
807,595 sh. $3.50 to $5.50 cum. (no par), $100 stated val., redeem. $102.176-$110/sh.; 616,323 sh. 4.00% to 6.625%, $100 par, redeem. $100-$104/sh.
Common Stock 243,653,807 shs. **as of 4/30/18**
MARKET CAP: $14 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	-1.1	-4.2	-3.4
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	343	351	362

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	-3.0%	-3.5%	*2.5%*
"Cash Flow"	.5%	1.5%	*6.5%*
Earnings	-1.0%	.5%	*7.5%*
Dividends	-4.0%	2.0%	*5.5%*
Book Value	-1.0%	-1.0%	*4.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1556	1401	1833	1308	6098.0
2016	1434	1427	1859	1356	6076.0
2017	1514	1538	1723	1402	6177.0
2018	1585	*1600*	*1765*	*1500*	*6450*
2019	*1650*	*1650*	*1800*	*1550*	*6650*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.45	.40	1.41	.12	2.38
2016	.43	.61	1.52	.13	2.68
2017	.42	.79	1.18	.39	2.77
2018	.62	*.63*	*1.40*	*.40*	*3.05*
2019	*.60*	*.70*	*1.50*	*.45*	*3.25*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.40	.40	.40	.41	1.61
2015	.41	.41	.41	.425	1.66
2016	.425	.425	.425	.44	1.72
2017	.44	.44	.44	.4575	1.78
2018	.4575				

BUSINESS: Ameren Corporation is a holding company formed through the merger of Union Electric and CIPSCO. Acq'd CILCORP 1/03; Illinois Power 10/04. Has 1.2 mill. electric and 127,000 gas customers in Missouri; 1.2 mill. electric and 813,000 gas customers in Illinois. Discontinued nonregulated power-generation operation in '13. Electric rev. breakdown: residential, 46%; commercial, 35%; industrial, 8%; other, 11%. Generating sources: coal, 71%; nuclear, 19%; hydro & other, 4%; purchased, 6%. Fuel costs: 27% of revs. '17 reported deprec. rates: 3%-4%. Has 8,600 employees. Chairman, President & CEO: Warner L. Baxter. Inc.: MO. Address: One Ameren Plaza, 1901 Chouteau Ave., P.O. Box 66149, St. Louis, MO 63166-6149. Tel.: 314-621-3222. Internet: www.ameren.com.

We estimate that Ameren will post a strong earnings increase in 2018. Positive factors include a full year's effect of the rate increase the utility received in Missouri last April; spending on Ameren's electric transmission system; and winter weather that was much colder than a year earlier. Our estimate is at the midpoint of Ameren's guidance of $2.95-$3.15 a share.

Ameren filed a gas rate application in Illinois. The utility is seeking a rate increase of $44 million, which incorporates agreements with the staff of the Illinois commission for a 9.87% return on equity and a common-equity ratio of up to 50%. An order is expected in December, with new tariffs taking effect in January.

We look for another strong earnings increase in 2019. Additional transmission spending and rate relief in Illinois should help. Our $3.25-a-share estimate would produce profit growth of 7%, which is at the top end of Ameren's annual goal of 5%-7%.

A new regulatory law in Missouri will help utilities in the state. Regulatory lag there has been a problem historically, but the new law (effective August 28th) will increase the ability of utilities to earn a reasonable return on their investments. It will also encourage utilities to increase their capital spending. As a result, Ameren plans to initiate a project (roughly $1 billion through 2023) to modernize the electric grid. This should boost the company's long-term earnings growth rate. Management will likely provide more information with its earnings call for the third or fourth quarter of 2018.

Ameren is planning to acquire a 400-megawatt wind farm. This is part of the company's potential $1 billion of wind generation investments by 2020. The Missouri commission must approve this proposed acquisition. An associated transmission project is already under construction. This is expected to cost $250 million and be in service in December of 2019.

This timely stock has a dividend yield that is slightly below the utility mean. Although we have raised our sights for the 3- to 5-year period, with the recent price within our 2021-2023 Target Price Range, total return potential over that time frame is unspectacular.

Paul E. Debbas, CFA *June 15, 2018*

(A) Dil. EPS. Excl. nonrec. gain (losses): '05, (11¢); '10, ($2.19); '11, (32¢); '12, ($6.42); '17, (63¢); gain (loss) from disc. ops.: '13, (92¢); '15, 21¢. '16-'17 EPS don't sum due to rounding. Next egs. report due early Aug. **(B)** Div'ds histor. paid in late Mar., June, Sept., & Dec. ■ Div'd reinv. plan avail. **(C)** Incl. intang. In '17: $6.76/sh. **(D)** In mill. **(E)** Rate base: Orig. cost depr. Rate all'd on com. eq. in MO in '17: elec., none spec.; in '11: gas, none spec.; in IL in '14: elec., 8.7%, in '16: gas, 9.6%; earned on avg. com. eq., '17: 9.3%. Reg. Climate: Below Avg.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	40
Earnings Predictability	80

CMS ENERGY CORP. NYSE-CMS

RECENT PRICE 44.17 | P/E RATIO 18.8 (Trailing: 19.0 Median: 16.0) | RELATIVE P/E RATIO 1.03 | DIV'D YLD 3.4% | VALUE LINE

TIMELINESS 3 Lowered 5/11/18
SAFETY 2 Raised 3/21/14
TECHNICAL 2 Raised 6/15/18
BETA .65 (1.00 = Market)

2021-23 PROJECTIONS

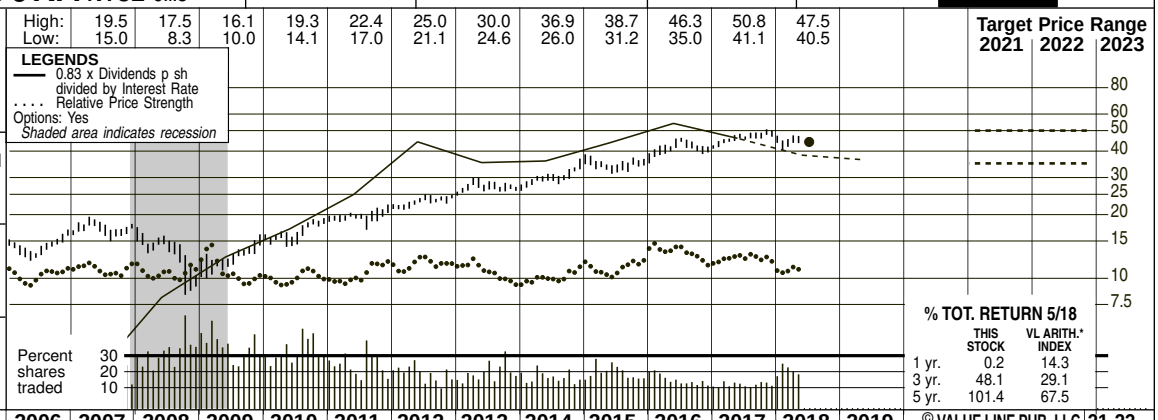
	Price	Gain	Ann'l Total Return
High	50	(+15%)	7%
Low	35	(-20%)	-1%

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	11	0	9	0
to Sell	3	0	0	2	0	0	1	0	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	210	223	240
to Sell	225	170	254
Hld's(000)	282715	254375	258590



2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
60.28	34.21	28.06	28.52	30.57	28.95	30.13	27.23	25.77	25.59	23.90	24.68	26.09	23.29	22.92	23.37	*23.75*	*24.45*	Revenues per sh	*26.25*
d.09	2.39	2.87	3.43	3.22	3.08	3.88	3.47	3.70	3.65	3.82	4.06	4.22	4.59	4.88	5.29	*5.65*	*5.95*	"Cash Flow" per sh	*7.00*
d2.99	d.29	.74	1.10	.64	.64	1.23	.93	1.33	1.45	1.53	1.66	1.74	1.89	1.98	2.17	*2.35*	*2.50*	Earnings per sh A	*3.00*
1.09	- -	- -	- -	- -	.20	.36	.50	.66	.84	.96	1.02	1.08	1.16	1.24	1.33	*1.43*	*1.53*	Div'd Decl'd per sh B ■	*1.85*
5.18	3.32	2.69	2.69	3.01	5.61	3.50	3.59	3.29	3.47	4.65	4.98	5.73	5.64	5.99	5.91	*7.40*	*8.40*	Cap'l Spending per sh	*6.50*
7.86	9.84	10.63	10.53	10.03	9.46	10.88	11.42	11.19	11.92	12.09	12.98	13.34	14.21	15.23	15.77	*16.95*	*18.20*	Book Value per sh C	*22.25*
144.10	161.13	195.00	220.50	222.78	225.15	226.41	227.89	249.60	254.10	264.10	266.10	275.20	277.16	279.21	281.65	*284.00*	*286.50*	Common Shs Outst'g D	*294.00*
- -	- -	12.4	12.6	22.2	26.8	10.9	13.6	12.5	13.6	15.1	16.3	17.3	18.3	20.9	21.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.5*
- -	- -	.66	.67	1.20	1.42	.66	.91	.80	.85	.96	.92	.91	.92	1.10	1.06			Relative P/E Ratio	*.80*
7.5%	- -	- -	- -	- -	1.2%	2.7%	4.0%	4.0%	4.3%	4.2%	3.8%	3.6%	3.4%	3.0%	2.9%			Avg Ann'l Div'd Yield	*4.2%*
6821.0	6205.0	6432.0	6503.0	6312.0	6566.0	7179.0	6456.0	6399.0	6583.0	*6750*	*7000*	Revenues ($mill)	*7750*
300.0	231.0	356.0	384.0	413.0	454.0	479.0	525.0	553.0	610.0	*670*	*725*	Net Profit ($mill)	*900*
31.6%	34.6%	38.1%	36.8%	39.4%	39.9%	34.3%	34.0%	33.1%	31.2%	*20.0%*	*20.0%*	Income Tax Rate	*20.0%*
1.3%	13.0%	2.2%	2.6%	2.9%	2.0%	2.3%	2.7%	3.1%	1.1%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*1.0%*
69.4%	67.9%	70.1%	66.9%	67.9%	67.5%	68.7%	68.3%	67.1%	67.3%	*64.5%*	*63.5%*	Long-Term Debt Ratio	*62.0%*
27.4%	29.0%	29.5%	32.6%	31.6%	32.2%	31.0%	31.4%	32.6%	32.4%	*35.5%*	*36.0%*	Common Equity Ratio	*37.5%*
8993.0	8977.0	9473.0	9279.0	10101	10730	11846	12534	13040	13692	*13625*	*14475*	Total Capital ($mill)	*17500*
9190.0	9682.0	10069	10633	11551	12246	13412	14705	15715	16761	*17925*	*19350*	Net Plant ($mill)	*22100*
5.4%	4.7%	5.8%	6.3%	5.9%	6.0%	5.7%	5.7%	5.8%	5.9%	*6.5%*	*6.5%*	Return on Total Cap'l	*6.5%*
10.9%	8.0%	12.5%	12.5%	12.8%	13.0%	12.9%	13.2%	12.9%	13.6%	*14.0%*	*14.0%*	Return on Shr. Equity	*13.5%*
11.7%	8.5%	12.5%	12.6%	12.9%	13.1%	13.0%	13.3%	13.0%	13.7%	*14.0%*	*14.0%*	Return on Com Equity E	*13.5%*
8.4%	4.1%	6.9%	5.6%	5.0%	5.2%	5.0%	5.2%	4.8%	5.2%	*5.5%*	*5.5%*	Retained to Com Eq	*5.5%*
31%	54%	46%	55%	61%	60%	62%	61%	63%	62%	*61%*	*60%*	All Div'ds to Net Prof	*61%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $10368 mill. **Due in 5 Yrs** $4709 mill.
LT Debt $9082 mill. **LT Interest** $400 mill.
Incl. $86 mill. capitalized leases.
(LT interest earned: 3.2x)
Leases, Uncapitalized Annual rentals $15 mill.
Pension Assets-12/17 $2305 mill.
Oblig $2780 mill.
Pfd Stock $37 mill. **Pfd Div'd** $2 mill.
Incl. 373,148 shs. $4.50 $100 par, cum., callable at $110.00.
Common Stock 282,526,405 shs.
as of 4/10/18
MARKET CAP: $12 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	-.8	+1.7	-1.4
Avg. Indust. Use (MWH)	5922	6031	NA
Avg. Indust. Revs. per KWH (¢)	8.07	7.76	NA
Capacity at Peak (Mw)	8762	8331	NA
Peak Load, Summer (Mw)	7812	8227	7634
Annual Load Factor (%)	55.5	54.6	NA
% Change Customers (yr-end)	+.6	+.5	+1.2
Fixed Charge Cov. (%)	288	292	301

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	-2.5%	-1.5%	*2.0%*
"Cash Flow"	4.0%	5.5%	*6.0%*
Earnings	10.0%	7.0%	*7.0%*
Dividends	- -	8.5%	*7.0%*
Book Value	4.0%	5.0%	*6.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	2111	1350	1486	1509	6456.0
2016	1801	1371	1587	1640	6399.0
2017	1829	1449	1527	1778	6583.0
2018	1953	*1450*	*1550*	*1797*	*6750*
2019	*2000*	*1550*	*1600*	*1850*	*7000*

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.73	.25	.53	.38	1.89
2016	.59	.45	.67	.28	1.98
2017	.71	.33	.61	.52	2.17
2018	.86	*.38*	*.63*	*.48*	*2.35*
2019	*.85*	*.45*	*.70*	*.50*	*2.50*

Calendar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec. 31	Full Year
2014	.27	.27	.27	.27	1.08
2015	.29	.29	.29	.29	1.16
2016	.31	.31	.31	.31	1.24
2017	.3325	.3325	.3325	.3325	1.33
2018	.3575	.3775			

BUSINESS: CMS Energy Corporation is a holding company for Consumers Energy, which supplies electricity and gas to lower Michigan (excluding Detroit). Has 1.8 million electric, 1.8 million gas customers. Has 1,034 megawatts of nonregulated generating capacity. Sold Palisades nuclear plant in '07. Electric revenue breakdown: residential, 43%; commercial, 34%; industrial, 17%; other, 6%. Generating sources: coal, 28%; gas, 15%; other, 2%; purchased, 55%. Fuel costs: 43% of revenues. '17 reported deprec. rates: 3.9% electric, 2.9% gas, 10.0% other. Has 7,900 employees. Chairman: John G. Russell. President & CEO: Patricia K. Poppe. Incorporated: Michigan. Address: One Energy Plaza, Jackson, MI 49201. Tel.: 517-788-0550. Internet: www.cmsenergy.com.

CMS Energy's utility subsidiary received an electric rate increase. Consumers Energy's electric tariffs were boosted by $66 million, based on a 10% return on equity. New tariffs took effect on April 1st.

Consumers Energy has filed another electric rate application. Frequent regulatory activity is necessary as the utility replaces old equipment in its large system. Consumers Energy filed for a tariff hike of $58 million, based on a 10.75% ROE. A ruling from the Michigan Public Service Commission (MPSC) is due by March of 2019.

A gas rate case is pending. Consumers Energy is seeking a hike of $83 million, based on a 10.75% ROE. This amount was reduced from the original $178 million due to the effects of the new federal tax law (primarily) and other factors, such as expense reductions. The utility also wants to decouple revenues and volume, and expand a regulatory mechanism that provides for concurrent recovery of certain kinds of capital expenditures. The MPSC's staff is proposing a $7 million rate *decrease*, based on a 9.6% ROE. An order from the MPSC is expected by the end of August. Consumers Energy plans to file another gas rate application this fall, with a decision due 10 months after the utility puts forth its petition.

We think CMS Energy will attain its goal for annual profit growth in 2018 and 2019. Rate relief is a positive factor. The company has a track record of controlling expenses effectively. Our 2018 estimate of $2.35 a share, which is slightly above CMS Energy's typically narrow earnings guidance of $2.30-$2.34, would produce an earnings increase of 8%. We estimate a rise of 7% in the bottom line, to $2.50 a share, next year. Management's targeted range for annual earnings (and dividend) growth is 6%-8%.

We think CMS Energy's strengths are adequately reflected in the price of the company's stock. The recent quotation is well within our 2021-2023 Target Price Range. The dividend yield does not stand out among utilities, and the equity's 3- to 5-year total return potential is low, despite the good dividend growth we project over that time frame.

Paul E. Debbas, CFA *June 15, 2018*

(A) Diluted EPS. Excl. nonrec. gains (losses): '05, ($1.61); '06, ($1.08); '07, ($1.26); '09, (7¢); '10, 3¢; '11, 12¢; '12, (14¢); '17, (53¢); gains (losses) on disc. ops.: '05, 7¢; '06, 3¢; '07, (40¢); '09, 8¢; '10, (8¢); '11, 1¢; '12, 3¢. '16 EPS don't sum due to rounding. Next earnings report due late July. **(B)** Div'ds historically paid late Feb., May, Aug., & Nov. ■ Div'd reinvest. plan avail. **(C)** Incl. intang. In '17: $6.26/sh. **(D)** In mill. **(E)** Rate base: Net orig. cost. Rate allowed on com. eq. in '18: 10%; earned on avg. com. eq., '17: 10.6%. Regul. Climate: Avg.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	85
Earnings Predictability	90

DTE ENERGY CO. NYSE-DTE

RECENT PRICE **99.29** | P/E RATIO **17.0** (Trailing: 18.0 Median: 16.0) | RELATIVE P/E RATIO **0.93** | DIV'D YLD **3.7%** | VALUE LINE

TIMELINESS 3 Lowered 5/25/18
SAFETY 2 Raised 12/21/12
TECHNICAL 3 Raised 6/15/18
BETA .65 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	125	(+25%)	*10%*
Low	90	(-10%)	*2%*

Insider Decisions

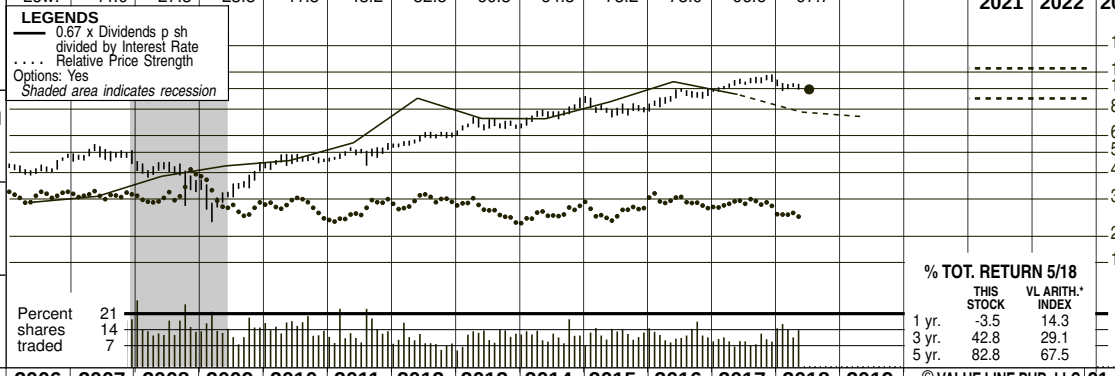
	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	1	0	7	11	0	0
to Sell	2	0	0	1	0	0	1	2	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	252	223	258
to Sell	249	225	266
Hld's(000)	138883	123868	128324

	High:	54.7	45.3	45.0	49.1	55.3	62.6	73.3	90.8	92.3	100.4	116.7	110.5
	Low:	44.0	27.8	23.3	41.3	43.2	52.5	60.3	64.8	73.2	78.0	96.6	97.7

LEGENDS
0.67 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



% TOT. RETURN 5/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-3.5	14.3
3 yr.	42.8	29.1
5 yr.	82.8	67.5

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
40.30	41.76	40.84	50.74	50.93	54.28	57.23	48.45	50.51	52.57	51.01	54.56	69.50	57.60	59.24	70.28	***80.00***	***79.95***	Revenues per sh	***90.25***
8.31	6.95	6.81	8.14	8.19	8.48	8.26	9.38	9.78	9.57	9.77	10.13	11.85	9.44	10.60	11.77	***12.35***	***12.80***	"Cash Flow" per sh	***15.75***
3.83	2.85	2.55	3.27	2.45	2.66	2.73	3.24	3.74	3.67	3.88	3.76	5.10	4.44	4.83	5.73	***5.85***	***6.20***	Earnings per sh [A]	***7.50***
2.06	2.06	2.06	2.06	2.08	2.12	2.12	2.12	2.18	2.32	2.42	2.59	2.69	2.84	3.06	3.36	***3.59***	***3.84***	Div'd Decl'd per sh [B] ■	***4.55***
5.88	4.45	5.19	5.99	7.92	7.96	8.42	6.26	6.49	8.77	10.56	10.59	11.58	11.26	11.40	12.54	***19.50***	***13.30***	Cap'l Spending per sh	***13.25***
27.26	31.36	31.85	32.44	33.02	35.86	36.77	37.96	39.67	41.41	42.78	44.73	47.05	48.88	50.22	53.03	***56.00***	***60.10***	Book Value per sh [C]	***69.00***
167.46	168.61	174.21	177.81	177.14	163.23	163.02	165.40	169.43	169.25	172.35	177.09	176.99	179.47	179.43	179.39	***182.50***	***192.00***	Common Shs Outst'g [D]	***195.00***
11.3	13.7	16.0	13.8	17.4	18.3	14.8	10.4	12.3	13.5	14.9	17.9	14.9	18.1	19.0	18.6	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	***14.5***
.62	.78	.85	.73	.94	.97	.89	.69	.78	.85	.95	1.01	.78	.91	1.00	.92			Relative P/E Ratio	***.80***
4.8%	5.3%	5.0%	4.6%	4.9%	4.4%	5.2%	6.3%	4.8%	4.7%	4.2%	3.8%	3.5%	3.5%	3.3%	3.2%			Avg Ann'l Div'd Yield	***4.2%***
9329.0	8014.0	8557.0	8897.0	8791.0	9661.0	12301	10337	10630	12607	***14600***	***15350***	Revenues ($mill)	***17600***
445.0	532.0	630.0	624.0	666.0	661.0	905.0	796.0	868.0	1029.0	***1055***	***1165***	Net Profit ($mill)	***1475***
34.9%	31.6%	32.7%	35.9%	29.8%	27.5%	28.5%	25.6%	24.5%	21.8%	***16.0%***	***16.0%***	Income Tax Rate	***16.0%***
11.2%	2.6%	1.6%	1.6%	3.0%	3.5%	4.1%	4.3%	3.6%	3.5%	***3.0%***	***3.0%***	AFUDC % to Net Profit	***2.0%***
56.4%	54.0%	51.3%	50.6%	48.8%	47.7%	50.0%	50.2%	55.6%	56.2%	***58.0%***	***56.5%***	Long-Term Debt Ratio	***57.0%***
43.6%	46.0%	48.7%	49.4%	51.2%	52.3%	50.0%	49.8%	44.4%	43.8%	***42.0%***	***43.5%***	Common Equity Ratio	***43.0%***
13736	13648	13811	14196	14387	15135	16670	17607	20280	21697	***24300***	***26475***	Total Capital ($mill)	***31200***
12231	12431	12992	13746	14684	15800	16820	18034	19730	20721	***23075***	***24325***	Net Plant ($mill)	***27500***
5.0%	5.7%	6.3%	5.9%	6.1%	5.7%	6.6%	5.7%	5.3%	5.9%	***5.5%***	***5.5%***	Return on Total Cap'l	***6.0%***
7.4%	8.5%	9.4%	8.9%	9.0%	8.3%	10.9%	9.1%	9.6%	10.8%	***10.5%***	***10.0%***	Return on Shr. Equity	***11.0%***
7.4%	8.5%	9.4%	8.9%	9.0%	8.3%	10.9%	9.1%	9.6%	10.8%	***10.5%***	***10.0%***	Return on Com Equity [E]	***11.0%***
1.7%	2.9%	4.0%	3.4%	3.5%	2.7%	5.2%	3.4%	3.7%	4.6%	***4.0%***	***4.0%***	Retained to Com Eq	***4.5%***
77%	65%	57%	62%	61%	67%	52%	63%	61%	58%	***61%***	***62%***	All Div'ds to Net Prof	***60%***

CAPITAL STRUCTURE as of 3/31/18
Total Debt $12926 mill. **Due in 5 Yrs** $4003 mill.
LT Debt $12185 mill. **LT Interest** $487 mill.
Incl. $756 mill. Trust Preferred Securities.
(LT interest earned: 3.4x)

Leases, Uncapitalized Annual rentals $40 mill.

Pension Assets-12/17 $4636 mill.
Oblig $5576 mill.

Pfd Stock None
Common Stock 181,483,163 shs.

MARKET CAP: $18 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	-.6	+3.5	-3.1
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NMF	NMF	NMF
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	279	300	300

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	2.0%	4.0%	***6.5%***
"Cash Flow"	2.5%	2.0%	***7.0%***
Earnings	6.0%	6.0%	***7.0%***
Dividends	4.0%	6.0%	***6.5%***
Book Value	4.0%	4.0%	***5.5%***

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	2984	2268	2598	2487	10337
2016	2566	2262	2928	2874	10630
2017	3236	2855	3245	3271	12607
2018	3753	***3347***	***3800***	***3700***	***14600***
2019	***3950***	***3500***	***4000***	***3900***	***15350***

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1.53	.61	1.47	.83	4.44
2016	1.37	.84	1.88	.73	4.83
2017	2.23	.99	1.51	1.01	5.73
2018	2.00	***1.00***	***1.65***	***1.20***	***5.85***
2019	***2.00***	***1.10***	***1.75***	***1.35***	***6.20***

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.655	.655	.655	.69	2.66
2015	.69	.69	.69	.73	2.80
2016	.73	.73	.73	.77	2.96
2017	.825	.825	.825	.825	3.30
2018	.8825	.8825			

BUSINESS: DTE Energy Company is a holding company for DTE Electric (formerly Detroit Edison), which supplies electricity in Detroit and a 7,600-square-mile area in southeastern Michigan, and DTE Gas (formerly Michigan Consolidated Gas). Customers: 2.1 mill. electric, 1.3 mill. gas. Has various nonutility operations. Electric revenue breakdown: residential, 46%; commercial, 35%; industrial, 13%; other, 6%. Generating sources: coal, 67%; nuclear, 17%; gas, 1%; purchased, 15%. Fuel costs: 57% of revenues. '17 reported deprec. rates: 3.6% electric, 2.7% gas. Has 10,200 employees. Chairman & CEO: Gerard M. Anderson. President & COO: Jerry Norcia. Inc.: MI. Address: One Energy Plaza, Detroit, MI 48226-1279. Tel.: 313-235-4000. Internet: www.dteenergy.com.

DTE Energy's electric utility subsidiary received a rate order. The Michigan Public Service Commission (MPSC) raised DTE Electric's tariffs by $65 million, based on a return of 10% on a common-equity ratio of 50%. New rates took effect on May 1st. DTE Electric's next rate application is expected in the second half of 2018, with an order due 10 months after the filing.

DTE Electric received MPSC approval to build a gas-fired plant. The 1,100-megawatt facility will replace coal-fired units that DTE Electric intends to retire by 2022. The cost of the new plant is estimated at $989 million.

DTE Gas has a rate case pending. The utility is seeking an increase of $38 million (after accounting for the effects of the new federal tax law), based on a 10.5% return on a 52% common-equity ratio. The requested ROE is higher than the current 10.1%. In addition, DTE Gas wants to accelerate its gas main-replacement program from 25 years to 15 years. The MPSC's staff recommended a hike of $1 million (after adjusting for tax reform), based on a 9.6% return on the same common-equity ratio. An order is due by late September.

We estimate higher earnings in 2018 and 2019. Rate relief at DTE Electric and DTE Gas should help. The nonutility businesses, which typically provide 20%-25% of DTE Energy's income, are adding energy-related assets (such as cogeneration projects), expanding pipeline capacity, and benefiting from the lower federal tax rate. This latter factor should add $0.10 a share to the bottom line this year. We look for 6% earnings growth in 2019, which is in line with management's annual target of 5%-7%. Note that our earnings presentation *includes* mark-to-market accounting gains or losses arising from the energy-trading operation, even though DTE Energy is excluding these from its 2018 earnings guidance of $5.57-$5.99 a share. This boosted earnings by $0.17 a share in the first quarter of 2018.

This stock's dividend yield and 3- to 5-year total return potential are just slightly above average, by utility standards. DTE Energy has good dividend growth potential through 2021-2023, but the recent quotation is well within our long-term Target Price Range.

Paul E. Debbas, CFA *June 15, 2018*

(A) Diluted EPS. Excl. nonrec. gains (losses): '03, (16¢); '05, (2¢); '06, 1¢; '07, $1.96; '08, 50¢; '11, 51¢; '15, (39¢); '17, 59¢; gains (losses) on disc. ops.: '03, 40¢; '04, (6¢); '05, (20¢); '06, (2¢); '07, $1.20; '08, 13¢; '12, (33¢). '16-'17 EPS don't sum due to rounding. Next egs. due late Jul. **(B)** Div'ds pd. mid-Jan., Apr., July & Oct. ■ Div'd reinvest. plan avail. **(C)** Incl. intang. In '17: $38.37/sh. **(D)** In mill. **(E)** Rate base: Net orig. cost. Rate all'd on com. eq. in '18: 10% elec.; in '16: 10.1% gas; earned on avg. com. eq., '17: 11.2%. Regul. Climate: Avg.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	85
Earnings Predictability	80

ENTERGY CORP. NYSE-ETR

RECENT PRICE 77.71 | P/E RATIO 19.0 (Trailing: 14.2 Median: 12.0) | RELATIVE P/E RATIO 1.04 | DIV'D YLD 4.7% | VALUE LINE

TIMELINESS 3 Raised 12/29/17
SAFETY 3 Lowered 3/22/13
TECHNICAL 1 Raised 6/15/18
BETA .65 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	100	(+30%)	*10%*
Low	65	(-15%)	*1%*

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	8	6	4	8	15	0	9	2
to Sell	4	0	6	5	0	0	0	2	1

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	241	227	275
to Sell	245	225	288
Hld's(000)	165036	154275	155378

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
High:	125.0	127.5	86.6	84.3	74.5	74.5	72.6	92.0	90.3	82.1	87.9	83.0								
Low:	89.6	61.9	59.9	68.7	57.6	61.6	60.2	60.4	61.3	65.4	69.6	71.9								
	37.34	40.17	46.69	46.61	53.94	59.47	69.15	56.82	64.27	63.67	57.94	63.86	69.71	64.54	60.55	61.35	*61.75*	*58.55*	Revenues per sh	*57.50*
	7.62	7.43	8.33	8.18	10.69	11.73	12.89	13.29	16.54	17.53	15.98	16.25	17.68	17.71	18.72	16.70	*15.55*	*16.45*	"Cash Flow" per sh	*19.50*
	3.68	3.69	3.93	4.40	5.36	5.60	6.20	6.30	6.66	7.55	6.02	4.96	5.77	5.81	6.88	5.19	*4.10*	*5.30*	Earnings per sh [A]	*6.75*
	1.34	1.60	1.89	2.16	2.16	2.58	3.00	3.00	3.24	3.32	3.32	3.32	3.32	3.34	3.42	3.50	*3.58*	*3.66*	Div'd Decl'd per sh [B] ■ †	*3.90*
	6.88	6.85	6.51	6.72	9.44	10.29	13.92	12.99	13.33	15.21	18.18	15.73	14.82	16.79	17.28	22.07	*21.40*	*18.85*	Cap'l Spending per sh	*17.50*
	35.24	38.02	38.26	35.71	40.45	40.71	42.07	45.54	47.53	50.81	51.73	54.00	55.83	51.89	45.12	44.28	*45.60*	*48.70*	Book Value per sh [C]	*56.00*
	222.42	228.90	216.83	216.83	202.67	193.12	189.36	189.12	178.75	176.36	177.81	178.37	179.24	178.39	179.13	180.52	*183.00*	*193.00*	Common Shs Outst'g [D]	*193.00*
	11.5	13.8	15.1	16.3	14.3	19.3	16.6	12.0	11.6	9.1	11.2	13.2	12.9	12.5	10.9	15.0	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*12.5*
	.63	.79	.80	.87	.77	1.02	1.00	.80	.74	.57	.71	.74	.68	.63	.57	.75			Relative P/E Ratio	*.70*
	3.2%	3.1%	3.2%	3.0%	2.8%	2.4%	2.9%	4.0%	4.2%	4.9%	4.9%	5.1%	4.5%	4.6%	4.6%	4.5%			Avg Ann'l Div'd Yield	*4.7%*
	13094	10746	11488	11229	10302	11391	12495	11513	10846	11074	*11300*	*11300*	Revenues ($mill)	*11100*
	1240.5	1251.1	1270.3	1367.4	1091.9	904.5	1060.0	1061.2	1249.8	950.7	*765*	*1015*	Net Profit ($mill)	*1330*
	32.7%	33.6%	32.7%	17.3%	13.0%	26.7%	37.8%	2.2%	11.3%	1.8%	*25.0%*	*25.0%*	Income Tax Rate	*25.0%*
	5.6%	7.4%	7.4%	8.9%	11.9%	10.1%	9.3%	7.4%	8.1%	14.7%	*22.0%*	*16.0%*	AFUDC % to Net Profit	*11.0%*
	58.2%	55.3%	56.3%	52.2%	55.8%	55.1%	54.9%	57.8%	63.6%	63.6%	*64.0%*	*61.5%*	Long-Term Debt Ratio	*60.0%*
	40.2%	43.1%	42.1%	46.4%	42.9%	43.6%	43.8%	40.8%	35.5%	35.5%	*35.0%*	*37.5%*	Common Equity Ratio	*39.5%*
	19795	19985	20166	19324	21432	22109	22842	22714	22777	22528	*23725*	*25050*	Total Capital ($mill)	*27500*
	22429	23389	23848	25609	27299	27882	28723	27824	27921	29664	*31550*	*33050*	Net Plant ($mill)	*36200*
	7.5%	7.6%	7.7%	8.5%	6.4%	5.4%	6.0%	6.0%	6.9%	5.7%	*4.5%*	*5.5%*	Return on Total Cap'l	*6.5%*
	15.0%	14.0%	14.4%	14.8%	11.5%	9.1%	10.3%	11.1%	15.1%	11.6%	*9.0%*	*10.5%*	Return on Shr. Equity	*12.0%*
	15.3%	14.3%	14.7%	15.0%	11.6%	9.2%	10.4%	11.2%	15.2%	11.7%	*9.0%*	*10.5%*	Return on Com Equity [E]	*12.0%*
	8.1%	7.6%	7.6%	8.4%	5.2%	3.0%	4.4%	4.8%	7.7%	3.9%	*1.0%*	*3.5%*	Retained to Com Eq	*5.0%*
	48%	48%	49%	45%	56%	68%	58%	58%	50%	68%	*87%*	*69%*	All Div'ds to Net Prof	*58%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $17680 mill. **Due in 5 Yrs** $6367.2 mill.
LT Debt $15613 mill. **LT Interest** $712.5 mill.
Incl. $520.3 mill. of securitization bonds and $21.6 mill. of capitalized leases.
(LT interest earned: 2.4x)
Leases, Uncapitalized Annual rentals $80.4 mill.
Pension Assets-12/17 $6071.3 mill.
Oblig $7987.1 mill.
Pfd Stock $197.8 mill. **Pfd Div'd** $13.8 mill.
642,307 shs. 4.32%-7.5%, $100 par; 250,000 shs. 8.75%, all without sinking fund.
Common Stock 180,823,624 shs. **as of 4/30/18**
MARKET CAP: $14 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	+1.3	+.3	+.2
Avg. Indust. Use (MWH)	957	NA	NA
Avg. Indust. Revs. per KWH(¢)	5.55	5.09	NA
Capacity at Peak (Mw)	24504	NA	NA
Peak Load, Summer (Mw)	21730	21387	NA
Annual Load Factor (%)	61	NA	NA
% Change Customers (yr-end)	+1.0	+.8	+.6
Fixed Charge Cov. (%)	223	258	169

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	1.5%	- -	*-1.5%*
"Cash Flow"	5.5%	1.0%	*1.5%*
Earnings	1.5%	-2.5%	*2.0%*
Dividends	4.0%	1.0%	*2.0%*
Book Value	2.0%	-1.0%	*3.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	2920	2713	3371	2509	11513
2016	2610	2463	3125	2648	10846
2017	2588	2619	3243	2624	11074
2018	2724	*2576*	*3350*	*2650*	*11300*
2019	*2700*	*2600*	*3350*	*2650*	*11300*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1.65	.83	1.90	1.43	5.81
2016	1.28	3.16	2.16	.28	6.88
2017	.46	2.27	2.21	.25	5.19
2018	.73	*1.00*	*1.87*	*.50*	*4.10*
2019	*1.05*	*1.55*	*1.65*	*1.05*	*5.30*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.83	.83	.83	.83	3.32
2015	.83	.83	.83	.85	3.34
2016	.85	.85	.85	.87	3.42
2017	.87	.87	.87	.89	3.50
2018	.89	.89			

BUSINESS: Entergy Corporation supplies electricity to 2.9 million customers through subsidiaries in Arkansas, Louisiana, Mississippi, Texas, and New Orleans (regulated separately from Louisiana). Distributes gas to 199,000 customers in Louisiana. Has a nonutility subsidiary that owns six nuclear units (two no longer operating). Electric revenue breakdown: residential, 36%; commercial, 27%; industrial, 28%; other, 9%. Generating sources: gas, 35%; nuclear, 31%; coal, 7%; purchased, 27%. Fuel costs: 31% of revenues. '17 reported depreciation rate: 3.0%. Has 13,500 employees. Chairman & CEO: Leo P. Denault. Incorporated: Delaware. Address: 639 Loyola Avenue, P.O. Box 61000, New Orleans, Louisiana 70161. Telephone: 504-576-4000. Internet: www.entergy.com.

Entergy's utility in Texas filed a general rate case. The company asked for a base tariff hike of $164 million (including $48 million of revenues that are already being collected through surcharges on customers' bills), based on a 10.65% return on a 50.9% common-equity ratio. Entergy Texas earned a return on equity of just 6.5% in 2017, so rate relief is clearly needed. The utility is hoping for an order by mid-November.

Entergy is adding generating capacity. Unlike many electric companies, Entergy is experiencing decent load growth. Two gas-fired projects are under construction, and three others are in various stages of development. In all, the company plans to add roughly 3,450 megawatts of capacity from 2019 through 2021 at an estimated cost of over $3.1 billion. The facilities will serve ratepayers of Entergy's utilities in Texas, Louisiana, and New Orleans. Note that in Louisiana, a formula rate plan was extended for three years. This means that Entergy Louisiana will be able to place one of these plants in rates next year without having to file a general rate case.

Our earnings figures require an explanation. Every quarter, Entergy records expenses for its nonregulated nuclear units that have been written off because the company plans to shut them in the next four years. Management excludes these costs from its definition of operating earnings, but we include them because they are ongoing. This is why our 2018 share-earnings estimate of $4.10 is well below Entergy's guidance of $6.25-$6.85. The company expects these expenses will amount to $2.55 a share this year, and will drop by more than 50% in 2019, so profits should be much higher next year. We note, too, that the tax rate is virtually impossible to predict because Entergy has been recording a lot of unusual tax items in recent years. The company's earnings guidance (and our estimate) reflect a credit of $0.55 a share in the third period this year.

The dividend yield of this equity is more than a percentage point above the utility average. Total return potential to 2021-2023 is only average for the group, however.

Paul E. Debbas, CFA *June 15, 2018*

(A) Diluted EPS. Excl. nonrec. gain (losses): '02, ($1.04); '03, 33¢; '05, (21¢); '12, ($1.26); '13, ($1.14); '14, (56¢); '15, ($6.99); '16, ($10.14); '17, ($2.91). Next earnings report due late July. **(B)** Div'ds historically paid in early Mar., June, Sept., & Dec. ■ Div'd reinvest. plan avail. † Shareholder invest. plan avail. **(C)** Incl. def'd charges. In '17: $30.76/sh. **(D)** In mill. **(E)** Rate base: Net original cost. Allowed ROE (blended): 9.95%; earned on avg. com. eq., '17: 11.2%. Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	10
Earnings Predictability	60

FORTIS INC. TSE-FTS.TO [A]

RECENT PRICE 40.80 | P/E RATIO 15.1 (Trailing: 15.5 Median: 19.0) | RELATIVE P/E RATIO 0.83 | DIV'D YLD 4.4% | VALUE LINE

TIMELINESS 4 Lowered 3/16/18
SAFETY 2 Raised 7/17/15
TECHNICAL 3 Raised 6/8/18
BETA .70 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+35%)	11%
Low	40	(Nil)	4%

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	114	103	116
to Sell	90	83	116
Hld's(000)	214658	223132	221376

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
10.40	12.13	11.99	13.86	14.14	17.48	23.07	21.24	21.01	19.84	19.07	18.99	19.57	23.89	17.03	19.71	*19.65*	*20.10*	Revenues per sh	*22.50*
1.83	1.92	2.23	2.73	3.05	2.96	3.51	3.66	3.99	3.90	4.10	4.10	3.62	5.21	3.91	5.43	*5.60*	*5.80*	"Cash Flow" per sh	*6.75*
.96	1.03	1.01	1.19	1.36	1.29	1.52	1.51	1.62	1.74	1.65	1.63	1.38	2.11	1.89	2.66	*2.70*	*2.85*	Earnings per sh [B]	*3.50*
.50	.52	.54	.59	.67	.82	1.00	1.04	1.12	1.17	1.21	1.25	1.30	1.43	1.55	1.65	*1.75*	*1.85*	Div'd Decl'd per sh [C] ■	*2.20*
3.33	2.99	2.92	4.93	4.80	5.16	5.34	5.79	5.89	5.91	5.68	5.32	6.00	7.97	5.13	7.18	*7.50*	*6.95*	Cap'l Spending per sh	*7.00*
8.50	8.84	10.47	11.76	12.26	16.72	18.00	18.57	18.95	20.53	20.84	22.39	24.90	28.63	32.32	31.77	*33.60*	*35.40*	Book Value per sh [D]	*41.25*
68.77	69.52	95.53	103.20	104.09	155.52	169.19	171.26	174.39	188.83	191.57	213.17	276.00	281.56	401.49	421.10	*427.00*	*433.00*	Common Shs Outst'g [E]	*433.00*
12.6	13.6	15.3	17.2	17.7	21.1	17.5	16.4	18.2	18.8	20.1	20.0	24.3	18.0	21.6	16.8	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.0*
.69	.78	.81	.92	.96	1.12	1.05	1.09	1.16	1.18	1.28	1.12	1.28	.91	1.13	.84			Relative P/E Ratio	*.80*
4.1%	3.7%	3.5%	2.9%	2.8%	3.0%	3.8%	4.2%	3.8%	3.6%	3.6%	3.8%	3.9%	3.8%	3.8%	3.7%			Avg Ann'l Div'd Yield	*4.5%*
3903.0	3637.0	3664.0	3747.0	3654.0	4047.0	5401.0	6727.0	6838.0	8301.0	*8400*	*8700*	Revenues ($mill)	*9700*
259.0	280.0	313.0	347.0	362.0	390.0	374.0	672.0	660.0	1174.0	*1315*	*1395*	Net Profit ($mill)	*1660*
19.3%	14.4%	17.2%	18.3%	14.1%	7.4%	14.6%	21.3%	16.9%	25.8%	*20.0%*	*20.0%*	Income Tax Rate	*20.0%*
5.0%	6.4%	4.2%	5.5%	5.0%	5.9%	7.2%	7.4%	10.0%	9.5%	*9.0%*	*9.0%*	AFUDC % to Net Profit	*8.0%*
56.8%	61.3%	60.5%	57.5%	55.1%	53.5%	54.8%	53.3%	59.3%	58.4%	*57.5%*	*55.5%*	Long-Term Debt Ratio	*53.0%*
35.4%	34.8%	33.5%	36.9%	35.1%	37.0%	35.7%	38.1%	36.2%	37.1%	*38.5%*	*40.0%*	Common Equity Ratio	*43.0%*
8597.0	9136.0	9868.0	10513	11358	12892	19235	21151	35874	36108	*37425*	*38325*	Total Capital ($mill)	*41700*
7969.0	8246.0	8762.0	9281.0	10249	12267	17816	19595	29337	29668	*31600*	*33300*	Net Plant ($mill)	*38000*
4.9%	5.0%	5.0%	5.0%	4.8%	4.6%	3.4%	4.5%	2.8%	4.5%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.0%*
7.0%	7.9%	8.0%	7.8%	7.1%	6.5%	4.3%	6.8%	4.5%	7.8%	*8.0%*	*8.0%*	Return on Shr. Equity	*8.5%*
8.0%	8.2%	8.6%	8.2%	7.9%	7.0%	4.5%	7.4%	4.5%	8.3%	*8.0%*	*8.0%*	Return on Com Equity [F]	*8.5%*
2.7%	4.1%	2.8%	4.3%	3.7%	3.2%	1.7%	4.5%	2.1%	5.2%	*5.0%*	*5.0%*	Retained to Com Eq	*5.0%*
68%	54%	71%	52%	60%	61%	68%	46%	59%	41%	*40%*	*40%*	All Div'ds to Net Prof	*39%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $22308 mill. **Due in 5 Yrs** $4152 mill.
LT Debt $21674 mill. **LT Interest** $889 mill.
Incl. $407 mill. capitalized leases.
(LT interest earned: 2.8x)

Leases, Uncapitalized Annual rentals $11 mill.

Pension Assets-12/17 $2841 mill.
Oblig $3215 mill.
Pfd Stock $1623 mill. **Pfd Div'd** $67 mill.

Common Stock 423,000,000 shs.
MARKET CAP: $17 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	NA	NA	NA
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	9705	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.9	NA	NA
Fixed Charge Cov. (%)	195	173	231

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	3.0%	- -	*2.0%*
"Cash Flow"	5.0%	4.0%	*5.5%*
Earnings	5.5%	6.0%	*8.0%*
Dividends	8.5%	6.0%	*6.0%*
Book Value	8.5%	9.0%	*5.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1915	1538	1566	1708	6727.0
2016	1772	1485	1528	2053	6838.0
2017	2274	2015	1901	2111	8301.0
2018	2197	*2050*	*2000*	*2153*	*8400*
2019	*2300*	*2100*	*2050*	*2250*	*8700*

Calendar	EARNINGS PER SHARE [B] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.71	.43	.50	.48	2.11
2016	.57	.38	.45	.49	1.89
2017	.72	.62	.66	.66	2.66
2018	.69	*.67*	*.67*	*.67*	*2.70*
2019	*.75*	*.70*	*.70*	*.70*	*2.85*

Calendar	QUARTERLY DIVIDENDS PAID [C] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.32	.32	.32	.32	1.28
2015	.34	.34	.34	.375	1.40
2016	.375	.375	.375	.40	1.53
2017	.40	.40	.40	.425	1.63
2018	.425	.425			

BUSINESS: Fortis Inc.'s main focus is electricity, hydroelectric, and gas utility operations (both regulated and nonregulated) in the United States, Canada, and the Caribbean. Has 2 mill. electric, 1.2 mill. gas customers. Owns UNS Energy (Arizona), Central Hudson (New York), FortisBC Energy (British Columbia), FortisAlberta (Central Alberta), and Eastern Canada (Newfoundland). Sold commercial real estate and hotel property assets in 2015. Acquired ITC Holdings 10/16. Fuel costs: 28% of revenues. '17 reported deprec. rate: 2.6%. Has 8,500 employees. Chairman: Douglas J. Haughey. President & CEO: Barry V. Perry. Inc.: Canada. Address: Fortis Place, Suite 1100, 5 Springdale St., PO Box 8837, St. John's, NL, Canada, A1B 3T2. Tel.: 709-737-2800. Internet: www.fortisinc.com.

We think Fortis' earnings will advance just slightly this year. The company is performing well, and should benefit from rate relief, particularly through its ownership of ITC Holdings, which provides electric transmission in the midwestern United States. However, the effects of the new federal tax law will be modestly negative for the year-to-year comparison because there will be a lower tax shield for the company's parent-level debt. Management does not provide earnings guidance, but stated that the effects of tax reform will make its earnings 3% lower than they would have been in 2018.

Central Hudson Gas & Electric has reached a settlement of its electric and gas rate case. Electric rates would be raised by US$19.7 million in mid-2018, $18.5 million in mid-2019, and $25.1 million in mid-2020. Gas tariffs would be boosted by $6.6 million in mid-2018, $6.8 million in mid-2019, and $8.3 million in mid-2020. The allowed return on equity would be 9.3%. The common-equity ratio would be 48% in year one, 49% in year two, and 50% in year three. A ruling from the New York commission is expected soon. The allowed ROE is low, but is higher than those typically granted for utilities in Canada. This is why Fortis has bought three U.S. utilities in the past several years.

We estimate profits will advance 5%-6% in 2019. Fortis will benefit from a full year of rate relief at Central Hudson and normal growth from its other utilities.

There is a potential upside to our earnings estimates. ITC, before being acquired by Fortis, took several charges for possible refunds of previously collected transmission revenues, due to the lowering of the allowed ROE by the Federal Energy Regulatory Commission. The company (and other transmission providers in the Midwest) is awaiting a FERC ruling that might allow it to reverse a portion of these reserves. We would include this in our earnings presentation.

This stock, though untimely, is of interest for income-oriented investors. The dividend yield is above average, even by utility standards, and we think Fortis will attain its goal of 6% average annual dividend growth through 2022.

Paul E. Debbas, CFA *June 15, 2018*

(A) Also trades on NYSE under the symbol FTS. All data in Canadian $. **(B)** Dil. earnings. Excl. nonrec. gains (loss): '07, 3¢; '14, 2¢; '15, 48¢; '17, (35¢); '18, 7¢. '15 EPS don't sum due to rounding. Next earnings report due late July. **(C)** Div'ds historically paid in early Mar., June, Sept., and Dec. ■ Div'd reinvest. plan avail. (2% disc.). **(D)** Incl. intang. In '17: $36.73/sh. **(E)** In mill., adj. for split. **(F)** Rate base: varies. Rates all'd on com. eq.: 8.3%-10.32%; earned on avg. com. eq., '17: 8.3%. Regulat. Climate: FERC, Above Avg.; AZ, Avg.; NY, Below Avg.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	30
Earnings Predictability	70

WEC ENERGY GROUP NYSE-WEC

RECENT PRICE 60.82 | P/E RATIO 18.4 (Trailing: 18.7 Median: 16.0) | RELATIVE P/E RATIO 1.01 | DIV'D YLD 3.7% | VALUE LINE

TIMELINESS 3 Lowered 6/1/18
SAFETY 1 Raised 3/23/12
TECHNICAL 2 Raised 6/15/18
BETA .60 (1.00 = Market)

2021-23 PROJECTIONS

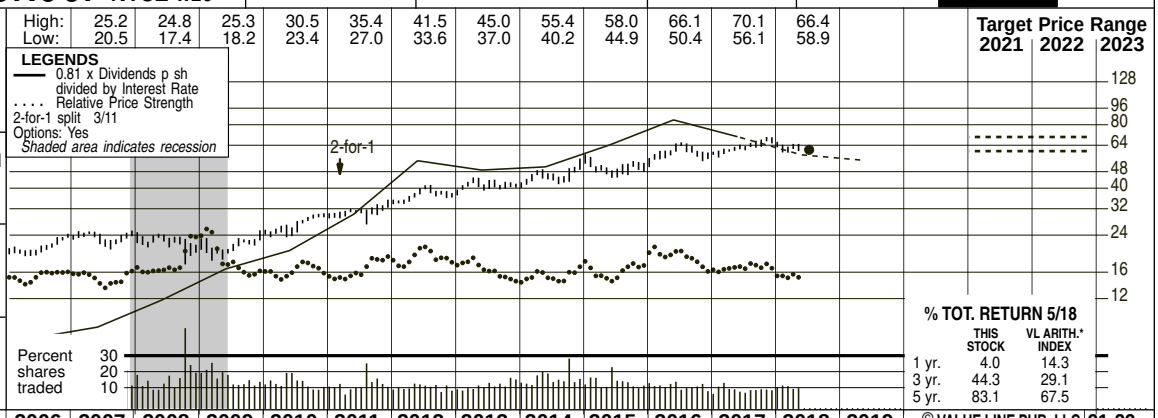
	Price	Gain	Ann'l Total Return
High	70	(+15%)	7%
Low	60	(Nil)	4%

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	3	1	0	3	0	26	0	1	0
to Sell	4	1	0	3	0	0	1	0	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	308	277	320
to Sell	276	267	341
Hld's(000)	257662	236772	231353



2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
16.10	17.12	14.66	16.31	17.08	18.12	18.95	17.65	17.98	19.46	18.54	20.00	22.16	18.77	23.68	24.24	*24.25*	*25.05*	Revenues per sh	*28.25*
2.84	2.86	2.58	2.89	2.90	2.98	2.95	3.11	3.30	3.68	4.01	4.33	4.47	3.87	5.39	5.69	*6.05*	*6.35*	"Cash Flow" per sh	*7.50*
1.16	1.13	.93	1.28	1.32	1.42	1.52	1.60	1.92	2.18	2.35	2.51	2.59	2.34	2.96	3.14	*3.30*	*3.45*	Earnings per sh [A]	*4.25*
.40	.40	.42	.44	.46	.50	.54	.68	.80	1.04	1.20	1.45	1.56	1.74	1.98	2.08	*2.21*	*2.34*	Div'd Decl'd per sh [B] ■	*2.75*
2.54	2.95	2.85	3.40	4.17	5.28	4.86	3.50	3.41	3.60	3.09	3.04	3.26	4.01	4.51	6.21	*7.90*	*6.35*	Cap'l Spending per sh	*7.00*
9.22	9.96	10.65	11.46	12.35	13.25	14.27	15.26	16.26	17.20	18.05	18.73	19.60	27.42	28.29	29.98	*30.95*	*31.95*	Book Value per sh [C]	*35.75*
232.06	236.85	233.97	233.96	233.94	233.89	233.84	233.82	233.77	230.49	229.04	225.96	225.52	315.68	315.62	315.57	*315.60*	*315.60*	Common Shs Outst'g [D]	*315.60*
10.5	12.4	17.5	14.5	16.0	16.5	14.8	13.3	14.0	14.2	15.8	16.5	17.7	21.3	19.9	20.0	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*15.5*
.57	.71	.92	.77	.86	.88	.89	.89	.89	.89	1.01	.93	.93	1.07	1.04	.99			Relative P/E Ratio	*.85*
3.3%	2.8%	2.6%	2.4%	2.2%	2.1%	2.4%	3.2%	3.0%	3.3%	3.2%	3.5%	3.4%	3.5%	3.4%	3.3%			Avg Ann'l Div'd Yield	*4.2%*
4431.0	4127.9	4202.5	4486.4	4246.4	4519.0	4997.1	5926.1	7472.3	7648.5	*7650*	*7900*	Revenues ($mill)	*8900*
359.8	378.4	455.6	514.0	547.5	578.6	589.5	640.3	940.2	998.2	*1055*	*1100*	Net Profit ($mill)	*1355*
37.6%	36.5%	35.4%	33.9%	35.9%	36.9%	38.0%	40.4%	37.6%	37.2%	*13.5%*	*13.5%*	Income Tax Rate	*13.5%*
27.2%	25.0%	18.6%	16.8%	9.4%	4.5%	1.3%	4.5%	3.8%	1.6%	*3.0%*	*3.0%*	AFUDC % to Net Profit	*3.0%*
54.8%	51.9%	50.6%	53.6%	51.7%	50.6%	48.5%	51.2%	50.5%	48.0%	*49.0%*	*48.0%*	Long-Term Debt Ratio	*48.0%*
44.8%	47.7%	49.0%	46.0%	48.0%	49.1%	51.2%	48.6%	49.3%	51.9%	*51.0%*	*51.5%*	Common Equity Ratio	*52.0%*
7442.0	7473.1	7764.5	8608.0	8619.3	8626.6	8636.5	17809	18118	18238	*19125*	*19500*	Total Capital ($mill)	*21625*
8517.0	9070.5	9601.5	10160	10572	10907	11258	19190	19916	21347	*23000*	*24100*	Net Plant ($mill)	*28700*
6.3%	6.4%	7.5%	7.5%	7.9%	8.1%	8.1%	4.5%	6.3%	6.6%	*6.5%*	*7.0%*	Return on Total Cap'l	*7.5%*
10.7%	10.5%	11.9%	12.9%	13.1%	13.6%	13.2%	7.4%	10.5%	10.5%	*10.5%*	*11.0%*	Return on Shr. Equity	*12.0%*
10.7%	10.6%	12.0%	12.9%	13.2%	13.6%	13.3%	7.4%	10.5%	10.5%	*10.5%*	*11.0%*	Return on Com Equity [E]	*12.0%*
7.0%	6.2%	7.0%	6.8%	6.5%	5.9%	5.3%	2.1%	3.5%	3.6%	*3.5%*	*3.5%*	Retained to Com Eq	*4.5%*
35%	42%	41%	47%	51%	57%	60%	71%	67%	66%	*66%*	*67%*	All Div'ds to Net Prof	*64%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $10776 mill. **Due in 5 Yrs** $3502.6 mill.
LT Debt $8617.5 mill. **LT Interest** $430.9 mill.
Incl. $27.0 mill. capitalized leases.
(LT interest earned: 4.8x)
Leases, Uncapitalized Annual rentals $9.5 mill.
Pension Assets-12/17 $2966.8 mill.
Oblig $3163.7 mill.
Pfd Stock $30.4 mill. **Pfd Div'd** $1.2 mill.
260,000 shs. 3.60%, $100 par, callable. $101;
44,498 shs. 6%, $100 par.
Common Stock 315,538,808 shs.

MARKET CAP: $19 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	+29.1	+18.5	-3.0
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Lg. C&I Revs. per KWH (¢)	7.71	7.08	7.13
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+40.2	+.5	+.7
Fixed Charge Cov. (%)	364	404	422

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	2.5%	3.5%	*4.0%*
"Cash Flow"	5.5%	6.5%	*7.0%*
Earnings	7.5%	5.5%	*7.0%*
Dividends	15.5%	14.0%	*6.0%*
Book Value	8.5%	10.5%	*4.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1387	991.2	1698	1848	5926.1
2016	2194	1602	1712	1963	7472.3
2017	2304	1631	1657	2055	7648.5
2018	2287	*1650*	*1663*	*2050*	*7650*
2019	*2350*	*1700*	*1700*	*2150*	*7900*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.86	.35	.58	.57	2.34
2016	1.09	.57	.68	.61	2.96
2017	1.12	.63	.68	.71	3.14
2018	1.23	*.65*	*.72*	*.70*	*3.30*
2019	*1.20*	*.73*	*.79*	*.73*	*3.45*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.39	.39	.39	.39	1.56
2015	.4225	.4225	.44	.4575	1.74
2016	.495	.495	.495	.495	1.98
2017	.52	.52	.52	.52	2.08
2018	.5525	.5525			

BUSINESS: WEC Energy Group, Inc. (formerly Wisconsin Energy) is a holding company for utilities that provide electric, gas & steam service in WI & gas service in IL, MN, & MI. Customers: 1.6 mill. elec., 2.9 mill. gas. Acq'd Integrys Energy 6/15. Sold Point Beach nuclear plant in '07. Electric revenue breakdown: residential, 35%; small commercial & industrial, 31%; large commercial & industrial, 21%; other, 13%. Generating sources: coal, 49%; gas, 18%; renewables, 4%; purchased, 29%. Fuel costs: 37% of revenues. '17 reported deprec. rates (utility): 2.3%-3.3%. Has 8,100 employees. Chairman & Interim CEO: Gale E. Klappa. Inc.: Wisconsin. Address: 231 W. Michigan St., P.O. Box 1331, Milwaukee, WI 53201. Tel.: 414-221-2345. Internet: www.wecenergygroup.com.

We estimate that WEC Energy Group's earnings will climb solidly this year and next. The company's utilities are benefiting from rate relief. For instance, Peoples Gas in Chicago is recovering its costs of replacing its gas mains through a regulatory mechanism, instead of having to file general rate cases. This spending is estimated at $290 million in 2018 and $280 million-$300 million annually through 2023. WEC Energy is controlling expenses effectively, too. Our 2018 share-earnings estimate is at the top of the company's targeted range of $3.26-$3.30. We look for 5% profit growth in 2019. WEC Energy's goal is annual increases of 5%-7%.

A gas rate case is pending in Minnesota. The company is seeking a hike of $12.6 million (5.0%), based on a 10.3% return on equity. An interim increase of $9.5 million (3.8%) took effect at the start of 2018. A final decision is expected in the fourth quarter.

The company is building a gas-fired plant and bought an 80% stake in a wind project. The 180-megawatt gas-fired facility, on the upper peninsula of Michigan, will replace an old coal-fired plant. The utility will recover half of its cost in rates, and the other half through a 20-year contract with a large industrial customer. WEC Energy paid $276 million for an 80% interest in a 200-mw wind project, which is being built by another company.

Finances are strong. The fixed-charge coverage is high. The common-equity ratio and earned ROEs are healthy. The quality of earnings is good; the Allowance for Funds Used During Construction, a non-cash credit to income, makes up just a small portion of net profit. All told, WEC Energy merits a Financial Strength rating of A+.

WEC Energy stock has a dividend yield that is slighly above average for a utility. Income-oriented investors might well find this suitable, given that the stock is ranked 1 (Highest) for Safety. However, with the recent price within our 3- to 5-year Target Price Range, total return potential is just average for a utility, despite WEC Energy's good dividend growth potential through early next decade.

Paul E. Debbas, CFA *June 15, 2018*

(A) Diluted EPS. Excl. gains on disc. ops.: '04, 77¢; '11, 6¢; nonrecurring gain: '17, 65¢. '15-'16 EPS don't sum due to rounding or chng. in shs. Next egs. report due early Aug. **(B)** Div'ds paid in early Mar., June, Sept. & Dec. ■ Div'd reinv. avail. **(C)** Incl. intang. In '17: $18.56/sh. **(D)** In mill., adj. for split. **(E)** Rate base: Net orig. cost. Rates all'd on com. eq. in WI in '15: 10.0%-10.3%; in IL in '15: 9.05%; in MN in '16: 9.11%; in MI in '16: 9.9%; earned on avg. com. eq., '17: 10.8%. Regulatory Climate: WI, Above Avg.; IL, Below Avg.; MN & MI, Avg.

Company's Financial Strength	A+
Stock's Price Stability	95
Price Growth Persistence	80
Earnings Predictability	85

EMERA INC. TSE-EMA.TO

RECENT PRICE 40.23 | P/E RATIO 13.2 (16.6 / 17.0) | RELATIVE P/E RATIO 0.72 | DIV'D YLD 5.6% | VALUE LINE

TIMELINESS 3 Lowered 1/26/18
SAFETY 2 Raised 12/23/16
TECHNICAL 3 Raised 6/15/18
BETA .65 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	90	(+125%)	*26%*
Low	65	(+60%)	*17%*

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	2	5	2
to Sell	2	1	2
Hld's(000)	1994	3629	2744

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
High:	23.0	23.8	25.6	32.8	34.3	35.4	37.0	39.4	46.9	50.3	50.0	48.0						
Low:	19.0	18.1	18.3	23.0	20.0	32.1	28.9	30.4	38.7	42.0	44.7	39.0						

LEGENDS
9.0 x "Cash Flow" p sh
Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2021 | 2022 | 2023
128 / 96 / 80 / 64 / 48 / 40 / 32 / 24 / 16 / 12

Percent shares traded 9 / 6 / 3

% TOT. RETURN 5/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-11.7	14.3
3 yr.	12.3	29.1
5 yr.	42.9	67.5

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	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Revenues per sh [E]	11.38	11.37	10.42	10.61	10.51	12.02	11.87	12.75	13.55	16.81	15.72	16.78	20.67	18.95	20.36	27.21	*29.40*	*30.50*	*35.10*
"Cash Flow" per sh	1.96	2.37	2.38	2.52	2.65	2.98	2.75	3.45	3.54	4.11	3.93	4.00	5.20	5.09	3.90	6.29	*7.05*	*7.25*	*8.40*
Earnings per sh [A]	.84	1.16	1.14	1.10	1.12	1.32	1.26	1.52	1.65	1.97	1.76	1.64	2.82	2.71	1.32	2.72	*3.05*	*3.25*	*4.30*
Div'ds Decl'd per sh [C]	.86	.86	.88	.89	.89	.90	.97	1.03	1.16	1.31	1.36	1.41	1.48	1.66	2.00	2.13	*2.28*	*2.44*	*3.00*
Cap'l Spending per sh	1.02	1.12	1.39	1.17	1.75	2.26	4.86	2.89	4.60	3.93	3.41	2.42	3.02	2.51	4.91	6.68	*8.10*	*7.95*	*4.85*
Book Value per sh [B]	12.36	12.12	12.28	12.41	12.69	12.20	13.78	13.31	14.16	11.80	12.60	15.68	18.60	23.71	28.55	27.89	*34.80*	*34.85*	*35.65*
Common Shs Outst'g [D]	107.80	108.26	108.87	110.10	110.93	111.47	112.21	112.98	114.62	122.83	130.98	132.89	143.78	147.21	210.02	228.78	*232.00*	*236.00*	*248.00*
Avg Ann'l P/E Ratio	19.8	14.4	15.9	17.2	18.0	15.7	17.2	14.0	16.1	16.2	19.4	20.1	12.3	15.5	35.2	17.3			*18.0*
Relative P/E Ratio	1.08	.82	.84	.92	.97	.83	1.04	.93	1.02	1.02	1.23	1.13	.65	.78	1.85	.87	*Bold figures are Value Line estimates*		*1.00*
Avg Ann'l Div'd Yield	5.2%	5.1%	4.9%	4.7%	4.4%	4.3%	4.5%	4.8%	4.4%	4.1%	4.0%	4.3%	4.3%	4.0%	4.3%	4.5%			*3.9%*
Revenues ($mill)							1331.9	1440.2	1553.7	2064.4	2058.6	2230.2	2971.9	2789.3	4277.0	6226.0	*6825*	*7200*	*8700*
Operating Margin							39.4%	40.8%	38.5%	30.5%	33.5%	34.5%	35.7%	30.8%	26.8%	36.1%	*34.0%*	*33.5%*	*34.0%*
Depreciation ($mill)							165.0	214.2	214.9	263.2	294.4	313.6	341.5	352.2	593.0	856.0	*900*	*925*	*1000*
Net Profit ($mill)							144.1	175.7	194.2	247.7	231.9	236.8	432.9	427.5	255.0	611.0	*740*	*800*	*1095*
Income Tax Rate							28.6%	21.7%	--	--	--	14.5%	20.1%	17.0%	17.0%	24.8%	*20.0%*	*20.0%*	*20.0%*
Net Profit Margin							10.8%	12.2%	12.5%	12.0%	11.3%	10.6%	14.6%	15.3%	6.0%	9.8%	*10.8%*	*11.1%*	*12.6%*
Working Cap'l ($mill)							d198.3	d88.5	92.2	191.6	d68.0	d368.6	312.0	514.3	d1213	d1420	*d1850*	*d2225*	*d2075*
Long-Term Debt ($mill)							2159.2	2454.9	3141.9	3273.5	3201.1	3363.7	3660.3	3750.8	14268	13140	*13150*	*13075*	*12775*
Shr. Equity ($mill)							1681.2	1503.5	1773.6	1599.2	2050.4	2608.2	3398.8	4200.1	6704.0	7089.0	*8075*	*8225*	*8525*
Return on Total Cap'l							5.3%	6.1%	5.7%	6.9%	6.4%	5.5%	7.4%	6.7%	2.6%	4.7%	*5.0%*	*5.5%*	*7.0%*
Return on Shr. Equity							8.6%	11.7%	10.9%	15.5%	11.3%	9.1%	12.7%	10.2%	3.8%	8.6%	*9.0%*	*9.5%*	*12.5%*
Retained to Com Eq							2.3%	4.0%	3.6%	5.8%	3.2%	1.5%	7.4%	4.5%	.1%	4.6%	*2.5%*	*2.5%*	*4.0%*
All Div'ds to Net Prof							75%	66%	70%	66%	77%	87%	55%	63%	98%	52%	*75%*	*75%*	*70%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $15440 mill. **Due in 5 Yrs** $5165.0 mill.
LT Debt $13375 mill. **LT Interest** $700.0 mill.
(Total int. coverage:2.0x)
(64% of Cap'l)
Leases, Uncapitalized Annual rentals $42.0 mill.

Pension Assets-12/17 $2408.0 mill
Oblig. $2683.0 mill
Pfd Stock $709.0 mill. **Pfd Div'ds** $28.0 mill.

Common Stock 230,520,000 shs.

MARKET CAP: $9.3 billion (Large Cap)

CURRENT POSITION ($MILL.)	2016	2017	3/31/18
Cash Assets	404	438	367
Receivables	1014	1083	1240
Inventory (Avg Cst)	472	418	404
Other	621	587	316
Current Assets	2511	2526	2327
Accts Payable	1242	1161	948
Debt Due	1437	1982	2065
Other	1045	803	792
Current Liab.	3724	3946	3805

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	7.0%	7.5%	*8.0%*
"Cash Flow"	6.5%	5.5%	*8.0%*
Earnings	6.5%	4.5%	*10.5%*
Dividends	8.0%	8.5%	*7.5%*
Book Value	8.0%	16.0%	*2.0%*

Calendar	QUARTERLY REVENUES ($ mill.) [E] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	900.3	537.0	654.0	698.0	2789.3
2016	877.0	499.4	1387.0	1513.6	4277.0
2017	1857	1469	1427	1473	6226
2018	1807	*1600*	*1700*	*1718*	*6825*
2019	*1900*	*1700*	*1800*	*1800*	*7200*

Calendar	EARNINGS PER SHARE [AE] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1.09	.07	.24	1.31	2.71
2016	.30	1.38	d.52	.34	1.32
2017	1.46	.47	.38	.41	2.72
2018	1.17	*.60*	*.65*	*.63*	*3.05*
2019	*1.05*	*.70*	*.75*	*.75*	*3.25*

Calendar	QUARTERLY DIVIDENDS PAID [CE] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.362	.362	.363	.388	1.48
2015	.388	.40	.40	.475	1.66
2016	.475	.475	.5225	.5225	2.00
2017	.5225	.5225	.5225	.565	2.13
2018	.565	.565			

BUSINESS: Emera Inc. is geographically diverse energy and services company. It invests in electricity generation, transmission, and distribution, as well as gas transportation and utility energy services. Also provices energy marketing, trading, and other energy-related mgmt. services. Has investments throughout North America, and in four Caribbean countries. Acquired TECO Energy 7/16. Serves approximately 2,500,000 customers in Florida (45%), New Mexico (22%), Nova Scotia (22%), Maine, and the island of Barbados. Has approximately 7,500 employees. President and CEO: Scott Balfour. Chairman: Jackie Sheppard. Inc.: Nova Scotia, Canada. Address: 1223 Lower Water St., Halifax, Canada NS B3J 3S8. Telephone: (902) 428-6112. Internet: www.emera.com.

Emera got the year off to a better-than-expected start. Reported earnings per share came in at $1.17 in the first quarter, versus $1.48 the previous year. However, excluding aftertax mark-to-market gains of $69 million (compared to $160 million), adjusted share net of $0.87 was up 21%. Most of the improvement came from the Emera Energy segment, where adjusted net income jumped $45 million, to $55 million in the March period. This reflected the favorable impact of cold weather in several key market areas and higher capacity prices that went into effect in New England in June of last year.

The company is reporting progress on several key initiatives. The Maritime Link connecting Nova Scotia and Newfoundland was placed into service in January and is now generating cash earnings. In Florida, Emera is on track to bring 145 megawatts of solar power on line by the end of September, with another 250 megawatts to follow in early 2019. Combined, these will add $70 million of revenue next year, and Emera is looking to add another 600 megawatts after 2020. This is part of its $6 billion capital program for renewable and clean energy and infrastructure modernization over the period.

Negative U.S. tax reform effects will be less than originally estimated. Management now expects the impact in 2018 to be about $125 million at the high end, 40% lower than its initial estimates, and that this will largely be mitigated in 2019 and beyond.

We have increased our earnings estimates for this year and next. Reflecting the strong first quarter and reduced tax impact, we have added $0.30 to our 2018 estimate, to $3.05. We have also raised our 2019 call by $0.35, to $3.25.

The long-term outlook remains favorable. Our 3- to 5-year earnings projections suggest strong price appreciation potential. Moreover, the stock has a sizable income component. Although tax factors will likely keep the company from reaching its 8% annual payout growth target this year and next, it should be back on track by 2020. A Safety rank of 2 (Above Average), coupled with a high score for Price Stability, suggests the issue is suitable for conservative accounts.

Mario Ferro *June 22, 2018*

(A) Diluted earnings. 2016 earnings do not sum due to change in share count. Excludes non-recurring charge: 2017: $1.47. Next earnings report due early August.
(B) Incl. intangibles. In 2017, $5.8 bill., or $25.37 per share. **(C)** Common div. historically paid in the middle of Feb., May, August, and Nov.
(D) In millions.
(E) All data in Canadian dollars.

Company's Financial Strength	B+
Stock's Price Stability	100
Price Growth Persistence	50
Earnings Predictability	55

BLACK HILLS CORP. NYSE-BKH

RECENT PRICE 60.89 | P/E RATIO 17.4 (Trailing: 17.0 Median: 19.0) | RELATIVE P/E RATIO 0.94 | DIV'D YLD 3.2% | VALUE LINE

TIMELINESS 3 Lowered 1/5/18
SAFETY 2 Raised 5/1/15
TECHNICAL 5 Lowered 7/6/18
BETA .85 (1.00 = Market)

2021-23 PROJECTIONS

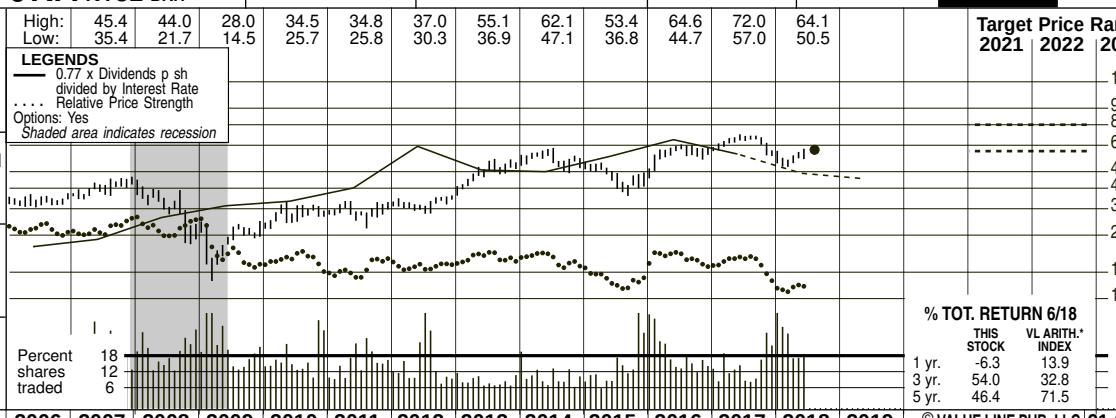
	Price	Gain	Ann'l Total Return
High	80	(+30%)	*10%*
Low	60	(Nil)	*3%*

Insider Decisions

	S	O	N	D	J	F	M	A	M
to Buy	0	0	0	0	0	0	0	0	0
Options	9	6	6	9	6	12	9	5	5
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	115	118	123
to Sell	99	85	119
Hld's(000)	60667	52971	53198



2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
15.74	35.17	34.54	41.97	19.69	18.41	26.03	32.58	33.29	28.96	26.55	28.67	31.20	25.48	29.47	31.38	***28.55***	***29.40***	Revenues per sh	***32.00***
4.93	4.26	4.46	4.81	5.04	5.29	2.95	5.41	4.88	4.01	5.59	5.93	6.25	5.67	6.28	7.15	***6.80***	***7.25***	"Cash Flow" per sh	***8.50***
2.33	1.84	1.74	2.11	2.21	2.68	.18	2.32	1.66	1.01	1.97	2.61	2.89	2.83	2.63	3.38	***3.50***	***3.55***	Earnings per sh [A]	***4.25***
1.16	1.20	1.24	1.28	1.32	1.37	1.40	1.42	1.44	1.46	1.48	1.52	1.56	1.62	1.68	1.81	***1.90***	***2.02***	Div'd Decl'd per sh [B] ■	***2.45***
8.65	2.80	2.80	4.18	9.24	6.92	8.51	8.90	12.04	10.03	7.90	7.97	8.92	8.90	8.89	6.09	***7.45***	***9.50***	Cap'l Spending per sh	***7.25***
19.66	21.72	22.43	22.29	23.68	25.66	27.19	27.84	28.02	27.53	27.88	29.39	30.80	28.63	30.25	31.92	***36.05***	***37.60***	Book Value per sh [C]	***42.75***
26.93	32.30	32.48	33.16	33.37	37.80	38.64	38.97	39.27	43.92	44.21	44.50	44.67	51.19	53.38	53.54	***59.50***	***59.50***	Common Shs Outst'g [D]	***59.50***
12.5	15.9	17.1	17.3	15.8	15.0	NMF	9.9	18.1	31.1	17.1	18.2	19.0	16.1	22.3	19.5	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	***16.5***
.68	.91	.90	.92	.85	.80	NMF	.66	1.15	1.95	1.09	1.02	1.00	.81	1.17	.98			Relative P/E Ratio	***.90***
4.0%	4.1%	4.2%	3.5%	3.8%	3.4%	4.2%	6.2%	4.8%	4.6%	4.4%	3.2%	2.8%	3.5%	2.9%	2.7%			Avg Ann'l Div'd Yield	***3.5%***
1005.8	1269.6	1307.3	1272.2	1173.9	1275.9	1393.6	1304.6	1573.0	1680.3	***1700***	***1750***	Revenues ($mill)	***1900***
6.8	89.7	64.6	40.4	86.9	115.8	128.8	128.3	140.3	186.5	***200***	***215***	Net Profit ($mill)	***255***
33.1%	30.7%	26.4%	31.1%	35.5%	34.7%	33.7%	35.8%	25.1%	28.7%	***15.5%***	***15.5%***	Income Tax Rate	***15.5%***
173.2%	20.1%	28.0%	65.0%	5.4%	2.4%	2.4%	2.7%	5.3%	2.7%	***3.0%***	***2.0%***	AFUDC % to Net Profit	***2.0%***
32.3%	48.4%	51.9%	51.4%	43.2%	51.6%	47.9%	56.0%	66.5%	64.5%	***59.0%***	***61.0%***	Long-Term Debt Ratio	***54.0%***
67.7%	51.6%	48.1%	48.6%	56.8%	48.4%	52.1%	44.0%	33.5%	35.5%	***41.0%***	***39.0%***	Common Equity Ratio	***46.0%***
1551.8	2100.7	2286.3	2489.7	2171.4	2704.7	2643.6	3332.7	4825.8	4818.4	***5205***	***5750***	Total Capital ($mill)	***5525***
2022.2	2160.7	2495.4	2789.6	2742.7	2990.3	3239.4	3259.1	4469.0	4541.4	***4775***	***5125***	Net Plant ($mill)	***5650***
1.6%	5.9%	4.4%	3.3%	5.5%	5.5%	6.1%	4.9%	4.0%	5.2%	***5.0%***	***5.0%***	Return on Total Cap'l	***6.0%***
.7%	8.3%	5.9%	3.3%	7.1%	8.9%	9.4%	8.8%	8.7%	10.9%	***9.5%***	***9.5%***	Return on Shr. Equity	***10.0%***
.7%	8.3%	5.9%	3.3%	7.1%	8.9%	9.4%	8.8%	8.7%	10.9%	***9.5%***	***9.5%***	Return on Com Equity [E]	***10.0%***
NMF	3.2%	.7%	NMF	1.8%	3.7%	4.3%	3.8%	3.3%	5.3%	***4.5%***	***4.0%***	Retained to Com Eq	***4.5%***
NMF	62%	87%	NMF	75%	58%	54%	57%	62%	52%	***54%***	***56%***	All Div'ds to Net Prof	***57%***

CAPITAL STRUCTURE as of 3/31/18
Total Debt $3278.7 mill. **Due in 5 Yrs** $939.9 mill.
LT Debt $2858.8 mill. **LT Interest** $120.9 mill.
(LT interest earned: 3.3x)
Leases, Uncapitalized Annual rentals $5.0 mill.

Pension Assets-12/17 $416.3 mill.
Oblig $474.7 mill.

Pfd Stock None

Common Stock 53,592,446 shs.
as of 4/30/18

MARKET CAP: $3.3 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	+4.5	+3.0	+.9
Avg. Indust. Use (MWH)	15552	17321	18376
Avg. Indust. Revs. per KWH (¢)	8.02	7.80	7.69
Capacity at Yearend (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	1028	1086	1094
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.9	+.6	+.8
Fixed Charge Cov. (%)	324	236	296

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	1.0%	-.5%	***2.0%***
"Cash Flow"	2.5%	5.5%	***5.0%***
Earnings	2.5%	14.0%	***6.5%***
Dividends	2.5%	3.0%	***6.0%***
Book Value	2.5%	1.5%	***6.0%***

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	442.0	272.2	272.1	318.3	1304.6
2016	450.0	325.4	333.8	463.8	1573.0
2017	547.5	341.9	335.6	455.3	1680.3
2018	575.4	***335***	***335***	***454.6***	***1700***
2019	***595***	***345***	***345***	***465***	***1750***

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1.07	.55	.58	.63	2.83
2016	.94	.31	.41	.97	2.63
2017	1.42	.41	.52	1.03	3.38
2018	1.63	***.37***	***.50***	***1.00***	***3.50***
2019	***1.55***	***.40***	***.55***	***1.05***	***3.55***

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.39	.39	.39	.39	1.56
2015	.405	.405	.405	.405	1.62
2016	.42	.42	.42	.42	1.68
2017	.445	.445	.445	.475	1.81
2018	.475	.475			

BUSINESS: Black Hills Corporation is a holding company for Black Hills Energy, which serves 209,000 electric customers in CO, SD, WY and MT, and 1 million gas customers in NE, IA, KS, CO, WY, and AR. Has coal mining sub. Acq'd Cheyenne Light 1/05; utility ops. from Aquila 7/08; SourceGas 2/16. Discont. telecom in '05; oil marketing in '06; gas marketing in '11; gas & oil E&P in '17. Electric rev. breakdown: res'l, 30%; comm'l, 37%; ind'l, 17%; other, 16%. Generating sources: coal, 32%; other, 8%; purch., 60%. Fuel costs: 34% of revs. '17 depr. rate: 3.5%. Has 2,700 employees. Chairman & CEO: David R. Emery. Pres. & COO: Linn Evans. Inc.: SD. Address: 7001 Mount Rushmore Rd., P.O. Box 1400, Rapid City, SD 57709-1400. Tel.: 605-721-1700. Internet: www.blackhillscorp.com.

Black Hills has a gas rate case pending in Arkansas. This is the company's first application there since it acquired SourceGas in February of 2016. It filed for a tariff hike of $30 million, based on a 10.2% return on equity. (This was filed before the new federal tax law was enacted; adjusted, this amount would be in the low $20 million range.) The Arkansas commission's staff proposed a 9.67% ROE, and the state attorney general recommended a 9.56% ROE. New rates are expected to take effect in the fourth quarter.

The company intends to file 10 rate applications over a four-year period. Besides the petition in Arkansas, Black Hills' pipeline operations are receiving a modest amount of rate relief in Colorado and Wyoming. Management hasn't disclosed the expected timing or jurisdictions of the remaining seven filings. We suspect there will be an electric case in Colorado, given that the utility's last electric order there was disappointing. A court appeal in the state was largely fruitless.

We estimate modest earnings increases in 2018 and 2019. This year got off to a good start, thanks in part to weather patterns that were much more favorable than a year earlier. The year-to-year comparisons will be tougher over the remainder of 2018. Our estimate of $3.50 a share is at the top end of the company's guidance of $3.30-$3.50. In 2019, Black Hills should benefit from a full year's effect of higher rates in Arkansas.

Black Hills has exited the gas and oil exploration and production business. This operation fell into the red after commodity prices dropped. Black Hills posted a loss from discontinued operations of $0.31 a share in 2017 and $0.04 a share in the first quarter of 2018.

The share count will increase by year-end. Black Hills has equity units that feature a mandatory $300 million equity purchase by the unitholders no later than November 1st. Black Hills will remarket the debt instrument, and might well issue more than $300 million, using the additional funds to pay down short-term debt.

This stock has a dividend yield that is slightly below the utility mean. By contrast, total return potential to 2021-2023 is a cut above average.

Paul E. Debbas, CFA *July 27, 2018*

(A) Diluted EPS. Excl. nonrec. gains (losses): '08, ($1.55); '09, (28¢); '10, 10¢; '12, 4¢; '15, ($3.54); '16, ($1.26); '17, 14¢; '18, 87¢; gains (losses) on disc. ops.: '06, 21¢; '07, (4¢); '08, $4.12; '09, 7¢; '11, 23¢; '12, (16¢); '17, (31¢); '18, (4¢). Next earnings report due early Aug. **(B)** Div'ds paid early Mar., Jun., Sept., & Dec. ■ Div'd reinv. plan avail. **(C)** Incl. def'd chgs. In '17: $28.45/sh. **(D)** In mill. **(E)** Rate base: Net orig. cost. Rate all'd on com. eq. in SD in '15: none specified; in CO in '17: 9.37%; earned on avg. com. eq., '17: 10.8%. Regul. Climate: Avg.

Company's Financial Strength	A
Stock's Price Stability	75
Price Growth Persistence	65
Earnings Predictability	50

NORTHWESTERN NYSE-NWE

RECENT PRICE **58.11** | P/E RATIO **16.6** (Trailing: 16.5 Median: 16.0) | RELATIVE P/E RATIO **0.89** | DIV'D YLD **3.9%** | VALUE LINE

TIMELINESS 4 Lowered 5/4/18
SAFETY 2 Raised 7/27/18
TECHNICAL 5 Lowered 7/6/18
BETA .65 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(+30%)	*10%*
Low	55	(-5%)	*3%*

Insider Decisions

	S	O	N	D	J	F	M	A	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	1	0	215	8	0	2	
to Sell	1	0	0	1	0	1	2	0	1

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	118	96	130
to Sell	100	97	110
Hld's(000)	53930	45947	46665

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
High:			36.7	29.7	26.8	30.6	36.6	38.0	47.2	58.7	59.7	63.8	64.5	59.8				
Low:			24.5	16.5	18.5	23.8	27.4	33.0	35.1	42.6	48.4	52.2	55.7	50.0				
Revenues per sh			29.18	32.57	31.49	30.79	35.09	31.72	30.66	30.80	28.76	29.80	25.68	25.21	26.01	26.45	*23.90*	*24.80*
"Cash Flow" per sh			3.20	4.00	3.62	3.70	4.40	4.62	4.76	5.42	5.18	5.45	5.39	5.92	6.74	6.76	*7.05*	*7.30*
Earnings per sh [A]			d14.32	1.71	1.31	1.44	1.77	2.02	2.14	2.53	2.26	2.46	2.99	2.90	3.39	3.34	*3.50*	*3.55*
Div'd Decl'd per sh [B] ■ †				1.00	1.24	1.28	1.32	1.34	1.36	1.44	1.48	1.52	1.60	1.92	2.00	2.10	*2.20*	*2.30*
Cap'l Spending per sh			2.25	2.26	2.81	3.00	3.47	5.26	6.30	5.20	5.89	5.95	5.76	5.89	5.96	5.60	*5.70*	*6.70*
Book Value per sh [C]			19.92	20.60	20.65	21.12	21.25	21.86	22.64	23.68	25.09	26.60	31.50	33.22	34.68	36.44	*38.25*	*39.45*
Common Shs Outst'g [D]			35.60	35.79	35.97	38.97	35.93	36.00	36.23	36.28	37.22	38.75	46.91	48.17	48.33	49.37	*50.25*	*50.40*
Avg Ann'l P/E Ratio				17.1	26.0	21.7	13.9	11.5	12.9	12.6	15.7	16.9	16.2	18.4	17.2	17.8		
Relative P/E Ratio				.91	1.40	1.15	.84	.77	.82	.79	1.00	.95	.85	.93	.90	.89		
Avg Ann'l Div'd Yield				3.4%	3.6%	4.1%	5.4%	5.7%	4.9%	4.5%	4.2%	3.7%	3.3%	3.6%	3.4%	3.5%		
Revenues ($mill)			1260.8	1141.9	1110.7	1117.3	1070.3	1154.5	1204.9	1214.3	1257.2	1305.7	*1200*	*1250*				
Net Profit ($mill)			67.6	73.4	77.4	92.6	83.7	94.0	120.7	138.4	164.2	162.7	*175*	*180*				
Income Tax Rate			37.3%	17.2%	25.0%	9.8%	9.6%	13.2%	--	13.7%	13.7%	7.6%	*2.5%*	*3.5%*				
AFUDC % to Net Profit			2.3%	4.4%	14.2%	3.3%	9.4%	8.7%	8.9%	9.8%	4.3%	5.2%	*6.0%*	*6.0%*				
Long-Term Debt Ratio			46.8%	56.4%	57.2%	52.2%	53.8%	53.5%	53.4%	53.1%	52.0%	50.2%	*49.5%*	*48.5%*				
Common Equity Ratio			53.2%	43.6%	42.8%	47.8%	46.2%	46.5%	46.6%	46.9%	48.0%	49.8%	*50.5%*	*51.5%*				
Total Capital ($mill)			1434.3	1803.9	1916.4	1797.1	2020.7	2215.7	3168.0	3408.6	3493.9	3614.5	*3795*	*3860*				
Net Plant ($mill)			1839.7	1964.1	2118.0	2213.3	2435.6	2690.1	3758.0	4059.5	4214.9	4358.3	*4465*	*4620*				
Return on Total Cap'l			7.0%	6.0%	5.9%	7.0%	5.5%	5.5%	4.8%	5.2%	5.9%	5.6%	*5.5%*	*5.5%*				
Return on Shr. Equity			8.9%	9.3%	9.4%	10.8%	9.0%	9.1%	8.2%	8.6%	9.8%	9.0%	*9.0%*	*9.0%*				
Return on Com Equity [E]			8.9%	9.3%	9.4%	10.8%	9.0%	9.1%	8.2%	8.6%	9.8%	9.0%	*9.0%*	*9.0%*				
Retained to Com Eq			2.3%	3.2%	3.5%	4.7%	3.2%	3.5%	3.8%	3.0%	4.1%	3.4%	*3.5%*	*3.5%*				
All Div'ds to Net Prof			74%	66%	63%	56%	65%	61%	54%	65%	58%	62%	*62%*	*64%*				

Bold figures are Value Line estimates

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	21-23
Revenues per sh	*27.50*
"Cash Flow" per sh	*8.25*
Earnings per sh [A]	*4.00*
Div'd Decl'd per sh [B] ■ †	*2.60*
Cap'l Spending per sh	*6.25*
Book Value per sh [C]	*43.25*
Common Shs Outst'g [D]	*51.00*
Avg Ann'l P/E Ratio	*16.0*
Relative P/E Ratio	*.90*
Avg Ann'l Div'd Yield	*4.1%*
Revenues ($mill)	*1400*
Net Profit ($mill)	*205*
Income Tax Rate	*6.5%*
AFUDC % to Net Profit	*5.0%*
Long-Term Debt Ratio	*46.0%*
Common Equity Ratio	*54.0%*
Total Capital ($mill)	*4075*
Net Plant ($mill)	*4975*
Return on Total Cap'l	*6.0%*
Return on Shr. Equity	*9.5%*
Return on Com Equity [E]	*9.5%*
Retained to Com Eq	*3.5%*
All Div'ds to Net Prof	*64%*

Target Price Range 2021 | 2022 | 2023: 120, 100, 80, 64, 48, 32, 24, 20, 16, 12, 8

% TOT. RETURN 6/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-2.5	13.9
3 yr.	30.9	32.8
5 yr.	71.5	71.5

CAPITAL STRUCTURE as of 3/31/18
Total Debt $2040.4 mill. **Due in 5 Yrs** $234.9 mill.
LT Debt $2038.2 mill. **LT Interest** $83.5 mill.
Incl. $21.7 mill. capitalized leases.
(LT interest earned: 3.1x)

Pension Assets-12/17 $586.5 mill.
Oblig $696.8 mill.

Pfd Stock None

Common Stock 49,397,196 shs.
as of 4/20/18
MARKET CAP: $2.9 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	-.1	-.7	+3.8
Avg. Indust. Use (MWH)	30133	29784	30987
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	2096	2138	2133
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.3	+1.2	+1.3
Fixed Charge Cov. (%)	252	253	275

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	-2.0%	-3.0%	*1.0%*
"Cash Flow"	5.5%	5.0%	*4.0%*
Earnings	8.0%	7.0%	*3.5%*
Dividends	5.5%	7.0%	*4.5%*
Book Value	5.5%	8.0%	*3.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	346.0	270.6	272.7	325.0	1214.3
2016	332.5	293.1	301.0	330.6	1257.2
2017	367.3	283.9	309.9	344.6	1305.7
2018	341.5	261.8	*285*	*311.7*	*1200*
2019	*355*	*275*	*295*	*325*	*1250*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1.09	.38	.51	.93	2.90
2016	.82	.73	.92	.92	3.39
2017	1.17	.44	.75	.98	3.34
2018	1.18	.61	*.75*	*.96*	*3.50*
2019	*1.15*	*.55*	*.85*	*1.00*	*3.55*

QUARTERLY DIVIDENDS PAID [B] ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.40	.40	.40	.40	1.60
2015	.48	.48	.48	.48	1.92
2016	.50	.50	.50	.50	2.00
2017	.525	.525	.525	.525	2.10
2018	.55	.55			

BUSINESS: NorthWestern Corporation (doing business as NorthWestern Energy) supplies electricity & gas in the Upper Midwest and Northwest, serving 433,000 electric customers in Montana and South Dakota and 286,000 gas customers in Montana (87% of gross margin), South Dakota (12%), and Nebraska (1%). Electric revenue breakdown: residential, 40%; commercial, 51%; industrial, 5%; other, 4%. Generating sources: hydro, 36%; coal, 29%; wind, 6%; other, 4%; purchased, 25%. Fuel costs: 31% of revenues. '17 reported deprec. rate: 3.0%. Has 1,600 employees. Chairman: Stephen P. Adik. President & CEO: Robert C. Rowe. Inc.: Delaware. Address: 3010 West 69th Street, Sioux Falls, South Dakota 57108. Tel.: 605-978-2900. Internet: www.northwesternenergy.com.

We have raised our 2018 earnings estimate for NorthWestern by $0.05 a share. Favorable weather patterns boosted first-quarter profits by $0.07 a share. Our revised estimate is at the upper end of NorthWestern's targeted range of $3.35-$3.50. Note, though, that the company's guidance is based on normal weather, and excludes a $0.26-a-share nonrecurring gain in the second quarter.

The utility plans to file an electric rate application in Montana. This is slated for late September, with an order due by mid-2019. NorthWestern has some assets that are not reflected in the rate base. Another possible concern is a change to the state's fuel adjustment clause. The utility would be able to update its fuel and purchased-power costs when it files its rate case.

We estimate a slight earnings increase in 2019. We assume normal weather in the March quarter. As long as NorthWestern receives reasonable regulatory treatment in Montana, this should help lift profits in the second half of the year.

A legal matter is pending in Montana. In the first quarter of 2016, NorthWestern took a $0.13-a-share charge (*included* in our earnings presentation) because the state commission did not allow the utility to recover certain expenses associated with an outage of a generating plant. The company appealed this matter to the Montana District Court. NorthWestern expects a decision within the next seven months.

We have raised NorthWestern's Financial Strength rating from B+ to B++ and the stock's Safety rank from 3 to 2 (Above Average). The fixed-charge coverage and common-equity ratio have risen in recent years. In fact, the company expects to complete the issuance of $100 million of common stock this year, after $54 million of this amount was issued in 2017.

This untimely stock has made a partial recovery after a poor start to 2018. We think this is a correction, as there was no obvious reason for the price decline. The stock price is down 3% year to date, in line with most electric utility issues. The dividend yield is a half percentage point above the industry average, and 3- to 5-year total return potential is also slightly better than the utility mean.

Paul E. Debbas, CFA *July 27, 2018*

(A) Diluted EPS. Excl. gain (loss) on discont. ops.: '05, (6¢); '06, 1¢; nonrec. gains: '12, 39¢ net; '15, 27¢; '18, 26¢. '15 EPS don't add due to rounding. Next earnings report due late October. **(B)** Div'ds historically paid in late Mar., June, Sept. & Dec. ■ Div'd reinvestment plan avail. **(C)** Incl. def'd charges. In '17: $14.42/sh. **(D)** In mill. **(E)** Rate base: Net orig. cost. Rate allowed on com. eq. in MT in '14 (elec.): 9.8%; in '17 (gas): 9.55%; in SD in '15: none specified; in NE in '07: 10.4%; earned on avg. com. eq., '17: 9.5%. Regulatory Climate: Below Avg.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	80
Earnings Predictability	80

SEMPRA ENERGY NYSE-SRE

RECENT PRICE 115.61 | P/E RATIO 21.0 (Trailing: 27.5 Median: 17.0) | RELATIVE P/E RATIO 1.13 | DIV'D YLD 3.2% | VALUE LINE

TIMELINESS 4 Lowered 3/30/18
SAFETY 2 Raised 7/29/16
TECHNICAL 4 Raised 7/27/18
BETA .75 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	160	(+40%)	*11%*
Low	120	(+5%)	*5%*

Insider Decisions

	S	O	N	D	J	F	M	A	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	1	7	8	1	1	6
to Sell	0	0	0	0	0	0	0	2	1

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	282	271	297
to Sell	244	214	298
Hld's(000)	223050	209265	238271

	High:	66.4	63.0	57.2	57.2	56.0	72.9	93.0	116.3	116.2	114.7	123.0	119.8
	Low:	50.9	34.3	36.4	43.9	44.8	54.7	70.6	86.7	89.4	86.7	99.7	100.5

LEGENDS
0.90 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2021 2022 2023: 200 / 160 / 100 / 80 / 60 / 50 / 40 / 30 / 20

Percent shares traded: 24 / 16 / 8

% TOT. RETURN 6/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	7.0	13.9
3 yr.	28.2	32.8
5 yr.	63.6	71.5

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
29.38	34.81	40.18	45.64	44.89	43.79	44.21	32.88	37.44	41.83	39.80	43.18	44.80	41.20	40.71	44.59	***39.80***	***41.60***	Revenues per sh	***46.00***
5.71	5.56	6.58	5.96	6.74	6.93	7.40	7.94	7.76	8.58	8.92	8.87	9.41	10.32	9.50	10.57	***11.05***	***11.80***	"Cash Flow" per sh	***14.25***
2.79	3.01	3.93	3.52	4.23	4.26	4.43	4.78	4.02	4.47	4.35	4.22	4.63	5.23	4.24	4.63	***5.50***	***5.95***	Earnings per sh [A]	***8.00***
1.00	1.00	1.00	1.16	1.20	1.24	1.37	1.56	1.56	1.92	2.40	2.52	2.64	2.80	3.02	3.29	***3.58***	***3.86***	Div'd Decl'd per sh [B] ■	***4.90***
5.92	4.63	4.62	5.46	7.28	7.70	8.47	7.76	8.58	11.85	12.20	10.52	12.68	12.71	16.85	15.71	***14.00***	***12.85***	Cap'l Spending per sh	***9.25***
13.79	17.17	20.78	23.95	28.66	31.87	32.75	36.54	37.54	41.00	42.42	45.03	45.98	47.56	51.77	50.41	***54.90***	***57.00***	Book Value per sh [C]	***68.50***
204.91	226.60	234.18	257.19	262.01	261.21	243.32	246.51	240.45	239.93	242.37	244.46	246.33	248.30	250.15	251.36	***279.00***	***280.00***	Common Shs Outst'g [D]	***296.00***
8.2	9.0	8.6	11.8	11.5	14.0	11.8	10.1	12.6	11.8	14.9	19.7	21.9	19.7	24.4	24.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	***17.5***
.45	.51	.45	.63	.62	.74	.71	.67	.80	.74	.95	1.11	1.15	.99	1.28	1.22			Relative P/E Ratio	***.95***
4.4%	3.7%	2.9%	2.8%	2.5%	2.1%	2.6%	3.2%	3.1%	3.6%	3.7%	3.0%	2.6%	2.7%	2.9%	2.9%			Avg Ann'l Div'd Yield	***3.5%***
10758	8106.0	9003.0	10036	9647.0	10557	11035	10231	10183	11207	***11100***	***11650***	Revenues ($mill)	***13600***
1123.0	1193.0	1008.0	1088.0	1079.0	1060.0	1162.0	1314.0	1065.0	1169.0	***1745***	***1910***	Net Profit ($mill)	***2490***
29.2%	30.5%	26.5%	25.3%	18.2%	26.5%	19.7%	19.2%	14.4%	24.5%	***20.0%***	***20.0%***	Income Tax Rate	***19.0%***
13.2%	10.6%	11.3%	15.2%	17.2%	11.2%	14.4%	15.3%	22.2%	21.9%	***14.0%***	***13.0%***	AFUDC % to Net Profit	***10.0%***
44.5%	44.8%	49.4%	50.4%	52.8%	50.5%	51.7%	52.6%	52.7%	56.4%	***54.0%***	***54.5%***	Long-Term Debt Ratio	***56.0%***
54.2%	54.1%	49.6%	49.2%	46.7%	49.4%	48.2%	47.3%	47.3%	43.5%	***41.5%***	***41.0%***	Common Equity Ratio	***44.0%***
14692	16646	18186	20015	22002	22281	23513	24963	27400	29135	***37050***	***39025***	Total Capital ($mill)	***45900***
16865	18281	19876	23572	25191	25460	25902	28039	32931	36503	***38850***	***40800***	Net Plant ($mill)	***43600***
8.5%	8.3%	6.8%	6.7%	6.1%	6.0%	6.1%	6.4%	5.0%	5.1%	***5.5%***	***6.0%***	Return on Total Cap'l	***6.5%***
13.8%	13.0%	10.9%	10.9%	10.4%	9.6%	10.2%	11.1%	8.2%	9.2%	***9.5%***	***10.0%***	Return on Shr. Equity	***11.5%***
14.0%	13.1%	11.1%	11.0%	10.4%	9.6%	10.3%	11.1%	8.2%	9.2%	***10.0%***	***10.5%***	Return on Com Equity [E]	***11.5%***
9.7%	9.3%	7.0%	6.5%	5.1%	4.1%	5.0%	5.8%	2.9%	3.3%	***3.5%***	***3.5%***	Retained to Com Eq	***4.5%***
31%	29%	37%	41%	52%	58%	52%	48%	65%	65%	***65%***	***66%***	All Div'ds to Net Prof	***61%***

CAPITAL STRUCTURE as of 3/31/18
Total Debt $26399 mill. **Due in 5 Yrs** $9655 mill.
LT Debt $20863 mill. **LT Interest** $821 mill.
Incl. $733 mill. capitalized leases.
(LT interest earned: 3.2x)
Leases, Uncapitalized Annual rentals $98 mill.
Pension Assets-12/17 $2659 mill.
Oblig $3859 mill.
Pfd Stock $1713 mill. **Pfd Div'd** $105 mill.
17,250,000 shs. 6% mandatorily convertible preferred stock; 811,073 shs. 6% cum., $25 par.
Common Stock 264,137,837 shs.
as of 5/3/18
MARKET CAP: $31 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	-1.0	-3.8	-.2
Avg. Indust. Use (MWH)	4683	4785	NA
Avg. Indust. Revs. per KWH (¢)	17.58	NA	NA
Capacity at Peak (Mw)	NMF	NMF	NMF
Peak Load, Summer (Mw)	NMF	NMF	NMF
Annual Load Factor (%)	NMF	NMF	NMF
% Change Customers (yr-end)	+.7	+.6	+.8
Fixed Charge Cov. (%)	295	237	264

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	-.5%	1.0%	***1.5%***
"Cash Flow"	4.5%	4.0%	***6.0%***
Earnings	1.5%	2.0%	***9.5%***
Dividends	9.5%	9.0%	***8.5%***
Book Value	6.0%	4.5%	***5.5%***

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	2682	2367	2481	2701	10231
2016	2622	2156	2535	2870	10183
2017	3031	2533	2679	2964	11207
2018	2962	***2538***	***2650***	***2950***	***11100***
2019	***3100***	***2650***	***2750***	***3150***	***11650***

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1.74	1.03	.99	1.47	5.23
2016	1.61	.06	1.02	1.52	4.24
2017	1.75	1.20	.22	1.46	4.63
2018	1.43	***1.20***	***1.30***	***1.57***	***5.50***
2019	***1.65***	***1.30***	***1.40***	***1.60***	***5.95***

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.63	.66	.66	.66	2.61
2015	.66	.70	.70	.70	2.76
2016	.70	.755	.755	.755	2.97
2017	.755	.8225	.8225	.8225	3.22
2018	.8225	.895	.895		

BUSINESS: Sempra Energy is a holding co. for San Diego Gas & Electric Company, which sells electricity & gas mainly in San Diego County, & Southern California Gas Company, which distributes gas to most of Southern California. Owns 80% of Oncor (acq'd 3/18), which distributes electricity in Texas. Customers: 4.9 mill. electric, 6.6 mill. gas. Electric rev. breakdown: residential, 41%; commercial, 42%; industrial, 10%; other, 7%. Purchases most of its power; the rest is gas. Has nonutility subsidiaries. Sold commodities business in '10. Power costs: 34% of revs. '17 reported deprec. rates: 2.4%-5.5%. Has 20,000 employees. Chairman: Debra L. Reed. CEO: Jeffrey W. Martin. Inc.: CA. Address: 488 8th Ave., San Diego, CA 92101. Tel.: 619-696-2000. Internet: www.sempra.com.

Two investor groups are pushing Sempra Energy to make changes. The groups, which have a combined 4.9% stake in Sempra, want strategic changes and are recommending six directors for the board. The stock price rose 16% on the day of the announcement (June 11th), but has retreated slightly since then. Sempra's chief executive officer, Jeff Martin, is new to his position (although not new to the company), having taken the reins on May 1st.

Sempra plans to sell some assets. The company intends to sell its renewable-energy operation and midstream gas assets (except for those associated with its liquefied natural gas business). Sempra would use the proceeds for debt reduction and capital spending. The moves would probably be dilutive to earnings. In connection with the plan, Sempra will take an aftertax writedown of $870 million-$925 million against June-quarter results. We will *exclude* this from our earnings presentation as a nonrecurring item. Other asset sales are possible. Among the candidates are Sempra's electric utilities in Peru and Chile. The company's announcement fell short of what the investor groups want.

The domestic utilities are awaiting orders on their rate cases. Southern California Gas and San Diego Gas & Electric are seeking rate increases of $475 million and $217 million, respectively. The Office of Ratepayer Advocates recommended an increase of $239 million for SoCalGas and a decrease of $64 million for SDG&E. New tariffs will take effect at the start of 2019.

Earnings should improve significantly in 2018 and 2019. The addition of Oncor, a utility in Texas, in March this year will be accretive. Next year, the domestic utilities should benefit from rate relief, and the liquefied natural gas subsidiary will likely move from a small loss to a small profit. This segment's income will accelerate in 2020, the first full year of operating a facility now under construction.

This stock is ranked unfavorably for Timeliness. The dividend yield is not exceptional, by utility standards, but good dividend growth through 2021-2023 should produce total returns that exceed those of most issues in this industry. The possibility of positive changes stimulated by the investor groups is intriguing, as well.

Paul E. Debbas, CFA *July 27, 2018*

(A) Dil. EPS. Excl. nonrec. gains (losses): '06, (6¢); '09, (26¢); '10, ($1.05); '11, $1.15; '12, (98¢); '13, (30¢); '15, 14¢; '16, $1.23; '17, (17¢); 1Q '18, (10¢); 2Q '18, ***($3.25)***; gain (loss) from disc. ops.: '06, $1.21; '07, (10¢). '16 EPS don't sum due to chg. in shs. Next egs. due early Aug. **(B)** Div'ds pd. mid-Jan., Apr., July, Oct. ■ Div'd reinv. avail. **(C)** Incl. intang. In '17: $17.94/sh. **(D)** In mill. **(E)** Rate base: Net orig. cost. Rate all'd on com. eq.: SDG&E in '13: 10.3%; SoCalGas in '13: 10.1%; earned on avg. com. eq., '17: 8.8%. Reg. Clim.: Avg.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	75
Earnings Predictability	75

XCEL ENERGY NDQ-XEL

RECENT PRICE 45.86 | P/E RATIO 18.7 (Trailing: 19.0 Median: 15.0) | RELATIVE P/E RATIO 1.01 | DIV'D YLD 3.4% | VALUE LINE

TIMELINESS 2 Raised 6/1/18
SAFETY 1 Raised 5/1/15
TECHNICAL 5 Lowered 7/13/18
BETA .60 (1.00 = Market)

2021-23 PROJECTIONS

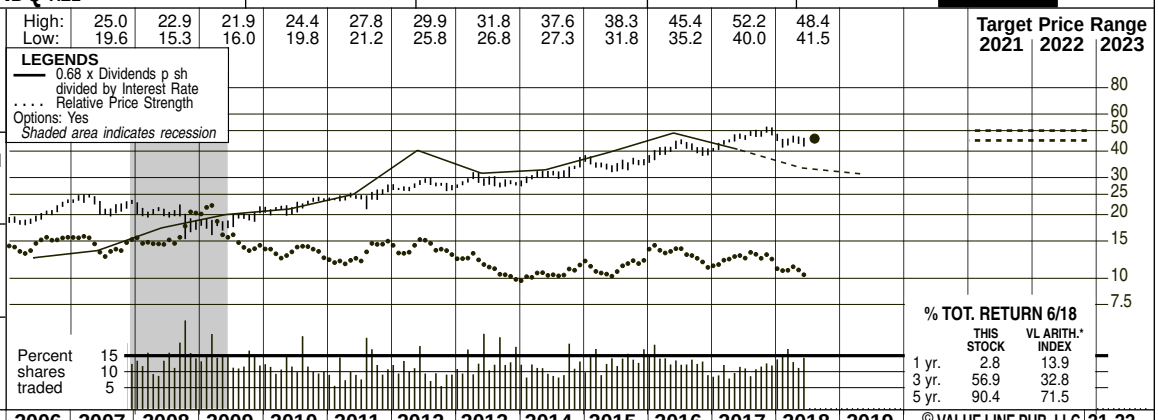
	Price	Gain	Ann'l Total Return
High	50	(+10%)	6%
Low	45	(Nil)	3%

Insider Decisions

	S	O	N	D	J	F	M	A	M
to Buy	1	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	12	0	0	6
to Sell	0	0	1	1	0	0	0	0	2

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	286	280	301
to Sell	246	216	323
Hld's(000)	418292	379245	379296



2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
23.89	19.90	20.84	23.86	24.16	23.40	24.69	21.08	21.38	21.90	20.76	21.92	23.11	21.72	21.90	22.46	*22.35*	*22.90*	Revenues per sh	*25.25*
3.14	3.35	3.27	3.28	3.61	3.45	3.50	3.48	3.51	3.79	4.00	4.10	4.28	4.56	5.04	5.47	*5.85*	*6.15*	"Cash Flow" per sh	*7.25*
.42	1.23	1.27	1.20	1.35	1.35	1.46	1.49	1.56	1.72	1.85	1.91	2.03	2.10	2.21	2.30	*2.45*	*2.55*	Earnings per sh A	*3.00*
1.13	.75	.81	.85	.88	.91	.94	.97	1.00	1.03	1.07	1.11	1.20	1.28	1.36	1.44	*1.52*	*1.60*	Div'd Decl'd per sh B ■	*1.90*
6.04	2.49	3.19	3.25	4.00	4.89	4.66	3.91	4.60	4.53	5.27	6.82	6.33	7.26	6.42	6.54	*8.15*	*7.95*	Cap'l Spending per sh	*6.75*
11.70	12.95	12.99	13.37	14.28	14.70	15.35	15.92	16.76	17.44	18.19	19.21	20.20	20.89	21.73	22.56	*23.80*	*24.85*	Book Value per sh C	*28.00*
398.71	398.96	400.46	403.39	407.30	428.78	453.79	457.51	482.33	486.49	487.96	497.97	505.73	507.54	507.22	507.76	*516.50*	*518.00*	Common Shs Outst'g D	*522.50*
NMF	11.6	13.6	15.4	14.8	16.7	13.7	12.7	14.1	14.2	14.8	15.0	15.4	16.5	18.5	20.2	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*16.0*
NMF	.66	.72	.82	.80	.89	.82	.85	.90	.89	.94	.84	.81	.83	.97	1.02			Relative P/E Ratio	*.90*
6.6%	5.2%	4.7%	4.6%	4.4%	4.0%	4.7%	5.1%	4.5%	4.2%	3.9%	3.9%	3.8%	3.7%	3.3%	3.1%			Avg Ann'l Div'd Yield	*4.0%*
11203	9644.3	10311	10655	10128	10915	11686	11024	11107	11404	*11550*	*11850*	Revenues ($mill)	*13250*
645.7	685.5	727.0	841.4	905.2	948.2	1021.3	1063.6	1123.4	1171.0	*1255*	*1320*	Net Profit ($mill)	*1575*
34.4%	35.1%	37.5%	35.8%	33.2%	33.8%	33.9%	35.8%	34.1%	30.7%	*9.0%*	*9.0%*	Income Tax Rate	*9.0%*
15.9%	16.8%	11.7%	9.4%	10.8%	13.4%	12.5%	7.7%	7.8%	9.4%	*11.0%*	*10.0%*	AFUDC % to Net Profit	*7.0%*
52.2%	51.6%	53.1%	51.1%	53.3%	53.3%	53.0%	54.1%	56.3%	55.9%	*57.0%*	*57.0%*	Long-Term Debt Ratio	*58.0%*
47.1%	47.7%	46.3%	48.9%	46.7%	46.7%	47.0%	45.9%	43.7%	44.1%	*43.0%*	*43.0%*	Common Equity Ratio	*42.0%*
14800	15277	17452	17331	19018	20477	21714	23092	25216	25975	*28775*	*29775*	Total Capital ($mill)	*34800*
17689	18508	20663	22353	23809	26122	28757	31206	32842	34329	*36775*	*39050*	Net Plant ($mill)	*42900*
6.0%	6.2%	5.7%	6.5%	6.1%	6.0%	6.0%	5.8%	5.7%	5.8%	*5.5%*	*5.5%*	Return on Total Cap'l	*6.0%*
9.1%	9.3%	8.9%	9.9%	10.2%	9.9%	10.0%	10.0%	10.2%	10.2%	*10.0%*	*10.0%*	Return on Shr. Equity	*10.5%*
9.2%	9.4%	8.9%	9.9%	10.2%	9.9%	10.0%	10.0%	10.2%	10.2%	*10.0%*	*10.0%*	Return on Com Equity E	*10.5%*
3.8%	3.7%	3.6%	4.3%	4.7%	4.5%	4.5%	4.3%	4.0%	3.9%	*4.0%*	*4.0%*	Retained to Com Eq	*4.0%*
59%	61%	59%	56%	54%	54%	55%	57%	61%	62%	*62%*	*63%*	All Div'ds to Net Prof	*63%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $16004 mill. **Due in 5 Yrs** $4473 mill.
LT Debt $14522 mill. **LT Interest** $646 mill.
Incl. $151 mill. capitalized leases.
(LT interest earned: 3.6x)

Leases, Uncapitalized Annual rentals $238 mill.
Pension Assets-12/17 $3088 mill.
Oblig $3828 mill.

Pfd Stock None

Common Stock 508,856,950 shs.
as of 4/23/18
MARKET CAP: $23 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2015	2016	2017
% Change Retail Sales (KWH)	-.6	+.3	-.7
Large C & I Use (MWH)	23521	22519	22642
Large C & I Revs. per KWH (¢)	6.10	6.17	6.36
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	19583	20423	19591
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.9	+.9	+.9
Fixed Charge Cov. (%)	358	342	330

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Revenues	-1.0%	.5%	***2.5%***
"Cash Flow"	4.0%	6.0%	***6.5%***
Earnings	5.5%	5.0%	***5.5%***
Dividends	4.5%	5.5%	***5.5%***
Book Value	4.5%	4.5%	***5.0%***

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	2962	2515	2901	2646	11024
2016	2772	2500	3040	2795	11107
2017	2946	2645	3017	2796	11404
2018	2951	***2650***	***3049***	***2900***	***11550***
2019	***3000***	***2700***	***3150***	***3000***	***11850***

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.46	.39	.84	.41	2.10
2016	.47	.39	.90	.45	2.21
2017	.47	.45	.97	.42	2.30
2018	.57	***.44***	***1.00***	***.44***	***2.45***
2019	***.58***	***.47***	***1.03***	***.47***	***2.55***

Calendar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.28	.30	.30	.30	1.18
2015	.30	.32	.32	.32	1.26
2016	.32	.34	.34	.34	1.34
2017	.34	.36	.36	.36	1.42
2018	.36	.38	.38		

BUSINESS: Xcel Energy Inc. is the parent of Northern States Power, which supplies electricity to Minnesota, Wisconsin, North Dakota, South Dakota & Michigan & gas to Minnesota, Wisconsin, North Dakota & Michigan; Public Service of Colorado, which supplies electricity & gas to Colorado; & Southwestern Public Service, which supplies electricity to Texas & New Mexico. Customers: 3.6 mill. electric, 1.9 mill. gas. Elec. rev. breakdown: residential, 31%; sm. comm'l & ind'l, 36%; lg. comm'l & ind'l, 18%; other, 15%. Generating sources not available. Fuel costs: 40% of revs. '17 reported depr. rate: 3.1%. Has 11,500 employees. Chairman, Pres. & CEO: Ben Fowke. Inc.: MN. Address: 414 Nicollet Mall, Minneapolis, MN 55401. Tel.: 612-330-5500. Internet: www.xcelenergy.com.

We estimate that Xcel Energy's earnings will advance solidly this year. As usual for this company, rate relief is a key factor. Frequent regulatory activity has enabled Xcel to lower the gap between its allowed and earned returns on equity from one percentage point to half a percentage point within the past three years. Our 2018 profit estimate of $2.45 a share is near the upper end of the company's targeted range of $2.37-$2.47.

Public Service of Colorado and Southwestern Public Service have rate cases pending. In Colorado, the utility is seeking gas hikes totaling $139 million from 2018 through 2020, based on a 10% return on a 55.25% common-equity ratio. An administrative law judge recommended an increase of $46 million (before adjusting for the effects of the new federal tax law), based on a 9.35% return on a 54.2% common-equity ratio. An order is expected this year. P.S. of Colorado's electric case was dismissed, but the utility will file a new application this summer, with an order expected in the first quarter of 2019. SPS reached a settlement with the staff of the Texas commission and intervenors that keeps rates flat (reflecting the effects of tax reform), based on a 9.5% return on a 57% common-equity ratio. Any decision will be retroactive to January. In New Mexico, SPS is seeking a $27 million hike, based on a 10.25% return on a 58% common-equity ratio. An order is expected in the next few months.

We look for a 4% increase in share net in 2019. Again, rate relief should be the main driver of higher profits. This growth rate is slightly below Xcel's yearly target of 5%-6%.

A renewable-energy proposal is pending in Colorado. The utility's preferred option would provide a potential capital investment of abut $1 billion. This is not included in Xcel's capital forecast or in our estimates and projections. A ruling from the state commission is expected in September.

This timely stock has a dividend yield and 3- to 5-year total return potential that are about average, by utility standards. Conservative investors might find this suitable, given that the equity is ranked 1 (Highest) for Safety.

Paul E. Debbas, CFA *July 27, 2018*

(A) Diluted EPS. Excl. nonrecurring gain (losses): '02, ($6.27); '10, 5¢; '15, (16¢); '17, (5¢); gains (losses) on discontinued ops.: '03, 27¢; '04, (30¢); '05, 3¢; '06, 1¢; '09, (1¢); '10, 1¢. '17 EPS don't sum due to rounding. Next earnings report due early Aug. **(B)** Div'ds historically paid mid-Jan., Apr., July, and Oct. ■ Div'd reinvestment plan available. **(C)** Incl. intangibles. In '17: $5.92/sh. **(D)** In mill. **(E)** Rate base: Varies. Rate allowed on com. eq. (blended): 9.6%; earned on avg. com. eq., '17: 10.4%. Regulatory Climate: Average.

Company's Financial Strength	A+
Stock's Price Stability	100
Price Growth Persistence	55
Earnings Predictability	100

Algonquin Power & Utilities Corp. (AQN.TO)

Add to watchlist

Toronto - Toronto Delayed Price. Currency in CAD

12.63 +0.04 (+0.32%)

At close: 4:00PM EDT

Currency in CAD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	8	8	9	11
Avg. Estimate	0.09	0.1	0.6	0.57
Low Estimate	0.05	0.06	0.44	0.37
High Estimate	0.12	0.14	0.71	0.69
Year Ago EPS	0.1	0.13	0.57	0.6

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	4	4	7	9
Avg. Estimate	365.25M	375.28M	1.76B	1.78B
Low Estimate	330M	345M	1.57B	1.51B
High Estimate	449M	424M	2.31B	2.38B
Year Ago Sales	349.64M	355.59M	1.52B	1.76B
Sales Growth (year/est)	4.50%	5.50%	15.30%	1.40%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.11	0.1	0.13	0.19
EPS Actual	0.1	0.13	0.16	0.32
Difference	-0.01	0.03	0.03	0.13
Surprise %	-9.10%	30.00%	23.10%	68.40%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.09	0.1	0.6	0.57
7 Days Ago	0.09	0.1	0.59	0.57
30 Days Ago	0.09	0.09	0.59	0.58
60 Days Ago	0.09	0.1	0.59	0.58
90 Days Ago	0.16	0.16	0.74	0.8

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	N/A	1	N/A
Up Last 30 Days	N/A	N/A	1	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	AQN.TO	Industry	Sector	S&P 500
Current Qtr.	-10.00%	N/A	N/A	0.43
Next Qtr.	-23.10%	N/A	N/A	0.47
Current Year	5.30%	N/A	N/A	0.22
Next Year	-5.00%	N/A	N/A	0.10
Next 5 Years (per annum)	10.00%	N/A	N/A	0.11
Past 5 Years (per annum)	28.07%	N/A	N/A	N/A

Alliant Energy Corporation (LNT)

Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

Quote Lookup

42.88 +0.10 (+0.23%) At close: 4:02PM EDT
42.89 +0.01 (0.01%) After hours: 4:44PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	5	5	8	8
Avg. Estimate	0.43	0.82	2.12	2.25
Low Estimate	0.4	0.77	2.1	2.22
High Estimate	0.45	0.87	2.17	2.27
Year Ago EPS	0.41	0.75	1.93	2.12

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	2	2	5	5
Avg. Estimate	786.16M	1.08B	3.5B	3.64B
Low Estimate	777.25M	921.95M	3.44B	3.53B
High Estimate	795.08M	1.23B	3.61B	3.77B
Year Ago Sales	765.3M	906.9M	3.38B	3.5B
Sales Growth (year/est)	2.70%	18.60%	3.40%	4.00%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.38	0.86	0.36	0.5
EPS Actual	0.41	0.75	0.33	0.52
Difference	0.03	-0.11	-0.03	0.02
Surprise %	7.90%	-12.80%	-8.30%	4.00%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.43	0.82	2.12	2.25
7 Days Ago	0.43	0.82	2.12	2.25
30 Days Ago	0.43	0.82	2.12	2.25
60 Days Ago	0.43	0.82	2.12	2.25
90 Days Ago	0.42	0.89	2.11	2.25

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	N/A	N/A	N/A
Up Last 30 Days	N/A	N/A	N/A	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	LNT	Industry	Sector	S&P 500
Current Qtr.	4.90%	N/A	N/A	0.43
Next Qtr.	9.30%	N/A	N/A	0.47
Current Year	9.80%	N/A	N/A	0.22
Next Year	6.10%	N/A	N/A	0.10
Next 5 Years (per annum)	5.85%	N/A	N/A	0.11
Past 5 Years (per annum)	4.21%	N/A	N/A	N/A

Ameren Corporation (AEE)

NYSE - NYSE Delayed Price. Currency in USD

Add to watchlist

Quote Lookup

61.27 -0.07 (-0.11%)
At close: 4:00PM EDT

61.28 +0.01 (0.01%)
After hours: 4:44PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	6	5	10	11
Avg. Estimate	0.78	1.27	3.04	3.23
Low Estimate	0.69	1.19	2.98	3.16
High Estimate	0.89	1.35	3.08	3.3
Year Ago EPS	0.79	1.24	2.83	3.04

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	2	2	8	8
Avg. Estimate	1.53B	1.71B	6.19B	6.37B
Low Estimate	1.49B	1.66B	6.07B	6.23B
High Estimate	1.58B	1.76B	6.35B	6.52B
Year Ago Sales	1.54B	1.72B	6.18B	6.19B
Sales Growth (year/est)	-0.30%	-0.70%	0.30%	2.80%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.7	1.33	0.36	0.58
EPS Actual	0.79	1.24	0.39	0.62
Difference	0.09	-0.09	0.03	0.04
Surprise %	12.90%	-6.80%	8.30%	6.90%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.78	1.27	3.04	3.23
7 Days Ago	0.78	1.27	3.04	3.23
30 Days Ago	0.78	1.27	3.04	3.23
60 Days Ago	0.78	1.25	3.04	3.2
90 Days Ago	0.83	1.28	3.03	3.2

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	N/A	N/A	N/A
Up Last 30 Days	N/A	N/A	N/A	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	AEE	Industry	Sector	S&P 500
Current Qtr.	-1.30%	N/A	N/A	0.43
Next Qtr.	2.40%	N/A	N/A	0.47
Current Year	7.40%	N/A	N/A	0.22
Next Year	6.20%	N/A	N/A	0.10
Next 5 Years (per annum)	6.30%	N/A	N/A	0.11
Past 5 Years (per annum)	7.79%	N/A	N/A	N/A

Avangrid, Inc. (AGR)

Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

52.77 -0.22 (-0.42%) At close: 4:02PM EDT

52.83 +0.05 (0.09%) After hours: 4:04PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	8	8	10	10
Avg. Estimate	0.49	0.46	2.39	2.52
Low Estimate	0.47	0.36	2.25	2.38
High Estimate	0.56	0.6	2.47	2.61
Year Ago EPS	0.46	0.4	2.2	2.39

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	4	4	5	5
Avg. Estimate	1.33B	1.31B	6.07B	6.19B
Low Estimate	1.2B	1.09B	5.91B	5.99B
High Estimate	1.4B	1.41B	6.17B	6.33B
Year Ago Sales	1.33B	1.34B	5.96B	6.07B
Sales Growth (year/est)	-0.20%	-2.00%	1.70%	2.00%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.4	0.37	0.65	0.8
EPS Actual	0.46	0.4	0.61	0.78
Difference	0.06	0.03	-0.04	-0.02
Surprise %	15.00%	8.10%	-6.20%	-2.50%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.49	0.46	2.39	2.52
7 Days Ago	0.5	0.46	2.39	2.52
30 Days Ago	0.49	0.47	2.4	2.54
60 Days Ago	0.49	0.47	2.4	2.54
90 Days Ago	0.49	0.45	2.41	2.55

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	1	N/A	N/A	N/A
Up Last 30 Days	2	1	N/A	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	1	2	2

Growth Estimates	AGR	Industry	Sector	S&P 500
Current Qtr.	6.50%	N/A	N/A	0.43
Next Qtr.	15.00%	N/A	N/A	0.47
Current Year	8.60%	N/A	N/A	0.22
Next Year	5.40%	N/A	N/A	0.10
Next 5 Years (per annum)	9.70%	N/A	N/A	0.11
Past 5 Years (per annum)	44.75%	N/A	N/A	N/A

Black Hills Corporation (BKH)

Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

Quote Lookup

60.89 -0.31 (-0.51%)
At close: 4:02PM EDT

60.89 0.00 (0.00%)
After hours: 5:00PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	4	4	5	6
Avg. Estimate	0.39	0.51	3.38	3.45
Low Estimate	0.34	0.42	3.3	3.41
High Estimate	0.43	0.58	3.43	3.55
Year Ago EPS	0.41	0.5	3.36	3.38

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	3	3	5	5
Avg. Estimate	371.16M	375.71M	1.76B	1.83B
Low Estimate	341.67M	341.73M	1.69B	1.74B
High Estimate	407.81M	414.39M	1.84B	1.96B
Year Ago Sales	348M	342.1M	1.68B	1.76B
Sales Growth (year/est)	6.70%	9.80%	4.80%	3.90%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.5	0.55	1.05	1.5
EPS Actual	0.41	0.5	0.98	1.63
Difference	-0.09	-0.05	-0.07	0.13
Surprise %	-18.00%	-9.10%	-6.70%	8.70%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.39	0.51	3.38	3.45
7 Days Ago	0.39	0.51	3.39	3.45
30 Days Ago	0.39	0.51	3.39	3.45
60 Days Ago	0.41	0.52	3.41	3.45
90 Days Ago	0.41	0.5	3.43	3.46

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	1	N/A	N/A	1
Up Last 30 Days	1	N/A	N/A	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	1	1	1

Growth Estimates	BKH	Industry	Sector	S&P 500
Current Qtr.	-4.90%	N/A	N/A	0.43
Next Qtr.	2.00%	N/A	N/A	0.47
Current Year	0.60%	N/A	N/A	0.22
Next Year	2.10%	N/A	N/A	0.10
Next 5 Years (per annum)	3.93%	N/A	N/A	0.11
Past 5 Years (per annum)	7.96%	N/A	N/A	N/A

CMS Energy Corporation (CMS)

☆ Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

47.60 -0.11 (-0.23%) At close: 4:02PM EDT
47.61 +0.01 (0.01%) After hours: 4:44PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	8	8	16	16
Avg. Estimate	0.36	0.63	2.34	2.51
Low Estimate	0.32	0.58	2.32	2.48
High Estimate	0.39	0.68	2.4	2.54
Year Ago EPS	0.33	0.62	2.17	2.34

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	3	3	9	9
Avg. Estimate	1.36B	1.64B	6.57B	6.71B
Low Estimate	1.17B	1.5B	6.15B	6.31B
High Estimate	1.49B	1.76B	6.76B	6.95B
Year Ago Sales	1.45B	1.53B	6.58B	6.57B
Sales Growth (year/est)	-6.10%	7.70%	-0.20%	2.20%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.39	0.56	0.51	0.82
EPS Actual	0.33	0.62	0.51	0.86
Difference	-0.06	0.06	0	0.04
Surprise %	-15.40%	10.70%	0.00%	4.90%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.36	0.63	2.34	2.51
7 Days Ago	0.36	0.63	2.34	2.51
30 Days Ago	0.34	0.62	2.34	2.51
60 Days Ago	0.34	0.62	2.33	2.5
90 Days Ago	0.35	0.64	2.33	2.5

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	1	1	1	1
Up Last 30 Days	1	1	1	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	CMS	Industry	Sector	S&P 500
Current Qtr.	9.10%	N/A	N/A	0.43
Next Qtr.	1.60%	N/A	N/A	0.47
Current Year	7.80%	N/A	N/A	0.22
Next Year	7.30%	N/A	N/A	0.10
Next 5 Years (per annum)	7.05%	N/A	N/A	0.11
Past 5 Years (per annum)	7.72%	N/A	N/A	N/A

Consolidated Edison, Inc. (ED)

Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

Quote Lookup

78.96 -0.24 (-0.30%) At close: 4:02PM EDT
78.97 +0.01 (0.01%) After hours: 4:44PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	9	9	15	17
Avg. Estimate	0.57	1.48	4.27	4.45
Low Estimate	0.41	1.29	4.21	4.28
High Estimate	0.65	1.56	4.33	4.54
Year Ago EPS	0.58	1.47	4.12	4.27

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	3	3	8	9
Avg. Estimate	2.65B	3.19B	12.09B	12.54B
Low Estimate	2.51B	3.06B	11.69B	11.83B
High Estimate	2.79B	3.37B	12.68B	13.69B
Year Ago Sales	2.63B	3.21B	12.03B	12.09B
Sales Growth (year/est)	0.50%	-0.50%	0.40%	3.80%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.62	1.51	0.77	1.29
EPS Actual	0.58	1.47	0.8	1.38
Difference	-0.04	-0.04	0.03	0.09
Surprise %	-6.50%	-2.60%	3.90%	7.00%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.57	1.48	4.27	4.45
7 Days Ago	0.57	1.48	4.27	4.45
30 Days Ago	0.57	1.48	4.27	4.45
60 Days Ago	0.56	1.47	4.27	4.46
90 Days Ago	0.56	1.48	4.26	4.46

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	N/A	1	N/A
Up Last 30 Days	1	N/A	2	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	1	N/A	1

Growth Estimates	ED	Industry	Sector	S&P 500
Current Qtr.	-1.70%	N/A	N/A	0.43
Next Qtr.	0.70%	N/A	N/A	0.47
Current Year	3.60%	N/A	N/A	0.22
Next Year	4.20%	N/A	N/A	0.10
Next 5 Years (per annum)	3.39%	N/A	N/A	0.11
Past 5 Years (per annum)	2.66%	N/A	N/A	N/A

DTE Energy Company (DTE)

Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

Quote Lookup

106.38 +0.08 (+0.08%) At close: 4:02PM EDT

106.39 +0.01 (0.01%) After hours: 4:44PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	8	7	12	13
Avg. Estimate	1.02	1.52	5.79	6.16
Low Estimate	0.74	1.25	5.72	6.1
High Estimate	1.17	1.76	5.88	6.3
Year Ago EPS	1.07	1.48	5.59	5.79

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	3	3	6	7
Avg. Estimate	2.52B	2.9B	11.99B	12.45B
Low Estimate	2.18B	2.72B	10.89B	11.27B
High Estimate	2.84B	3.05B	13.23B	13.49B
Year Ago Sales	2.85B	3.25B	12.61B	11.99B
Sales Growth (year/est)	-11.70%	-10.60%	-4.90%	3.80%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	1	1.56	1.19	1.89
EPS Actual	1.07	1.48	1.26	1.91
Difference	0.07	-0.08	0.07	0.02
Surprise %	7.00%	-5.10%	5.90%	1.10%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	1.02	1.52	5.79	6.16
7 Days Ago	1	1.52	5.79	6.16
30 Days Ago	0.96	1.48	5.78	6.14
60 Days Ago	0.95	1.49	5.8	6.15
90 Days Ago	0.95	1.56	5.79	6.14

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	N/A	N/A	1
Up Last 30 Days	1	2	2	3
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	DTE	Industry	Sector	S&P 500
Current Qtr.	-4.70%	N/A	N/A	0.43
Next Qtr.	2.70%	N/A	N/A	0.47
Current Year	3.60%	N/A	N/A	0.22
Next Year	6.40%	N/A	N/A	0.10
Next 5 Years (per annum)	5.58%	N/A	N/A	0.11
Past 5 Years (per annum)	8.42%	N/A	N/A	N/A

Duke Energy Corporation (DUK)

Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

Quote Lookup

80.65 -0.13 (-0.16%) At close: 4:02PM EDT
80.66 +0.01 (0.01%) After hours: 4:44PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	11	10	19	18
Avg. Estimate	1.08	1.69	4.74	4.95
Low Estimate	0.86	1.49	4.69	4.78
High Estimate	2.02	2.7	4.83	5.03
Year Ago EPS	1.01	1.59	4.57	4.74

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	7	6	13	12
Avg. Estimate	5.6B	6.96B	24.09B	24.81B
Low Estimate	5.26B	6.36B	22.93B	23.56B
High Estimate	5.98B	8.03B	25.4B	26.81B
Year Ago Sales	5.55B	6.48B	23.57B	24.09B
Sales Growth (year/est)	0.80%	7.40%	2.20%	3.00%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	1.01	1.55	0.92	1.14
EPS Actual	1.01	1.59	0.94	1.28
Difference	0	0.04	0.02	0.14
Surprise %	0.00%	2.60%	2.20%	12.30%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	1.08	1.69	4.74	4.95
7 Days Ago	1.08	1.69	4.73	4.95
30 Days Ago	1.08	1.69	4.73	4.95
60 Days Ago	1.09	1.71	4.73	4.95
90 Days Ago	0.98	1.75	4.7	4.95

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	1	1	1
Up Last 30 Days	1	1	2	3
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	N/A	N/A	N/A

Growth Estimates	DUK	Industry	Sector	S&P 500
Current Qtr.	6.90%	N/A	N/A	0.43
Next Qtr.	6.30%	N/A	N/A	0.47
Current Year	3.70%	N/A	N/A	0.22
Next Year	4.40%	N/A	N/A	0.10
Next 5 Years (per annum)	4.22%	N/A	N/A	0.11
Past 5 Years (per annum)	1.33%	N/A	N/A	N/A

Emera Incorporated (EMA.TO)

Add to watchlist

Toronto - Toronto Delayed Price. Currency in CAD

42.69 +0.15 (+0.35%)

At close: 4:00PM EDT

Currency in CAD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	11	10	14	14
Avg. Estimate	0.62	0.69	2.81	2.91
Low Estimate	0.55	0.51	2.7	2.76
High Estimate	0.7	0.8	3.06	3.1
Year Ago EPS	0.55	0.55	2.46	2.81

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	4	4	9	9
Avg. Estimate	1.45B	1.61B	6.64B	6.91B
Low Estimate	1.29B	1.52B	5.66B	6.21B
High Estimate	1.7B	1.72B	7.8B	8.29B
Year Ago Sales	1.47B	1.43B	6.23B	6.64B
Sales Growth (year/est)	-1.10%	12.70%	6.60%	4.00%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.51	0.72	0.61	0.81
EPS Actual	0.55	0.55	0.64	0.87
Difference	0.04	-0.17	0.03	0.06
Surprise %	7.80%	-23.60%	4.90%	7.40%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.62	0.69	2.81	2.91
7 Days Ago	0.62	0.68	2.82	2.9
30 Days Ago	0.62	0.69	2.82	2.9
60 Days Ago	0.62	0.69	2.82	2.89
90 Days Ago	0.61	0.66	2.75	2.87

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	1	N/A	1
Up Last 30 Days	1	2	1	6
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	N/A	1	N/A

Growth Estimates	EMA.TO	Industry	Sector	S&P 500
Current Qtr.	12.70%	N/A	N/A	0.43
Next Qtr.	25.50%	N/A	N/A	0.47
Current Year	14.20%	N/A	N/A	0.22
Next Year	3.60%	N/A	N/A	0.10
Next 5 Years (per annum)	7.20%	N/A	N/A	0.11
Past 5 Years (per annum)	10.02%	N/A	N/A	N/A

Entergy Corporation (ETR)

NYSE - NYSE Delayed Price. Currency in USD

Add to watchlist

Quote Lookup

81.70 -0.11 (-0.13%) At close: 4:02PM EDT
81.71 +0.01 (0.01%) After hours: 4:44PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	8	6	14	14
Avg. Estimate	1.44	2.8	6.23	6.01
Low Estimate	1.06	2.53	5.29	5.71
High Estimate	2.03	3.29	6.6	6.7
Year Ago EPS	3.11	2.35	7.2	6.23

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	4	4	11	11
Avg. Estimate	2.83B	3.41B	11.58B	11.78B
Low Estimate	2.65B	3.24B	10.69B	10.98B
High Estimate	2.99B	3.55B	12.34B	12.62B
Year Ago Sales	2.62B	3.24B	11.07B	11.58B
Sales Growth (year/est)	8.10%	5.00%	4.60%	1.70%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	1.19	2.19	0.46	1.28
EPS Actual	3.11	2.35	0.76	1.16
Difference	1.92	0.16	0.3	-0.12
Surprise %	161.30%	7.30%	65.20%	-9.40%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	1.44	2.8	6.23	6.01
7 Days Ago	1.41	2.73	6.23	6.01
30 Days Ago	1.41	2.66	6.25	5.96
60 Days Ago	1.42	2.66	6.26	5.98
90 Days Ago	1.41	2.69	6	5.76

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	N/A	N/A	N/A
Up Last 30 Days	2	3	3	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	N/A	N/A	1

Growth Estimates	ETR	Industry	Sector	S&P 500
Current Qtr.	-53.70%	N/A	N/A	0.43
Next Qtr.	19.10%	N/A	N/A	0.47
Current Year	-13.50%	N/A	N/A	0.22
Next Year	-3.50%	N/A	N/A	0.10
Next 5 Years (per annum)	-0.21%	N/A	N/A	0.11
Past 5 Years (per annum)	0.85%	N/A	N/A	N/A

Exelon Corporation (EXC)

NYSE - NYSE Delayed Price. Currency in USD

Add to watchlist

Quote Lookup

41.92 -0.23 (-0.55%) At close: 4:01PM EDT

41.92 0.00 (0.00%) After hours: 5:48PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	11	10	20	19
Avg. Estimate	0.61	0.96	3.09	3.08
Low Estimate	0.58	0.9	3.01	2.87
High Estimate	0.69	1.02	3.19	3.2
Year Ago EPS	0.54	0.85	2.6	3.09

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	7	7	11	14
Avg. Estimate	7.48B	9.11B	31.82B	32.04B
Low Estimate	6.34B	7.08B	25.65B	25.7B
High Estimate	8.07B	11.43B	35.78B	36.22B
Year Ago Sales	7.62B	8.77B	33.53B	31.82B
Sales Growth (year/est)	-1.90%	3.90%	-5.10%	0.70%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.53	0.86	0.6	0.91
EPS Actual	0.54	0.85	0.55	0.96
Difference	0.01	-0.01	-0.05	0.05
Surprise %	1.90%	-1.20%	-8.30%	5.50%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.61	0.96	3.09	3.08
7 Days Ago	0.6	0.97	3.09	3.08
30 Days Ago	0.61	0.97	3.09	3.08
60 Days Ago	0.61	0.97	3.08	3.06
90 Days Ago	0.6	1.05	3.04	3.04

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	1	1	3	2
Up Last 30 Days	1	1	4	3
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	1	N/A	1

Growth Estimates	EXC	Industry	Sector	S&P 500
Current Qtr.	13.00%	N/A	N/A	0.43
Next Qtr.	12.90%	N/A	N/A	0.47
Current Year	18.80%	N/A	N/A	0.22
Next Year	-0.30%	N/A	N/A	0.10
Next 5 Years (per annum)	4.19%	N/A	N/A	0.11
Past 5 Years (per annum)	2.77%	N/A	N/A	N/A

Fortis Inc. (FTS.TO)

Add to watchlist

Toronto - Toronto Delayed Price. Currency in CAD

42.89 +0.22 (+0.52%)

At close: 3:59PM EDT

Currency in CAD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	10	9	11	13
Avg. Estimate	0.59	0.6	2.54	2.68
Low Estimate	0.55	0.57	2.46	2.51
High Estimate	0.61	0.65	2.67	3.07
Year Ago EPS	0.61	0.61	2.53	2.54

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	4	4	7	8
Avg. Estimate	2.12B	2.16B	8.92B	9.39B
Low Estimate	2.01B	2.12B	8.26B	8.56B
High Estimate	2.23B	2.2B	9.68B	10.2B
Year Ago Sales	2.02B	1.9B	8.3B	8.92B
Sales Growth (year/est)	5.00%	13.80%	7.40%	5.30%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.55	0.57	0.63	0.7
EPS Actual	0.61	0.61	0.61	0.69
Difference	0.06	0.04	-0.02	-0.01
Surprise %	10.90%	7.00%	-3.20%	-1.40%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.59	0.6	2.54	2.68
7 Days Ago	0.58	0.6	2.54	2.68
30 Days Ago	0.58	0.6	2.54	2.68
60 Days Ago	0.58	0.6	2.54	2.68
90 Days Ago	0.6	0.59	2.56	2.66

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	1	1	1	N/A
Up Last 30 Days	1	2	1	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	FTS.TO	Industry	Sector	S&P 500
Current Qtr.	-3.30%	N/A	N/A	0.43
Next Qtr.	-1.60%	N/A	N/A	0.47
Current Year	0.40%	N/A	N/A	0.22
Next Year	5.50%	N/A	N/A	0.10
Next 5 Years (per annum)	4.14%	N/A	N/A	0.11
Past 5 Years (per annum)	17.29%	N/A	N/A	N/A

NorthWestern Corporation (NWE)

☆ Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

58.11 -0.15 (-0.26%) At close: 4:02PM EDT

58.11 0.00 (0.00%) After hours: 5:00PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	5	4	4	6
Avg. Estimate	0.47	0.73	3.42	3.41
Low Estimate	0.35	0.62	3.4	3.27
High Estimate	0.54	0.77	3.45	3.5
Year Ago EPS	0.47	0.74	3.3	3.42

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	2	2	4	5
Avg. Estimate	288.08M	313.51M	1.31B	1.34B
Low Estimate	286.14M	312.21M	1.31B	1.33B
High Estimate	290.02M	314.81M	1.32B	1.35B
Year Ago Sales	283.86M	309.93M	1.31B	1.31B
Sales Growth (year/est)	1.50%	1.20%	0.50%	2.20%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.63	0.71	1.03	1.17
EPS Actual	0.47	0.74	0.96	1.11
Difference	-0.16	0.03	-0.07	-0.06
Surprise %	-25.40%	4.20%	-6.80%	-5.10%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.47	0.73	3.42	3.41
7 Days Ago	0.47	0.73	3.42	3.41
30 Days Ago	0.47	0.73	3.42	3.41
60 Days Ago	0.47	0.73	3.42	3.41
90 Days Ago	0.44	0.71	3.42	3.4

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	N/A	N/A	N/A
Up Last 30 Days	N/A	N/A	N/A	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	NWE	Industry	Sector	S&P 500
Current Qtr.	N/A	N/A	N/A	0.43
Next Qtr.	-1.40%	N/A	N/A	0.47
Current Year	3.60%	N/A	N/A	0.22
Next Year	-0.30%	N/A	N/A	0.10
Next 5 Years (per annum)	3.16%	N/A	N/A	0.11
Past 5 Years (per annum)	11.96%	N/A	N/A	N/A

S&P 500 2,809.55 +11.12 (+0.40%)
Dow 30 25,119.89 +55.53 (+0.22%)

PPL Corporation (PPL)

NYSE - NYSE Delayed Price. Currency in USD

Add to watchlist

Quote Lookup

28.41 -0.11 (-0.39%) At close: 4:02PM EDT
28.34 -0.07 (-0.25%) After hours: 4:44PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	8	8	14	15
Avg. Estimate	0.54	0.59	2.33	2.44
Low Estimate	0.5	0.53	2.28	2.39
High Estimate	0.59	0.73	2.39	2.5
Year Ago EPS	0.52	0.56	2.25	2.33

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	4	4	10	10
Avg. Estimate	1.76B	1.98B	7.65B	8B
Low Estimate	1.7B	1.82B	7.52B	7.67B
High Estimate	1.81B	2.3B	7.83B	8.22B
Year Ago Sales	1.73B	1.84B	7.45B	7.65B
Sales Growth (year/est)	2.10%	7.10%	2.70%	4.60%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.5	0.53	0.48	0.66
EPS Actual	0.52	0.56	0.55	0.74
Difference	0.02	0.03	0.07	0.08
Surprise %	4.00%	5.70%	14.60%	12.10%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.54	0.59	2.33	2.44
7 Days Ago	0.54	0.59	2.32	2.44
30 Days Ago	0.54	0.59	2.32	2.44
60 Days Ago	0.54	0.59	2.32	2.44
90 Days Ago	0.54	0.6	2.31	2.44

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	N/A	1	N/A
Up Last 30 Days	N/A	N/A	1	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	N/A	N/A	1

Growth Estimates	PPL	Industry	Sector	S&P 500
Current Qtr.	3.80%	N/A	N/A	0.43
Next Qtr.	5.40%	N/A	N/A	0.47
Current Year	3.60%	N/A	N/A	0.22
Next Year	4.70%	N/A	N/A	0.10
Next 5 Years (per annum)	2.14%	N/A	N/A	0.11
Past 5 Years (per annum)	-0.86%	N/A	N/A	N/A

Public Service Enterprise Group Incorporated (PEG)

Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

51.74 -0.07 (-0.14%) At close: 4:03PM EDT

51.74 0.00 (0.00%) After hours: 5:48PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	10	9	15	15
Avg. Estimate	0.64	0.92	3.1	3.29
Low Estimate	0.46	0.76	3.07	3.12
High Estimate	0.8	1.18	3.14	3.48
Year Ago EPS	0.62	0.82	2.93	3.1

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	5	5	10	10
Avg. Estimate	2.34B	2.64B	10.01B	10.35B
Low Estimate	2.09B	2.43B	9.33B	9.43B
High Estimate	2.61B	2.77B	11.43B	11.6B
Year Ago Sales	2.13B	2.26B	9.08B	10.01B
Sales Growth (year/est)	9.60%	16.50%	10.20%	3.40%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.58	0.84	0.56	0.99
EPS Actual	0.62	0.82	0.57	0.97
Difference	0.04	-0.02	0.01	-0.02
Surprise %	6.90%	-2.40%	1.80%	-2.00%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.64	0.92	3.1	3.29
7 Days Ago	0.64	0.92	3.1	3.3
30 Days Ago	0.64	0.92	3.1	3.31
60 Days Ago	0.66	0.87	3.1	3.24
90 Days Ago	0.68	0.88	3.12	3.22

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	1	1	N/A
Up Last 30 Days	1	2	1	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	N/A	3	1

Growth Estimates	PEG	Industry	Sector	S&P 500
Current Qtr.	3.20%	N/A	N/A	0.43
Next Qtr.	12.20%	N/A	N/A	0.47
Current Year	5.80%	N/A	N/A	0.22
Next Year	6.10%	N/A	N/A	0.10
Next 5 Years (per annum)	6.34%	N/A	N/A	0.11
Past 5 Years (per annum)	2.97%	N/A	N/A	N/A

Sempra Energy (SRE)
NYSE - NYSE Delayed Price. Currency in USD

Add to watchlist

Quote Lookup

115.61 -0.15 (-0.13%) At close: 4:03PM EDT
115.62 +0.01 (0.01%) After hours: 4:44PM EDT

Summary Chart Conversations Statistics Profile Financials Options Holders Historical Data Analysis Sustainability

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	7	7	11	12
Avg. Estimate	1.18	1.21	5.41	6.1
Low Estimate	1.08	1.04	5.28	5.82
High Estimate	1.31	1.32	5.74	6.39
Year Ago EPS	1.1	1.04	5.42	5.41

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	5	5	7	8
Avg. Estimate	2.65B	2.74B	11.44B	11.94B
Low Estimate	2.57B	2.65B	11.16B	11.49B
High Estimate	2.71B	2.86B	11.68B	12.27B
Year Ago Sales	2.53B	2.68B	11.21B	11.44B
Sales Growth (year/est)	4.60%	2.20%	2.10%	4.30%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.86	1.05	1.41	1.62
EPS Actual	1.1	1.04	1.54	1.43
Difference	0.24	-0.01	0.13	-0.19
Surprise %	27.90%	-1.00%	9.20%	-11.70%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	1.18	1.21	5.41	6.1
7 Days Ago	1.15	1.2	5.42	6.1
30 Days Ago	1.17	1.21	5.38	6.33
60 Days Ago	1.13	1.19	5.39	6.53
90 Days Ago	1.11	1.18	5.5	6.58

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	N/A	1	N/A
Up Last 30 Days	1	2	4	3
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	1	1	2

Growth Estimates	SRE	Industry	Sector	S&P 500
Current Qtr.	7.30%	N/A	N/A	0.43
Next Qtr.	16.30%	N/A	N/A	0.47
Current Year	-0.20%	N/A	N/A	0.22
Next Year	12.80%	N/A	N/A	0.10
Next 5 Years (per annum)	8.45%	N/A	N/A	0.11
Past 5 Years (per annum)	5.36%	N/A	N/A	N/A

The Southern Company (SO)

Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

Quote Lookup

47.65 -0.06 (-0.13%) At close: 4:02PM EDT

47.66 +0.01 (0.01%) After hours: 4:44PM EDT

Summary Chart Conversations Statistics Profile Financials Options Holders Historical Data Analysis Sustainability

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	10	10	18	18
Avg. Estimate	0.66	1.05	2.91	3.02
Low Estimate	0.63	0.92	2.86	2.93
High Estimate	0.69	1.25	2.96	3.1
Year Ago EPS	0.73	1.12	3.02	2.91

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	7	7	14	13
Avg. Estimate	5.28B	6.37B	22.74B	23.03B
Low Estimate	4.99B	5.88B	21.57B	20.99B
High Estimate	5.54B	7.27B	23.81B	25.16B
Year Ago Sales	5.43B	6.2B	23.03B	22.74B
Sales Growth (year/est)	-2.80%	2.70%	-1.20%	1.30%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.71	1.07	0.46	0.83
EPS Actual	0.73	1.12	0.51	0.88
Difference	0.02	0.05	0.05	0.05
Surprise %	2.80%	4.70%	10.90%	6.00%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.66	1.05	2.91	3.02
7 Days Ago	0.66	1.04	2.91	3.02
30 Days Ago	0.66	1.04	2.91	3.02
60 Days Ago	0.61	1.01	2.9	3.02
90 Days Ago	0.63	1.09	2.89	3.04

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	1	1	N/A
Up Last 30 Days	1	1	1	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	N/A	N/A	1

Growth Estimates	SO	Industry	Sector	S&P 500
Current Qtr.	-9.60%	N/A	N/A	0.43
Next Qtr.	-6.30%	N/A	N/A	0.47
Current Year	-3.60%	N/A	N/A	0.22
Next Year	3.80%	N/A	N/A	0.10
Next 5 Years (per annum)	2.25%	N/A	N/A	0.11
Past 5 Years (per annum)	1.83%	N/A	N/A	N/A

U.S. Markets closed

S&P 500 2,809.55 +11.12 (+0.40%)

Dow 30 25,119.89 +55.53 (+0.22%)

WEC Energy Group, Inc. (WEC)

Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

Quote Lookup

64.92 -0.12 (-0.18%) At close: 4:01PM EDT

64.93 +0.01 (0.01%) After hours: 4:44PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	7	7	14	14
Avg. Estimate	0.6	0.68	3.3	3.5
Low Estimate	0.23	0.31	3.28	3.45
High Estimate	0.68	0.86	3.32	3.55
Year Ago EPS	0.63	0.68	3.14	3.3

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	4	4	7	8
Avg. Estimate	1.6B	1.67B	7.65B	7.76B
Low Estimate	1.55B	1.63B	7.36B	7.4B
High Estimate	1.68B	1.69B	8.02B	8.22B
Year Ago Sales	1.63B	1.66B	7.65B	7.65B
Sales Growth (year/est)	-1.80%	0.50%	0.00%	1.50%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.58	0.67	0.68	1.17
EPS Actual	0.63	0.68	0.71	1.23
Difference	0.05	0.01	0.03	0.06
Surprise %	8.60%	1.50%	4.40%	5.10%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.6	0.68	3.3	3.5
7 Days Ago	0.6	0.68	3.3	3.5
30 Days Ago	0.59	0.68	3.3	3.49
60 Days Ago	0.57	0.66	3.3	3.49
90 Days Ago	0.59	0.69	3.29	3.49

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	1	1	1	1
Up Last 30 Days	2	1	1	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	WEC	Industry	Sector	S&P 500
Current Qtr.	-4.80%	N/A	N/A	0.43
Next Qtr.	N/A	N/A	N/A	0.47
Current Year	5.10%	N/A	N/A	0.22
Next Year	6.10%	N/A	N/A	0.10
Next 5 Years (per annum)	4.43%	N/A	N/A	0.11
Past 5 Years (per annum)	6.27%	N/A	N/A	N/A

Xcel Energy Inc. (XEL)

NasdaqGS - NasdaqGS Real Time Price. Currency in USD

45.86 -0.21 (-0.46%) At close: 4:00PM EDT
45.87 +0.01 (0.01%) After hours: 4:44PM EDT

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	7	7	15	16
Avg. Estimate	0.47	0.99	2.43	2.59
Low Estimate	0.45	0.93	2.4	2.54
High Estimate	0.49	1.02	2.45	2.63
Year Ago EPS	0.45	0.97	2.3	2.43

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	5	5	10	12
Avg. Estimate	2.62B	3.64B	11.86B	12.16B
Low Estimate	2.32B	3.02B	11.31B	11.52B
High Estimate	2.89B	4.84B	13.43B	13.95B
Year Ago Sales	2.64B	3.02B	11.4B	11.86B
Sales Growth (year/est)	-0.80%	20.70%	4.00%	2.50%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.42	0.92	0.43	0.51
EPS Actual	0.45	0.97	0.42	0.57
Difference	0.03	0.05	-0.01	0.06
Surprise %	7.10%	5.40%	-2.30%	11.80%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.47	0.99	2.43	2.59
7 Days Ago	0.47	0.99	2.43	2.59
30 Days Ago	0.47	0.99	2.43	2.59
60 Days Ago	0.47	0.99	2.43	2.59
90 Days Ago	0.48	0.99	2.43	2.6

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	1	1	N/A	N/A
Up Last 30 Days	1	1	1	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	1	1

Growth Estimates	XEL	Industry	Sector	S&P 500
Current Qtr.	4.40%	N/A	N/A	0.43
Next Qtr.	2.10%	N/A	N/A	0.47
Current Year	5.70%	N/A	N/A	0.22
Next Year	6.60%	N/A	N/A	0.10
Next 5 Years (per annum)	5.86%	N/A	N/A	0.11
Past 5 Years (per annum)	4.18%	N/A	N/A	N/A

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Algonquin Power & Utilities Corp. (AQN)

(Real Time Quote from BATS)

$9.59 USD

+0.02 (0.21%)

Updated Jul 18, 2018 01:22 PM ET

Zacks Rank:
1-Strong Buy 1
Style Scores:
D Value | B Growth | C Momentum | B VGM
Industry Rank:
Top 31%(78 out of 255)
Industry: Utility - Electric Power

Quote Overview

Ranked Stocks Enter Symbol

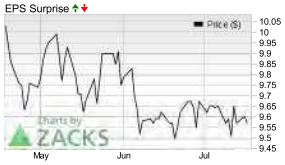
Stock Activity		Key Earnings Data	
Open	9.57	Earnings ESP	15.38%
Day Low	9.52	Most Accurate Est	0.10
Day High	9.59	Current Qtr Est	0.09
52 Wk Low	9.45	Current Yr Est	0.66
52 Wk High	11.34	Exp Earnings Date	*AMC 8/9/18
Avg. Volume	155,041	Prior Year EPS	0.58
Market Cap	4.50 B	Exp EPS Growth (3-5yr)	8.00%
Dividend	0.51 (5.36%)	Forward PE	14.55
Beta	0.76	PEG Ratio	1.82

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Report For AQN

All Zacks' Analyst Reports »

News For AQN

- Zacks News for AQN
- Other News for AQN

Alliant (LNT) Cuts Emissions, to Build 210 MW Iowa Wind Farm
07/17/18-9:30AM EST Zacks

MDU Resources Buys & Expands Construction Material Business
07/17/18-9:20AM EST Zacks

AQN: What are Zacks experts saying now?
Zacks Private Portfolio Services

Pattern Energy (PEGI) in Focus: Stock Moves 5.1% Higher
07/17/18-7:44AM EST Zacks

SCANA & Dominion Energy's Merger Deal Gets FERC Approval
07/16/18-5:20PM EST Zacks

Dominion & SCANA Merger Heads Toward Closing, Gets FERC...
07/16/18-8:14AM EST Zacks

More Zacks News for AQN

Looking For A Utility With Growth? Algonquin Is For You
07/16/18-8:54AM EST Seeking Alpha

Dividend Sensei's Portfolio Update 43: The 3 Essential Things All Investors Need To Get Rich
07/16/18-8:54AM EST Seeking Alpha

Buy 5 Defensive Stocks As US-China Trade Conflicts Intensify
07/11/18-11:15AM EST TalkMarkets

10 Best Stocks Under $10
07/10/18-9:37AM EST InvestorPlace

List Of High Yield Alternative Energy Stocks
07/09/18-3:15AM EST TalkMarkets

More Other News for AQN

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

Algonquin Power & Utilities Corp. is a renewable energy and regulated utility company engaged in the ownership of power generation facilities, and water and energy utilities primarily in North America. The Corporation invests in hydroelectric, wind and solar power facilities, and sustainable utility distribution businesses (water, electricity and natural gas) through its subsidiaries. Algonquin Power & Utilities Corp. is headquartered in Oakville, Canada.

Full Company Report for AQN »

Premium Research for AQN

Zacks Rank	Strong Buy 1
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	D Value | B Growth | C Momentum | B VGM
Earnings ESP	15.38%
Research Report for AQN	Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

WP-45
McKenzie
Page 2 of 19

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Alliant Energy Corporation (LNT)
(Real Time Quote from BATS)

$42.61 USD
-0.27 (-0.63%)
Updated Jul 18, 2018 01:24 PM ET

Add to portfolio | Trades from $3

Zacks Rank:
3-Hold 3
Style Scores:
C Value | F Growth | D Momentum | F VGM
Industry Rank:
Top 31%(78 out of 255)
Industry: Utility - Electric Power

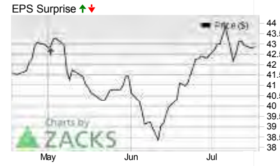
Quote Overview
Zacks #1 Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	42.85	Earnings ESP	-5.88%
Day Low	42.41	Most Accurate Est	0.40
Day High	42.85	Current Qtr Est	0.43
52 Wk Low	36.84	Current Yr Est	2.12
52 Wk High	45.55	Exp Earnings Date	*AMC8/2/18
Avg. Volume	1,219,260	Prior Year EPS	1.93
Market Cap	9.92 B	Exp EPS Growth (3-5yr)	5.58%
Dividend	1.34 (3.13%)	Forward PE	20.18
Beta	0.31	PEG Ratio	3.62

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart
1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For LNT
All Zacks' Analyst Reports »

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

News For LNT
- Zacks News for LNT
- Other News for LNT

Alliant (LNT) Cuts Emissions, to Build 210 MW Iowa Wind Farm
07/17/18-9:30AM EST Zacks

Brookfield Infrastructure (BIP) Looks Good: Stock Adds 5.5% in...
07/06/18-7:44AM EST Zacks

LNT: What are Zacks experts saying now?
Zacks Private Portfolio Services

TELUS Invests $110M for Fibre Optic Network in Richmond
07/02/18-9:25AM EST Zacks

XEL vs. LNT: Which Stock Is the Better Value Option?
06/20/18-8:30AM EST Zacks

Alliant Energy Furthers Green Plans, Partners EDF Renewables
06/15/18-10:18AM EST Zacks

More Zacks News for LNT

Alliant Energy, Invenergy to develop 210 MW wind project in Iowa
07/17/18-11:26AM EST Seeking Alpha

Alliant Energy announces fifth project in Iowa wind expansion
07/16/18-5:00PM EST PR Newswire

Alliant Energy Corporation declares quarterly common stock dividend
07/16/18-8:30AM EST PR Newswire

Alliant Energy declares $0.335 dividend
07/16/18-7:44AM EST Seeking Alpha

Rose Portfolio 93 Stock Cost Per Share Revealed In The First Half And Q2 2018 Report
Seeking Alpha

More Other News for LNT

Company Summary
Alliant Energy Corporation is a Midwest U.S. energy company. The Company is primarily engaged in electric generation and the distribution of electricity and natural gas. They serve approximately electric and natural gas customers through their two public utility subsidiaries, Interstate Power and Light (IPL) and Wisconsin Power and Light (WPL). IPL provides retail electric and gas service in Iowa, and WPL provides retail and wholesale electric and retail gas service in Wisconsin. IPL also sells electricity to wholesale customers in Minnesota, Illinois and Iowa.

Full Company Report for LNT »

Premium Research for LNT

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	C Value | F Growth | D Momentum | F VGM
Earnings ESP	-5.88%
Research Reports for LNT	Analyst | Snapshot

(= Change in last 30 days)

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Ameren Corporation (AEE)
(Real Time Quote from BATS)

$61.04 USD
-0.23 (-0.38%)
Updated Jul 18, 2018 01:24 PM ET

Add to port | Trades from $3

Zacks Rank: 2-Buy
Style Scores: C Value | C Growth | F Momentum | D VGM
Industry Rank: Top 31%(78 out of 255)
Industry: Utility - Electric Power

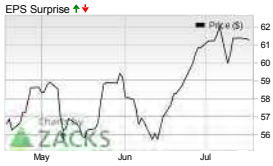
Quote Overview
Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	61.24	Earnings ESP	-2.80%
Day Low	60.73	Most Accurate Est	0.78
Day High	61.26	Current Qtr Est	0.80
52 Wk Low	51.89	Current Yr Est	3.04
52 Wk High	64.89	Exp Earnings Date	*BMO 8/3/18
Avg. Volume	1,337,177	Prior Year EPS	2.83
Market Cap	14.93 B	Exp EPS Growth (3-5yr)	6.54%
Dividend	1.83 (2.99%)	Forward PE	20.16
Beta	0.28	PEG Ratio	3.08

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart
1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For AEE
All Zacks' Analyst Reports »

News For AEE
- Zacks News for AEE
- Other News for AEE

Duke Energy to Construct $250M LNG Storage in North Carolina
07/16/18-7:31AM EST Zacks

PG&E Corporation to Reduce 1 Million Ton Gas Emission by 2022
07/13/18-8:04AM EST Zacks

AEE: What are Zacks experts saying now?
Zacks Private Portfolio Services

4 Utility Stocks to Buy as US-China Trade War Escalates
07/13/18-7:47AM EST Zacks

Frontier Communications Introduces Frontier AnyWare UCaaS
07/12/18-9:01AM EST Zacks

Duke Energy Completes 25MW Solar Project Buyout in New York
07/11/18-9:08AM EST Zacks

More Zacks News for AEE

Ameren Corp Gets a Hold Rating from Morgan Stanley
07/16/18-7:31AM EST Smarter Analyst

Ameren Corporation Second Quarter 2018 Earnings Webcast Aug. 3, 2018
07/16/18-11:34AM EST PR Newswire

Ameren (AEE) Shares Cross 3% Yield Mark
07/03/18-2:11AM EST Dividend Channel

Ameren Reaches Analyst Target Price
06/29/18-6:35AM EST ETF Channel

Ameren Missouri offers innovative new program for cities and business[illegible] energy goals

More Other News for AEE

Premium Research for AEE

Zacks Rank	Buy 2
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	C Value | C Growth | F Momentum | D VGM
Earnings ESP	-2.80%
Research Reports for AEE	Analyst | Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

More Premium Research »

Billion Dollar Secret


The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary
Ameren Corporation powers the quality of life for electric customers and natural gas customers through its Ameren Missouri and Ameren Illinois rate-regulated utility subsidiaries. Ameren Illinois provides electric distribution and transmission service, as well as natural gas distribution service, while Ameren Missouri provides vertically integrated electric service and natural gas distribution service. Ameren Transmission Company of Illinois develops regional electric transmission projects.

Full Company Report for AEE »

Avangrid, Inc. (AGR)

(Real Time Quote from BATS)

$52.47 USD

-0.30 (-0.57%)

Updated Jul 18, 2018 01:24 PM ET

Zacks Rank:
3-Hold

Style Scores:
C Value | B Growth | F Momentum | D VGM

Industry Rank:
Top 31%(78 out of 255)
Industry: Utility - Electric Power

Quote Overview

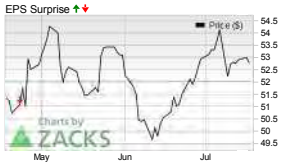
Stock Activity		Key Earnings Data	
Open	52.81	Earnings ESP	-1.04%
Day Low	52.20	Most Accurate Est	0.48
Day High	52.86	Current Qtr Est	0.48
52 Wk Low	44.24	Current Yr Est	2.38
52 Wk High	54.55	Exp Earnings Date	*BMO 7/24/18
Avg. Volume	391,451	Prior Year EPS	2.20
Market Cap	16.31 B	Exp EPS Growth (3-5yr)	9.14%
Dividend	1.73 (3.27%)	Forward PE	22.30
Beta	0.17	PEG Ratio	2.44

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Report For AGR

All Zacks' Analyst Reports »

News For AGR

- Zacks News for AGR
- Other News for AGR

Duke Energy Completes 25MW Solar Project Buyout in New York
07/11/18-9:08AM EST Zacks

4 Reasons to Add Atlantica Yield (AY) to Your Portfolio Now
07/10/18-8:14AM EST Zacks

AGR: What are Zacks experts saying now?
Zacks Private Portfolio Services

4 Reasons to Add Atmos Energy (ATO) to Enrich Your Portfolio
07/09/18-10:20AM EST Zacks

Duke Energy (DUK) Announces 4.2% Quarterly Dividend Hike
07/09/18-7:32AM EST Zacks

Here's Why You Should Add CMS Energy (CMS) to Your Portfolio
07/05/18-10:11AM EST Zacks

More Zacks News for AGR

Stocks With Rising Relative Strength: Avangrid
07/11/18-11:29AM EST Investors Business Daily

Avangrid declares $0.44 dividend
07/11/18-3:19AM EST Seeking Alpha

AGR Crosses Above Average Analyst Target
07/09/18-7:16AM EST ETF Channel

Avangrid Larger Than S&P 500 Component Tiffany
07/05/18-3:33AM EST The Online Investor

Avangrid Stock Sees Short Interest Move 28.8% Higher
07/03/18-10:09AM EST Market News Video

More Other News for AGR

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

Avangrid, Inc. is an energy and utility company. The company operates regulated utilities, electricity generation and natural gas storage primarily in the United States. Avangrid, Inc. is based in New Gloucester, United States.

Full Company Report for AGR »

Premium Research for AGR

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	C Value | B Growth | F Momentum | D VGM
Earnings ESP	-1.04%
Research Report for AGR	Snapshot

(= Change in last 30 days)

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Access Zacks Data Feed

Black Hills Corporation (BKH)
(Real Time Quote from BATS)

$60.52 USD
-0.37 (-0.61%)
Updated Jul 18, 2018 12:44 PM ET

Add to port | Trades from $3

Zacks Rank:
3-Hold

Style Scores:
B Value | C Growth | F Momentum | C VGM

Industry Rank:
Top 31%(78 out of 255)
Industry: Utility - Electric Power

Quote Overview
Ranked Stocks | Enter Symbol

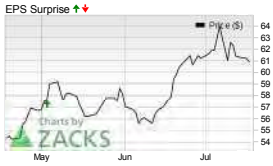
Stock Activity		Key Earnings Data	
Open	60.78	Earnings ESP	-2.44%
Day Low	60.23	Most Accurate Est	0.40
Day High	61.06	Current Qtr Est	0.41
52 Wk Low	50.49	Current Yr Est	3.39
52 Wk High	71.01	Exp Earnings Date	*AMC 8/6/18
Avg. Volume	389,912	Prior Year EPS	3.36
Market Cap	3.26 B	Exp EPS Growth (3-5yr)	4.26%
Dividend	1.90 (3.12%)	Forward PE	18.03
Beta	0.52	PEG Ratio	4.23

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart
1 Month | 3 Months | YTD

EPS Surprise



Interactive Chart | Fundamental Chart

Research Report For BKH
All Zacks' Analyst Reports »

News For BKH
- Zacks News for BKH
- Other News for BKH

FirstEnergy's (FE) Unit to Invest $400M, Seeks BPU's Nod
07/16/18-9:29AM EST Zacks

Black Hills (BKH) Unit to Build Pipelines, Seeks WPSC's Nod
07/03/18-9:44AM EST Zacks

BKH: What are Zacks experts saying now?
Zacks Private Portfolio Services

What's in Store for PPL Corp (PPL) This Earnings Season?
04/30/18-6:56AM EST Zacks

Are Options Traders Betting on a Big Move in Black Hills (BKH)...
04/20/18-7:59AM EST Zacks

Factors That Could Impact the Utility Sector's Returns
01/09/18-12:00AM EST Zacks

More Zacks News for BKH

Black Hills Corp. Receives Approval of Rate Request in Northwest Wyoming
07/18/18-4:16PM EST InPublic

How To Retire At 62 With A Measly Million
07/16/18-7:01AM EST Seeking Alpha

Benzinga's Top Upgrades, Downgrades For July 12, 2018
07/12/18-8:18AM EST Benzinga

BofA Downgrades Black Hills Corp. On Lack Of Projected Catalysts
07/12/18-3:45AM EST Benzinga

Black Hills Corp. Schedules 2018 Second Quarter Earnings Release and Conference Call
07/12/18-4:05PM EST InPublic

More Other News for BKH

Billion Dollar Secret


The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary
Black Hills Corporation is an energy company that generates wholesale electricity and produces natural gas, crude oil and coal. They serve natural gas and electric utility customers in Arkansas, Colorado, Iowa, Kansas, Montana, Nebraska, South Dakota and Wyoming.

Full Company Report for BKH »

Premium Research for BKH

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	B Value | C Growth | F Momentum | C VGM
Earnings ESP	-2.44%
Research Report for BKH	Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

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Partner News

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Consolidated Edison Inc (ED)

(Real Time Quote from BATS)

$78.59 USD

-0.37 (-0.47%)

Updated Jul 18, 2018 01:28 PM ET

Zacks Rank: 3-Hold

Style Scores: D Value | F Growth | D Momentum | F VGM

Industry Rank: Top 31%(78 out of 255)

Industry: Utility - Electric Power

Quote Overview | Ranked Stocks | Enter Symbol

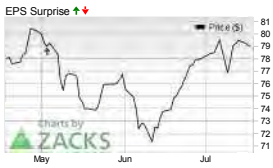
Stock Activity		Key Earnings Data	
Open	79.08	Earnings ESP	8.68%
Day Low	78.28	Most Accurate Est	0.60
Day High	79.11	Current Qtr Est	0.55
52 Wk Low	71.12	Current Yr Est	4.26
52 Wk High	89.70	Exp Earnings Date	*AMC 8/2/18
Avg. Volume	1,715,131	Prior Year EPS	4.09
Market Cap	24.54 B	Exp EPS Growth (3-5yr)	4.00%
Dividend	2.86 (3.62%)	Forward PE	18.58
Beta	0.07	PEG Ratio	4.65

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For ED

All Zacks' Analyst Reports »

News For ED

- Zacks News for ED
- Other News for ED

Top Stock Reports for Chevron, Glaxo & T-Mobile
06/13/18-12:00AM EST Zacks

Why Is Consolidated Edison (ED) Down 2.9% Since Its Last...
06/04/18-4:15AM EST Zacks

ED: What are Zacks experts saying now?
Zacks Private Portfolio Services

AES Corp (AES) Beats on Q1 Earnings, Cost of Sales Up Y/Y
05/08/18-9:04AM EST Zacks

Should VictoryShares US EQ Income Enhanced Volatility Wtd...
05/08/18-8:29AM EST Zacks

CenterPoint Energy (CNP) Tops Q1 Earnings, Sales Up Y/Y
05/04/18-7:57AM EST Zacks

More Zacks News for ED

Con Edison to Report 2nd Quarter 2018 Earnings on August 2
07/16/18-4:30PM EST GlobeNewswire

What JPMorgan, Fastenal, CASS And The DoT Are Saying To Buy
07/16/18-2:00AM EST Seeking Alpha

Dividend Update - June 2018
07/14/18-6:17AM EST Seeking Alpha

Bert's June Dividend Income Summary
07/12/18-9:21AM EST Seeking Alpha

Fix Your Roof While The Sun Is Shining: The Dividend Aristocrats Are (Sorta) On Sale
07/12/18-7:00AM EST Seeking Alpha

More Other News for ED

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

Consolidated Edison, Inc. is one of the nation's largest investor-owned energy-delivery companies. The company provides a wide range of energy-related products and services to its customers through the following subsidiaries: Consolidated Edison Company of New York, Inc., a regulated utility providing electric, gas and steam service in New York City and Westchester County, New York; Orange and Rockland Utilities, Inc., a regulated utility serving customers in southeastern New York State and northern New Jersey; Con Edison Clean Energy Businesses, Inc., which through its subsidiaries develops, owns and operates renewable and energy infrastructure projects and provides energy-related products and services to wholesale and retail customers; and Con Edison Transmission, Inc., which through its subsidiaries invests in electric and natural gas transmission projects.

Full Company Report for ED »

Premium Research for ED

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	D Value | F Growth | D Momentum | F VGM
Earnings ESP	8.68%
Research Reports for ED	Analyst | Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

More Premium Research »

DTE Energy Company (DTE)

(Real Time Quote from BATS)

$106.09 USD

-0.29 (-0.27%)

Updated Jul 18, 2018 01:30 PM ET

Zacks Rank: 3-Hold

Style Scores: B Value | C Growth | F Momentum | C VGM

Industry Rank: Top 31%(78 out of 255)

Industry: Utility - Electric Power

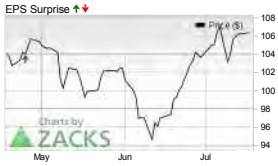
Stock Activity		Key Earnings Data	
Open	106.12	Earnings ESP	2.32%
Day Low	105.55	Most Accurate Est	0.96
Day High	106.54	Current Qtr Est	0.93
52 Wk Low	94.25	Current Yr Est	5.77
52 Wk High	116.74	Exp Earnings Date	*BMO 7/25/18
Avg. Volume	1,242,386	Prior Year EPS	5.59
Market Cap	19.31 B	Exp EPS Growth (3-5yr)	5.33%
Dividend	3.53 (3.32%)	Forward PE	18.43
Beta	0.16	PEG Ratio	3.46

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For DTE

All Zacks' Analyst Reports »

News For DTE

- Zacks News for DTE
- Other News for DTE

Why Is DTE Energy (DTE) Down 2.5% Since its Last Earnings...
05/25/18-9:36AM EST Zacks

Making Sense of the Market
05/25/18-12:00AM EST Zacks

DTE: What are Zacks experts saying now?
Zacks Private Portfolio Services

Yields at 7-Year High: Stocks From Top & Flop Sectors
05/16/18-6:25AM EST Zacks

PG&E (PCG) Falls Short of Earnings & Revenue Estimates in Q1
05/03/18-12:41PM EST Zacks

Brookfield Infrastructure's (BIP) Q1 Earnings Miss Estimates
05/02/18-10:46AM EST Zacks

More Zacks News for DTE

T-Mobile ONE Now Blankets the Globe with Over 210 Countries and Destinations
05/24/18-8:00AM EST Business Wire

DTE Energy schedules second quarter 2018 earnings release, conference call
05/24/18-7:30AM EST PR Newswire

T-Mobile's Got Your Back for Back-to-School with Serious Smartphone Savings
05/23/18-8:00AM EST Business Wire

Un-carrier Pledges $5k to Military for Every Ball Hit Outta the Park at T-Mobile Home Run Derby
05/23/18-8:00AM EST Business Wire

T-Mobile and CBS-Owned WLNY-TV Complete Early Spectrum Repack in New York City
05/23/18-8:00AM EST Business Wire

More Other News for DTE

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

DTE Energy Company is a Detroit-based diversified energy company involved in the development and management of energy-related businesses and services nationwide. Its operating units include an electric utility serving customers in Southeastern Michigan and a natural gas utility serving customers in Michigan. The DTE Energy portfolio includes non-utility energy businesses focused on power and industrial projects, natural gas pipelines, gathering and storage, and energy marketing and trading. As one of Michigan's leading corporate citizens, DTE Energy is a force for growth and prosperity in the Michigan communities it serves in a variety of ways, including philanthropy, volunteerism and economic progress.

Full Company Report for DTE »

Premium Research for DTE

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	B Value | C Growth | F Momentum | C VGM
Earnings ESP	2.32%
Research Reports for DTE	Analyst | Snapshot

(= Change in last 30 days)

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Duke Energy Corporation (DUK)

(Real Time Quote from BATS)

$80.36 USD

-0.29 (-0.36%)

Updated Jul 18, 2018 01:30 PM ET

Zacks Rank: 3-Hold

Style Scores: C Value | D Growth | A Momentum | C VGM

Industry Rank: Top 31%(78 out of 255)

Industry: Utility - Electric Power

Quote Overview

Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	80.74	Earnings ESP	0.25%
Day Low	79.90	Most Accurate Est	0.99
Day High	80.74	Current Qtr Est	0.99
52 Wk Low	71.96	Current Yr Est	4.72
52 Wk High	91.80	Exp Earnings Date	*BMO 8/2/18
Avg. Volume	3,402,742	Prior Year EPS	4.57
Market Cap	56.54 B	Exp EPS Growth (3-5yr)	4.64%
Dividend	3.56 (4.41%)	Forward PE	17.11
Beta	0.12	PEG Ratio	3.69

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD

Interactive Chart | Fundamental Chart

Research Reports For DUK

All Zacks' Analyst Reports »

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- Zacks News for DUK
- Other News for DUK

Alliant (LNT) Cuts Emissions, to Build 210 MW Iowa Wind Farm
07/17/18-9:30AM EST Zacks

FirstEnergy's (FE) Unit to Invest $400M, Seeks BPU's Nod
07/16/18-9:29AM EST Zacks

DUK: What are Zacks experts saying now?
Zacks Private Portfolio Services

Dominion & SCANA Merger Heads Toward Closing, Gets FERC
07/16/18-8:14AM EST Zacks

Duke Energy to Construct $250M LNG Storage in North Carolina
07/16/18-7:31AM EST Zacks

Duke Energy Supports Green Energy Output in South Carolina
07/13/18-9:44AM EST Zacks

More Zacks News for DUK

How Southern Company's Dividend Profile Looks Next to Its Peers
07/17/18-12:40PM EST Market Realist

Duke dumps planned 500 MW wind purchase on transmission cost concerns
10:54AM EST Seeking Alpha

A Look at the Top Utilities and Their Price Targets
07/17/18-8:04AM EST Market Realist

What XLU's Current Implied Volatility Suggests
07/17/18-6:37AM EST Market Realist

12 Dividend Increases: July 2-13, 2018
07/17/18-4:29AM EST Seeking Alpha

More Other News for DUK

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

Duke Energy Corporation is one of the largest energy holding companies in the United States. Its Electric Utilities and Infrastructure business unit serves the customers. The company's Gas Utilities and Infrastructure business unit distributes natural gas to the customers in the Carolinas, Ohio, Kentucky and Tennessee. Its Commercial Renewables business unit operates a growing renewable energy portfolio across the United States.

Full Company Report for DUK »

Premium Research for DUK

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	C Value | D Growth | A Momentum | C VGM
Earnings ESP	0.25%
Research Reports for DUK	Analyst | Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

More Premium Research »

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Access Zacks Data Feed

Entergy Corporation (ETR)

(Real Time Quote from BATS)

$80.54 USD

-1.16 (-1.42%)

Updated Jul 18, 2018 01:32 PM ET

Zacks Rank:
3-Hold

Style Scores:
B Value | B Growth | F Momentum | C VGM

Industry Rank:
Top 31%(78 out of 255)

Industry: Utility - Electric Power

Quote Overview | Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	81.75	Earnings ESP	0.00%
Day Low	80.29	Most Accurate Est	1.43
Day High	81.83	Current Qtr Est	1.43
52 Wk Low	71.95	Current Yr Est	6.32
52 Wk High	87.95	Exp Earnings Date	*BMO 8/1/18
Avg. Volume	1,724,012	Prior Year EPS	7.20
Market Cap	14.77 B	Exp EPS Growth (3-5yr)	7.00%
Dividend	3.56 (4.36%)	Forward PE	12.94
Beta	0.46	PEG Ratio	1.85

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD

Interactive Chart | Fundamental Chart

Research Reports For ETR

All Zacks' Analyst Reports »

News For ETR

- Zacks News for ETR
- Other News for ETR

NiSource (NI) Q1 Earnings In Line, Infrastructure in Focus
05/02/18-9:03AM EST Zacks

Public Service Enterprise (PEG) Q1 Earnings Lag Estimates
04/30/18-10:33AM EST Zacks

ETR: What are Zacks experts saying now?
Zacks Private Portfolio Services

American Electric (AEP) Misses on Q1 Earnings, Keeps '18 View
04/26/18-10:08AM EST Zacks

Entergy (ETR) Q1 Earnings Miss, Revenues Top, '18 View Intact
04/25/18-10:10AM EST Zacks

Entergy Corporation (ETR) Misses on Q1 Earnings Estimates
04/25/18-7:36AM EST Zacks

More Zacks News for ETR

How Exelon Stock Is Valued Compared to Its Peers
07/13/18-8:04AM EST Market Realist

How Analysts Currently Rate Exelon Stock
07/13/18-6:31AM EST Market Realist

Notable Two Hundred Day Moving Average Cross - ETR
07/09/18-3:01AM EST Energy Stock Channel

Short Interest Moves 317.8% Higher For ETR
07/03/18-9:30AM EST Market News Video

FirstEnergy's Price Targets and Analysts' Recommendations
07/02/18-6:35AM EST Market Realist

More Other News for ETR

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

Entergy Corporation is an integrated energy company engaged primarily in electric power production and retail distribution operations. Entergy owns and operates power plants of electric generating capacity, including nuclear power. Entergy delivers electricity to utility customers in Arkansas, Louisiana, Mississippi and Texas.

Full Company Report for ETR »

Premium Research for ETR

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	B Value | B Growth | F Momentum | C VGM
Earnings ESP	0.00%
Research Reports for ETR	Analyst | Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

More Premium Research »

Eversource Energy (ES)

(Real Time Quote from BATS)

$58.54 USD

-0.33 (-0.56%)

Updated Jul 18, 2018 01:32 PM ET

Zacks Rank: 2-Buy

Style Scores: C Value | F Growth | B Momentum | D VGM

Industry Rank: Top 31%(78 out of 255)

Industry: Utility - Electric Power

Quote Overview

Stock Activity		Key Earnings Data	
Open	58.96	Earnings ESP	-0.91%
Day Low	58.42	Most Accurate Est	0.73
Day High	58.98	Current Qtr Est	0.74
52 Wk Low	52.76	Current Yr Est	3.25
52 Wk High	66.15	Exp Earnings Date	7/26/18
Avg. Volume	1,874,313	Prior Year EPS	3.11
Market Cap	18.66 B	Exp EPS Growth (3-5yr)	5.75%
Dividend	2.02 (3.43%)	Forward PE	18.17
Beta	0.32	PEG Ratio	3.16

Utilities » Utility - Electric Power

Price and EPS Surprise Chart

1 Month | 3 Months | YTD

Interactive Chart | Fundamental Chart

Research Reports For ES

All Zacks' Analyst Reports »

News For ES

- Zacks News for ES
- Other News for ES

American Water's (AWK) Unit to Fortify Operation in Garwood
07/18/18-7:39AM EST Zacks

Eversource Reaffirms Offer to Acquire Connecticut Water
06/14/18-10:48AM EST Zacks

ES: What are Zacks experts saying now?
Zacks Private Portfolio Services

Aqua America (WTR) Unit to Buy Limerick's Wastewater Assets
06/12/18-10:20AM EST Zacks

American Water's Unit to Invest $2M for Replacing Old Mains
06/04/18-8:06AM EST Zacks

Why Is Eversource (ES) Down 4.3% Since its Last Earnings...
06/01/18-9:17AM EST Zacks

More Zacks News for ES

Eversource Energy to Discuss Second Quarter Results
07/18/18-9:50AM EST Business Wire

Connecticut Water Service Clarifies Mischaracterization of Eversource's Inferior Acquisition Proposal

Eversource Energy Gets a Hold Rating from Morgan Stanley
07/16/18-7:31AM EST Smarter Analyst

Merger Arbitrage Mondays - July 16, 2018
07/16/18-7:13AM EST Seeking Alpha

Eversource Confirms Full Terms of Revised Superior Proposal to Connecticut Water
07/16/18-7:00AM EST Business Wire

More Other News for ES

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

Eversource Energy is engaged in transmission and distribution of electricity and natural gas. The company operates primarily in Connecticut, Massachusetts and New Hampshire. Eversource Energy, formerly known as Northeast Utilities, is based in Springfield, Massachusetts.

Full Company Report for ES »

Premium Research for ES

Zacks Rank	Buy 2
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	C Value | F Growth | B Momentum | D VGM
Earnings ESP	-0.91%
Research Reports for ES	Analyst | Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

More Premium Research »

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- Broker Recommendations

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Exelon Corporation (EXC)
(Real Time Quote from BATS)

$41.79 USD
-0.14 (-0.32%)
Updated Jul 18, 2018 01:34 PM ET

Add to port | Trades from $3

Zacks Rank:
3-Hold

Style Scores:
B Value | B Growth | A Momentum | A VGM

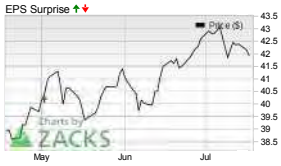
Industry Rank:
Top 31%(78 out of 255)
Industry: Utility - Electric Power

Quote Overview
Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	41.96	Earnings ESP	2.01%
Day Low	41.60	Most Accurate Est	0.61
Day High	42.02	Current Qtr Est	0.60
52 Wk Low	35.57	Current Yr Est	3.08
52 Wk High	43.20	Exp Earnings Date	8/1/18
Avg. Volume	5,667,588	Prior Year EPS	2.60
Market Cap	40.47 B	Exp EPS Growth (3-5yr)	5.67%
Dividend	1.38 (3.29%)	Forward PE	13.69
Beta	0.19	PEG Ratio	2.42

Utilities » Utility - Electric Power

Price and EPS Surprise Chart
1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For EXC
All Zacks' Analyst Reports »

News For EXC
- Zacks News for EXC
- Other News for EXC

Exelon Unit & United Renewable Complete 1.8 MW Solar Project
06/13/18-7:15AM EST Zacks

Exelon (EXC) Up 2.1% Since Earnings Report: Can It Continue?
06/01/18-10:07AM EST Zacks

EXC: What are Zacks experts saying now?
Zacks Private Portfolio Services

Should JPMorgan Diversified Return U.S. Equity ETF (JPUS) Be...
05/15/18-9:30AM EST Zacks

Favorable Weather Drives Duke Energy's (DUK) Q1 Earnings
05/10/18-9:01AM EST Zacks

Ameren (AEE) Q1 Earnings Top Estimates on Higher Sales Volume
05/09/18-10:05AM EST Zacks

More Zacks News for EXC

BGE Named Among 'Most Trusted Utility Brands' by Market Strategies International
07/18/18-8:00AM EST Business Wire

GE Hitachi Selected by U.S. Department of Energy to Lead Advanced Nuclear Technology Development Project for BWRX-300 with Exelon, Bechtel, HGNE and MIT
07/18/18-8:00AM EST Business Wire

New Survey on Gender Inequality in STEM Education Underscores Critical Need for Learning and Mentorship Opportunities to Prepare Young Women for the 21st Century Workforce
07/18/18-8:00AM EST Business Wire

How Exelon Stock Is Valued Compared to Its Peers
07/13/18-8:04AM EST Market Realist

How Analysts Currently Rate Exelon Stock
07/13/18-6:31AM EST Market Realist

More Other News for EXC

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. **Click here to watch the full series. »**

Company Summary
Exelon Corporation is one of the nation's largest electric utilities. The company has one of the industry's largest portfolios of electricity generation capacity, with a nationwide reach and strong positions in the Midwest and Mid-Atlantic. Exelon distributes electricity to the customers in northern Illinois and southeastern Pennsylvania and natural gas to the customers in the Philadelphia area.

Full Company Report for EXC »

Premium Research for EXC

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	B Value | B Growth | A Momentum | A VGM
Earnings ESP	2.01%
Research Reports for EXC	Analyst | Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

More Premium Research »

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McKenzie
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Fortis Inc. (FTS)
(Real Time Quote from BATS)

$32.32 USD
-0.18 (-0.55%)
Updated Jul 18, 2018 01:34 PM ET

Add to portfolio | Trades from $3

Zacks Rank: 4-Sell 4
Style Scores: C Value | C Growth | F Momentum | C VGM
Industry Rank: Top 31%(78 out of 255)
Industry: Utility - Electric Power

Quote Overview

Zacks Rank #1 Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	32.49	Earnings ESP	-1.18%
Day Low	32.20	Most Accurate Est	0.42
Day High	32.51	Current Qtr Est	0.43
52 Wk Low	30.88	Current Yr Est	2.00
52 Wk High	38.24	Exp Earnings Date	*BMO 7/31/18
Avg. Volume	295,004	Prior Year EPS	1.95
Market Cap	13.81 B	Exp EPS Growth (3-5yr)	5.50%
Dividend	1.32 (4.06%)	Forward PE	16.29
Beta	-0.24	PEG Ratio	2.96

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD

Interactive Chart | Fundamental Chart

Research Report For FTS

All Zacks' Analyst Reports »

News For FTS

- Zacks News for FTS
- Other News for FTS

ALLETE (ALE) Ups Dividend by 4.7%, Revises Earnings Outlook
01/25/18-6:20AM EST Zacks

Is a Surprise Coming for Fortis (FTS) This Earnings Season?
11/02/17-8:00AM EST Zacks

FTS: What are Zacks experts saying now?
Zacks Private Portfolio Services

What's in the Cards for Pinnacle West (PNW) in Q3 Earnings?
11/02/17-5:50AM EST Zacks

What to Expect from NRG Energy (NRG) in Q3 Earnings?
11/01/17-6:00PM EST Zacks

What's in the Cards for Eversource (ES) in Q3 Earnings?
11/01/17-7:32AM EST Zacks

More Zacks News for FTS

5 Seriously Undervalued Dividend Stocks To Buy Today
07/18/18-10:55AM EST Seeking Alpha

Dividend Sensei's Portfolio Update 43: The 3 Essential Things All Investors Need To Get Rich
Seeking Alpha

Q2 2018 Dividend Report
07/10/18-7:15AM EST Seeking Alpha

Dividend Sensei's Portfolio Update 42: 3 Reasons A Perfect Jobs Report Spells Great News For Stocks

June 2018 Portfolio Update
07/06/18-8:16AM EST Seeking Alpha

More Other News for FTS

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. **Click here to watch the full series. »**

Company Summary

Fortis, Inc. is engaged in electric and gas utility business. The Company offers regulated utilities comprised of electric and gas as well as engages in non-regulated hydroelectric operations. It operates primarily in Canada, United States and Caribbean. Fortis, Inc. is based in St John's, Canada.

Full Company Report for FTS »

Premium Research for FTS

Zacks Rank	Sell 4
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	C Value | C Growth | F Momentum | C VGM
Earnings ESP	-1.18%
Research Report for FTS	Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

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NorthWestern Corporation (NWE)

(Real Time Quote from BATS)

$57.53 USD

-0.58 (-1.00%)

Updated Jul 18, 2018 01:38 PM ET

Add to portfolio | Trades from $3

Zacks Rank: 3-Hold 3

Style Scores: B Value | C Growth | D Momentum | C VGM

Industry Rank: Top 31%(78 out of 255)

Industry: Utility - Electric Power

Quote Overview

Zacks #1 Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	58.11	Earnings ESP	0.00%
Day Low	57.33	Most Accurate Est	0.44
Day High	58.20	Current Qtr Est	0.44
52 Wk Low	50.01	Current Yr Est	3.42
52 Wk High	64.47	Exp Earnings Date	*AMC7/19/18
Avg. Volume	289,734	Prior Year EPS	3.30
Market Cap	2.88 B	Exp EPS Growth (3-5yr)	3.01%
Dividend	2.20 (3.79%)	Forward PE	17.02
Beta	0.20	PEG Ratio	5.65

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD

Interactive Chart | Fundamental Chart

Research Report For NWE

All Zacks' Analyst Reports »

News For NWE

- Zacks News for NWE
- Other News for NWE

Vexed by a Rocky Market? 5 Low-Beta Utility Picks to Rescue
04/09/18-8:30AM EST Zacks

Itron's OpenWay Riva to be Leveraged by NorthWestern Energy
04/05/18-8:57AM EST Zacks

NWE: What are Zacks experts saying now?
Zacks Private Portfolio Services

North Western Energy (NWE) Misses Q4 Earnings Estimates
02/13/18-2:25PM EST Zacks

Dynegy Continues to Lower Debt Burden, Sells $119M Assets
09/26/17-6:20AM EST Zacks

4 Utilities to Buy in a Bear Market
01/27/16-12:00AM EST Zacks

More Zacks News for NWE

NorthWestern to Host Second Quarter 2018 Financial Results Conference Call and Webcast
... Wire

NWE Crosses Above Average Analyst Target
06/19/18-6:45AM EST ETF Channel

Regulatory Climate, Valuation Turn KeyBanc Bullish On NorthWestern Corp
... EST Benzinga

Benzinga's Top Upgrades, Downgrades For June 4, 2018
06/04/18-8:20AM EST Benzinga

3 Utilities For Stability, Income, And Relative Value
05/21/18-5:39AM EST Seeking Alpha

More Other News for NWE

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

NorthWestern Energy is a growing, financially sound, investor-owned energy company. It has provided reliable and affordable energy to customers in Montana, South Dakota and Nebraska. The company got its start in small communities, providing essential service that allowed them to grow and prosper.

Full Company Report for NWE »

Premium Research for NWE

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	B Value | C Growth | D Momentum | C VGM
Earnings ESP	0.00%
Research Report for NWE	Snapshot

(= Change in last 30 days)

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PPL Corporation (PPL)
(Real Time Quote from BATS)

$28.01 USD
-0.40 (-1.41%)
Updated Jul 18, 2018 01:41 PM ET

Add to port | Trades from $3

Zacks Rank:
3-Hold

Style Scores:
C Value | B Growth | B Momentum | B VGM

Industry Rank:
Top 31%(78 out of 255)
Industry: Utility - Electric Power

Quote Overview

Enter Symbol

Stock Activity		Key Earnings Data	
Open	28.38	Earnings ESP	-2.26%
Day Low	27.96	Most Accurate Est	0.52
Day High	28.50	Current Qtr Est	0.53
52 Wk Low	25.30	Current Yr Est	2.32
52 Wk High	39.90	Exp Earnings Date	*BMO 8/7/18
Avg. Volume	5,606,150	Prior Year EPS	2.25
Market Cap	19.86 B	Exp EPS Growth (3-5yr)	6.00%
Dividend	1.64 (5.77%)	Forward PE	12.32
Beta	0.53	PEG Ratio	2.05

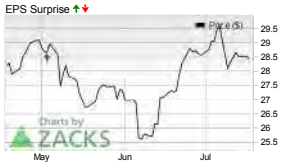
Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD

EPS Surprise



Interactive Chart | Fundamental Chart

Research Reports For PPL

All Zacks' Analyst Reports »

News For PPL

- Zacks News for PPL
- Other News for PPL

FirstEnergy (FE) Unit to Invest $4M to Strengthen Operation
07/12/18-7:45AM EST Zacks

FirstEnergy to Deploy Drones to Survey Bird Nests on Poles
06/15/18-8:16AM EST Zacks

PPL: What are Zacks experts saying now?
Zacks Private Portfolio Services

PPL Corporation Acquires Safari Energy, Plans Expansion
06/05/18-10:22AM EST Zacks

Top Stock Reports for Berkshire Hathaway, Colgate & CME Group
06/05/18-12:00AM EST Zacks

PPL Corporation (PPL) Down 4.6% Since Earnings Report: Can It...
06/04/18-5:02AM EST Zacks

More Zacks News for PPL

How Analysts' Ratings on PPL Stock Have Changed
07/16/18-6:38AM EST Market Realist

Where PPL Stock Might Go from Here
07/13/18-12:35PM EST Market Realist

101 Dividend Achievers Yield 2.8% To 9.7% For June
07/13/18-3:56AM EST Seeking Alpha

PPL's Dividend Yield Reaches Record High
07/13/18-3:40AM EST Market Realist

How PPL's Current Valuation Compares to Its Peers
07/13/18-2:12AM EST Market Realist

More Other News for PPL

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

Headquartered in Allentown, Pa., PPL Corporation is one of the largest companies in the U.S. utility sector. PPL's seven high-performing, award-winning utilities serve 10 million customers in the U.S. and United Kingdom. The company and its 13,000 employees are dedicated to providing exceptional customer service and reliability and delivering superior value for shareowners.

Full Company Report for PPL »

Premium Research for PPL

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	C Value | B Growth | B Momentum | B VGM
Earnings ESP	-2.26%
Research Reports for PPL	Analyst | Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

More Premium Research »

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Public Service Enterprise Group Incorporated (PEG)

(Real Time Quote from BATS)

$51.67 USD

-0.07 (-0.14%)

Updated Jul 18, 2018 01:41 PM ET

Add to port | Trades from $3

Zacks Rank: 3-Hold

Style Scores: B Value | D Growth | D Momentum | C VGM

Industry Rank: Top 31%(78 out of 255)

Industry: Utility - Electric Power

Quote Overview

Ranked Stocks | Enter Symbol

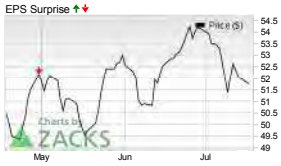
Stock Activity		Key Earnings Data	
Open	51.52	Earnings ESP	6.44%
Day Low	51.22	Most Accurate Est	0.62
Day High	51.84	Current Qtr Est	0.58
52 Wk Low	43.43	Current Yr Est	3.10
52 Wk High	54.50	Exp Earnings Date	*BMO 8/1/18
Avg. Volume	3,030,955	Prior Year EPS	2.93
Market Cap	26.14 B	Exp EPS Growth (3-5yr)	6.13%
Dividend	1.80 (3.48%)	Forward PE	16.70
Beta	0.41	PEG Ratio	2.72

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For PEG

All Zacks' Analyst Reports »

News For PEG

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- Other News for PEG

Public Service Enterprise to Invest in Energy Strong Phase 2
06/12/18-5:18PM EST Zacks

Public Service Enterprise (PEG) Up 2.4% Since Earnings Report:...
05/30/18-8:25AM EST Zacks

PEG: What are Zacks experts saying now?
Zacks Private Portfolio Services

Public Service Enterprise to Gain from Capital Investments
05/25/18-11:01AM EST Zacks

Public Service Enterprise Gets Nod for Gas System Upgrade
05/23/18-9:51AM EST Zacks

Public Service Enterprise Reveals Latest NJ Solar Project
05/18/18-1:56PM EST Zacks

More Zacks News for PEG

PSEG Declares Regular Quarterly Dividend for Third Quarter Of 2018
07/18/18-9:43AM EST PR Newswire

Public Service declares $0.45 dividend
07/17/18-9:38AM EST Seeking Alpha

How Exelon Stock Is Valued Compared to Its Peers
07/13/18-8:04AM EST Market Realist

How Analysts Currently Rate Exelon Stock
07/13/18-6:31AM EST Market Realist

Downside Protection For Dominion Energy
07/11/18-3:03AM EST Seeking Alpha

More Other News for PEG

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

Public Service Entertainment Group has been an active participant in the ongoing policy debate on how the energy industry can best contribute to achieving the nation's environmental objectives. PSEG has advocated independently, and through a coalition of companies known as the Clean Energy Group, for the industry to make further reductions in air pollutants traditionally associated with the production of electricity and to begin mandatory carbon dioxide reductions. PSEG has been actively engaged in the climate change policy debate for more than a decade.

Full Company Report for PEG »

Premium Research for PEG

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	B Value | D Growth | D Momentum | C VGM
Earnings ESP	6.44%
Research Reports for PEG	Analyst | Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

More Premium Research »

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McKenzie
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Sempra Energy (SRE)

(Real Time Quote from BATS)

$114.27 USD

-1.34 (-1.16%)

Updated Jul 18, 2018 01:43 PM ET

Add to portfolio | Trades from $3

Zacks Rank: 5-Strong Sell 5

Style Scores: D Value | C Growth | A Momentum | C VGM

Industry Rank: Top 39%(99 out of 255)

Industry: Utility - Gas Distribution

Quote Overview

Zacks #1 Ranked Stocks

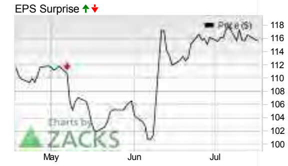
Stock Activity		Key Earnings Data	
Open	115.20	Earnings ESP	0.00%
Day Low	114.00	Most Accurate Est	1.17
Day High	115.60	Current Qtr Est	1.17
52 Wk Low	100.49	Current Yr Est	5.46
52 Wk High	122.98	Exp Earnings Date	*BMO 7/25/18
Avg. Volume	2,269,507	Prior Year EPS	5.42
Market Cap	30.54 B	Exp EPS Growth (3-5yr)	8.50%
Dividend	3.58 (3.10%)	Forward PE	21.20
Beta	0.47	PEG Ratio	2.49

Utilities » Utility - Gas Distribution

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For SRE

All Zacks' Analyst Reports »

News For SRE

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- Other News for SRE

Sempra Energy's IEnova to Build $150M Liquid Fuels Project
07/10/18-8:43AM EST Zacks

Sempra Energy to Sell Assets for Portfolio Optimization
07/02/18-7:16AM EST Zacks

SRE: What are Zacks experts saying now?
Zacks Private Portfolio Services

Enbridge (ENB) Commences Mex-Border Pipeline's Offshore Work
06/14/18-5:00PM EST Zacks

Company News For Jun 12, 2018
06/12/18-8:56AM EST Zacks

Sempra Unit to Up Energy Storage Project Via 83.5 MW Capacity
06/06/18-9:50AM EST Zacks

More Zacks News for SRE

SoCalGas Announces New $75 Residential Rebate for Smart Thermostats
PM EST PR Newswire

Sempra Energy Named To NAACP Equity, Inclusion And Empowerment Index
PR Newswire

Notable Tuesday Option Activity: SRE, BLK, GT
07/17/18-1:31AM EST Stock Options Channel

Looking at Sempra Energy's Current Valuation
07/16/18-6:38AM EST Market Realist

Dividend Sensei's Portfolio Update 43: The 3 Essential Things All Investors Need To Get Rich
Seeking Alpha

More Other News for SRE

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

Sempra Energy utility and infrastructure companies are on a collective mission to maintain long-term sustainable growth. By operating regulated utilities and developing smart energy infrastructure that serve communities around the world, they cohesively execute on a clear corporate strategy of providing safe, reliable energy to their customers while increasing value for all of their stakeholders -from investors and industry partners to customers and employees.

Full Company Report for SRE »

Premium Research for SRE

Zacks Rank	Strong Sell 5
Zacks Industry Rank	Top 39%(99 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	D Value | C Growth | A Momentum | C VGM
Earnings ESP	0.00%
Research Reports for SRE	Analyst | Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

More Premium Research »

Quote & News
Quote Overview

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Zacks News
Partner News

Zacks Research
Snapshot
Analyst Report
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Broker Recommendations

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Cash flow Statements

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Access Zacks Data Feed

Southern Company (The) (SO)

(Real Time Quote from BATS)

$47.34 USD

-0.31 (-0.65%)

Updated Jul 18, 2018 01:43 PM ET

Add to port | Trades from $3

Zacks Rank: 3-Hold

Style Scores: C Value | A Growth | D Momentum | B VGM

Industry Rank: Top 31%(78 out of 255)

Industry: Utility - Electric Power

Quote Overview

Ranked Stocks | Enter Symbol

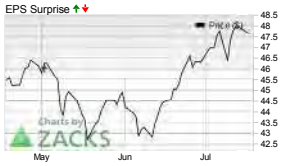
Stock Activity		Key Earnings Data	
Open	47.73	Earnings ESP	0.00%
Day Low	47.18	Most Accurate Est	0.66
Day High	47.73	Current Qtr Est	0.66
52 Wk Low	42.38	Current Yr Est	2.90
52 Wk High	53.51	Exp Earnings Date	*BMO 8/8/18
Avg. Volume	4,538,025	Prior Year EPS	3.02
Market Cap	48.20 B	Exp EPS Growth (3-5yr)	4.50%
Dividend	2.40 (5.04%)	Forward PE	16.47
Beta	0.03	PEG Ratio	3.66

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For SO

All Zacks' Analyst Reports »

News For SO

- Zacks News for SO
- Other News for SO

BIP vs. SO: Which Stock Should Value Investors Buy Now?
07/12/18-8:30AM EST Zacks

Top Research Reports for Amazon, Intel & Eli Lilly
06/27/18-12:00AM EST Zacks

SO: What are Zacks experts saying now?
Zacks Private Portfolio Services

Should You Invest in the Fidelity MSCI Utilities Index ETF (FUTY)?
06/19/18-7:30AM EST Zacks

Southern Company at Crossroads: Can Strategic Strides Aid?
06/15/18-9:00AM EST Zacks

Dominion Energy's Atlantic Coast Pipeline Suffers Setback
06/14/18-8:32AM EST Zacks

More Zacks News for SO

How Southern Company's Dividend Profile Looks Next to Its Peers
07/17/18-12:40PM EST Market Realist

A Look at the Top Utilities and Their Price Targets
07/17/18-8:04AM EST Market Realist

What XLU's Current Implied Volatility Suggests
07/17/18-6:37AM EST Market Realist

Southern Company's Total Returns in the Last Five Years
07/17/18-3:48AM EST Market Realist

Where Southern Company Stands in Dividend Growth
07/17/18-2:17AM EST Market Realist

More Other News for SO

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

Southern Company is America's premier energy company. The company provides clean, safe, reliable and affordable energy through electric operating companies in the states, natural gas distribution companies in the states, a competitive generation company serving wholesale customers across America and nationally recognized provider of energy solutions, as well as fiber optics and wireless communications. Southern Company brands are known for excellent customer service, high reliability and affordable prices that are below the national average. Through an industry-leading commitment to innovation, the company and its subsidiaries are inventing America's energy future by developing the full portfolio of energy resources, including carbon-free nuclear, 21st century coal, natural gas, renewables and energy efficiency, and creating new products and services for the benefit of customers.

Full Company Report for SO »

Premium Research for SO

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	C Value | A Growth | D Momentum | B VGM
Earnings ESP	0.00%
Research Reports for SO	Analyst | Snapshot

(= Change in last 30 days)

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12 Month EPS
Broker Recommendations

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Cash flow Statements

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Access Zacks Data Feed

WEC Energy Group, Inc. (WEC)

(Real Time Quote from BATS)

$64.62 USD

-0.30 (-0.46%)

Updated Jul 18, 2018 01:46 PM ET

Zacks Rank: 3-Hold

Style Scores: C Value | C Growth | F Momentum | C VGM

Industry Rank: Top 31%(78 out of 255)

Industry: Utility - Electric Power

Quote Overview | Ranked Stocks | Enter Symbol

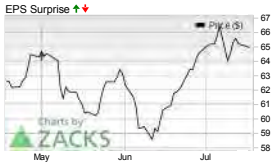
Stock Activity		Key Earnings Data	
Open	65.04	Earnings ESP	-1.95%
Day Low	64.33	Most Accurate Est	0.63
Day High	65.18	Current Qtr Est	0.64
52 Wk Low	58.48	Current Yr Est	3.30
52 Wk High	70.09	Exp Earnings Date	*BMO 7/26/18
Avg. Volume	1,655,376	Prior Year EPS	3.14
Market Cap	20.49 B	Exp EPS Growth (3-5yr)	4.13%
Dividend	2.21 (3.40%)	Forward PE	19.70
Beta	0.08	PEG Ratio	4.77

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For WEC

All Zacks' Analyst Reports »

News For WEC

- Zacks News for WEC
- Other News for WEC

WEC Energy (WEC) to Buy 80% Stake at Illinois' Wind Farm
06/29/18-8:40AM EST Zacks

AES Sells 17% Stake, Exits Distribution Business in Brazil
06/15/18-7:50AM EST Zacks

WEC: What are Zacks experts saying now?
Zacks Private Portfolio Services

NRG Energy Innovates Renewable Plans for Texas Customers
06/13/18-10:00AM EST Zacks

Enphase Energy to Buy SunPower's Microinverter Business
06/13/18-9:25AM EST Zacks

Public Service Enterprise to Invest in Energy Strong Phase 2
06/12/18-5:18PM EST Zacks

More Zacks News for WEC

Dividend Growth 50: Income Up Nearly 10%, Led By Kinder Morgan (Seriously)
06/16AM EST Seeking Alpha

Subcontractor 'on site' ahead of fatal Wisconsin blast
07/12/18-2:45PM EST Associated Press, The

My 4% Dividend Yield Portfolio: Q2'18 Summary And Next Steps
07/12/18-11:26AM EST Seeking Alpha

2018 Second Quarter Portfolio Review - Passive Portfolio Management Success
07/12/18-8:AM EST Seeking Alpha

WEC Energy Group Gets a Hold Rating from Citigroup
07/10/18-7:23AM EST Smarter Analyst

More Other News for WEC

Premium Research for WEC

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	C Value | C Growth | F Momentum | C VGM
Earnings ESP	-1.95%
Research Reports for WEC	Analyst | Snapshot

(= Change in last 30 days)

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Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary

WEC Energy Group is the natural gas distribution company. WEC Energy Group, Inc., formerly known as Wisconsin Energy Corporation, is based in MILWAUKEE, United States.

Full Company Report for WEC »

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- 12 Month EPS
- Broker Recommendations

Financials
- Financial Overview
- Income Statements
- Balance Sheet
- Cash flow Statements

Options
- Option Chain
- Options Greek Montage

Access Zacks Data Feed

Xcel Energy Inc. (XEL)
(Real Time Quote from BATS)

$45.61 USD
-0.25 (-0.55%)
Updated Jul 18, 2018 01:46 PM ET

Add to port | Trades from $3

Zacks Rank:
3-Hold

Style Scores:
C Value | C Growth | C Momentum | C VGM

Industry Rank:
Top 31%(78 out of 255)
Industry: Utility - Electric Power

Quote Overview
Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	45.95	Earnings ESP	2.40%
Day Low	45.41	Most Accurate Est	0.48
Day High	45.99	Current Qtr Est	0.47
52 Wk Low	41.51	Current Yr Est	2.44
52 Wk High	52.22	Exp Earnings Date	*BMO 7/26/18
Avg. Volume	2,875,246	Prior Year EPS	2.30
Market Cap	23.34 B	Exp EPS Growth (3-5yr)	5.67%
Dividend	1.52 (3.31%)	Forward PE	18.90
Beta	0.12	PEG Ratio	3.33

Utilities » Utility - Electric Power

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart
1 Month | 3 Months | YTD

Interactive Chart | Fundamental Chart

Research Reports For XEL
All Zacks' Analyst Reports »

News For XEL
- Zacks News for XEL
- Other News for XEL

Duke Energy Supports Green Energy Output in South Carolina
07/13/18-9:44AM EST Zacks

FirstEnergy (FE) Unit to Invest $4M to Strengthen Operation
07/12/18-7:45AM EST Zacks

XEL: What are Zacks experts saying now?
Zacks Private Portfolio Services

Xcel Energy Buys Wind Project From NextEra, Expands in Texas
07/06/18-9:51AM EST Zacks

Should VictoryShares US EQ Income Enhanced Volatility Wtd...
06/28/18-7:16AM EST Zacks

XEL vs. LNT: Which Stock Is the Better Value Option?
06/20/18-8:30AM EST Zacks

More Zacks News for XEL

How Analysts' Ratings on PPL Stock Have Changed
07/16/18-6:38AM EST Market Realist

Stocks To Watch: Prime Time In Retail
07/14/18-7:52AM EST Seeking Alpha

How PPL's Current Valuation Compares to Its Peers
07/13/18-2:12AM EST Market Realist

American Electric Power: Analyst Recommendations, Price Targets
07/12/18-12:19PM EST Market Realist

Xcel Energy's proposed $380M wind farm approved by South Dakota PUC
07/12/18-9:12AM EST Seeking Alpha

More Other News for XEL

Billion Dollar Secret


The Zacks Rank has been called the Billion Dollar Secret. Click here to watch the full series. »

Company Summary
Xcel Energy Inc. is predominantly an operating public utility engaged in the generation, transmission and distribution of electricity and the transportation, storage and distribution of natural gas.

Full Company Report for XEL »

Premium Research for XEL

Zacks Rank	Hold 3
Zacks Industry Rank	Top 31%(78 out of 255)
Zacks Sector Rank	Bottom 44% (9 out of 16)
Style Scores	C Value | C Growth | C Momentum | C VGM
Earnings ESP	2.40%
Research Reports for XEL	Analyst | Snapshot

(= Change in last 30 days)

View All Zacks Rank #1 Strong Buys

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AQN CN C$ ↑ 12.60 -0.09 14 x 37
At 9:59 d Vol 404,715 O 12.71T H 12.74T L 12.56C Val 5.107M
AQN CN Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Algonquin Power & Utilities Corp Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 08/09/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (8.000)
11) BEst Standard 8.000 05/11/18 0.00%
12) BMO Capital Markets Ben Pham -- 01/12/18 --
13) Wells Fargo Securities Neil A Kalton -- 05/11/18 --
*Current Period Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-0 13-Jul-2018 10:19:34


ALE US $ C ↑ 77.53 -0.18 77.45 / 77.53N 1x2
At 10:11 d Vol 27,892 O 77.89N H 78.10Y L 77.335D Val 2.165M
LNT US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Alliant Energy Corp Period 2018* - Yr Source Standard Cur USD
Earnings & Estimates Next Announcement 08/03/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm | Analyst | Estimate | Date | Deviation from Standard (5.915)
11) BEst Standard | | 5.915 | 06/11/18 | 0.00%
12) Argus Research Corp | Stephen Biggar | 6.000 | 12/09/16 | 1.44%
13) Guggenheim Securities | Shahriar Pourreza | -- | 01/06/17 | --
14) Morningstar, Inc | Andrew Bischof | -- | 06/11/18 | --
15) Wells Fargo Securities | Neil A Kalton | -- | 04/30/18 | --
16) Wolfe Research | Steven I Fleishman | -- | 03/13/13 | --
17) BofAML | Julien Dumoulin-Smith | -- | 05/07/18 | --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
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ALE US $ C 77.45 -0.26 77.40 / 77.49N 1x2
At 10:13 d Vol 28,196 O 77.89N H 78.10Y L 77.335D Val 2.189M
AEE US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Ameren Corp Period 2018* - Yr Source Standard Cur USD
Earnings & Estimates Next Announcement 08/03/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm | Analyst | Estimate | Date | Deviation from Standard (8.973)
11) Argus Research Corp | Gary F Hovis | 5.000 | 12/06/16 | -44.28%
12) BEst Standard | | 8.973 | 06/11/18 | 0.00%
13) Morningstar, Inc | Andrew Bischof | -- | 06/11/18 | --
14) Wells Fargo Securities | Neil A Kalton | -- | 05/18/18 | --
15) BofAML | Julien Dumoulin-Smith | -- | 05/17/18 | --
16) Wolfe Research | Steven I Fleishman | -- | 03/13/13 | --
17) Evercore ISI | Greg Gordon | -- | 01/26/16 | --
18) KeyBanc Capital Markets | Paul T Ridzon | -- | 02/19/16 | --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000
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SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:28:32


ALE US $ C 77.45 -0.26 77.40 / 77.49T 1x1
At 10:13 d Vol 28,196 O 77.89N H 78.10Y L 77.335D Val 2.189M
AGR US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Avangrid Inc Period 2018* - Yr Source Standard Cur USD
Earnings & Estimates Next Announcement 07/24/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (9.705)
11) BEst Standard 9.705 06/28/18 0.00%
12) BofAML Julien Dumoulin-Smith -- 05/24/18 --
13) Wells Fargo Securities Neil A Kalton -- 06/28/18 --
14) Guggenheim Securities Sophie Karp -- 12/05/16 --
15) Macquarie Andrew Weisel -- 02/23/16 --
*Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:29:44


ALE US $ C 77.45 -0.26 77.40 / 77.49T 2x1
At 10:13 d Vol 28,196 O 77.89N H 78.10Y L 77.335D Val 2.189M
BKH US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Black Hills Corp Period 2018* - Yr Source Standard Cur USD
Earnings & Estimates Next Announcement 08/06/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm | Analyst | Estimate | Date | Deviation from Standard (5.010)
11) BEst Standard | | 5.010 | 07/12/18 | 0.00%
12) RBC Capital Markets | Insoo Kim | -- | 07/25/17 | --
13) Sidoti & Company LLC | David Arcaro | -- | 11/20/14 | --
14) BofAML | Julien Dumoulin-Smith | -- | 07/12/18 | --
15) Williams Capital | Christopher R Ellinghaus | -- | 06/04/18 | --
16) Wells Fargo Securities | Sarah Akers | -- | 04/30/18 | --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
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SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:30:38


ALE US $ C 77.45 -0.26 77.40 / 77.48T 1x2
At 10:13 d Vol 28,196 O 77.89N H 78.10Y L 77.335D Val 2.189M
CMS US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
CMS Energy Corp Period 2018* - Yr Source Standard Cur USD
Earnings & Estimates Next Announcement 07/26/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (6.350)
11) Argus Research Corp Stephen Biggar 6.000 11/11/16 -5.51%
12) BEst Standard 6.350 06/20/18 0.00%
13) RBC Capital Markets Shelby G Tucker -- 06/18/17 --
14) Evercore ISI Greg Gordon -- 01/26/16 --
15) BofAML Julien Dumoulin-Smith -- 06/20/18 --
16) Wells Fargo Securities Neil A Kalton -- 04/30/18 --
17) Morningstar, Inc Travis Miller -- 04/18/18 --
18) Wolfe Research Steven I Fleishman -- 03/13/13 --
19) SunTrust Robinson Humphrey Ali Agha -- 04/26/18 --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
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ALE US $ C 77.45 -0.26 77.40 / 77.48T 1x2
At 10:13 d Vol 28,196 O 77.89N H 78.10Y L 77.335D Val 2.189M
ED US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Consolidated Edison Inc Period 2018* - Yr Source Standard Cur USD
Earnings & Estimates Next Announcement 08/02/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (3.000)
11) BEst Standard 3.000 05/29/18 0.00%
12) Argus Research Corp Katelyn Bayone 4.000 12/16/16 33.33%
13) RBC Capital Markets Shelby G Tucker -- 06/18/17 --
14) Morningstar, Inc Charles J Fishman -- 02/20/18 --
15) Wells Fargo Securities Sarah Akers -- 05/03/18 --
16) Guggenheim Securities Shahriar Pourreza -- 01/06/17 --
17) Evercore ISI Greg Gordon -- 01/26/16 --
18) BofAML Julien Dumoulin-Smith -- 05/29/18 --
19) Jefferies Anthony Crowdell -- 05/06/16 --
+Current Period Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:31:48


ALE US $ C ↑ 77.54 -0.17 77.48 / 77.55N 1x1
At 10:17 d Vol 29,198 O 77.89N H 78.10Y L 77.335D Val 2.267M
DTE US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
DTE Energy Co Period 2018* - Yr Source Standard Cur USD
Earnings & Estimates Next Announcement 07/25/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm | Analyst | Estimate | Date | Deviation from Standard (5.533)
11) Argus Research Corp | David E Coleman | 5.000 | 11/08/16 | -9.64%
12) BEst Standard | | 5.533 | 06/29/18 | 0.00%
13) BofAML | Julien Dumoulin-Smith | -- | 06/29/18 | --
14) Wells Fargo Securities | Neil A Kalton | -- | 04/30/18 | --
15) Evercore ISI | Greg Gordon | -- | 01/26/16 | --
16) Deutsche Bank | Jonathan Arnold | -- | 09/27/16 | --
17) Wolfe Research | Steven I Fleishman | -- | 10/25/17 | --
18) Morningstar, Inc | Charles J Fishman | -- | 04/25/18 | --
19) Guggenheim Securities | Shahriar Pourreza | -- | 01/06/17 | --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:32:35


ALE US $ C ↑ 77.54 -0.17 77.48 / 77.56 N 1 x 2
At 10:17 d Vol 29,198 O 77.89 N H 78.10 Y L 77.335 D Val 2.267M
DUK US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Duke Energy Corp Period 2018* - Yr Source Standard Cur USD
Earnings & Estimates Next Announcement 08/02/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm | Analyst | Estimate | Date | Deviation from Standard (4.445)
11) BEst Standard | | 4.445 | 05/10/18 | 0.00%
12) Argus Research Corp | Gary F Hovis | 5.000 | 01/19/17 | 12.49%
13) BGC Partners | Kit Konolige | 5.000 | 05/08/14 | 12.49%
14) SunTrust Robinson Humphrey | Ali Agha | -- | 03/07/18 | --
15) Wells Fargo Securities | Neil A Kalton | -- | 04/30/18 | --
16) Morningstar, Inc | Andrew Bischof | -- | 05/10/18 | --
17) Evercore ISI | Greg Gordon | -- | 01/26/16 | --
18) RBC Capital Markets | Shelby G Tucker | -- | 03/14/18 | --
19) Guggenheim Securities | Shahriar Pourreza | -- | 01/06/17 | --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000
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SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:32:58


ALE US $ C 77.50 -0.21 77.42 / 77.52Z 1x1
At 10:18 d Vol 29,448 O 77.89N H 78.10Y L 77.335D Val 2.286M
EMA CN Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Emera Inc Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 08/09/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (13.400)
11) BEst Standard 13.400 06/22/18 0.00%
12) Morningstar, Inc Andrew Bischof -- 05/11/18 --
13) TD Securities Linda Ezergailis -- 01/27/17 --
14) BMO Capital Markets Ben Pham -- 01/12/18 --
15) Wells Fargo Securities Neil A Kalton -- 06/22/18 --
*Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:34:21


ALE US $ C 77.51 -0.20 77.42 / 77.50N 1x1
At 10:20 d Vol 29,548 O 77.89N H 78.10Y L 77.335D Val 2.294M
ETR US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Entergy Corp Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 08/01/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (3.005)
11) BEst Standard 3.005 06/22/18 0.00%
12) Argus Research Corp David E Coleman 7.000 08/26/16 32.95%
13) Wells Fargo Securities Neil A Kalton -- 06/21/18 --
14) BofAML Julien Dumoulin-Smith -- 06/22/18 --
15) Morningstar, Inc Charles J Fishman -- 04/17/18 --
16) Jefferies Anthony Crowdell -- 04/27/17 --
17) RBC Capital Markets Shelby G Tucker -- 06/18/17 --
18) Guggenheim Securities Shahriar Pourreza -- 01/06/17 --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:35:18

ALE US $ C ↑ 77.51 -0.20 77.42 / 77.51N 1x1
At 10:20 d Vol 29,548 O 77.89N H 78.10Y L 77.335D Val 2.294M
ES US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Eversource Energy Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 08/01/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18

	Firm	Analyst	Estimate	Date	Deviation from Standard (6.267)
11)	BEst Standard		6.267	06/25/18	0.00%
12)	Argus Research Corp	Gary F Hovis	7.000	01/17/17	11.70%
13)	BGC Partners	Kit Konolige	7.000	08/06/14	11.70%
14)	Brean Capital LLC	Michael E Gaugler	8.000	05/02/13	27.66%
15)	Evercore ISI	Greg Gordon	--	01/26/16	--
16)	Janney Montgomery Scott LLC	Michael E Gaugler	--	05/03/18	--
17)	Guggenheim Securities	Shahriar Pourreza	--	01/06/17	--
18)	Morningstar, Inc	Travis Miller	--	06/25/18	--
19)	Wells Fargo Securities	Neil A Kalton	--	04/30/18	--
20)	BofAML	Julien Dumoulin-Smith	--	02/01/18	--
21)	Williams Capital	Christopher R Ellinghaus	--	06/04/18	--

+Current Period Estimates in gray have been excluded from consensus.


ALE US $ C ↑ 77.51 -0.20 77.42 / 77.51Z 1x2
At 10:20 d Vol 29,548 O 77.89N H 78.10Y L 77.335D Val 2.294M
EXC US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Exelon Corp Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 08/02/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (5.310)
11) BEst Standard 5.310 06/25/18 0.00%
12) Argus Research Corp Katelyn Bayone 7.000 12/19/16 31.83%
13) Morningstar, Inc Travis Miller -- 06/25/18 --
14) Wells Fargo Securities Neil A Kalton -- 04/30/18 --
15) SunTrust Robinson Humphrey Ali Agha -- 04/13/18 --
16) BofAML Julien Dumoulin-Smith -- 05/25/18 --
17) RBC Capital Markets Shelby G Tucker -- 06/18/17 --
18) Guggenheim Securities Shahriar Pourreza -- 01/06/17 --
*Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:36:00


ALE US $ C ↑ 77.51 -0.20 77.42 / 77.51P 3x1
At 10:20 d Vol 29,648 O 77.89N H 78.10Y L 77.335D Val 2.301M
FTS US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Fortis Inc/Canada Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 07/31/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (6.000)
11) BEst Standard 6.000 05/01/18 0.00%
12) TD Securities Linda Ezergailis -- 01/27/17 --
13) Morningstar, Inc Andrew Bischof -- 05/01/18 --
14) Wells Fargo Securities Neil A Kalton -- 05/01/18 --
15) BMO Capital Markets Ben Pham -- 01/12/18 --
*Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
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ALE US $ C ↑ 77.51 -0.20 77.43 / 77.49 Z 1 x 1
At 10:20 d Vol 29,668 O 77.89 N H 78.10 Y L 77.335 D Val 2.303M
NWE US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
NorthWestern Corp Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 07/19/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm | Analyst | Estimate | Date | Deviation from Standard (2.407)
11) BEst Standard | | 2.407 | 07/02/18 | 0.00%
12) Mizuho Securities USA Inc | Jim Von Riesemann | -- | 03/30/16 | --
13) BofAML | Julien Dumoulin-Smith | -- | 04/26/18 | --
14) Wells Fargo Securities | Jonathan Reeder | -- | 04/30/18 | --
15) Williams Capital | Christopher R Ellinghaus | -- | 07/02/18 | --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000
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SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:39:33

ALE US $ C ↓ 77.49 -0.22 77.46 / 77.50 P 1 x 1
At 10:25 d Vol 29,795 O 77.89 N H 78.10 Y L 77.335 D Val 2.313M

PPL US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution

PPL Corp Period 2018* - Yr Source Standard Cur CAD

Earnings & Estimates Next Announcement 08/07/18

Measure LTG (%) Deviation Filter 0 % As of 07/13/18

	Firm	Analyst	Estimate	Date	Deviation from Standard (8.100)
11)	Argus Research Corp	Katelyn Bayone	4.000	12/20/16	-50.62%
12)	BGC Partners	Kit Konolige	5.000	08/01/14	-38.27%
13)	BEst Standard		8.100	05/18/18	0.00%
14)	Morningstar, Inc	Andrew Bischof	--	05/18/18	--
15)	Jefferies	Anthony Crowdell	--	06/22/15	--
16)	Wells Fargo Securities	Neil A Kalton	--	04/30/18	--
17)	Evercore ISI	Greg Gordon	--	01/26/16	--
18)	RBC Capital Markets	Shelby G Tucker	--	03/06/18	--
19)	BofAML	Brian Chin	--	01/23/17	--
20)	Guggenheim Securities	Shahriar Pourreza	--	01/06/17	--

+Current Period Estimates in gray have been excluded from consensus.


ALE US $ C ↑ 77.53 -0.18 77.50 / 77.56Z 1x2
At 10:27 d Vol 30,310 O 77.89N H 78.10Y L 77.335D Val 2.353M
PEG US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Public Service Enterprise Group Inc Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 08/01/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (6.535)
11) Argus Research Corp Gary F Hovis 6.000 02/06/17 -8.19%
12) BEst Standard 6.535 07/11/18 0.00%
13) Morningstar, Inc Travis Miller -- 05/24/18 --
14) RBC Capital Markets Shelby G Tucker -- 05/31/18 --
15) Wells Fargo Securities Neil A Kalton -- 05/31/18 --
16) BofAML Julien Dumoulin-Smith -- 07/11/18 --
17) Guggenheim Securities Shahriar Pourreza -- 01/06/17 --
+Current Period Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:42:50

ALE US $ C ↑ 77.53 -0.18 77.50 / 77.55P 1x1
At 10:27 d Vol 30,310 O 77.89N H 78.10Y L 77.335D Val 2.353M
SRE US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Sempra Energy Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 07/25/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18

	Firm	Analyst	Estimate	Date	Deviation from Standard (16.337)
11)	Argus Research Corp	Katelyn Bayone	6.000	12/27/16	-63.27%
12)	BGC Partners	Kit Konolige	7.000	08/11/14	-57.15%
13)	BEst Standard		16.337	07/12/18	0.00%
14)	Morningstar, Inc	Andrew Bischof	--	06/11/18	--
15)	Evercore ISI	Greg Gordon	--	01/26/16	--
16)	Wells Fargo Securities	Sarah Akers	--	07/01/18	--
17)	Wolfe Research	Steven I Fleishman	--	03/13/13	--
18)	BofAML	Julien Dumoulin-Smith	--	07/12/18	--
19)	Guggenheim Securities	Shahriar Pourreza	--	01/06/17	--
20)	RBC Capital Markets	Shelby G Tucker	--	04/09/18	--

+Current Period Estimates in gray have been excluded from consensus.

ALE US $ C ↑ 77.53 -0.18 77.50 / 77.55P 1x1
At 10:27 d Vol 30,310 O 77.89N H 78.10Y L 77.335D Val 2.353M
SO US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Southern Co/The Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 08/08/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18

	Firm	Analyst	Estimate	Date	Deviation from Standard (4.380)
11)	BEst Standard		4.380	06/14/18	0.00%
12)	Argus Research Corp	Katelyn Bayone	5.000	11/09/16	14.16%
13)	Wolfe Research	Steven I Fleishman	--	03/13/13	--
14)	Deutsche Bank	Jonathan Arnold	--	06/29/17	--
15)	SunTrust Robinson Humphrey	Ali Agha	--	05/23/18	--
16)	Wells Fargo Securities	Neil A Kalton	--	04/30/18	--
17)	Guggenheim Securities	Shahriar Pourreza	--	01/06/17	--
18)	Morningstar, Inc	Charles J Fishman	--	05/02/18	--
19)	RBC Capital Markets	Shelby G Tucker	--	03/09/18	--
20)	BofAML	Julien Dumoulin-Smith	--	06/14/18	--
21)	Jefferies	Anthony Crowdell	--	10/29/15	--
22)	Evercore ISI	Greg Gordon	--	01/26/16	--

+Current Period Estimates in gray have been excluded from consensus.


ALE US $ C ↑ 77.53 -0.18 77.50 / 77.55T 1x1
At 10:27 d Vol 30,310 O 77.89N H 78.10Y L 77.335D Val 2.353M
WEC US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
WEC Energy Group Inc Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 07/31/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm | Analyst | Estimate | Date | Deviation from Standard (2.997)
11) BEst Standard | | 2.997 | 06/20/18 | 0.00%
12) Argus Research Corp | Katelyn Bayone | 5.000 | 02/07/17 | 66.85%
13) Guggenheim Securities | Shahriar Pourreza | -- | 01/06/17 | --
14) Evercore ISI | Greg Gordon | -- | 01/26/16 | --
15) Wells Fargo Securities | Neil A Kalton | -- | 06/20/18 | --
16) Mizuho Securities USA Inc | Jim Von Riesemann | -- | 06/29/15 | --
17) Morningstar, Inc | Andrew Bischof | -- | 05/01/18 | --
18) BofAML | Julien Dumoulin-Smith | -- | 06/06/18 | --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:44:29

ALE US $ C ↑ 77.55 -0.16 77.53 / 77.58T 1x1
At 10:29 d Vol 30,411 O 77.89N H 78.10Y L 77.335D Val 2.361M
XEL US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Xcel Energy Inc Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 07/26/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18

	Firm	Analyst	Estimate	Date	Deviation from Standard (5.848)
11)	Argus Research Corp	Gary F Hovis	4.000	01/12/17	-31.59%
12)	BEst Standard		5.848	07/05/18	0.00%
13)	Morningstar, Inc	Travis Miller	--	07/05/18	--
14)	Wells Fargo Securities	Neil A Kalton	--	04/30/18	--
15)	BofAML	Julien Dumoulin-Smith	--	06/20/18	--
16)	Evercore ISI	Greg Gordon	--	01/26/16	--
17)	RBC Capital Markets	Shelby G Tucker	--	06/18/17	--
18)	SunTrust Robinson Humphrey	Ali Agha	--	04/12/18	--

+Current Period Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
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Algonquin Power & Utilities Corp. | ESTIMATE HIGHLIGHTS

TSX:AQN (MI KEY: 4142273; SPCIQ KEY: 882318)

Currency REPORTED CURRENCY ▼ FILTERS Magnitude Millions (6) Consolidation Consolida

Sentiment Analysis

Ticker TSX : AQN

1.92

Outperform

	TARGET PRICE (C$)	LT GROWTH (%)	IND. NAVPS (C$)	PRICE VOLATILITY (AVERAGE)	INDUSTRY REC (HOLD)
Mean	14.83	10.10	15.38	2.80	3.00
Median	15.50	10.00	15.38		
High	16.50	12.30	15.38		
Low	12.00	8.00	15.38		
Standard Deviation	1.35	1.76	0.00		
Number of Analysts	13/13	3/4	NA		

MARKET SUMMARY (C$)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
12.91	12.82	12.84	12.96/12.81	14.40/12.18	15.47%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

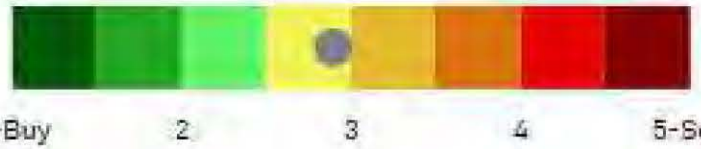
Alliant Energy Corporation | ESTIMATE HIGHLIGHTS

NYSE:LNT (MI KEY: 4057038; SPCIQ KEY: 312949)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolid

Sentiment Analysis

Ticker NYSE : LNT



2.89

Hold

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (LOW)	INDUSTRY REC (UNDERPERFORM)
Mean	41.50	5.91	1.00	4.00
Median	42.50	6.00		
High	45.00	6.00		
Low	37.00	5.73		
Standard Deviation	2.69	0.13		
Number of Analysts	8/8	3/3		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
42.56	42.71	42.37	42.82/42.03	45.55/36.84	(2.05)%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Ameren Corporation | ESTIMATE HIGHLIGHTS

NYSE:AEE (MI KEY: 4007308; SPCIQ KEY: 373264)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolide

Sentiment Analysis

Ticker NYSE : AEE

2.55

Hold

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (LOW)	INDUSTRY REC (HOLD)
Mean	61.25	6.57	1.00	3.40
Median	62.00	6.62		
High	64.00	7.10		
Low	55.00	6.00		
Standard Deviation	2.47	0.45		
Number of Analysts	9/9	3/3		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
61.70	61.56	61.36	61.95/60.90	64.89/51.89	(0.18)%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Avangrid, Inc. | ESTIMATE HIGHLIGHTS

NYSE:AGR (MI KEY: 4057045; SPCIQ KEY: 291586)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consoli

Sentiment Analysis

Ticker NYSE : AGR

2.00

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (LOW)	INDUSTRY REC (UNDERPERFORM)
Mean	54.55	8.90	1.00	3.67
Median	55.00	9.00		
High	59.00	10.41		
Low	46.00	7.20		
Standard Deviation	4.02	1.14		
Number of Analysts	10/10	4/4		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
50.55	49.89	49.97	50.55/49.74	54.55/45.17	9.17%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Black Hills Corporation | ESTIMATE HIGHLIGHTS

NYSE:BKH (MI KEY: 4010420; SPCIQ KEY: 255902)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolid

Sentiment Analysis

Ticker NYSE : BKH

2.50

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (ABOVE AVG.)	INDUSTRY REC (HOLD)
Mean	60.25	5.01	4.00	3.00
Median	60.50	5.01		
High	62.00	5.52		
Low	58.00	4.50		
Standard Deviation	1.48	0.51		
Number of Analysts	8/8	2/2		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
60.18	59.72	58.90	60.24/58.72	71.01/50.49	2.29%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

CMS Energy Corporation | ESTIMATE HIGHLIGHTS

NYSE:CMS (MI KEY: 4004172; SPCIQ KEY: 257682)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolid

Sentiment Analysis

Ticker NYSE : CMS

2.24

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (LOW)	INDUSTRY REC (UNDERPERFORM)
Mean	49.44	6.66	1.00	3.67
Median	49.75	7.00		
High	53.00	7.20		
Low	40.00	5.00		
Standard Deviation	2.82	0.70		
Number of Analysts	16/16	7/7		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
47.89	48.01	47.86	47.97/47.18	50.85/40.48	3.30%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Consolidated Edison, Inc. | ESTIMATE HIGHLIGHTS

NYSE:ED (MI KEY: 4057041; SPCIQ KEY: 263295)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consoli

Sentiment Analysis

Ticker NYSE : ED

3.56

Underperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (BELOW AVG.)	INDUSTRY REC (HOLD)
Mean	77.38	3.18	2.00	3.50
Median	76.50	3.53		
High	84.00	4.00		
Low	72.00	2.00		
Standard Deviation	3.62	0.85		
Number of Analysts	16/16	3/3		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
78.26	78.42	77.78	78.39/77.09	89.70/71.12	(0.52)%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

DTE Energy Company | ESTIMATE HIGHLIGHTS

NYSE:DTE (MI KEY: 4057044; SPCIQ KEY: 266598)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolid

Sentiment Analysis

Ticker NYSE : DTE

2.43

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (AVERAGE)	INDUSTRY REC (UNDERPERFORM)
Mean	110.85	5.83	3.00	4.00
Median	112.00	6.00		
High	118.00	6.00		
Low	103.00	5.14		
Standard Deviation	4.62	0.34		
Number of Analysts	13/13	5/6		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
108.66	107.76	107.84	108.75/107.14	116.74/94.25	2.79%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Duke Energy Corporation | ESTIMATE HIGHLIGHTS

NYSE:DUK, BSP:DUKB34 (MI KEY: 4121470; SPCIQ KEY: 267850)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolidat

Sentiment Analysis

Ticker NYSE: DUK

2.45

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (LOW)	INDUSTRY REC (HOLD)
Mean	83.89	4.23	1.00	3.40
Median	85.00	4.45		
High	92.00	5.00		
Low	71.00	3.00		
Standard Deviation	4.46	0.72		
Number of Analysts	18/18	6/6		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
80.35	81.14	81.05	81.20/79.51	91.80/71.96	3.50%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Emera Incorporated | ESTIMATE HIGHLIGHTS

TSX:EMA (MI KEY: 4072693; SPCIQ KEY: 877188)

Currency REPORTED CURRENCY ▼ FILTERS Magnitude Millions (6) Consolidation Consoli

Sentiment Analysis

Ticker TSX : EMA

2.33

Outperform

	TARGET PRICE (C$)	LT GROWTH (%)	PRICE VOLATILITY (BELOW AVG.)	INDUSTRY REC (HOLD)
Mean	47.73	6.53	2.20	3.00
Median	48.00	6.95		
High	55.00	9.20		
Low	38.00	3.00		
Standard Deviation	4.61	2.35		
Number of Analysts	15/15	4/4		

MARKET SUMMARY (C$)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
42.06	41.99	41.97	42.06/41.71	49.48/39.08	13.73%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Entergy Corporation | ESTIMATE HIGHLIGHTS

NYSE:ETR (MI KEY: 4007889; SPCIQ KEY: 269764)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolid

Sentiment Analysis

Ticker NYSE : ETR

2.39

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (AVERAGE)	INDUSTRY REC (OUTPERFORM)
Mean	85.91	8.95	3.00	2.50
Median	84.50	8.95		
High	94.00	10.90		
Low	82.00	7.00		
Standard Deviation	3.40	1.95		
Number of Analysts	16/16	2/4		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
82.82	81.03	81.82	83.38/81.34	87.95/71.95	4.99%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

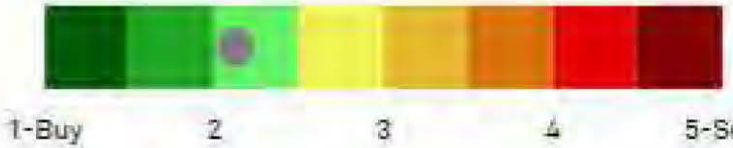
Eversource Energy | ESTIMATE HIGHLIGHTS

NYSE:ES (MI KEY: 4057052; SPCIQ KEY: 292525)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolida

Sentiment Analysis

Ticker NYSE : ES



2.13

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (BELOW AVG.)	INDUSTRY REC (HOLD)
Mean	62.67	5.57	2.00	3.50
Median	63.00	5.58		
High	70.00	6.00		
Low	53.00	5.11		
Standard Deviation	3.88	0.41		
Number of Analysts	15/15	4/4		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
60.07	59.80	59.74	60.27/59.36	66.15/52.76	4.90%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Exelon Corporation | ESTIMATE HIGHLIGHTS

NYSE:EXC (MI KEY: 4057056; SPCIQ KEY: 296181)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consol

Sentiment Analysis

Ticker NYSE : EXC

1.70

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (AVERAGE)	INDUSTRY REC (HOLD)
Mean	44.79	4.91	3.00	2.60
Median	44.50	4.90		
High	51.00	5.00		
Low	40.50	4.84		
Standard Deviation	2.52	0.07		
Number of Analysts	19/19	3/4		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
42.44	42.18	42.00	42.88/41.96	43.20/35.57	NA

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Fortis Inc. | ESTIMATE HIGHLIGHTS

TSX:FTS (MI KEY: 4082871; SPCIQ KEY: 875612)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consoli

Sentiment Analysis

Ticker TSX : FTS

1.93

Outperform

	TARGET PRICE (C$)	LT GROWTH (%)	PRICE VOLATILITY (LOW)	INDUSTRY REC (HOLD)
Mean	47.67	5.17	1.50	3.00
Median	48.00	5.00		
High	52.00	6.00		
Low	43.00	4.50		
Standard Deviation	2.57	0.62		
Number of Analysts	15/15	3/3		

MARKET SUMMARY (C$)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
42.80	42.80	42.65	42.80/42.33	48.73/39.38	11.76%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

NorthWestern Corporation | ESTIMATE HIGHLIGHTS

NYSE:NWE (MI KEY: 4057053; SPCIQ KEY: 184841)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consoli

Sentiment Analysis

Ticker NYSE : NWE

3.33

Hold

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (LOW)	INDUSTRY REC (HOLD)
Mean	56.33	3.01	1.00	3.00
Median	57.00	3.01		
High	60.00	3.02		
Low	52.00	3.00		
Standard Deviation	3.50	0.01		
Number of Analysts	6/6	2/3		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
58.79	59.10	58.23	58.96/58.17	64.47/50.01	(3.26)%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

PPL Corporation | ESTIMATE HIGHLIGHTS

NYSE:PPL (MI KEY: 4057058; SPCIQ KEY: 185508)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consoli

Sentiment Analysis

Ticker NYSE : PPL

2.20

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (AVERAGE)	INDUSTRY REC (HOLD)
Mean	31.65	4.14	3.00	3.50
Median	32.00	4.28		
High	36.00	5.00		
Low	25.50	3.00		
Standard Deviation	3.22	0.72		
Number of Analysts	13/13	NA		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
28.53	28.63	28.54	28.74/28.33	39.90/25.30	10.91%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Public Service Enterprise Group Incorporated | ESTIMATE HIGHLIGHTS

NYSE:PEG (MI KEY: 4050911; SPCIQ KEY: 298482)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolida

Sentiment Analysis

Ticker NYSE : PEG

2.19

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (AVERAGE)	INDUSTRY REC (OUTPERFORM)
Mean	55.03	6.27	3.00	2.50
Median	55.50	6.00		
High	63.00	7.11		
Low	43.00	5.94		
Standard Deviation	4.62	0.44		
Number of Analysts	15/15	5/5		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
51.01	51.41	50.54	51.05/50.27	54.50/45.05	8.89%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Sempra Energy | ESTIMATE HIGHLIGHTS

NYSE:SRE (MI KEY: 4057062; SPCIQ KEY: 120622)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolid

Sentiment Analysis

Ticker NYSE : SRE

2.00

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (BELOW AVG.)	INDUSTRY REC (OUTPERFORM)
Mean	121.27	8.43	2.00	2.50
Median	122.00	8.43		
High	130.00	10.00		
Low	110.00	6.85		
Standard Deviation	6.20	1.57		
Number of Analysts	11/11	2/2		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
115.89	114.68	114.90	116.16/114.38	122.98/100.49	5.55%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Southern Company | ESTIMATE HIGHLIGHTS

NYSE:SO (MI KEY: 4004298; SPCIQ KEY: 120623)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolic

Sentiment Analysis

Ticker NYSE : SO

3.00

Hold

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (LOW)	INDUSTRY REC (HOLD)
Mean	47.07	4.13	1.00	3.40
Median	46.75	4.25		
High	53.00	5.00		
Low	40.00	3.00		
Standard Deviation	2.91	0.72		
Number of Analysts	19/19	4/6		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
48.44	48.42	48.08	48.47/47.91	53.51/42.38	(2.11)%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

WEC Energy Group, Inc. | ESTIMATE HIGHLIGHTS

NYSE:WEC (MI KEY: 4009725; SPCIQ KEY: 315117)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolid

Sentiment Analysis

Ticker NYSE : WEC

2.50

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (LOW)	INDUSTRY REC (HOLD)
Mean	67.00	6.10	1.00	3.50
Median	68.00	6.10		
High	71.00	6.10		
Low	61.00	6.10		
Standard Deviation	3.06	0.00		
Number of Analysts	12/12	1/1		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
65.78	65.92	65.54	65.96/64.93	70.09/58.48	2.23%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Xcel Energy Inc. | ESTIMATE HIGHLIGHTS

NASDAQ:XEL (MI KEY: 4025308; SPCIQ KEY: 527542)

Currency REPORTED CURRENCY ▾ FILTERS Magnitude Millions (6) Consolidation Consolid

Sentiment Analysis

Ticker NASDAQ : XEL

2.50

Outperform

	TARGET PRICE ($)	LT GROWTH (%)	PRICE VOLATILITY (BELOW AVG.)	INDUSTRY REC (HOLD)
Mean	47.86	5.77	2.00	3.50
Median	48.50	5.80		
High	53.00	6.30		
Low	40.00	5.00		
Standard Deviation	2.85	0.41		
Number of Analysts	14/14	8/8		

MARKET SUMMARY ($)

LAST DELAYED	OPEN	PREVIOUS CLOSE	DAY HIGH/LOW	52 WEEK HIGH/LOW	POTENTIAL UPSIDE
46.63	46.54	46.39	46.82/45.97	52.22/41.51	3.16%

Potential Upside: The percentage difference between the Consensus Target Price and the Close Price.

Igonquin ower & Utilities Corp

(NYSE:AQN)

Real-Time Quotes | Add to Watch List | Set Alert

9.60
BATS BZX Real-Time Price
As of 1:50pm ET

+0.03 / +0.31%
Today's Change

9.45 | 11.34
52-Week Range

-13.98%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest AQN News | Press Releases

Alliant (LNT) Cuts Emissions, to Build 210 MW Iowa Wind Farm
Jul 17 / Zacks.com - Paid Partner Content

MDU Resources Buys & Expands Construction Material Business
Jul 17 / Zacks.com - Paid Partner Content

Pattern Energy (PEGI) in Focus: Stock Moves 5.1% Higher
Jul 17 / Zacks.com - Paid Partner Content

SCANA & Dominion Energy's Merger Deal Gets FERC Approval
Jul 16 / Zacks.com - Paid Partner Content

Dominion & SCANA Merger Heads Toward Closing, Gets FERC Nod
Jul 16 / Zacks.com - Paid Partner Content

Duke Energy to Construct $250M LNG Storage in North Carolina
Jul 16 / Zacks.com - Paid Partner Content

The Zacks Analyst Blog Highlights: Algonquin Power, CMS, Ameren and Brookfield Renewa...
Jul 16 / Zacks.com - Paid Partner Content

Duke Energy Supports Green Energy Output in South Carolina
Jul 13 / Zacks.com - Paid Partner Content

PG&E Corporation to Reduce 1 Million Ton Gas Emission by 2022
Jul 13 / Zacks.com - Paid Partner Content

4 Utility Stocks to Buy as US-China Trade War Escalates
Jul 13 / Zacks.com - Paid Partner Content

See All AQN News

Today's Trading

Previous close	9.57
Today's open	9.55
Day's range	9.52 - 9.61
Volume	7,732
Average volume (3 months)	229,444
Market cap	$4.2B

Data as of 1:50pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+11.35%
Earnings growth (this year)	--
Earnings growth (next 5 years)	+17.60%
Revenue growth (last year)	+83.56%
P/E ratio	26.4
Price/Sales	2.83
Price/Book	1.66

Competitors

	Today's change	Today's % change
POR Portland General Ele...	+0.45	+1.05%
-- CTEEP Companhia de T...	-4.80	-7.64%
BKH Black Hills Corp	-0.60	-0.99%
IDA Idacorp Inc	-0.30	-0.32%

Data as of 1:52pm ET, 07/18/2018

Financials

Next reporting date	--
EPS forecast (this quarter)	--
Annual revenue (last year)	$1.5B
Annual profit (last year)	$148.8M
Net profit margin	9.73%

Profile

Sector	Utilities
Industry	Electric Utilities
Chief Executive Officer & Director	Ian E. Robertson
Chief Financial Officer	David Bronicheski
Corporate headquarters	Oakville, Ontario

Forecasts

Alliant Energy Corp (NYSE:LNT)

Real-Time Quotes | Add to Watch List | Set Alert

42.65
BATS BZX Real-Time Price
As of 1:57pm ET

-0.23 / -0.54%
Today's Change

36.84 — 45.55
52-Week Range

+0.09%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest LNT News | Press Releases

Alliant (LNT) Cuts Emissions, to Build 210 MW Iowa Wind Farm
Jul 17 / Zacks.com - Paid Partner Content

Brookfield Infrastructure (BIP) Looks Good: Stock Adds 5.5% in Session
Jul 06 / Zacks.com - Paid Partner Content

See All LNT News

Today's Trading

Previous close	42.88
Today's open	42.82
Day's range	42.41 - 42.85
Volume	38,304
Average volume (3 months)	1,659,298
Market cap	$9.6B

Data as of 1:57pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+21.34%
Earnings growth (this year)	+10.07%
Earnings growth (next 5 years)	+5.86%
Revenue growth (last year)	+1.87%
P/E ratio	20.5
Price/Sales	2.89
Price/Book	2.29

Competitors

	Today's change	Today's % change
EVRG Evergy Inc	-0.52	-0.93%
ALE ALLETE Inc	-0.29	-0.37%
AVA Avista Corp	-0.18	-0.36%
NWE NorthWestern Corp	-0.53	-0.91%

Data as of 1:56pm ET, 07/18/2018

Financials

Next reporting date	August 2, 2018
EPS forecast (this quarter)	$0.43
Annual revenue (last year)	$3.4B
Annual profit (last year)	$467.5M
Net profit margin	13.78%

Profile

Sector	Utilities
Industry	Electric Utilities
Chairman & Chief Executive Officer	Patricia Leonard Kampling
President	John O. Larsen
Corporate headquarters	Madison, Wisconsin

Forecasts

Ameren Corp (NYSE:AEE)

Real-Time Quotes | Add to Watch List | Set Alert

61.10
BATS BZX Real-Time Price
As of 1:57pm ET

-0.17 / -0.28%
Today's Change

51.89 — 64.89
52-Week Range

+3.58%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest AEE News | Press Releases

Duke Energy to Construct $250M LNG Storage in North Carolina
Jul 16 / Zacks.com - Paid Partner Content

The Zacks Analyst Blog Highlights: Algonquin Power, CMS, Ameren and Brookfield Renewa...
Jul 16 / Zacks.com - Paid Partner Content

PG&E Corporation to Reduce 1 Million Ton Gas Emission by 2022
Jul 13 / Zacks.com - Paid Partner Content

4 Utility Stocks to Buy as US-China Trade War Escalates
Jul 13 / Zacks.com - Paid Partner Content

Frontier Communications Introduces Frontier AnyWare UCaaS
Jul 12 / Zacks.com - Paid Partner Content

Duke Energy Completes 25MW Solar Project Buyout in New York
Jul 11 / Zacks.com - Paid Partner Content

4 Reasons to Add Atmos Energy (ATO) to Enrich Your Portfolio
Jul 09 / Zacks.com - Paid Partner Content

Duke Energy (DUK) Announces 4.2% Quarterly Dividend Hike
Jul 09 / Zacks.com - Paid Partner Content

4 Reasons to Invest in NiSource for Your Portfolio Boost
Jul 06 / Zacks.com - Paid Partner Content

Here's Why You Should Add CMS Energy (CMS) to Your Portfolio
Jul 05 / Zacks.com - Paid Partner Content

See All AEE News

Today's Trading

Previous close	**61.27**
Today's open	**61.12**
Day's range	**60.74 - 61.27**
Volume	**57,269**
Average volume (3 months)	**1,576,154**
Market cap	**$13.8B**

Data as of 1:57pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	**-20.15%**
Earnings growth (this year)	**+7.25%**
Earnings growth (next 5 years)	**+7.00%**
Revenue growth (last year)	**+1.66%**
P/E ratio	**26.1**
Price/Sales	**2.33**
Price/Book	**1.91**

Competitors

	Today's change	Today's % change
FE FirstEnergy Corp	**-0.59**	**-1.61%**
ETR Entergy Corp	**-1.10**	**-1.35%**
AGR Avangrid Inc	**-0.26**	**-0.49%**
FTS Fortis Inc	**-0.17**	**-0.52%**

Data as of 1:58pm ET, 07/18/2018

Financials

Next reporting date	**August 3, 2018**
EPS forecast (this quarter)	**$0.78**
Annual revenue (last year)	**$6.2B**
Annual profit (last year)	**$523.0M**
Net profit margin	**8.47%**

Profile

Sector	**Utilities**
Industry	**Electric Utilities**
Chairman, President & Chief Executive Officer	**Warner L. Baxter**
Chief Financial Officer & Executive Vice President	**Martin J. Lyons**
Corporate headquarters	**St. Louis, Missouri**

Forecasts

Avangrid Inc (NYSE:AGR)

Real-Time Quotes | Add to Watch List | Set Alert

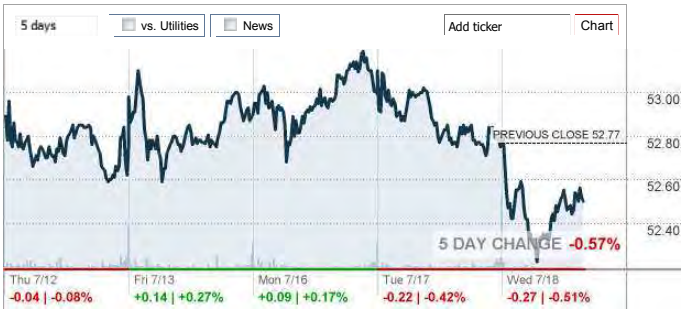
52.50
BATS BZX Real-Time Price
As of 1:59pm ET

-0.27 / -0.51%
Today's Change

43.85 | 54.55
52-Week Range

+3.80%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors



Latest AGR News | Press Releases

Daiwa SB Investments Ltd. Buys Johnson & Johnson, Chevron Corp, Western Digital Corp,...
Jul 12 / GuruFocus News - Paid Partner Content

Daiwa SB Investments Ltd. Buys Johnson & Johnson, Chevron Corp, Western Digital Corp,...
Jul 12 / GuruFocus News - Paid Partner Content

Duke Energy Completes 25MW Solar Project Buyout in New York
Jul 11 / Zacks.com - Paid Partner Content

4 Reasons to Add Atlantica Yield (AY) to Your Portfolio Now
Jul 10 / Zacks.com - Paid Partner Content

4 Reasons to Add Atmos Energy (ATO) to Enrich Your Portfolio
Jul 09 / Zacks.com - Paid Partner Content

Duke Energy (DUK) Announces 4.2% Quarterly Dividend Hike
Jul 09 / Zacks.com - Paid Partner Content

Here's Why You Should Add CMS Energy (CMS) to Your Portfolio
Jul 05 / Zacks.com - Paid Partner Content

See All AGR News

Today's Trading

Previous close	52.77
Today's open	52.86
Day's range	52.25 - 52.86
Volume	8,689
Average volume (3 months)	482,920
Market cap	$16.2B

Data as of 1:59pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	-39.51%
Earnings growth (this year)	+9.03%
Earnings growth (next 5 years)	+9.71%
Revenue growth (last year)	-0.93%
P/E ratio	42.0
Price/Sales	2.63
Price/Book	1.07

Competitors

	Today's change	Today's % change
FTS Fortis Inc	-0.17	-0.52%
AEE Ameren Corp	-0.15	-0.24%
FE FirstEnergy Corp	-0.61	-1.68%
ETR Entergy Corp	-1.11	-1.36%

Data as of 1:59pm ET, 07/18/2018

Financials

Next reporting date	July 24, 2018
EPS forecast (this quarter)	$0.49
Annual revenue (last year)	$6.0B
Annual profit (last year)	$381.0M
Net profit margin	6.39%

Profile

Sector	Utilities
Industry	Electric Utilities
Chief Executive Officer & Director	James P. Torgerson
President & Chief Executive Officer-UIL	Anthony Marone
Corporate headquarters	Orange, Connecticut

Forecasts

Black Hills Corp (NYSE:BKH)

Add to Watch List | Set Alert

60.32
Delayed Data
As of 1:46pm ET

-0.57 / -0.94%
Today's Change

50.49 | 71.01
52-Week Range

+0.35%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest BKH News | Press Releases

FirstEnergy's (FE) Unit to Invest $400M, Seeks BPU's Nod
Jul 16 / Zacks.com - Paid Partner Content

See All BKH News

Today's Trading

Previous close	60.89
Today's open	60.78
Day's range	60.23 - 61.06
Volume	166,811
Average volume (3 months)	480,633
Market cap	$3.1B

Data as of 1:46pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+134.31%
Earnings growth (this year)	+1.01%
Earnings growth (next 5 years)	+4.89%
Revenue growth (last year)	+7.57%
P/E ratio	13.1
Price/Sales	1.97
Price/Book	1.82

Competitors

	Today's change	Today's % change
HE Hawaiian Electric In...	+0.10	+0.29%
-- CTEEP Companhia de T...	-4.80	-7.64%
AQN Algonquin Power & Ut...	+0.03	+0.31%
PNM PNM Resources Inc	-0.33	-0.86%

Data as of 2:01pm ET, 07/18/2018

Financials

Next reporting date	August 7, 2018
EPS forecast (this quarter)	$0.40
Annual revenue (last year)	$1.7B
Annual profit (last year)	$177.0M
Net profit margin	11.55%

Profile

Sector	Utilities
Industry	Electric Utilities
Chairman & Chief Executive Officer	David R. Emery
President & Chief Operating Officer	Linden R. Evans
Corporate headquarters	Rapid City, South Dakota

Forecasts

CMS Energy Corp (NYSE:CMS)

Real-Time Quotes | Add to Watch List | Set Alert

47.36
BATS BZX Real-Time Price
As of 2:03pm ET

-0.24 / -0.50%
Today's Change

40.48 — 50.85
52-Week Range

+0.13%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest CMS News | Press Releases

The Zacks Analyst Blog Highlights: Algonquin Power, CMS, Ameren and Brookfield Renewa...
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4 Utility Stocks to Buy as US-China Trade War Escalates
Jul 13 / Zacks.com - Paid Partner Content

FirstEnergy (FE) Unit to Invest $4M to Strengthen Operation
Jul 12 / Zacks.com - Paid Partner Content

Here's Why You Should Add CMS Energy (CMS) to Your Portfolio
Jul 05 / Zacks.com - Paid Partner Content

See All CMS News

Today's Trading

Previous close	47.60
Today's open	47.59
Day's range	47.14 - 47.59
Volume	247,231
Average volume (3 months)	2,715,459
Market cap	$12.8B

Data as of 2:03pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	-17.17%
Earnings growth (this year)	+7.42%
Earnings growth (next 5 years)	+7.00%
Revenue growth (last year)	+2.88%
P/E ratio	26.5
Price/Sales	2.02
Price/Book	2.87

Competitors

	Today's change	Today's % change
ETR Entergy Corp	-1.21	-1.48%
FE FirstEnergy Corp	-0.64	-1.77%
CNP CenterPoint Energy I...	-0.21	-0.76%
AEE Ameren Corp	-0.24	-0.39%

Data as of 2:03pm ET, 07/18/2018

Financials

Next reporting date	July 26, 2018
EPS forecast (this quarter)	$0.36
Annual revenue (last year)	$6.6B
Annual profit (last year)	$460.0M
Net profit margin	6.99%

Profile

Sector	Utilities
Industry	Electric Utilities
President, Chief Executive Officer & Director	Patricia K. Poppe
Senior Vice President-Operations	Garrick J. Rochow
Corporate headquarters	Jackson, Michigan

Forecasts

Consolidated Edison Inc (NYSE:ED)

Real-Time Quotes | Add to Watch List | Set Alert

78.55
BATS BZX Real-Time Price
As of 2:03pm ET

-0.41 / -0.52%
Today's Change

71.12 — 89.70
52-Week Range

-7.53%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest ED News | Press Releases

No recent news for Consolidated Edison Inc.

Today's Trading

Previous close	78.96
Today's open	78.90
Day's range	78.28 - 79.10
Volume	37,396
Average volume (3 months)	1,822,441
Market cap	$23.8B

Data as of 2:03pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+19.90%
Earnings growth (this year)	+3.53%
Earnings growth (next 5 years)	+3.53%
Revenue growth (last year)	-0.31%
P/E ratio	15.6
Price/Sales	2.18
Price/Book	1.54

Competitors

	Today's change	Today's % change
XEL Xcel Energy Inc	-0.29	-0.63%
PEG Public Service Enter...	-0.11	-0.21%
-- Engie Brasil Energia...	-0.70	-1.94%
PCG PG&E	-0.48	-1.13%

Data as of 2:04pm ET, 07/18/2018

Financials

Next reporting date	August 3, 2018
EPS forecast (this quarter)	$0.56
Annual revenue (last year)	$12.0B
Annual profit (last year)	$1.5B
Net profit margin	12.68%

Profile

Sector	Utilities
Industry	Electric Utilities
Chairman, President & Chief Executive Officer	John J. McAvoy
Chief Financial Officer & Senior Vice President	Robert N. Hoglund
Corporate headquarters	New York, New York

Forecasts

DTE Energy Co (NYSE:DTE)

Real-Time Quotes | Add to Watch List | Set Alert

106.01
BATS BZX Real-Time Price
As of 1:06pm ET

-0.37 / -0.35%
Today's Change

94.25 | 116.74
52-Week Range

-3.17%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest DTE News | Press Releases

Campbell & CO Investment Adviser LLC Buys FireEye Inc, TE Connectivity, Crane Co, Sel...
Jul 13 / GuruFocus News - Paid Partner Content

See All DTE News

Today's Trading

Previous close	106.38
Today's open	106.19
Day's range	105.57 - 106.54
Volume	26,689
Average volume (3 months)	1,235,009
Market cap	$18.6B

Data as of 2:06pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+30.63%
Earnings growth (this year)	+3.46%
Earnings growth (next 5 years)	+4.87%
Revenue growth (last year)	+15.95%
P/E ratio	17.4
Price/Sales	1.57
Price/Book	1.93

Competitors

	Today's change	Today's % change
ES Eversource Energy	-0.37	-0.63%
WEC WEC Energy Group Inc	-0.33	-0.51%
KEP Korea Electric Power...	-0.33	-2.33%
FTS Fortis Inc	-0.17	-0.52%

Data as of 2:06pm ET, 07/18/2018

Financials

Next reporting date	July 25, 2018
EPS forecast (this quarter)	$0.96
Annual revenue (last year)	$12.5B
Annual profit (last year)	$1.1B
Net profit margin	9.09%

Profile

Sector	Utilities
Industry	Electric Utilities
Chairman & Chief Executive Officer	Gerard M. Anderson
President & Chief Operating Officer	Jerry Norcia
Corporate headquarters	Detroit, Michigan

Forecasts

Duke Energy Corp (NYSE:DUK)

Real-Time Quotes | Add to Watch List | Set Alert

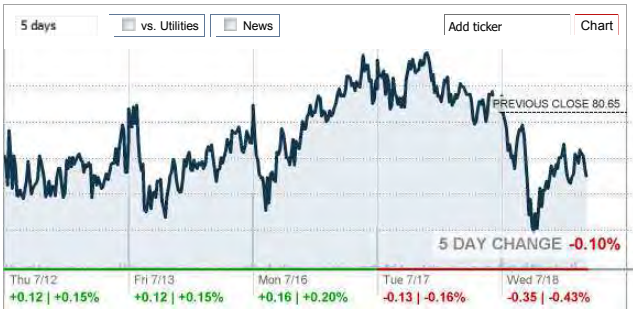
80.29
BATS BZX Real-Time Price
As of 1:07pm ET

-0.36 / -0.45%
Today's Change

71.96 — 91.80
52-Week Range

-4.51%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors



Latest DUK News | Press Releases

Alliant (LNT) Cuts Emissions, to Build 210 MW Iowa Wind Farm
Jul 17 / Zacks.com - Paid Partner Content

Duke Energy Supports Green Energy Output in South Carolina
Jul 13 / Zacks.com - Paid Partner Content

FirstEnergy's (FE) Unit to Invest $400M, Seeks BPU's Nod
Jul 16 / Zacks.com - Paid Partner Content

Top Stock Reports for Apple, NVIDIA & Lockheed Martin
Jul 11 / Zacks.com - Paid Partner Content

Dominion & SCANA Merger Heads Toward Closing, Gets FERC Nod
Jul 16 / Zacks.com - Paid Partner Content

Duke Energy Completes 25MW Solar Project Buyout in New York
Jul 11 / Zacks.com - Paid Partner Content

Duke Energy to Construct $250M LNG Storage in North Carolina
Jul 16 / Zacks.com - Paid Partner Content

Duke Energy (DUK) Announces 4.2% Quarterly Dividend Hike
Jul 09 / Zacks.com - Paid Partner Content

See All DUK News

Today's Trading

Previous close	80.65
Today's open	80.66
Day's range	79.90 - 80.75
Volume	275,104
Average volume (3 months)	3,660,525
Market cap	$54.6B

Data as of 2:06pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+13.27%
Earnings growth (this year)	+3.37%
Earnings growth (next 5 years)	+5.00%
Revenue growth (last year)	+3.57%
P/E ratio	19.0
Price/Sales	2.50
Price/Book	1.31

Competitors

	Today's change	Today's % change
EXC Exelon	-0.11	-0.26%
PCG PG&E	-0.47	-1.10%
ED Consolidated Edison ...	-0.43	-0.54%
XEL Xcel Energy Inc	-0.30	-0.65%

Data as of 2:06pm ET, 07/18/2018

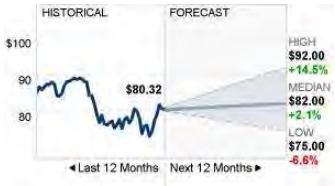
Financials

Next reporting date	August 2, 2018
EPS forecast (this quarter)	$1.09
Annual revenue (last year)	$23.6B
Annual profit (last year)	$3.1B
Net profit margin	13.01%

Profile

Sector	Utilities
Industry	Electric Utilities
Chairman, President & Chief Executive Officer	Lynn J. Good
Chief Operating Officer & Executive Vice President	Dhiaa M. Jamil
Corporate headquarters	Charlotte, North Carolina

Forecasts



CNN Money Companies Markets Tech Media U.S.

Emera Inc (OTC Pink - Current Information:EMRAF)

Add to Watch List | Set Alert

31.94
Delayed Data
As of 12:07pm ET

-0.417 / -1.29%
Today's Change

30.50 | 39.49
52-Week Range

-14.70%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest EMRAF News | Press Releases

No recent news for Emera Inc.

Today's Trading

Previous close	32.36
Today's open	32.22
Day's range	31.94 - 32.22
Volume	1,260
Average volume (3 months)	9,495
Market cap	$7.3B

Data as of 12:07pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	-3.66%
Earnings growth (this year)	--
Earnings growth (next 5 years)	--
Revenue growth (last year)	+40.60%
P/E ratio	25.7
Price/Sales	1.79
Price/Book	1.41

Competitors

No competitors data available.

Financials

Next reporting date	--
EPS forecast (this quarter)	--
Annual revenue (last year)	$4.5B
Annual profit (last year)	$226.5M
Net profit margin	5.04%

Profile

Sector	Utilities
Industry	Electric Utilities
President, Chief Executive Officer & Director	Scott Carlyle Balfour
Chief Financial Officer	Gregory W. Blunden
Corporate headquarters	Halifax, Nova Scotia

Forecasts

Entergy Corp (NYSE:ETR)

Real-Time Quotes | Add to Watch List | Set Alert

80.56
BATS BZX Real-Time Price
As of 2:16pm ET

-1.14 / -1.40%
Today's Change

71.95 — 87.95
52-Week Range

-1.02%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest ETR News | Press Releases

No recent news for Entergy Corp.

Today's Trading

Previous close	81.70
Today's open	81.64
Day's range	80.29 - 81.72
Volume	50,620
Average volume (3 months)	1,570,751
Market cap	$14.2B

Data as of 2:16pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	--
Earnings growth (this year)	-10.90%
Earnings growth (next 5 years)	-2.00%
Revenue growth (last year)	+2.80%
P/E ratio	31.6
Price/Sales	1.35
Price/Book	1.77

Competitors

	Today's change	Today's % change
FE FirstEnergy Corp	-0.60	-1.65%
AEE Ameren Corp	-0.20	-0.33%
CMS CMS Energy Corp	-0.19	-0.40%
AGR Avangrid Inc	-0.29	-0.55%

Data as of 2:16pm ET, 07/18/2018

Financials

Next reporting date	August 1, 2018
EPS forecast (this quarter)	$1.54
Annual revenue (last year)	$10.9B
Annual profit (last year)	$425.4M
Net profit margin	3.92%

Profile

Sector	Utilities
Industry	Electric Utilities
Chairman & Chief Executive Officer	Leo P. Denault
Chief Operating Officer & Executive Vice President	Paul D. Hinnenkamp
Corporate headquarters	New Orleans, Louisiana

Forecasts

Exelon Corp (NYSE:EXC)

Real-Time Quotes | Add to Watch List | Set Alert

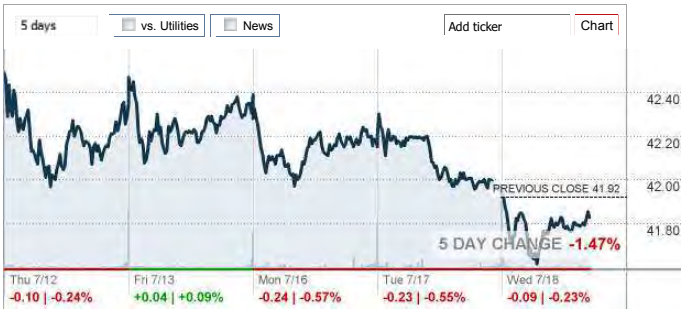
41.83
BATS BZX Real-Time Price
As of 2:18pm ET

-0.095 / -0.23%
Today's Change

35.57 — 43.20
52-Week Range

+6.13%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors



Latest EXC News | Press Releases

Nexus Investment Management Inc. Buys General Motors Co, Exelon Corp
Jul 13 / GuruFocus News - Paid Partner Content

See All EXC News

Today's Trading

Previous close	41.92
Today's open	41.87
Day's range	41.60 - 42.02
Volume	231,649
Average volume (3 months)	6,017,790
Market cap	$38.9B

Data as of 2:18pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+225.41%
Earnings growth (this year)	+18.35%
Earnings growth (next 5 years)	+4.92%
Revenue growth (last year)	+3.75%
P/E ratio	11.9
Price/Sales	1.12
Price/Book	1.30

Competitors

	Today's change	Today's % change
PCG PG&E	-0.46	-1.08%
ED Consolidated Edison ...	-0.40	-0.51%
XEL Xcel Energy Inc	-0.23	-0.50%
PEG Public Service Enter...	-0.06	-0.12%

Data as of 2:18pm ET, 07/18/2018

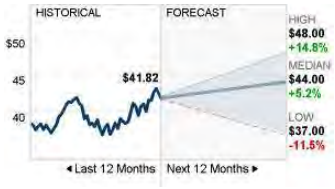
Financials

Next reporting date	August 2, 2018
EPS forecast (this quarter)	$0.61
Annual revenue (last year)	$33.4B
Annual profit (last year)	$3.8B
Net profit margin	11.29%

Profile

Sector	Utilities
Industry	Electric Utilities
President, Chief Executive Officer & Director	Chris Crane
Executive Vice President-Corporate Operations	Bridget M. Reidy
Corporate headquarters	Chicago, Illinois

Forecasts



Fortis Inc (NYSE:FTS)

Real-Time Quotes | Add to Watch List | Set Alert

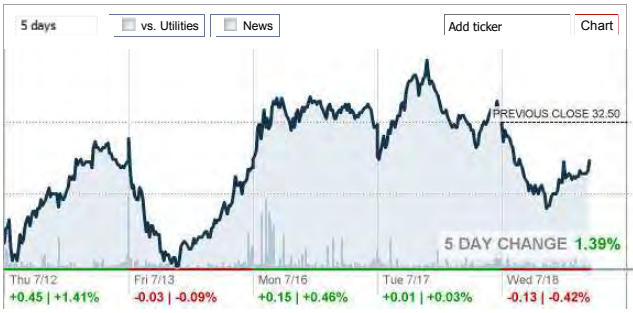
32.37
BATS BZX Real-Time Price
As of 2:17pm ET

-0.135 / -0.42%
Today's Change

30.88 — 38.24
52-Week Range

-11.74%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors



Latest FTS News | Press Releases

No recent news for Fortis Inc.

Today's Trading

Previous close	32.50
Today's open	32.45
Day's range	32.21 - 32.48
Volume	14,545
Average volume (3 months)	257,383
Market cap	$14.0B

Data as of 2:17pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+25.30%
Earnings growth (this year)	--
Earnings growth (next 5 years)	--
Revenue growth (last year)	+23.91%
P/E ratio	18.1
Price/Sales	2.40
Price/Book	1.30

Competitors

	Today's change	Today's % change
AGR Avangrid Inc	-0.29	-0.55%
AEE Ameren Corp	-0.19	-0.31%
FE FirstEnergy Corp	-0.60	-1.65%
ETR Entergy Corp	-1.16	-1.42%

Data as of 2:20pm ET, 07/18/2018

Financials

Next reporting date	--
EPS forecast (this quarter)	--
Annual revenue (last year)	$6.4B
Annual profit (last year)	$792.0M
Net profit margin	12.38%

Profile

Sector	Utilities
Industry	Electric Utilities
President, Chief Executive Officer & Director	Barry V. Perry
EVP-Eastern Canadian & Caribbean Operations	Gary J. Smith
Corporate headquarters	St. John's, Newfoundland And Labrador

Forecasts

NorthWestern Corp (NYSE:NWE)

Add to Watch List | Set Alert

57.55
Delayed Data
As of 2:11pm ET

-0.56 / -0.96%
Today's Change

50.01 | 64.47
52-Week Range

-3.60%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest NWE News | Press Releases

No recent news for NorthWestern Corp.

Today's Trading

Previous close	58.11
Today's open	58.11
Day's range	57.33 - 58.20
Volume	106,106
Average volume (3 months)	446,932
Market cap	$2.6B

Data as of 2:11pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	-1.47%
Earnings growth (this year)	+3.94%
Earnings growth (next 5 years)	+3.00%
Revenue growth (last year)	+3.85%
P/E ratio	17.2
Price/Sales	2.22
Price/Book	1.47

Competitors

	Today's change	Today's % change
AVA Avista Corp	-0.28	-0.55%
MGEE MGE Energy Inc	-0.80	-1.26%
ALE ALLETE Inc	-0.48	-0.62%
DUKH Duke Energy Corp	-0.08	-0.32%

Data as of 2:09pm ET, 07/18/2018

Financials

Next reporting date	July 20, 2018
EPS forecast (this quarter)	$0.47
Annual revenue (last year)	$1.3B
Annual profit (last year)	$162.7M
Net profit margin	12.46%

Profile

Sector	Utilities
Industry	Electric Utilities
President, Chief Executive Officer & Director	Robert C. Rowe
Chief Financial Officer & Vice President	Brian B. Bird
Corporate headquarters	Sioux Falls, South Dakota

Forecasts

PPL Corp (NYSE:PPL)

Real-Time Quotes | Add to Watch List | Set Alert

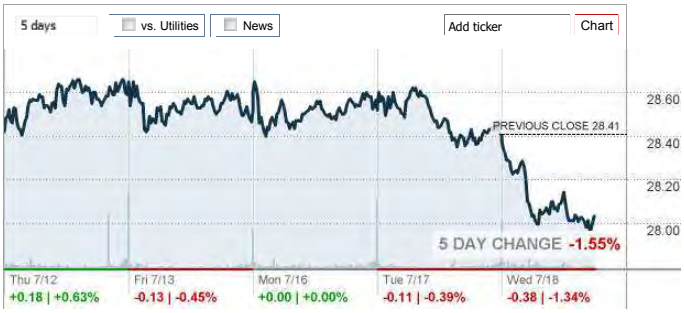
28.03
BATS BZX Real-Time Price
As of 2:35pm ET

-0.38 / -1.34%
Today's Change

25.30 — 39.90
52-Week Range

-9.43%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors



Latest PPL News | Press Releases

FirstEnergy (FE) Unit to Invest $4M to Strengthen Operation
Jul 12 / Zacks.com - Paid Partner Content

See All PPL News

Today's Trading

Previous close	28.41
Today's open	28.30
Day's range	27.96 - 28.43
Volume	141,437
Average volume (3 months)	7,220,697
Market cap	$19.3B

Data as of 2:35pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	-41.22%
Earnings growth (this year)	+3.02%
Earnings growth (next 5 years)	+4.26%
Revenue growth (last year)	-0.93%
P/E ratio	16.5
Price/Sales	2.86
Price/Book	1.78

Competitors

	Today's change	Today's % change
EIX Edison International	-0.41	-0.63%
KEP Korea Electric Power...	-0.33	-2.33%
WEC WEC Energy Group Inc	-0.24	-0.37%
DTE DTE Energy Co	-0.22	-0.21%

Data as of 2:35pm ET, 07/18/2018

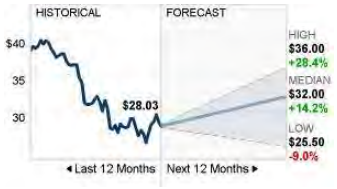
Financials

Next reporting date	August 7, 2018
EPS forecast (this quarter)	$0.54
Annual revenue (last year)	$7.4B
Annual profit (last year)	$1.1B
Net profit margin	15.12%

Profile

Sector	Utilities
Industry	Electric Utilities
Chairman, President & Chief Executive Officer	William H. Spence
Chief Financial Officer & Senior Vice President	Vincent Sorgi
Corporate headquarters	Allentown, Pennsylvania

Forecasts



Public Service Enterprise Group Inc (NYSE:PEG)

Real-Time Quotes | Add to Watch List | Set Alert

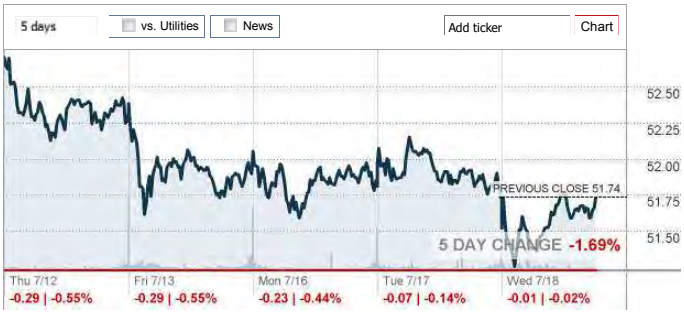
51.70
BATS BZX Real-Time Price
As of 1:45pm ET

-0.05 / -0.10%
Today's Change

43.15 — 54.50
52-Week Range

+0.45%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors



Latest PEG News | Press Releases

No recent news for Public Service Enterprise Group Inc.

Today's Trading

Previous close	51.74
Today's open	51.76
Day's range	51.23 - 51.82
Volume	141,235
Average volume (3 months)	2,930,529
Market cap	$25.7B

Data as of 2:35pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+77.14%
Earnings growth (this year)	+6.43%
Earnings growth (next 5 years)	+6.30%
Revenue growth (last year)	+2.05%
P/E ratio	13.0
Price/Sales	2.90
Price/Book	1.85

Competitors

	Today's change	Today's % change
-- Engie Brasil Energia...	-0.70	-1.94%
XEL Xcel Energy Inc	-0.26	-0.57%
ED Consolidated Edison ...	-0.35	-0.44%
PCG PG&E	-0.37	-0.86%

Data as of 2:36pm ET, 07/18/2018

Financials

Next reporting date	August 1, 2018
EPS forecast (this quarter)	$0.66
Annual revenue (last year)	$9.0B
Annual profit (last year)	$1.6B
Net profit margin	17.47%

Profile

Sector	Utilities
Industry	Electric Utilities
Chairman, President & Chief Executive Officer	Ralph Izzo
Chief Operating Officer	Ralph A. LaRossa
Corporate headquarters	Newark, New Jersey

Forecasts

Sempra Energy (NYSE:SRE)

Real-Time Quotes | Add to Watch List | Set Alert

114.34
BATS BZX Real-Time Price
As of 2:45pm ET

-1.27 / -1.10%
Today's Change

100.49 — 122.98
52-Week Range

+6.94%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest SRE News | Press Releases

Sempra Energy's IEnova to Build $150M Liquid Fuels Project
Jul 10 / Zacks.com - Paid Partner Content

See All SRE News

Today's Trading

Previous close	115.61
Today's open	115.09
Day's range	114.02 - 115.09
Volume	43,390
Average volume (3 months)	2,305,386
Market cap	$28.1B

Data as of 2:45pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	-81.48%
Earnings growth (this year)	-0.03%
Earnings growth (next 5 years)	+13.00%
Revenue growth (last year)	+9.84%
P/E ratio	193.8
Price/Sales	2.41
Price/Book	2.11

Competitors

	Today's change	Today's % change
VVC Vectren Corp	+0.02	+0.03%

Data as of 2:43pm ET, 07/18/2018

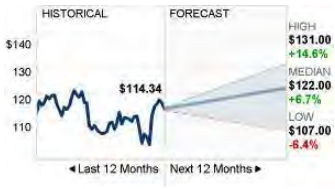
Financials

Next reporting date	August 7, 2018
EPS forecast (this quarter)	$1.16
Annual revenue (last year)	$11.2B
Annual profit (last year)	$257.0M
Net profit margin	2.30%

Profile

Sector	Utilities
Industry	Gas Distributors
Chief Executive Officer	Jeffrey Walker Martin
President & Chief Operating Officer	Joseph Allan Householder
Corporate headquarters	San Diego, California

Forecasts



Southern Co (NYSE:SO)

Real-Time Quotes | Add to Watch List | Set Alert

47.44
BATS BZX Real-Time Price
As of 2:47pm ET

-0.21 / -0.44%
Today's Change

42.38 — 53.51
52-Week Range

-1.35%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest SO News | Press Releases

Southern Company: A Sleep-Well-at-Night Utility With a 5% Dividend Yield
Jul 17 / GuruFocus News - Paid Partner Content

BIP vs. SO: Which Stock Should Value Investors Buy Now?
Jul 12 / Zacks.com - Paid Partner Content

See All SO News

Today's Trading

Previous close	47.65
Today's open	47.66
Day's range	47.18 - 47.67
Volume	147,036
Average volume (3 months)	5,175,629
Market cap	$45.1B

Data as of 2:47pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	-67.13%
Earnings growth (this year)	-4.01%
Earnings growth (next 5 years)	+4.00%
Revenue growth (last year)	+16.38%
P/E ratio	43.1
Price/Sales	2.10
Price/Book	1.84

Competitors

	Today's change	Today's % change
D Dominion Energy Inc	-0.50	-0.71%
NGG National Grid	-0.56	-1.00%
AEP American Electric Po...	-0.09	-0.13%
PPL PPL	-0.37	-1.30%

Data as of 2:47pm ET, 07/18/2018

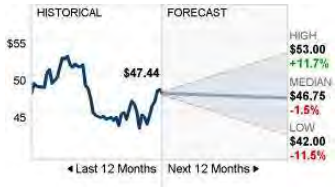
Financials

Next reporting date	August 8, 2018
EPS forecast (this quarter)	$0.65
Annual revenue (last year)	$23.1B
Annual profit (last year)	$880.0M
Net profit margin	3.81%

Profile

Sector	Utilities
Industry	Electric Utilities
Chairman, President & Chief Executive Officer	Thomas A. Fanning
Chief Financial Officer & Executive Vice President	Andrew W. Evans
Corporate headquarters	Atlanta, Georgia

Forecasts



WEC Energy Group Inc (NYSE:WEC)

Real-Time Quotes | Add to Watch List | Set Alert

64.76
BATS BZX Real-Time Price
As of 2:49pm ET

-0.16 / -0.25%
Today's Change

58.48 | 70.09
52-Week Range

-2.51%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest WEC News | Press Releases

No recent news for WEC Energy Group Inc.

Today's Trading

Previous close	64.92
Today's open	65.04
Day's range	64.33 - 65.15
Volume	151,310
Average volume (3 months)	1,789,425
Market cap	$19.5B

Data as of 2:49pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+28.04%
Earnings growth (this year)	+4.97%
Earnings growth (next 5 years)	+3.80%
Revenue growth (last year)	+2.36%
P/E ratio	16.6
Price/Sales	2.76
Price/Book	2.06

Competitors

	Today's change	Today's % change
DTE DTE Energy Co	-0.09	-0.08%
ES Eversource Energy	-0.21	-0.36%
KEP Korea Electric Power...	-0.33	-2.36%
FTS Fortis Inc	-0.11	-0.34%

Data as of 2:49pm ET, 07/18/2018

Financials

Next reporting date	July 25, 2018
EPS forecast (this quarter)	$0.66
Annual revenue (last year)	$7.6B
Annual profit (last year)	$1.2B
Net profit margin	15.75%

Profile

Sector	Utilities
Industry	Electric Utilities
Chairman & Chief Executive Officer	Gale E. Klappa
Chief Financial Officer & Executive Vice President	Scott J. Lauber
Corporate headquarters	Milwaukee, Wisconsin

Forecasts

Xcel Energy Inc (NASDAQ:XEL)

Real-Time Quotes | Add to Watch List | Set Alert

45.64
BATS BZX Real-Time Price
As of 2:49pm ET

-0.22 / -0.48%
Today's Change

41.51 — 52.22
52-Week Range

-5.13%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest XEL News | Press Releases

Duke Energy Supports Green Energy Output in South Carolina
Jul 13 / Zacks.com - Paid Partner Content

FirstEnergy (FE) Unit to Invest $4M to Strengthen Operation
Jul 12 / Zacks.com - Paid Partner Content

Xcel Energy Buys Wind Project From NextEra, Expands in Texas
Jul 06 / Zacks.com - Paid Partner Content

See All XEL News

Today's Trading

Previous close	45.86
Today's open	45.86
Day's range	45.41 - 45.99
Volume	265,728
Average volume (3 months)	3,230,276
Market cap	$22.9B

Data as of 2:49pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+1.81%
Earnings growth (this year)	+5.48%
Earnings growth (next 5 years)	+5.84%
Revenue growth (last year)	+2.61%
P/E ratio	19.4
Price/Sales	2.15
Price/Book	2.00

Competitors

	Today's change	Today's % change
ED Consolidated Edison ...	-0.27	-0.34%
PEG Public Service Enter...	+0.02	+0.04%
-- Engie Brasil Energia...	-0.70	-1.94%
PCG PG&E	-0.35	-0.83%

Data as of 2:49pm ET, 07/18/2018

Financials

Next reporting date	July 26, 2018
EPS forecast (this quarter)	$0.47
Annual revenue (last year)	$11.4B
Annual profit (last year)	$1.1B
Net profit margin	10.08%

Profile

Sector	Utilities
Industry	Electric Utilities
Chairman, President & Chief Executive Officer	Benjamin G. S. Fowke
President-Group Operations & Executive VP	Kent T. Larson
Corporate headquarters	Minneapolis, Minnesota

Forecasts

NEW
REGULATORY
FINANCE

Roger A. Morin, PhD

2006
PUBLIC UTILITIES REPORTS, INC.
Vienna, Virginia

The model is analogous to the standard CAPM, but with the return on a minimum risk portfolio that is unrelated to market returns, R_Z, replacing the risk-free rate, R_F. The model has been empirically tested by Black, Jensen, and Scholes (1972), who find a flatter than predicted SML, consistent with the model and other researchers' findings. An updated version of the Black-Jensen-Scholes study is available in Brealey, Myers, and Allen (2006) and reaches similar conclusions.

The zero-beta CAPM cannot be literally employed to estimate the cost of capital, since the zero-beta portfolio is a statistical construct difficult to replicate. Attempts to estimate the model are formally equivalent to estimating the constants, a and b, in Equation 6-2. A practical alternative is to employ the Empirical CAPM, to which we now turn.

6.3 Empirical CAPM

As discussed in the previous section, several finance scholars have developed refined and expanded versions of the standard CAPM by relaxing the constraints imposed on the CAPM, such as dividend yield, size, and skewness effects. These enhanced CAPMs typically produce a risk-return relationship that is flatter than the CAPM prediction in keeping with the actual observed risk-return relationship. The ECAPM makes use of these empirical findings. The ECAPM estimates the cost of capital with the equation:

$$K = R_F + \acute{\alpha} + \beta \times (MRP - \acute{\alpha}) \qquad (6\text{-}5)$$

where $\acute{\alpha}$ is the "alpha" of the risk-return line, a constant, and the other symbols are defined as before. All the potential vagaries of the CAPM are telescoped into the constant $\acute{\alpha}$, which must be estimated econometrically from market data. Table 6-2 summarizes[10] the empirical evidence on the magnitude of alpha.[11]

[10] The technique is formally applied by Litzenberger, Ramaswamy, and Sosin (1980) to public utilities in order to rectify the CAPM's basic shortcomings. Not only do they summarize the criticisms of the CAPM insofar as they affect public utilities, but they also describe the econometric intricacies involved and the methods of circumventing the statistical problems. Essentially, the average monthly returns over a lengthy time period on a large cross-section of securities grouped into portfolios are related to their corresponding betas by statistical regression techniques; that is, Equation 6-5 is estimated from market data. The utility's beta value is substituted into the equation to produce the cost of equity figure. Their own results demonstrate how the standard CAPM underestimates the cost of equity capital of public utilities because of utilities' high dividend yield and return skewness.

[11] Adapted from Vilbert (2004).

TABLE 6-2
EMPIRICAL EVIDENCE ON THE ALPHA FACTOR

Author	Range of alpha
Fischer (1993)	−3.6% to 3.6%
Fischer, Jensen and Scholes (1972)	−9.61% to 12.24%
Fama and McBeth (1972)	4.08% to 9.36%
Fama and French (1992)	10.08% to 13.56%
Litzenberger and Ramaswamy (1979)	5.32% to 8.17%
Litzenberger, Ramaswamy and Sosin (1980)	1.63% to 5.04%
Pettengill, Sundaram and Mathur (1995)	4.6%
Morin (1989)	2.0%

For an alpha in the range of 1%–2% and for reasonable values of the market risk premium and the risk-free rate, Equation 6-5 reduces to the following more pragmatic form:

$$K = R_F + 0.25\,(R_M - R_F) + 0.75\,\beta(R_M - R_F) \qquad (6\text{-}6)$$

Over reasonable values of the risk-free rate and the market risk premium, Equation 6-6 produces results that are indistinguishable from the ECAPM of Equation 6-5.[12]

An alpha range of 1%–2% is somewhat lower than that estimated empirically. The use of a lower value for alpha leads to a lower estimate of the cost of capital for low-beta stocks such as regulated utilities. This is because the use of a long-term risk-free rate rather than a short-term risk-free rate already incorporates some of the desired effect of using the ECAPM. That is, the

[12] Typical of the empirical evidence on the validity of the CAPM is a study by Morin (1989) who found that the relationship between the expected return on a security and beta over the period 1926–1984 was given by:

$$\text{Return} = 0.0829 + 0.0520\,\beta$$

Given that the risk-free rate over the estimation period was approximately 6% and that the market risk premium was 8% during the period of study, the intercept of the observed relationship between return and beta exceeds the risk-free rate by about 2%, or 1/4 of 8%, and that the slope of the relationship is close to 3/4 of 8%. Therefore, the empirical evidence suggests that the expected return on a security is related to its risk by the following approximation:

$$K = R_F + x(R_M - R_F) + (1 - x)\beta(R_M - R_F)$$

where x is a fraction to be determined empirically. The value of x that best explains the observed relationship Return $= 0.0829 + 0.0520\,\beta$ is between 0.25 and 0.30. If $x = 0.25$, the equation becomes:

$$K = R_F + 0.25(R_M - R_F) + 0.75\beta(R_M - R_F)$$

long-term risk-free rate version of the CAPM has a higher intercept and a flatter slope than the short-term risk-free version which has been tested. Thus, it is reasonable to apply a conservative alpha adjustment. Moreover, the lowering of the tax burden on capital gains and dividend income enacted in 2002 may have decreased the required return for taxable investors, steepening the slope of the ECAPM risk-return trade-off and bring it closer to the CAPM predicted returns.[13]

To illustrate the application of the ECAPM, assume a risk-free rate of 5%, a market risk premium of 7%, and a beta of 0.80. The Empirical CAPM equation (6-6) above yields a cost of equity estimate of 11.0% as follows:

$$K = 5\% + 0.25\,(12\% - 5\%) + 0.75 \times 0.80\,(12\% - 5\%)$$
$$= 5.0\% + 1.8\% + 4.2\%$$
$$= 11.0\%$$

As an alternative to specifying alpha, see Example 6-1.

Some have argued that the use of the ECAPM is inconsistent with the use of adjusted betas, such as those supplied by Value Line and Bloomberg. This is because the reason for using the ECAPM is to allow for the tendency of betas to regress toward the mean value of 1.00 over time, and, since Value Line betas are already adjusted for such trend, an ECAPM analysis results in double-counting. This argument is erroneous. Fundamentally, the ECAPM is not an adjustment, increase or decrease, in beta. This is obvious from the fact that the expected return on high beta securities is actually lower than that produced by the CAPM estimate. The ECAPM is a formal recognition that the observed risk-return tradeoff is flatter than predicted by the CAPM based on myriad empirical evidence. The ECAPM and the use of adjusted betas comprised two separate features of asset pricing. Even if a company's beta is estimated accurately, the CAPM still understates the return for low-beta stocks. Even if the ECAPM is used, the return for low-beta securities is understated if the betas are understated. Referring back to Figure 6-1, the ECAPM is a return (vertical axis) adjustment and not a beta (horizontal axis) adjustment. Both adjustments are necessary. Moreover, recall from Chapter 3 that the use of adjusted betas compensates for interest rate sensitivity of utility stocks not captured by unadjusted betas.

[13] The lowering of the tax burden on capital gains and dividend income has no impact as far as non-taxable institutional investors (pension funds, 401K, and mutual funds) are concerned, and such investors engage in very large amounts of trading on security markets. It is quite plausible that taxable retail investors are relatively inactive traders and that large non-taxable investors have a substantial influence on capital markets.

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Chapter 7
Divisiona
Applicati

The last twenty-f
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ROEs authorized January 1990 - December 2017

		Electric utilities			Gas utilities		
Year	Period	Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of observations
1990	ull year	12.70	12.77	38	12.68	12.75	33
1991	Full year	12.54	12.50	42	12.45	12.50	31
1992	Full year	12.09	12.00	45	12.02	12.00	28
1993	Full year	11.46	11.50	28	11.37	11.50	40
1994	Full year	11.21	11.13	28	11.24	11.27	24
1995	Full year	11.58	11.45	28	11.44	11.30	13
1996	Full year	11.40	11.25	18	11.12	11.25	17
1997	Full year	11.33	11.58	10	11.30	11.25	12
1998	Full year	11.77	12.00	10	11.51	11.40	10
1999	Full year	10.72	10.75	6	10.74	10.65	6
2000	Full year	11.58	11.50	9	11.34	11.16	13
2001	Full year	11.07	11.00	15	10.96	11.00	5
2002	Full year	11.21	11.28	14	11.17	11.00	19
2003	Full year	10.96	10.75	20	10.99	11.00	25
2004	Full year	10.81	10.70	21	10.63	10.50	22
2005	Full year	10.51	10.35	24	10.41	10.40	26
2006	Full year	10.32	10.23	26	10.40	10.50	15
2007	Full year	10.30	10.20	38	10.22	10.20	35
2008	Full year	10.41	10.30	37	10.39	10.45	32
2009	Full year	10.52	10.50	40	10.22	10.26	30
2010	Full year	10.37	10.30	61	10.15	10.10	39
2011	Full year	10.29	10.17	42	9.92	10.03	16
2012	Full year	10.17	10.08	58	9.94	10.00	35
2013	Full year	10.03	9.95	49	9.68	9.72	21
	1st quarter	10.23	9.86	8	9.54	9.60	6
	2nd quarter	9.83	9.70	5	9.84	9.95	8
	3rd quarter	9.87	9.78	12	9.45	9.33	6
	4th quarter	9.78	9.80	13	10.28	10.20	6
2014	**Full year**	**9.91**	**9.78**	**38**	**9.78**	**9.78**	**26**
	1st quarter	10.37	9.83	9	9.47	9.05	3
	2nd quarter	9.73	9.60	7	9.43	9.50	3
	3rd quarter	9.40	9.40	2	9.75	9.75	1
	4th quarter	9.62	9.55	12	9.68	9.75	9
2015	**Full year**	**9.85**	**9.65**	**30**	**9.60**	**9.68**	**16**
	1st quarter	10.29	10.50	9	9.48	9.50	6
	2nd quarter	9.60	9.60	7	9.42	9.52	6
	3rd quarter	9.76	9.80	8	9.47	9.50	4
	4th quarter	9.57	9.58	18	9.68	9.73	10
2016	**Full year**	**9.77**	**9.75**	**42**	**9.54**	**9.50**	**26**
	1st quarter	9.87	9.60	15	9.60	9.25	3
	2nd quarter	9.63	9.50	14	9.47	9.60	7
	3rd quarter	9.66	9.60	5	10.14	9.90	6
	4th quarter	9.73	9.60	19	9.68	9.55	8
2017	**Full year**	**9.74**	**9.60**	**53**	**9.72**	**9.60**	**24**

Sou ce: Regulatory Research Associates, an offering of S&P Glo al Market Inte igence

2.

Average Equity Returns Authorized January 1980 - December 1988

(Return Percent - No. of Observations)

Period		Electric Utilities	Gas Utilities	Telephone Utilities
1980	1st Quarter	13.97 (21)	13.45 (13)	12.88 (8)
	2nd Quarter	14.35 (25)	14.38 (9)	13.00 (10)
	3rd Quarter	14.30 (25)	13.87 (12)	13.00 (11)
	4th Quarter	14.32 (33)	14.36 (23)	13.36 (11)
1980	Full Year	14.23(104)	14.06 (57)	12.94 (40)
1981	1st Quarter	14.87 (21)	14.69 (9)	13.86 (13)
	2nd Quarter	15.03 (40)	14.61 (10)	14.10 (13)
	3rd Quarter	15.31 (26)	14.86 (13)	14.37 (13)
	4th Quarter	15.56 (36)	15.70 (23)	14.71 (20)
1981	Full Year	15.22(123)	15.11 (60)	14.32 (64)
1982	1st Quarter	15.71 (29)	15.55 (15)	14.66 (12)
	2nd Quarter	15.80 (35)	15.62 (15)	15.00 (10)
	3rd Quarter	15.83 (27)	15.72 (22)	15.01 (11)
	4th Quarter	15.97 (34)	15.82 (30)	15.05 (14)
1982	Full Year	15.76(125)	15.62 (82)	15.12 (64)
1983	1st Quarter	15.53 (20)	15.41 (15)	14.75 (15)
	2nd Quarter	15.10 (18)	14.84 (14)	14.76 (17)
	3rd Quarter	15.39 (25)	15.24 (16)	14.88 (9)
	4th Quarter	15.35 (28)	15.41 (20)	14.78 (30)
1983	Full Year	15.36 (95)	15.25 (65)	14.78 (71)
1984	1st Quarter	15.08 (19)	15.39 (6)	14.15 (12)
	2nd Quarter	15.07 (15)	15.07 (7)	14.75 (9)
	3rd Quarter	15.38 (22)	15.57 (12)	14.90 (10)
	4th Quarter	15.69 (19)	15.33 (12)	14.78 (7)
1984	Full Year	15.32 (75)	15.31 (39)	14.50 (38)
1985	1st Quarter	15.51 (15)	15.03 (8)	14.83 (10)
	2nd Quarter	15.27 (12)	15.44 (4)	14.88 (10)
	3rd Quarter	14.91 (14)	14.84 (9)	14.88 (6)
	4th Quarter	15.11 (17)	14.44 (13)	14.56 (14)
1985	Full Year	15.20 (58)	14.75 (34)	14.80 (40)
1986	1st Quarter	14.35 (14)	14.05 (4)	14.05 (8)
	2nd Quarter	14.27 (18)	13.39 (9)	14.05 (7)
	3rd Quarter	13.18 (10)	13.00 (5)	13.00 (3)
	4th Quarter	13.52 (9)	13.43 (7)	13.00 (3)
1986	Full Year	13.93 (49)	13.48 (26)	13.00 (18)
1987	1st Quarter	12.92 (12)	12.81 (7)	12.05 (1)
	2nd Quarter	13.15 (10)	13.13 (3)	12.01 (4)
	3rd Quarter	13.17 (16)	12.58 (6)	12.00 (4)
	4th Quarter	12.79 (19)	12.75 (12)	12.00 (4)
1987	Full Year	12.99 (57)	12.74 (28)	12.00 (13)
1988	1st Quarter	12.74 (8)	12.94 (5)	12.70 (2)
	2nd Quarter	12.70 (7)	13.48 (4)	12.00 (1)
	3rd Quarter	12.68 (8)	12.75 (8)	12.37 (3)
	4th Quarter	12.98 (10)	12.98 (13)	13.30 (7)
1988	Full Year	12.79 (33)	12.85 (31)	13.13 (13)
1989	1st Quarter	13.04 (9)	12.98 (4)	12.96 (3)
	2nd Quarter	13.22 (7)	13.25 (2)	12.70 (3)
	3rd Quarter	12.38 (2)	12.56 (7)	13.75 (2)
	4th Quarter	12.84 (9)	12.94 (18)	12.83 (7)
1989	Full Year	12.97 (27)	12.88 (31)	12.97 (15)

Special Research Study
January 1986

Argus Utility Regulatory Service

RETURNS AUTHORIZED JULY 1974 — DECEMBER 1985

ARGUS RESEARCH CORPORATION, 42 BROADWAY, NEW YORK, N. Y. 10004

Year	ROE	Year	ROE
1974	13.1	1980	14.1
1975	13.2	1981	15.2
1976	13.1	1982	15.8
1977	13.3	1983	15.4
1978	13.2	1984	15.4
1979	13.5	1985	15.2

TABLE OF CONTENT

AT&T INC. NYSE-T

RECENT PRICE 32.68 | P/E RATIO 9.6 (Trailing: 10.3 Median: 13.0) | RELATIVE P/E RATIO 0.5 | DIV'D YLD 6.2% | VALUE LINE

TIMELINESS 3 Raised 8/4/ 7
SAFETY 1 Raised 3/28/08
TECHNICAL 3 Lowered 6/ / 8
BETA .75 (.00 = Market)

0 1- 3 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+85%)	20%
Low	50	(+55%)	16%

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	1	0	0	0	2	0	0
Options	1	1	0	1	0	0	11	0	0
to Sell	0	0	0	0	0	0	1	0	0

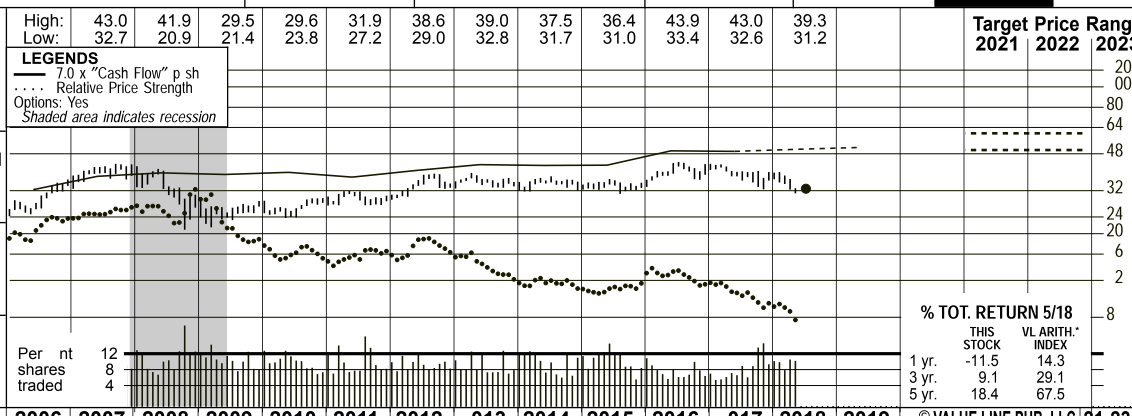
Institutional Decisions

	3Q 017	4Q 017	1Q 018
to Buy	989	884	966
to Sell	845	874	1052
Hld's(000)	3783465	3404689	3386886

	High:	43.0	41.9	29.5	29.6	31.9	38.6	39.0	37.5	36.4	43.9	43.0	39.3
	Low:	32.7	20.9	21.4	23.8	27.2	29.0	32.8	31.7	31.0	33.4	32.6	31.2

LEGENDS
7.0 x "Cash Flow" p sh
Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2021 | 2022 | 2023



% TOT. RETURN 5/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-11.5	14.3
3 yr.	9.1	29.1
5 yr.	18.4	67.5

00	003	004	005	2006	2007	2008	2009	2010	2011	2012	013	2014	2015	2016	017	2018	2019	© VALUE LINE PUB. LLC	21-23
15.60	12.36	12.36	11.31	16.24	19.83	21.05	20.84	21.05	21.38	22.83	24.64	25.53	23.89	26.68	26.15	*25.40*	*26.05*	Revenues per sh E	*28.15*
5.14	3.91	3.77	3.42	4.63	5.36	5.56	5.46	5.60	5.31	5.70	6.10	6.04	6.05	7.07	7.04	*7.20*	*7.35*	"Cash Flow" per sh	*7.85*
2.16	1.52	1.47	1.72	2.34	2.76	2.16	2.12	2.29	2.20	2.33	2.50	2.50	2.69	2.84	3.05	*3.40*	*3.50*	Earnings per sh A	*3.95*
1.07	1.37	1.25	1.29	1.33	1.42	1.60	1.64	1.68	1.72	1.76	1.80	1.84	1.88	1.92	1.96	*2.00*	*2.04*	Div'ds Decl'd per sh B ■	*2.40*
2.05	1.58	1.54	1.44	2.14	2.93	3.34	2.81	3.30	3.39	3.49	4.01	4.09	3.26	3.50	3.51	*3.60*	*3.70*	Cap'l Spending per sh	*4.00*
10.01	11.57	12.29	14.11	29.76	19.09	16.35	17.34	18.94	17.85	16.61	17.50	16.76	19.96	20.06	22.94	*24.25*	*25.00*	Book Value per sh C	*29.30*
3317.6	3305.2	3300.9	3876.9	3882.0	6043.5	5893.0	5901.9	5911.1	5926.5	5581.4	5226.3	5186.9	6144.9	6139.0	6139.4	*6141.0*	*6142.0*	Common Shs Outst'g D	*6145.0*
14.2	15.6	17.2	13.9	12.6	14.2	15.4	12.1	11.7	13.4	14.5	14.2	13.8	12.6	13.8	12.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.0*
.78	.89	.91	.74	.68	.75	.93	.81	.74	.84	.92	.80	.73	.63	.72	.62			Relative P/E Ratio	*.80*
3.5%	5.8%	5.0%	5.4%	4.5%	3.6%	4.8%	6.4%	6.3%	5.8%	5.2%	5.1%	5.3%	5.6%	4.9%	5.1%			Avg Ann'l Div'd Yield	*4.3%*
124028	123018	124399	126723	127434	128752	132447	146801	163786	160546	*156000*	*160000*	Revenues ($mill) E	*173000*
12867	12535	13612	13103	13698	13463	13056	15188	17577	18860	*20900*	*21500*	Net Profit ($mill)	*24300*
35.4%	32.4%	39.3%	33.6%	32.6%	33.2%	34.6%	32.4%	32.7%	9.5%	*23.0%*	*23.0%*	Income Tax Rate	*23.0%*
10.4%	10.2%	10.9%	10.3%	10.7%	10.5%	9.9%	10.3%	10.7%	11.7%	*13.4%*	*13.4%*	Net Profit Margin	*14.0%*
38.7%	38.7%	34.5%	36.7%	41.7%	43.1%	46.7%	48.9%	47.8%	47.0%	*47.5%*	*47.0%*	Long-Term Debt Ratio	*45.5%*
61.3%	61.3%	65.5%	63.3%	58.3%	56.9%	53.3%	50.7%	51.8%	52.6%	*52.5%*	*53.0%*	Common Equity Ratio	*54.5%*
157219	167045	170921	167097	159053	160772	162935	242155	237791	267979	*283000*	*288500*	Total Capital ($mill)	*330000*
99088	100093	103196	107087	109767	110968	112898	124450	124899	125222	*125500*	*126000*	Net Plant ($mill)	*127500*
9.3%	8.5%	8.8%	8.9%	9.7%	9.6%	9.1%	7.2%	8.5%	8.2%	*8.5%*	*8.5%*	Return on Total Cap'l	*8.5%*
13.4%	12.3%	12.2%	12.4%	14.8%	14.7%	15.0%	12.4%	14.3%	13.4%	*14.0%*	*14.0%*	Return on Shr. Equity	*13.5%*
13.4%	12.3%	12.2%	12.4%	14.8%	14.7%	15.0%	12.4%	14.3%	13.4%	*14.0%*	*14.0%*	Return on Com Equity	*13.5%*
3.5%	2.8%	3.3%	2.8%	3.7%	4.1%	4.0%	4.1%	4.7%	4.8%	*6.0%*	*6.0%*	Retained to Com Eq	*5.5%*
74%	77%	73%	78%	75%	72%	73%	67%	67%	64%	*59%*	*58%*	All Div'ds to Net Prof	*61%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $163046 mill. **Due in 5 Yrs** $72000 mill.
LT Debt $133724 mill. **LT Interest** $6000 mill.

Pension Assets-1 /17 $45463 mill. **Oblig.** $59294 mill.

Pfd Stock Non

Common Stock 6,141 mill. ha s
as of 4/30/18

MARKET CAP: $ 01 billion (Large Cap)

CURRENT POSITION ($MILL.)	016	2017	3/31/18
Ca h A	5788	50498	48872
O h	32581	28648	29633
Cu n A	38369	79146	78505
A Payabl	31138	34470	31569
D b Du	9832	38374	29322
O h	9606	8545	9689
Cu n Liab.	50576	81389	70580
Fix. Chg. Cov.	496%	333%	350%

ANNUAL RATES of hang (p h)	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
R v nu	5.0%	3.5%	*1.5%*
"Ca h Flow"	4.0%	4.0%	*2.5%*
Ea ning	2.5%	4.5%	*5.5%*
Divid nd	3.5%	2.0%	*4.0%*
Book Valu	- -	3.5%	*5.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
015	32576	33015	39091	42119	146801
016	40535	40520	40890	41841	163786
017	39365	39837	39668	41676	160546
018	38038	*38562*	*39000*	*40400*	*156000*
019	*39000*	*39600*	*40000*	*41400*	*160000*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
015	.63	.69	.74	.63	2.69
016	.72	.72	.74	.66	2.84
017	.74	.79	.74	.78	3.05
018	.85	*.89*	*.87*	*.79*	*3.40*
019	*.87*	*.92*	*.90*	*.81*	*3.50*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
014	.46	.46	.46	.46	1.84
015	.47	.47	.47	.47	1.88
016	.48	.48	.48	.48	1.92
017	.49	.49	.49	.49	1.96
018	.50	.50			

BUSINESS: AT&T Inc., formerly SBC Communications, is one of the world's largest telecom holding companies and is the largest in the U.S. Its traditional (SBC only) wireline subsidiaries provide services in 13 states, including California, Texas, Illinois, Michigan, Ohio, Missouri, Connecticut, Indiana, Wisconsin, Oklahoma, Kansas, Arkansas, and Nevada. Also owns AT&T Wireless (previously Cingular). Acqui ed AT&T Corp., 11/05; BellSouth, 12/06; DirecTV, 7/15. '17 sales mix: Se vi e, 91%; Equipment, 9%. Has about 249,240 employees. BlackRock, 6.1% of common stock; Officers & directors as a group own less than 1% (3/18 Proxy). Chrmn. & CEO: Randall Stephenson. In .: DE. Addr.: 208 S. Akard S ., Dallas, Texas, 75202. Tel.: 210-821-4105. Internet: www.att.com.

The fate of AT&T's proposed merger with Time Warner should soon be decided. The Justice Department has sued to block the $85 billion tie-up on antitrust grounds, arguing that the deal would lead to higher prices for consumers. (AT&T contends that similar vertical mergers between telecom and media outfits, including Comcast's 2011 purchase of NBCUniversal, have had little trouble clearing regulatory hurdles.) That trial is now wrapping up, with a federal judge in Washington, DC set to rule on the case just after we go to press. A favorable ruling would clear the way for AT&T to close the transaction, and to build a streaming-video platform with premium content that can help the carrier better compete with the likes of Amazon, Facebook, Google, and Netflix (not to mention Verizon). But a ruling for the government's position would be a blow to AT&T's media ambitions, though a decision for either party could potentially be appealed to the Supreme Court.

We continue to believe that the acquisition will ultimately get done. This is far from a certainty, however, and investors are encouraged to keep a close eye on this high-stakes legal battle. In addition, we will not factor Time Warner into our estimates until th deal is finalized.

On its own, AT&T continues to post lackluster results. In fact, first-quarter top- and bottom-line figures missed our e - timates and Wall Street's consensus views, due to soft wireless pricing and further subscriber losse across the legacy wireline and satellite TV businesse . These factors have prompted us to shave a nickel off both our 2018 and 2019 shar - net calls, which stand at $3.40 and $3.50, respectively. Still, some positive trends ar emerging, highlighted by an easing of promotional activity in the wireless spac and strong gains by *DirecTV Now*, the company's streaming pay service. And th launch of mobile 5G hould pave the way for AT&T to introduce a host of new, highly profitable service in the years ahead.

This top-quality issue, currently yielding over 6%, looks to be a solid choice for conservative buy-and-hold investors. Even without Time Warner, we se the large-cap telecom stock reaching th $50-$60 range by 2021-2023.

Justin Hellman *June 15, 2018*

(A) Dilu d a ning . Ex l. nonrecurring gain /(lo): '03, $1.04; '04, $0.32; '05, ($0.30); '06, ($0.45). N x a nings eport due la July. **(B)** Div'd paid in F b uary, May, August, and November. Incl. one-time div'ds: In '03, $0.25. ■ Div'd reinvestment plan available. **(C)** Incl. goodwill: '17: $105449 mill., $17.18/sh. **(D)** In millions. **(E)** Starting in '03, proportionate revenues from Cingular no longer incl. in top line.

Company's Financial Strength	A++
Stock's Price Stability	100
Price Growth Persistence	20
Earnings Predictability	100

CHURCH & DWIGHT NYSE-CHD

RECENT PRICE 49.69 | P/E RATIO 22.1 (24.2 / 22.0) | RELATIVE P/E RATIO 1.20 | DIV'D YLD 1.8% | VALUE LINE

TIMELINESS 3 Lowered 3/30/18
SAFETY 1 Raised 7/6/07
TECHNICAL 4 Lowered 6/8/18
BETA .75 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(+50%)	12%
Low	60	(+20%)	7%

Insider Decisions

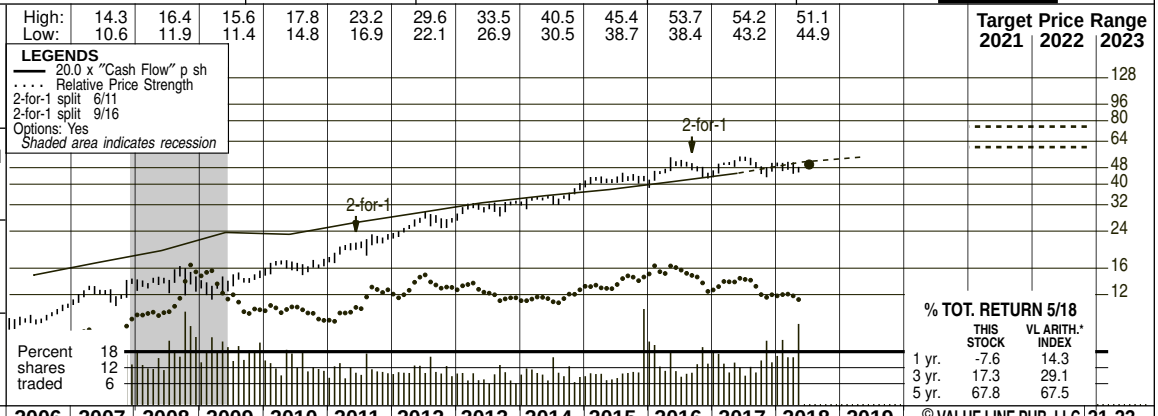
	A	S	O	N	D	J	F	M	A
to Buy	0	1	0	2	0	0	0	0	0
Options	2	1	0	0	1	0	1	3	1
to Sell	2	1	0	0	0	0	1	3	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	288	265	306
to Sell	330	297	338
Hld's(000)	219454	202260	199234

	High:	14.3	16.4	15.6	17.8	23.2	29.6	33.5	40.5	45.4	53.7	54.2	51.1
	Low:	10.6	11.9	11.4	14.8	16.9	22.1	26.9	30.5	38.7	38.4	43.2	44.9

LEGENDS
20.0 x "Cash Flow" p sh
Relative Price Strength
2-for-1 split 6/11
2-for-1 split 9/16
Options: Yes
Shaded area indicates recession



Target Price Range 2021 | 2022 | 2023
128
96
80
64
48
40
32
24
16
12

% TOT. RETURN 5/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-7.6	14.3
3 yr.	17.3	29.1
5 yr.	67.8	67.5

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
4.37	4.32	5.78	6.87	7.44	8.38	8.64	8.93	9.09	9.66	10.53	11.49	12.36	13.06	13.75	15.25	*16.95*	*17.45*	Sales per sh E	*20.00*
.40	.44	.51	.66	.74	.85	.97	1.18	1.16	1.31	1.46	1.63	1.77	1.89	2.06	2.26	*2.55*	*2.70*	"Cash Flow" per sh	*3.30*
.27	.31	.34	.46	.52	.62	.72	.87	.99	1.11	1.23	1.40	1.51	1.63	1.77	1.94	*2.25*	*2.40*	Earnings per sh A	*3.00*
.05	.05	.06	.06	.07	.07	.09	.12	.16	.34	.48	.56	.62	.67	.71	.76	*.87*	*.90*	Div'ds Decl'd per sh B■	*1.00*
.16	.13	.14	.15	.18	.18	.35	.48	.22	.27	.27	.24	.26	.24	.20	.18	*.25*	*.30*	Cap'l Spending per sh	*.50*
1.45	1.79	2.22	2.76	3.30	4.08	4.75	5.68	6.57	7.17	7.43	8.28	7.88	7.78	7.79	8.96	*10.95*	*12.10*	Book Value per sh C	*16.65*
239.38	244.72	252.75	252.75	261.44	264.98	280.29	282.20	284.82	284.57	277.56	277.93	266.70	259.91	253.96	247.63	*242.50*	*242.00*	Common Shs Outst'g D	*240.00*
19.2	17.9	21.4	19.4	18.1	19.9	19.8	15.8	16.6	18.4	21.2	22.3	23.1	26.0	26.5	25.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*22.0*
1.05	1.02	1.13	1.03	.98	1.06	1.19	1.05	1.06	1.15	1.35	1.25	1.22	1.31	1.39	1.26			Relative P/E Ratio	*1.20*
1.0%	.9%	.8%	.7%	.7%	.5%	.6%	.8%	.9%	1.7%	1.9%	1.8%	1.8%	1.6%	1.5%	1.5%			Avg Ann'l Div'd Yield	*1.5%*
2422.4	2520.9	2589.2	2749.3	2921.9	3194.3	3297.6	3394.8	3493.1	3776.2	*4110*	*4225*	Sales ($mill) E	*4800*
17.2%	20.0%	18.9%	20.3%	20.6%	21.3%	21.2%	22.2%	22.6%	22.1%	*23.0%*	*23.5%*	Operating Margin	*26.0%*
71.4	85.4	44.1	49.8	56.0	59.7	57.1	58.3	59.7	60.9	*62.0*	*65.0*	Depreciation ($mill) E	*75.0*
200.9	248.7	285.9	324.2	349.8	394.4	413.9	432.3	463.9	497.9	*550*	*585*	Net Profit ($mill)	*720*
36.0%	37.4%	34.1%	36.3%	35.5%	34.0%	33.8%	34.2%	34.7%	32.3%	*25.0%*	*25.0%*	Income Tax Rate	*25.0%*
8.3%	9.9%	11.0%	11.8%	12.0%	12.3%	12.6%	12.7%	13.3%	13.2%	*13.4%*	*13.8%*	Net Profit Margin	*15.0%*
278.0	361.3	202.4	371.6	208.2	464.6	127.2	33.3	d245.1	65.2	*5.0*	*150*	Working Cap'l ($mill)	*750*
781.4	597.3	249.7	249.7	649.4	649.5	698.6	692.8	693.4	2103.4	*2000*	*2000*	Long-Term Debt ($mill)	*2000*
1331.5	1601.8	1870.9	2040.8	2060.9	2299.9	2101.9	2023.2	1977.9	2218.0	*2650*	*2925*	Shr. Equity ($mill)	*4000*
10.6%	11.9%	14.1%	14.3%	13.2%	13.8%	15.3%	16.5%	17.9%	12.1%	*12.0%*	*12.0%*	Return on Total Cap'l	*12.0%*
15.1%	15.5%	15.3%	15.9%	17.0%	17.1%	19.7%	21.4%	23.5%	22.4%	*21.0%*	*20.0%*	Return on Shr. Equity	*18.0%*
13.4%	13.5%	12.9%	11.1%	10.4%	10.4%	11.7%	12.7%	14.2%	13.9%	*13.0%*	*12.5%*	Retained to Com Eq	*12.0%*
12%	13%	15%	30%	38%	39%	40%	41%	39%	38%	*38%*	*37%*	All Div'ds to Net Prof	*33%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $2354.8 mill. **Due in 5 Yrs** $570.0 mill.
LT Debt $1802.1 mill. **LT Interest** $50.0 mill.
(Total interest coverage: 15.0x) (59% of Cap'l)

Leases, Uncapitalized Annual rentals $19.5 mill.
No Defined Benefit Plan

Pfd Stock None
Common Stock 244,702,059 shares
as of 5/1/18

MARKET CAP: $12.2 billion (Large Cap)

CURRENT POSITION ($MILL.)	2016	2017	3/31/18
Cash Assets	187.8	278.9	119.8
Receivables	287.0	345.9	361.1
Inventory (LIFO)	258.2	330.7	357.2
Other	23.8	44.7	53.3
Current Assets	756.8	1000.2	891.4
Accts Payable	545.1	659.1	635.3
Debt Due	426.8	270.9	552.7
Other	6.2	5.0	42.7
Current Liab.	1001.9	935.0	1230.7

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Sales	6.5%	7.5%	*6.0%*
"Cash Flow"	10.5%	9.5%	*8.0%*
Earnings	13.0%	10.0%	*9.0%*
Dividends	27.5%	17.0%	*6.0%*
Book Value	9.0%	3.0%	*12.5%*

Calendar	QUARTERLY SALES ($ mill.) E Mar.Per.	Jun.Per.	Sep.Per.	Dec.Per.	Full Year
2015	812.3	847.1	861.8	873.6	3394.8
2016	849.0	877.4	870.7	896.0	3493.1
2017	877.2	898.0	967.9	1033.1	3776.2
2018	1006.0	*1015*	*1035*	*1054*	*4110*
2019	*1025*	*1050*	*1050*	*1100*	*4225*

Calendar	EARNINGS PER SHARE A Mar.Per.	Jun.Per.	Sep.Per.	Dec.Per.	Full Year
2015	.40	.37	.45	.41	1.63
2016	.43	.43	.47	.44	1.77
2017	.52	.41	.49	.52	1.94
2018	.63	*.45*	*.55*	*.62*	*2.25*
2019	*.60*	*.50*	*.60*	*.70*	*2.40*

Calendar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.155	.155	.155	.155	.62
2015	.168	.168	.168	.168	.67
2016	.178	.178	.178	.178	.71
2017	.19	.19	.19	.19	.76
2018	.218	.218			

BUSINESS: Church & Dwight Co., Inc. develops, manufactures, and markets a broad range of consumer household (44% of 2017 sales), personal care (32%), and specialty care products (24%). Brands incl. *ARM & HAMMER, Trojan, OxiClean, SpinBrush, First Response, Nair, Orajel, XTRA, L'il Critters, VitaFusion, Batiste,* and *Waterpik.* International markets accounted for 16% of 2017 sales. Wal-Mart accounted for 24% of 2017 sales. 2017 depr. rate: 5.0% Has 47,000 employees. Off./dir. own 2.0% of stock; BlackRock, 8.0%; State St., 6%; Vanguard Group, 12.0% (3/18 proxy). Inc.: DE. Chairman: James R. Craigie. President/CEO: Matthew T. Farrell. Address: 500 Charles Ewing Boulevard, Ewing, NJ 08628. Telephone: 609-683-5900. Internet: www.churchdwight.com.

Shares of Church & Dwight have been under some pressure of late. In late May, the company received notice of an unsolicited mini-tender offer from TRC Capital. The hedge fund offered to buy up to two million CHD shares at $44.05 apiece through June 20th. The board has recommended shareholders reject this proposal, which it has deemed as undervaluing the stock. In fact, these shares have slipped about 6% in value since the year began (in comparison to the S&P 500 index, which has inched ahead 2% in the same period). Likewise, this issue has fallen a rung in our Timeliness Ranking System and is now set to track the broader market averages in the coming year.

On its own, the company got off to a good start this year. During the March quarter, share net increased 21%, on a 15% sales advance. Contributions from recent acquisitions, combined with volume gains from overseas markets helped to offset tougher operating conditions.

The company ought to build momentum in the near term. Even though Church & Dwight will probably continue to face rising input costs and a somewhat negative price mix, management's efforts (more below) should spur results. In all, we look for earnings per share to grow at a mid-teen clip this year, on a 5%-10% sales gain. Further, the top and bottom lines should expand another 3% and 5%-10%, respectively, in 2019.

Church & Dwight will likely continue to widen its footprint. The company ought to continue to invest heavily in innovation and product development. Plus, C&D may well ramp up its advertising and branding efforts to gain shelf space. Meanwhile, technological improvements should boost e-commerce sales, and this, combined with a stronger global distribution network, should capture additional market share. The company may also consider tuck-in acquisitions to complement its current roster.

This issue doesn't stand out for near- or long-term price momentum. CHD is neutrally ranked for the year ahead and holds only average appeciation potential over the long haul. Nevertheless, the company's stellar finances and defensive characteristics give it some investment appeal.

Orly Seidman *June 22, 2018*

(A) Dil. earnings. Excl. n/r gains/(losses): '02, 2¢; '03, 6¢; '08, 4¢; '09, 3¢; '10, (10¢); '11, (5¢); '16, (2¢). EPS may not sum due to rounding. Incl. acquisition related charges: '04, 15¢. Next earnings report due early August. (B) Div'd. are hist. paid in Mar., June, Sep., and Dec. ■ Dividend reinvestment plan available. (C) Incl. intang. In '17: $4279.0 mill., $17.28 p/sh. (D) In mill., adj. for splits. (E) Sales from 2002 onward reflect accounting policies EITF 00-14 and EITF 00-25. Excl. amort. after 2009.

Company's Financial Strength	A+
Stock's Price Stability	100
Price Growth Persistence	80
Earnings Predictability	100

COCA-COLA NYSE-KO

RECENT PRICE 44.97 | P/E RATIO 21.4 (Trailing: 23.1, Median: 19.0) | RELATIVE P/E RATIO 1.15 | DIV'D YLD 3.6% | VALUE LINE

TIMELINESS 4 Raised 11/3/17
SAFETY 1 New 7/27/90
TECHNICAL 4 Raised 7/6/18
BETA .75 (1.00 = Market)

2021-23 PROJECTIONS

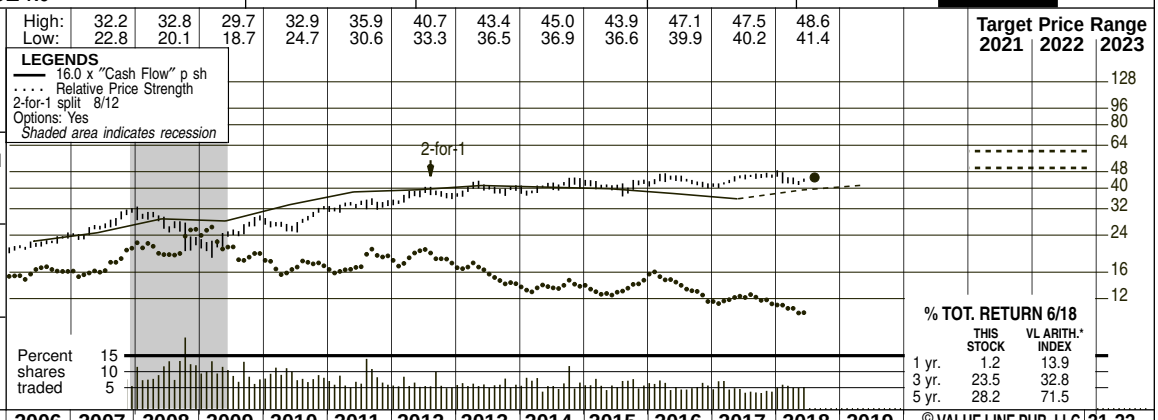
	Price	Gain	Ann'l Total Return
High	60	(+35%)	11%
Low	50	(+10%)	6%

Insider Decisions

	S	O	N	D	J	F	M	A	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	1	0	4	15	1	0	0
to Sell	0	0	1	0	3	0	2	0	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	673	746	715
to Sell	857	750	997
Hld's(000)	3029755	2819704	2808241



2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
3.96	4.31	4.56	4.88	5.20	6.22	6.91	6.73	7.66	10.29	10.74	10.64	10.54	10.24	9.76	8.31	*7.50*	*7.85*	Sales per sh	*9.20*
.99	1.16	1.23	1.29	1.40	1.54	1.79	1.75	2.09	2.41	2.46	2.58	2.53	2.49	2.37	2.23	*2.45*	*2.60*	"Cash Flow" per sh	*3.20*
.83	.98	1.03	1.09	1.19	1.29	1.51	1.47	1.75	1.92	1.97	2.08	2.04	2.00	1.91	1.91	*2.10*	*2.25*	Earnings per sh [A]	*2.80*
.40	.44	.50	.56	.62	.68	.76	.82	.88	.94	1.02	1.12	1.22	1.32	1.40	1.48	*1.56*	*1.66*	Div'ds Decl'd per sh [B■]	*1.95*
.17	.17	.16	.19	.30	.36	.43	.43	.48	.65	.62	.58	.55	.59	.53	.39	*.45*	*.40*	Cap'l Spending per sh	*.45*
2.39	2.89	3.31	3.45	3.65	4.69	4.43	5.38	6.76	6.99	7.34	7.54	6.94	5.91	5.38	4.01	*4.20*	*4.25*	Book Value per sh [C]	*4.60*
4942.0	4883.1	4818.7	4738.0	4636.0	4636.0	4624.0	4606.0	4584.0	4526.0	4469.0	4402.0	4366.0	4324.0	4288.0	4259.0	*4225.0*	*4175.0*	Common Shs Outst'g [D]	*4025.0*
30.2	22.6	22.6	19.7	18.5	21.0	17.8	16.6	16.2	17.4	18.8	19.1	20.0	20.6	22.8	23.2	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*20.0*
1.65	1.29	1.19	1.05	1.00	1.11	1.07	1.11	1.03	1.09	1.20	1.07	1.05	1.04	1.20	1.16			Relative P/E Ratio	*1.10*
1.6%	2.0%	2.2%	2.6%	2.8%	2.5%	2.8%	3.4%	3.1%	2.8%	2.8%	2.8%	3.0%	3.2%	3.2%	3.3%			Avg Ann'l Div'd Yield	*3.5%*
31944	30990	35123	46554	48017	46854	45998	44294	41863	35410	*31750*	*32750*	Sales ($mill)	*37000*
30.3%	30.5%	31.4%	27.9%	26.6%	28.3%	28.1%	27.9%	28.1%	30.9%	*37.5%*	*38.0%*	Operating Margin	*38.5%*
1228.0	1236.0	1443.0	1954.0	1982.0	1977.0	1976.0	1970.0	1787.0	1260.0	*1175*	*1225*	Depreciation ($mill)	*1350*
7050.0	6824.0	8144.0	8932.0	9019.0	9374.0	9091.0	8797.0	8354.0	8240.0	*9085*	*9660*	Net Profit ($mill)	*11600*
22.2%	22.8%	22.7%	23.9%	23.1%	23.0%	22.5%	22.5%	22.5%	24.0%	*21.0%*	*21.0%*	Income Tax Rate	*21.0%*
22.1%	22.0%	23.2%	19.2%	18.8%	20.0%	19.8%	19.9%	20.0%	23.3%	*28.6%*	*29.5%*	Net Profit Margin	*31.3%*
d812.0	3830.0	3071.0	1214.0	2507.0	3493.0	612.0	6465.0	7478.0	9351.0	*10000*	*9500*	Working Cap'l ($mill)	*9250*
2781.0	5059.0	14041	13656	14736	19154	19063	28407	29684	31182	*30500*	*30500*	Long-Term Debt ($mill)	*31500*
20472	24799	31003	31635	32790	33173	30320	25554	23062	17072	*17720*	*17720*	Shr. Equity ($mill)	*18545*
30.6%	23.4%	18.5%	20.2%	19.4%	18.3%	18.7%	16.5%	16.3%	17.6%	*20.0%*	*21.0%*	Return on Total Cap'l	*24.0%*
34.4%	27.5%	26.3%	28.2%	27.5%	28.3%	30.0%	34.4%	36.2%	48.3%	*51.5%*	*54.5%*	Return on Shr. Equity	*62.5%*
17.2%	12.2%	13.1%	14.6%	13.5%	13.3%	12.3%	12.0%	10.0%	11.2%	*13.5%*	*14.5%*	Retained to Com Eq	*19.5%*
50%	56%	50%	48%	51%	53%	59%	65%	72%	77%	*74%*	*73%*	All Div'ds to Net Prof	*69%*

CAPITAL STRUCTURE as of 3/31/18
Total Debt $48.947 bill. **Due in 5 Yrs.** $31.4 bill.
LT Debt $29.792 bill. **Total Int.** $920.0 mill.
(Total interest coverage: 14.0x)
(60% of Cap'l)

Pension Assets-12/17 $8.8 bill. **Oblig.** $9.5 bill.

Pfd Stock None

Common Stock 4,259,000,000 shs.

MARKET CAP: $192 billion (Large Cap)

CURRENT POSITION ($MILL.)	2016	2017	3/31/18
Cash Assets	22201	20675	21373
Receivables	3856	3667	3904
Inventory (Avg Cst)	2675	2655	2937
Other	5278	9548	9828
Current Assets	34010	36545	38042
Accts Payable	2682	2288	*2500*
Debt Due	16025	16503	19155
Other	7825	8403	*27025*
Current Liab.	26532	27194	31480

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Sales	5.5%	-.5%	*-.5%*
"Cash Flow"	5.5%	.5%	*5.0%*
Earnings	5.0%	.5%	*6.5%*
Dividends	8.5%	8.0%	*5.5%*
Book Value	2.5%	-6.0%	*-1.5%*

Calendar	QUARTERLY SALES ($ mill.) Mar.Per	Jun.Per	Sep.Per	Dec.Per	Full Year
2015	10711	12156	11427	10000	44294
2016	10282	11539	10633	9409	41863
2017	9118	9702	9078	7512	35410
2018	7626	*8550*	*8100*	*7474*	*31750*
2019	*7500*	*9000*	*8550*	*7700*	*32750*

Calendar	EARNINGS PER SHARE [A] Mar.Per	Jun.Per	Sep.Per	Dec.Per	Full Year
2015	.48	.63	.51	.38	2.00
2016	.45	.60	.49	.37	1.91
2017	.43	.59	.50	.39	1.91
2018	.47	*.60*	*.57*	*.46*	*2.10*
2019	*.50*	*.67*	*.59*	*.49*	*2.25*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	- -	.305	.305	.61	1.22
2015	- -	.33	.33	.66	1.32
2016	- -	.35	.35	.70	1.40
2017	- -	.37	.37	.74	1.48
2018	- -	.39	.39		

BUSINESS: The Coca-Cola Company is the world's largest beverage company. Markets over 500 nonalcoholic beverage brands through a network of company-owned and independent bottlers/distributors, wholesalers, and retailers. Leading company/licensed brands include *Coca-Cola, Diet Coke, Sprite, Fanta, Fresca, Dasani, glaceau vitaminwater, Powerade,* and *Minute Maid*. Int'l markets accounted for 58% of 2017 net sales; Advertising expenses, 11.2% of 2017 revenues. Has about 61,750 employees. Directors and officers own 1.5% of stock; Berkshire Hathaway, 9.4%; Vanguard, 6.7%; BlackRock, 5.7% (3/18 Proxy). CEO: James Quincey. Inc.: DE. Address: One Coca-Cola Plaza, Atlanta, GA 30313. Tel.: 404-676-2121. Web: www.coca-cola.com.

The Coca-Cola Company's shift to an asset-light business model continues to weigh on the top line. In particular, the refranchising of North American bottling operations, which wrapped up last fall, and other structural changes will likely reduce 2018 revenues by 17%.

Organic revenues, though, are making respectable progress. By this metric, which factors out the effects of refranchising, currency fluctuations, and other items, sales rose 3% last year and 5% in the March quarter. The positive impact of pricing and mix was a little light in the opening stages of 2018 (up 1% in the March quarter versus 3% for the 2017 full year), particularly in North America, though some of the factors at play, such as the timing of product launches and the Easter holiday, should fade going forward. In fact, management expects pricing gains to perk up in upcoming quarters, and reiterated its full-year target of 4% growth in organic revenues.

Earnings are beginning to show some life. Share net rose 9% in the March period, one of Coke's strongest quarterly comparisons in recent years. And even without the lower-margin bottling operations, operating income rose 9%, helped along by the aforementioned organic revenue growth. The bottom-line advance for the June quarter was likely more modest, owing to a number of headwinds, including new sugar taxes in the U.K. and South Africa, and a difficult comparison in Western Europe. The pace, though, should pick up in the second half of the year, reflecting the timing of expenses and productivity initiatives. In all, we look for share net to advance 10% this year and 7% in 2019.

Coke shares remain in a holding pattern. Restrained by a stagnant bottom line, the stock has been trading sideways for the past several years. The company is showing signs of returning to a more-consistent profit growth trajectory, but this equity's Below Average rank (4) for Timeliness suggests there is no need for investors to rush in here. That said, this issue still possesses a number of attributes, including a top score for Price Stability and above-average dividend yield, that will appeal to more-conservative accounts.

Robert M. Greene *July 20, 2018*

(A) Based on diluted shares. Next earnings report due July 25th. Excludes nonrecurring gain/(losses): '02, (22¢); '03, (9¢); '04, (3¢); '05, (7¢); '06, (11¢); '08, (27¢); '10, 79¢; '11, (8¢); '13, (18¢); '14, (44¢); '15, (33¢); '16, (42¢); '17, ($1.64). **(B)** Div'ds historically paid about the first April, July, Oct., Dec. ■ Div'd reinvestment plan available. **(C)** Includes intangibles. In '17: $16.6 bill., $3.91/sh. **(D)** In millions, adjusted for stock split.

Company's Financial Strength	A++
Stock's Price Stability	100
Price Growth Persistence	35
Earnings Predictability	100

FEDERAL REALTY NYSE-FRT

RECENT PRICE 124.96 | P/E RATIO 39.7 (Trailing: 31.2 Median: NMF) | RELATIVE P/E RATIO 2.16 | DIV'D YLD 3.2% | VALUE LINE

TIMELINESS 4 Raised 6/8/18
SAFETY 1 Raised 1/5/18
TECHNICAL 5 Lowered 7/6/18
BETA .75 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	220	(+75%)	17%
Low	180	(+45%)	12%

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	2	2	0	1	0	6	3	1	0
to Sell	2	2	0	1	0	0	0	1	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	167	155	188
to Sell	153	146	173
Hld's(000)	76653	70086	69090

Federal Realty Investment Trust was founded in 1962 as a real estate investment trust that specializes in the ownership, management, and redevelopment of retail and mixed-use properties. Shares are traded on the NYSE under the ticker symbol "FRT".

CAPITAL STRUCTURE as of 3/31/18
Total Debt $3335.4 mill. **Due in 5 Yrs** $1125 mill.
Total Interest $100.1 mill.
(Total interest coverage: 3.9x) (60% of Cap'l)

No Defined Benefit Pension Plan

Pfd. Stock $160.0 mill. **Pfd. Div'd** *$8.0 mill.*

Common Stock 73,221,384 shs.
as of 4/27/18

MARKET CAP:$9.1 billion (Large Cap)

FUNDS FLOW ($mill.)	2016	2017	3/31/18
Net Profit Plus Noncash Charges	452.5	513.9	121.0
Net New Debt	156.1	486.3	50.6
New Equity	313.0	290.0	-15.1
Investments Funded	605.8	974.6	97.7
Dividends Declared	267.7	283.0	74.9

FINANCIAL POSITION	3/31/17	3/31/18
Senior Debt ($mill.)	3013.4	3335.4
Subordinated Debt ($mill.)	- -	- -
Sr Debt/Cap'l Funds	.60:1	.60:1
Total Debt/Equity	1.52:1	1.48:1

PORTFOLIO CONDITION	Year Ago	Latest
Non-Earn Assets—%/Invests.	NA	NA

Cal-endar	LOANS & REAL ESTATE ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31
2015	4236.4	4335.8	4370.7	4490.4
2016	4741.8	4806.8	4915.8	5029.8
2017	5249.1	5283.1	5699.8	5758.5
2018	5799.8	*5950*	*6100*	*6250*
2019	*6400*	*6575*	*6725*	*6900*

Cal-endar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.67	.46	.75	.73	2.62
2016	.73	.77	.75	.80	3.06
2017	.78	1.05	1.47	.67	3.97
2018	.81	*.77*	*.78*	*.79*	*3.15*
2019	*.80*	*.81*	*.82*	*.82*	*3.25*

Cal-endar	QUARTERLY DIVIDENDS PAID [B]■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.78	.78	.78	.87	3.21
2015	.87	.87	.87	.94	3.55
2016	.94	.94	.94	.98	3.80
2017	.98	.98	.98	1.00	3.94
2018	1.00	1.00			

Cal-endar	QUARTERLY FFO PER SHARE [D] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1.26	1.06	1.36	1.37	5.05
2016	1.38	1.42	1.41	1.45	5.65
2017	1.45	1.49	1.50	1.30	5.74
2018	1.52	*1.54*	*1.56*	*1.58*	*6.20*
2019	*1.59*	*1.62*	*1.65*	*1.69*	*6.55*

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
	19.00	19.06	18.53	18.98	19.70	21.56	23.24	23.80	27.32	30.87	*31.30*	*31.85*	Book Value per sh	*34.15*
	3.87	3.87	3.88	4.00	4.31	4.41	4.79	5.05	5.65	5.74	*6.20*	*6.55*	Funds from Ops per sh	*7.85*
	1.95	1.60	1.96	1.99	2.16	2.00	2.34	2.62	3.06	3.97	*3.15*	*3.25*	Earnings per sh [A]	*4.00*
	2.52	2.62	2.66	2.72	2.84	3.02	3.30	3.62	3.84	3.96	*4.04*	*4.12*	Div'ds Decl'd per sh [B]■	*4.36*
	48.19	46.06	46.50	52.04	54.85	56.96	60.37	64.62	69.86	78.79	*84.45*	*92.00*	Loans & Real Est per sh	*119.25*
	58.67	61.24	61.53	63.54	64.82	66.70	68.61	69.49	72.00	73.09	*74.00*	*75.00*	Common Shs Outst'g [C]	*78.00*
	279%	192%	306%	343%	415%	391%	418%	485%	458%	325%	*Bold figures are*		Premium Over Book	*485%*
	36.9	34.7	38.4	42.6	47.0	NMF	NMF	NMF	49.8	33.1	*Value Line*		Avg Ann'l P/E Ratio	*50.0*
	18.6	14.4	19.4	21.2	23.6	NMF	NMF	NMF	27.0	22.9	*estimates*		Avg Ann'l P/FFO	*25.5*
	3.5%	4.8%	3.5%	3.2%	2.8%	2.9%	2.7%	2.6%	2.5%	3.0%			Avg Ann'l Div'd Yield	*2.2%*
	502.0	513.2	525.5	538.7	582.3	620.1	666.3	727.8	786.6	841.5	*895*	*950*	Rental Income ($mill)	*1145*
	18.5	17.8	19.1	14.4	25.7	17.3	19.8	16.2	15.0	15.9	*20.0*	*20.0*	Other Income ($mill)	*20.0*
	63.1%	61.3%	64.3%	64.0%	65.3%	65.1%	64.4%	63.8%	64.2%	64.0%	*64.0%*	*64.0%*	Operating Margin	*64.5%*
	114.8	96.8	121.7	125.9	140.1	132.9	160.1	181.9	217.5	289.9	*240*	*250*	Net Profit ($mill)	*315*
	22.1%	18.2%	22.3%	22.8%	23.0%	20.8%	23.3%	24.4%	27.1%	33.8%	*26.2%*	*25.8%*	Net Profit Margin	*27.0%*
	14.4	1.5	1.1	18.1	11.9	29.8	4.4	28.3	32.5	77.9	*Nil*	*Nil*	Capital Gains ($mill)	*Nil*
	2827.4	2821.1	2860.7	3307.0	3555.4	3799.0	4141.9	4490.4	5029.8	5758.5	*6250*	*6900*	Loans & Real Est ($mill)	*9300*
	1292.8	1793.8	1767.1	2110.4	2208.6	2321.9	2409.7	2642.4	2798.5	3284.8	*3500*	*3600*	Total Debt ($mill)	*4000*
	1114.6	1177.3	1149.8	1216.1	1286.8	1448.2	1604.4	1663.7	1976.7	2266.7	*2325*	*2400*	Shr. Equity ($mill)	*2675*
	65.1%	67.7%	68.6%	68.0%	65.9%	68.5%	68.9%	71.7%	68.0%	69.0%	*65.0%*	*63.0%*	Div'ds Decl'd to FFO	*55.5%*
	6.2%	6.4%	6.2%	5.4%	5.4%	5.3%	5.4%	5.5%	5.3%	4.9%	*5.5%*	*5.5%*	Expenses to Assets	*5.5%*
	6.8%	5.1%	5.9%	5.3%	5.6%	4.9%	5.2%	5.3%	5.5%	6.1%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.5%*
	10.3%	8.2%	10.6%	10.3%	10.9%	9.2%	10.0%	10.9%	11.0%	12.8%	*10.5%*	*10.5%*	Return on Shr. Equity	*12.0%*

BUSINESS: Federal Realty Investment Trust specializes in the ownership, management, and redevelopment of high-quality retail and mixed-use properties in the Northeast and mid-Atlantic states, as well as in California and South Florida, totaling 24.2 million square feet (as of 12/31/17). Major lessees include: Ahold Delhaize; The TJX Companies; The Gap, Inc.; Bed, Bath & Beyond, Inc.; Splunk, Inc.; and L.A. Fitness International LLC. Has 311 full-time employees. Officers & directors own less than 1% of common stock outstanding; The Vanguard Group, 17.2%; BlackRock, 10.8% (3/18 proxy). Incorporated: Maryland. President & CEO: Donald C. Wood. Address: 1626 East Jefferson Street, Rockville, Maryland 20852. Telephone: 301-998-8100. Internet: www.federalrealty.com.

Federal Realty continues to ride a wave of operational momentum. The REIT's performance ought to be driven by growth within its comparable property portfolio, reflecting solid leasing activity, primarily increases in rental rates on new leases and renewals, as well as higher portfolio occupancy. To wit, during the first quarter, comparable property property operating income (POI) growth was 3.8%. Full-year 2017 comparable property POI is expected to climb in the 2%-3% range. What's more, development/redevelopments (discussed below), in addition to remerchandising opportunities, as well as expansion through acquisitions, should promote portfolio advancement. All told, funds from operations (FFO), which totaled $1.52 a share during the March period (+5% year over year), is guided to be $6.08-$6.24 for the current year, suggesting a 6%-9% advance. We look for mid-single-digit FFO-per-share growth in 2019.

The company has continued to invest in its mixed-use development projects. Indeed, construction on Phase 2 at both Assembly Row (MA) and Pike & Rose (MD) is in full swing, and delivery is expected through 2018. As of May 3rd, Assembly Row is now forecasted to cost $285 million-$295 million, versus $280 million-$295 million previously, and has an estimated return on investment (ROI) of 7%. Pike & Rose, which has a ROI of 6%-7%, is still anticipated to cost $200 million-$207 million. (These amounts exclude the cost of condos.) Meanwhile, efforts at Santana Row (CA) and CocoWalk (FL) are on budget and on schedule, with leasing discussions progressing along. Of note, the company has $80 million of redevelopment endeavors in process, which have an 8% average ROI, and additional projects are to be added in the next 12 months.

We like this issue for longer-term investors. Although untimely FRT stock is trading roughly 8% below its 52-week high, as it remains mired by ongoing challenges and uncertainties in retail-based real estate, we think this presents a worthwhile buying opportunity. Total return potential out to 2021-2023 is above average. We must note, however, that REITs have become slightly less attractive, due to rising interest rates.

Michelle Jensen *July 6, 2018*

(A) Diluted egs. May not sum due to change in share count. Excl. nonrecurring gains/(losses) and gains/(losses) from property sales: '08, 24¢; '09, 3¢; '10, 2¢; '11, 29¢; '12, 19¢; '13, 46¢; '14, 7¢; '15, 41¢; '16, 44¢. Incl. gains/(losses) from property sales starting in '17. Next egs. rep. due early Aug. **(B)** Div'ds historically paid in late Jan., Apr., Jul., and Oct. Excl. spec. div'd 20¢ a sh. paid Dec. 20, '05. ■ Div'd reinvt. plan available. **(C)** In millions. **(D)** Quarterly Funds from Operations. May not sum to total due to changes in share count.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	70
Earnings Predictability	85

KELLOGG CO. NYSE-K

RECENT PRICE 70.64 | P/E RATIO 15.9 (Trailing: 16.9 Median: 16.0) | RELATIVE P/E RATIO 0.85 | DIV'D YLD 3.1% | VALUE LINE

TIMELINESS 3 Raised 5/18/18
SAFETY 1 Raised 1/30/09
TECHNICAL 4 Lowered 6/8/18
BETA .75 (1.00 = Market)

2021-23 PROJECTIONS

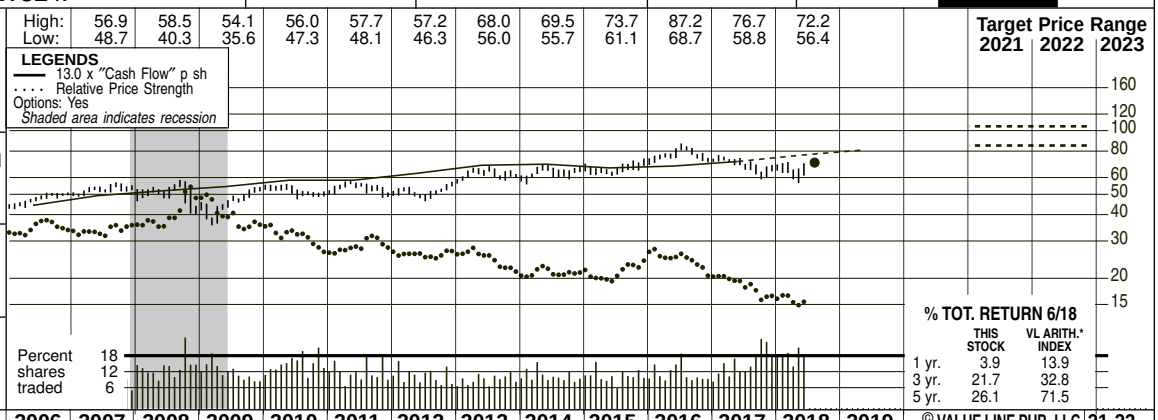
	Price	Gain	Ann'l Total Return
High	105	(+50%)	*13%*
Low	85	(+20%)	*8%*

Insider Decisions

	S	O	N	D	J	F	M	A	M
to Buy	0	0	1	0	0	0	0	0	1
Options	0	0	1	0	0	7	0	0	0
to Sell	0	0	4	1	1	6	1	1	2

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	267	280	288
to Sell	315	274	336
Hld's(000)	328507	317072	308618



2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
20.36	21.51	23.28	25.11	27.42	30.19	33.58	32.97	33.91	36.94	39.30	40.77	40.95	38.64	37.07	37.39	***39.05***	***40.30***	Sales per sh	***44.00***
2.60	2.83	3.15	3.39	3.41	3.78	3.99	4.18	4.48	4.48	4.83	5.27	5.34	5.12	5.22	5.49	***5.90***	***6.25***	"Cash Flow" per sh	***7.25***
1.73	1.93	2.16	2.36	2.51	2.76	2.99	3.16	3.30	3.38	3.37	3.77	3.87	3.53	3.72	4.04	***4.45***	***4.75***	Earnings per sh [A]	***5.60***
1.01	1.01	1.01	1.06	1.14	1.20	1.30	1.43	1.56	1.67	1.74	1.80	1.90	1.98	2.04	2.12	***2.20***	***2.36***	Div'ds Decl'd per sh [B] ■	***2.75***
.62	.60	.67	.92	1.14	1.21	1.21	.99	1.30	1.66	1.48	1.76	1.63	1.58	1.44	1.45	***1.50***	***1.55***	Cap'l Spending per sh	***1.70***
2.19	3.52	5.47	5.63	5.20	6.48	3.79	5.96	5.90	4.93	6.70	9.77	7.83	6.08	5.44	6.40	***8.25***	***10.35***	Book Value per sh [C]	***17.35***
407.85	409.70	413.02	405.33	397.70	390.05	381.86	381.38	365.60	357.30	361.27	362.80	356.00	350.02	351.07	345.60	***342.50***	***340.00***	Common Shs Outst'g [D]	***333.00***
19.5	17.3	19.2	18.9	18.9	19.0	17.0	14.5	15.7	15.8	15.3	16.5	16.5	18.7	20.5	17.1	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	***17.0***
1.07	.99	1.01	1.01	1.02	1.01	1.02	.97	1.00	.99	.97	.93	.87	.94	1.08	.85			Relative P/E Ratio	***.95***
3.0%	3.0%	2.4%	2.4%	2.4%	2.3%	2.6%	3.1%	3.0%	3.1%	3.4%	2.9%	3.0%	3.0%	2.7%	3.1%			Avg Ann'l Div'd Yield	***2.9%***
12822	12575	12397	13198	14197	14792	14580	13525	13014	12923	***13375***	***13700***	Sales ($mill)	***14650***
18.2%	19.0%	19.2%	17.8%	16.7%	18.2%	18.2%	16.3%	19.5%	19.9%	***18.5%***	***19.0%***	Operating Margin	***20.5%***
375.0	384.0	392.0	369.0	448.0	532.0	503.0	534.0	517.0	481.0	***490***	***500***	Depreciation ($mill)	***540***
1148.0	1212.0	1247.0	1231.0	1297.2	1379.7	1397.3	1258.0	1317.0	1416.0	***1535***	***1625***	Net Profit ($mill)	***1880***
29.7%	28.3%	28.8%	29.0%	22.7%	28.4%	28.2%	11.2%	15.0%	22.6%	***20.5%***	***21.0%***	Income Tax Rate	***21.0%***
9.0%	9.6%	10.1%	9.3%	9.1%	9.3%	9.6%	9.3%	10.1%	11.0%	***11.5%***	***11.9%***	Net Profit Margin	***12.8%***
d1031	270.0	d269.0	d286.0	d1143	d568.0	d1024	d2503	d1534	d1443	***d650***	***d200***	Working Cap'l ($mill)	***1175***
4068.0	4835.0	4908.0	5037.0	6082.0	6330.0	5935.0	5289.0	6698.0	7836.0	***7875***	***7400***	Long-Term Debt ($mill)	***7500***
1448.0	2272.0	2158.0	1760.0	2419.0	3545.0	2789.0	2128.0	1910.0	2212.0	***2830***	***3510***	Shr. Equity ($mill)	***5780***
23.1%	19.1%	19.9%	20.1%	16.8%	15.1%	17.3%	18.6%	17.5%	15.3%	***15.5%***	***16.0%***	Return on Total Cap'l	***15.0%***
79.3%	53.3%	57.8%	69.9%	53.6%	38.9%	50.1%	59.1%	69.0%	64.0%	***54.0%***	***46.5%***	Return on Shr. Equity	***32.5%***
45.1%	29.3%	30.7%	35.6%	27.9%	20.5%	25.7%	26.2%	31.5%	30.7%	***27.5%***	***23.0%***	Retained to Com Eq	***16.5%***
43%	45%	47%	49%	48%	47%	49%	56%	54%	52%	***50%***	***50%***	All Div'ds to Net Prof	***49%***

CAPITAL STRUCTURE as of 3/31/18
Total Debt $8758 mill. **Due in 5 Yrs** $3815 mill.
LT Debt $7881 mill. **LT Interest** $253 mill.
(Total interest coverage: 8.6X)
(76% of Cap'l)
Pension Assets-12/17 $5.04 bill. **Oblig.** $5.65 bill.

Pfd Stock None
Common Stock 346,848,322 shs.
as of 4/28/18

MARKET CAP: $24.5 billion (Large Cap)

CURRENT POSITION ($MILL.)	2016	2017	3/31/18
Cash Assets	280	281	370
Receivables	1231	1389	1601
Inventory (Avg Cst)	1238	1217	1214
Other	191	149	135
Current Assets	2940	3036	3320
Accts Payable	2014	2269	2230
Debt Due	1069	779	877
Other	1391	1431	1408
Current Liab.	4474	4479	4515

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Sales	3.0%	.5%	*2.5%*
"Cash Flow"	4.0%	3.0%	*5.5%*
Earnings	4.0%	2.5%	*7.0%*
Dividends	6.0%	4.5%	*5.0%*
Book Value	.5%	.5%	*19.5%*

Calendar	QUARTERLY SALES ($ mill.) Mar.Per	Jun.Per	Sep.Per	Dec.Per	Full Year
2015	3556	3498	3329	3142	13525
2016	3395	3268	3254	3097	13014
2017	3254	3187	3273	3209	12923
2018	3401	***3250***	***3400***	***3324***	***13375***
2019	***3450***	***3325***	***3500***	***3425***	***13700***

Calendar	EARNINGS PER SHARE [A] Mar.Per	Jun.Per	Sep.Per	Dec.Per	Full Year
2015	.98	.92	.85	.79	3.53
2016	.96	.91	.96	.90	3.72
2017	1.06	.97	1.05	.96	4.04
2018	1.19	***1.04***	***1.14***	***1.08***	***4.45***
2019	***1.18***	***1.15***	***1.23***	***1.19***	***4.75***

Calendar	QUARTERLY DIVIDENDS PAID [B]■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.46	.46	.49	.49	1.90
2015	.49	.49	.50	.50	1.98
2016	.50	.50	.52	.52	2.04
2017	.52	.52	.54	.54	2.12
2018	.54	.54			

BUSINESS: Kellogg Company and its subsidiaries manufacture and market ready-to-eat cereals and convenience foods, such as cookies, savory snacks, toaster pastries, cereal bars, fruit-flavored snacks, frozen waffles, and veggie foods. Brand names include: *Kellogg's*, *Keebler*, *Pringles*, *Cheez-It*, *Murray*, *Austin*, *Famous Amos*, *Pop-Tarts*, *Eggo*, *Kashi*, *Parati*, and *Nutri-Grain*. Foreign operations: 45% of sales in 2017. Adv. costs: 5.7% of sales. Acquired Pringles, 5/12. Has about 33,000 employees. W.K. Kellogg Foundation controls 20.6% of common; KeyCorp, 7.5%; off./dir., 1.4% (3/18 proxy). Chief Executive Officer: Steven A. Cahillane. Inc.: DE. Address: One Kellogg Square, Battle Creek, MI 49016-3599. Telephone: 269-961-2000. Internet: www.kelloggs.com.

Kellogg started the year on a solid note. Indeed, the cereal and snacks maker posted adjusted share earnings of $1.19, which topped both our estimate and the previous-year tally of $1.06. The bottom-line improvement was driven by the combination of a stronger-than-expected sales performance and the cost savings derived from the company's Project K productivity enhancements and its zero-based budgeting plan. The most encouraging aspect of the March-period showing was the nearly 5% year-over-year top-line increase, with organic sales growth of 0.6% marking the best quarterly performance in some time. Kellogg noted that U.S. Morning Foods (predominately cereal) unit sales declined at a decelerated pace, which, along with strong growth for the *Pringles* line both at home and abroad and momentum in the North American frozen foods category, played key roles in the improved top-line showing. That said . . .

We are still maintaining our 2018 earnings estimate of $4.45. The company still must contend with list-price declines, the ongoing shift away from a Direct Store Delivery distribution system for the snacks business, and higher input (commodities) costs. However, management does not seem to be overly concerned about the latter, as it appears mostly hedged on the key commodities.

The long-term outlook is brighter now than it was just a few years back. The Project K restructuring plan has made Kellogg a more efficiently run company, with a streamlined manufacturing and distribution network in place. Management also noted that all of its unprofitable products have either been sold off or eliminated. This will allow Kellogg to focus more of its marketing and advertising dollars on its profitable lines. We also like the company's focus on emerging markets, where sales growth potential is greater. This process was put into place several years back with the company's purchase of the Pringles business, which has an expansive international presence. Kellogg continues to target India, Southeast Asia, and Africa.

Neutrally ranked Kellogg shares offer decent risk-adjusted 3 to 5-year total return potential.

William G. Ferguson *July 20, 2018*

(A) Based on diluted shares. Excludes nonrecurring gains (losses): '02, $0.02; '12, ($0.09); '13, $1.17; '14, ($2.12); '15, ($1.81); '16, ($1.76); '17, ($0.42); '18 Q1, $0.08. Quarterly earnings may not sum to total due to a change in the share count. Next earnings report due early August. **(B)** Dividends historically paid mid-Mar, June, Sept., and Dec. ■ Div'd reinvestment plan available. **(C)** Includes intangibles. In '17: $8.143 billion, $23.56/sh. **(D)** In millions.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	20
Earnings Predictability	95

KIMBERLY-CLARK NYSE-KMB

RECENT PRICE 103.53 | P/E RATIO 15.0 (16.3 / 18.0) | RELATIVE P/E RATIO 0.82 | DIV'D YLD 3.9% | VALUE LINE

TIMELINESS 3 Raised 11/3/17
SAFETY 1 New 7/27/90
TECHNICAL 4 Lowered 6/22/18
BETA .75 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	200	(+95%)	*20%*
Low	165	(+60%)	*15%*

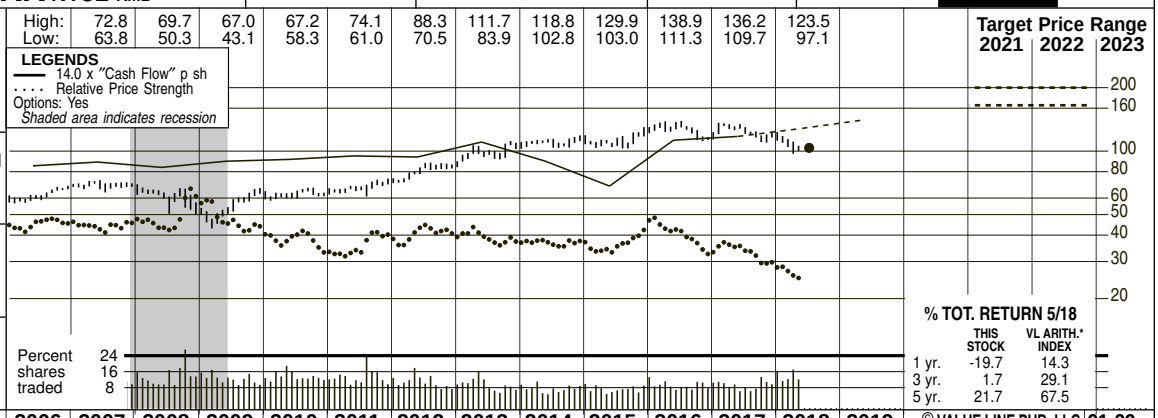
Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	1	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	1	6	0	1
to Sell	0	0	0	0	0	1	0	0	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	537	535	563
to Sell	568	532	632
Hld's(000)	280520	264147	257169

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
High:	72.8	69.7	67.0	67.2	74.1	88.3	111.7	118.8	129.9	138.9	136.2	123.5								
Low:	63.8	50.3	43.1	58.3	61.0	70.5	83.9	102.8	103.0	111.3	109.7	97.1								
	26.56	28.60	31.23	34.46	36.76	43.40	46.94	45.84	48.53	52.68	54.10	55.55	53.99	51.51	51.04	52.01	*54.40*	*56.05*	Sales per sh	*66.00*
	4.81	4.91	5.39	5.74	6.10	6.34	5.98	6.40	6.53	6.78	6.70	7.89	6.40	4.87	8.05	8.38	*9.15*	*9.70*	"Cash Flow" per sh	*12.30*
	3.36	3.38	3.61	3.78	3.90	4.25	4.06	4.52	4.45	3.99	4.42	5.53	3.91	2.77	5.99	6.23	*6.90*	*7.40*	Earnings per sh [A]	*9.20*
	1.20	1.36	1.60	1.80	1.96	2.08	2.27	2.38	2.58	2.76	2.96	3.24	3.36	3.52	3.68	3.88	*4.00*	*4.08*	Div'ds Decl'd per sh [B]■	*4.60*
	1.70	1.75	1.11	1.54	2.13	2.35	2.19	2.03	2.37	2.45	2.81	2.50	2.84	2.93	2.16	2.24	*2.50*	*2.60*	Cap'l Spending per sh	*2.75*
	11.06	13.49	13.73	12.04	13.38	12.41	9.38	12.96	14.54	13.27	12.81	12.75	2.00	d.48	d.29	1.97	*2.15*	*3.70*	Book Value per sh [C]	*16.15*
	510.80	501.60	482.90	461.50	455.60	420.90	413.60	417.00	406.90	395.70	389.30	380.80	365.30	360.90	356.60	351.10	*345.00*	*340.00*	Common Shs Outst'g [D]	*325.00*
	17.5	14.9	17.6	16.5	15.9	16.3	15.2	12.2	14.1	16.9	18.2	17.8	28.1	40.6	21.2	19.9	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*20.0*
	.96	.85	.93	.88	.86	.87	.91	.81	.90	1.06	1.16	1.00	1.48	2.04	1.11	.99			Relative P/E Ratio	*1.10*
	2.0%	2.7%	2.5%	2.9%	3.2%	3.0%	3.7%	4.3%	4.1%	4.1%	3.7%	3.3%	3.1%	3.1%	2.9%	3.1%			Avg Ann'l Div'd Yield	*2.5%*
	19415	19115	19746	20846	21063	21152	19724	18591	18202	18259	*18775*	*19050*	Sales ($mill)	*21450*
	17.2%	19.4%	18.7%	16.7%	16.8%	19.3%	17.2%	12.7%	22.1%	22.2%	*22.5%*	*23.0%*	Operating Margin	*22.0%*
	775.0	783.0	813.0	1091.0	857.0	863.0	862.0	746.0	705.0	724.0	*750*	*775*	Depreciation ($mill)	*1000*
	1698.0	1884.0	1843.0	1591.0	1750.0	2142.0	1476.0	1013.0	2166.0	2217.0	*2400*	*2520*	Net Profit ($mill)	*3000*
	27.0%	29.0%	30.9%	30.2%	31.7%	31.5%	38.0%	31.3%	30.6%	28.6%	*24.0%*	*23.5%*	Income Tax Rate	*23.0%*
	8.7%	9.9%	9.3%	7.6%	8.3%	10.1%	7.5%	5.4%	11.9%	12.1%	*12.8%*	*13.2%*	Net Profit Margin	*14.0%*
	1061.0	932.0	990.0	886.0	498.0	702.0	d667.0	d923.0	d731.0	d647.0	*d650*	*d475*	Working Cap'l ($mill)	*d150*
	4882.0	4792.0	5120.0	5426.0	5070.0	5386.0	5630.0	6106.0	6439.0	6472.0	*6000*	*6000*	Long-Term Debt ($mill)	*6000*
	3878.0	5406.0	5917.0	5249.0	4985.0	4856.0	729.0	d174.0	d102.0	690.0	*750*	*1250*	Shr. Equity ($mill) [C]	*5250*
	20.9%	19.7%	17.7%	16.1%	18.8%	22.3%	25.4%	19.6%	36.7%	33.2%	*35.5%*	*35.0%*	Return on Total Cap'l	*26.5%*
	43.8%	34.9%	31.1%	30.3%	35.1%	44.1%	NMF	- -	NMF	NMF	*NMF*	*NMF*	Return on Shr. Equity	*57.0%*
	19.3%	16.6%	13.1%	9.4%	12.0%	18.9%	30.2%	- -	NMF	NMF	*NMF*	*NMF*	Retained to Com Eq	*28.5%*
	56%	52%	58%	69%	66%	57%	85%	NMF	61%	61%	*58%*	*55%*	All Div'ds to Net Prof	*50%*



CAPITAL STRUCTURE as of 3/31/18
Total Debt $7680 mill. **Due 5 Yrs** $2100 mill.
LT Debt $6081 mill. **LT Interest** $700 mill.
(LT interest earned: 10.8x)
(90% of Tot. Cap'l)

Leases, Uncapitalized Annual rentals $170.0 mill.
Pension Assets-12/17 $3.90 bill. **Oblig.** $4.30 bill.

Pfd Stock None
Common Stock 349,329,075 shs.
as of 4/16/18

MARKET CAP: $36.2 billion (Large Cap)

CURRENT POSITION ($MILL.)	2016	2017	3/31/18
Cash Assets	923	616	626
Receivables	2176	2315	2470
Inventory (LIFO)[E]	1679	1790	1778
Other	337	490	498
Current Assets	5115	5211	5372
Accts Payable	2609	2834	2826
Debt Due	1133	953	1599
Other	2104	2071	2249
Current Liab.	5846	5858	6674

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Sales	3.0%	- -	*8.0%*
"Cash Flow"	1.5%	1.5%	*9.5%*
Earnings	2.5%	3.0%	*10.5%*
Dividends	6.5%	6.0%	*3.5%*
Book Value	- -	- -	*NMF*

Calendar	QUARTERLY SALES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	4691	4643	4718	4539	18591
2016	4476	4588	4594	4544	18202
2017	4483	4554	4640	4582	18259
2018	4731	*4675*	*4750*	*4619*	*18775*
2019	*4750*	*4820*	*4780*	*4700*	*19050*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	1.27	d.83	1.41	.91	2.77
2016	1.50	1.56	1.52	1.40	5.99
2017	1.57	1.49	1.60	1.57	6.23
2018	1.71	*1.60*	*1.75*	*1.84*	*6.90*
2019	*1.80*	*1.80*	*1.85*	*1.95*	*7.40*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.84	.84	.84	.84	3.36
2015	.88	.88	.88	.88	3.52
2016	.88	.92	.92	.92	3.64
2017	.92	.97	.97	.97	3.83
2018	1.00	1.00			

BUSINESS: Kimberly-Clark develops, manufactures, and markets personal care products (*Huggies*, *Pull-Ups*, *Little Swimmers, Good-Nites, Kotex, Lightdays*, *Depend*, and *Poise)* and consumer tissue products (*Kleenex*, *Scott*, *Cottonelle*, and *Viva*). KC Professional focuses on workplace health/safety (supporting products incl. apparel, wipers, soaps, sanitizers, tissues, and towels); Health Care provides medical supplies, infection prevention & health education. Wal-Mart accounted for 14% of '17 sales. Employs 42,000. Off./dir. own less than 1% of stock; BlackRock, 7.3%; Vanguard, 7.2%; State St., 5.1% (3/18 Proxy). Inc.: DE. Pres.: Michael D. Hsu. Chairman/CEO: Thomas J. Falk. Addr.: P.O. Box 619100, Dallas, TX 75261. Tel.: 972-281-1200. Internet: www.kimberly-clark.com.

Kimberly-Clark got off to a decent start this year. During the March quarter, adjusted share earnings were up 9%, on a 5% revenue gain. However, readers should note that diluted earnings, including significant charges associated with the company's Global Restructuring Program (discussed below), tumbled to roughly a sixth of their year-ago value, coming in $0.26 a share for the period. The top line, probably driven by better foreign exchange comparisons and improved product pricing, grew 5% over the interim.

The company ought to make some progress in the near term. In all, share earnings will probably climb at 10%-15% for the full year, on a 3% revenues advance. Recent U.S. tax reform, combined with reorganization efforts, and ongoing stock buybacks should also help lift share-net comparisons moving forward. Likewise, we look for the bottom line to increase at a mid- to upper-single-digit clip through 2019.

Restructuring efforts are under way. Management announced a new widescale global restructuring campaign last January. Beyond prior expense controls, the company now aims to reduce its cost structure and focus on investing in its brands, maximizing capabilities and other growth initiatives. Kimberly will probably slash overhead costs, improve the supply chain, and streamline some of its less profitable businesses. And even though the company will probably incur $1350 million-$1500 million in restructuring charges by the end of 2020, we expect that the campaign will begin to bear fruit this year. Indeed, we expect Kimberly to achieve savings of $50 million-$70 million this year.

This top-quality issue holds good risk-adjusted total return possibilities over the 2021-2023 pull. It offers an attractive dividend yield, and further hikes should sweeten the deal for income-focused accounts. And KMB often stands out for its defensive characteristics and overall conservative appeal. Investors should note, however, that these shares have pulled back about 14% since the start of the year and may experience some near-term volatility, though it is ranked to track the broader market averages for relative price performance in the year ahead.

Orly Seidman *June 22, 2018*

(A) Dil. earnings. Excl. non-recurring gains/(losses): '02, ($0.12); '03, ($0.05); '04, ($0.01); '05, ($0.50); '06, ($0.65); '07, ($0.16); '08, ($0.04). EPS may not sum due to change in shares out. Next earnings report due late July.
(B) Div's hist. paid in early Jan., Apr., Jul., and Oct. ■ Div'd reinvestment plan available.
(C) Incl. intang. In '17: $1,576.0 mill., $4.49/sh.
(D) In millions.
(E) Foreign: FIFO.

Company's Financial Strength	A++
Stock's Price Stability	95
Price Growth Persistence	65
Earnings Predictability	40

PROCTER & GAMBLE NYSE-PG

RECENT PRICE 77.24 | P/E RATIO 17.7 (18.7 / 18.0) | RELATIVE P/E RATIO 0.96 | DIV'D YLD 3.7% | VALUE LINE

TIMELINESS 5 Lowered 5/18/18
SAFETY 1 Raised 1/11/02
TECHNICAL 4 Lowered 6/8/18
BETA .70 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	130	(+70%)	*17%*
Low	105	(+35%)	*11%*

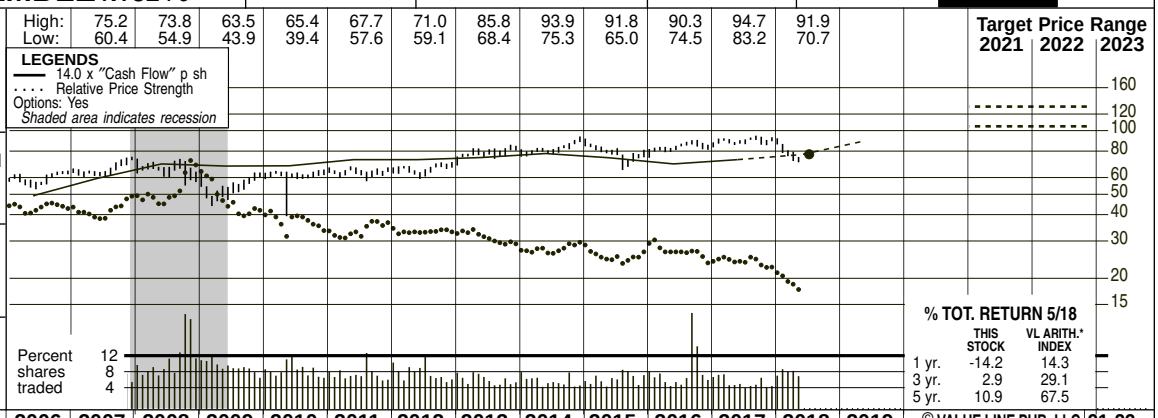
Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	19	6	0	2	10	1	3	15	0
to Sell	19	0	1	5	3	2	3	6	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	827	889	946
to Sell	1008	912	1137
Hld's(000)	1663478	1522431	1507053

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
High:	75.2	73.8	63.5	65.4	67.7	71.0	85.8	93.9	91.8	90.3	94.7	91.9						
Low:	60.4	54.9	43.9	39.4	57.6	59.1	68.4	75.3	65.0	74.5	83.2	70.7						



% TOT. RETURN 5/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-14.2	14.3
3 yr.	2.9	29.1
5 yr.	10.9	67.5

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	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
	15.47	16.72	20.21	22.95	21.46	24.42	27.53	27.09	27.81	29.85	30.45	30.69	30.64	28.10	24.47	25.48	*26.80*	*28.00*	Sales per sh [A]
	2.55	2.82	3.18	3.51	3.51	4.25	4.97	4.86	4.87	5.21	5.20	5.33	5.57	5.31	4.97	5.21	*5.50*	*5.85*	"Cash Flow" per sh
	1.80	2.04	2.32	2.53	2.64	3.04	3.64	3.58	3.53	3.93	3.85	4.05	4.22	4.02	3.67	3.92	*4.25*	*4.50*	Earnings per sh [AB]
	.76	.82	.93	1.03	1.15	1.28	1.45	1.64	1.80	1.97	2.14	2.29	2.45	2.59	2.66	2.70	*2.84*	*2.88*	Div'ds Decl'd per sh [C■]
	.65	.57	.80	.88	.84	.94	1.00	1.11	1.08	1.20	1.44	1.46	1.42	1.38	1.24	1.33	*1.35*	*1.30*	Cap'l Spending per sh
	4.64	5.63	6.19	6.47	19.33	20.87	22.46	21.18	21.20	24.14	22.87	24.64	25.40	22.83	21.34	21.45	*22.10*	*23.00*	Book Value per sh [D]
	2601.5	2594.4	2543.8	2472.9	3178.8	3131.9	3032.7	2917.0	2838.5	2765.7	2748.0	2742.3	2710.8	2714.5	2668.1	2553.3	*2500.0*	*2475.0*	Common Shs Outst'g [E]
	22.4	21.6	21.3	21.5	21.5	20.5	18.6	16.4	17.0	16.0	16.7	17.8	19.0	20.9	21.4	22.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio
	1.22	1.23	1.13	1.14	1.16	1.09	1.12	1.09	1.08	1.00	1.06	1.00	1.00	1.05	1.12	1.09			Relative P/E Ratio
	1.9%	1.9%	1.9%	1.9%	2.0%	2.1%	2.1%	2.8%	3.0%	3.1%	3.3%	3.2%	3.1%	3.1%	3.4%	3.1%			Avg Ann'l Div'd Yield
							83503	79029	78938	82559	83680	84167	83062	76279	65299	65058	*67000*	*69250*	Sales ($mill) [A]
							24.2%	24.3%	24.2%	22.6%	22.6%	22.3%	23.7%	23.4%	26.2%	26.4%	*26.5%*	*26.5%*	Operating Margin
							3166.0	3082.0	3108.0	2838.0	3204.0	2982.0	3141.0	3134.0	3078.0	2820.0	*3000*	*3225*	Depreciation ($mill)
							12075	11293	10946	11797	11344	11869	12220	11535	10441	10733	*10750*	*11250*	Net Profit ($mill)
							24.9%	26.3%	27.3%	22.3%	24.2%	23.2%	23.5%	20.2%	24.6%	23.8%	*23.0%*	*22.0%*	Income Tax Rate
							14.5%	14.3%	13.9%	14.3%	13.6%	14.1%	14.7%	15.1%	16.0%	16.5%	*16.0%*	*16.2%*	Net Profit Margin
							d6443	d8996	d5500	d5323	d2997	d6047	d2109	d144.0	3012.0	d3716	*d500*	*325*	Working Cap'l ($mill)
							23581	20652	21360	22033	21080	19111	19811	18329	18945	18038	*20000*	*20000*	Long-Term Debt ($mill)
							69494	63099	61439	68001	64035	68709	69976	63050	57983	55778	*55250*	*56930*	Shr. Equity ($mill)
							13.8%	14.3%	13.8%	13.5%	13.8%	13.9%	14.0%	14.6%	13.9%	14.9%	*14.5%*	*14.5%*	Return on Total Cap'l
							17.4%	17.9%	17.8%	17.3%	17.7%	17.3%	17.5%	18.3%	18.0%	19.2%	*19.5%*	*20.0%*	Return on Shr. Equity
							10.9%	10.1%	9.1%	9.0%	8.3%	7.9%	7.7%	6.9%	5.3%	6.4%	*7.0%*	*7.5%*	Retained to Com Eq
							39%	45%	50%	49%	54%	55%	57%	63%	71%	67%	*64%*	*62%*	All Div'ds to Net Prof

CAPITAL STRUCTURE as of 3/31/18
Total Debt $35.299 bill. **Due in 5 Yrs** $15.00 bill.
LT Debt $22.437 bill. **LT Interest** $1.350 bill.
(Tot. Int. Coverage: 24.3x)
(29% of Tot. Cap'l)
Leases, Uncapitalized Annual Rentals $261 mill.
Pension Assets-6/17 $10.8 bill.
Oblig. $16.2 bill.
Pfd Stock $1.1 bill. **Pfd Div'd** $198 mill.
(ESOP owns 49.3 mill Class A shares and 57.2 mill Class B shares; convertible into common stock.)
Common Stock 2,514,599,476 shares

MARKET CAP: $194 billion (Large Cap)

CURRENT POSITION ($MILL.)	2016	2017	3/31/18
Cash Assets	13348	15137	15534
Receivables	4373	4594	5149
Inventory (FIFO)	4716	4624	5207
Other	11345	2139	2070
Current Assets	33782	26494	27960
Accts Payable	9325	9632	9716
Debt Due	11653	13554	12862
Other	9792	7024	8133
Current Liab.	30770	30210	30711

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Sales	1.5%	-2.5%	*4.0%*
"Cash Flow"	3.0%	.5%	*7.5%*
Earnings	3.5%	.5%	*9.0%*
Dividends	8.5%	6.0%	*4.5%*
Book Value	3.5%	-1.0%	*4.5%*

Fiscal Year Ends	QUARTERLY SALES ($ mill.) [A] Sep.30	Dec.31	Mar.31	Jun.30	Full Fiscal Year
2015	20186	20161	18142	17790	76279
2016	16527	16915	15755	16102	65299
2017	16518	16856	15605	16079	65058
2018	16653	17395	16281	*16671*	*67000*
2019	*17100*	*17500*	*17000*	*17650*	*69250*

Fiscal Year Ends	EARNINGS PER SHARE [AB] Sep.30	Dec.31	Mar.31	Jun.30	Full Fiscal Year
2015	1.04	1.06	.92	1.00	4.02
2016	.98	1.04	.86	.79	3.67
2017	1.03	1.08	.96	.85	3.92
2018	1.09	1.19	1.00	*.97*	*4.25*
2019	*1.15*	*1.25*	*1.10*	*1.00*	*4.50*

Cal-endar	QUARTERLY DIVIDENDS PAID [C■] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.602	.644	.644	.644	2.53
2015	.644	.663	.663	.663	2.63
2016	.663	.67	.67	.67	2.67
2017	.67	.69	.69	.69	2.74
2018	.69	.72			

BUSINESS: The Procter & Gamble Company makes branded consumer packaged goods, which are marketed and sold in more than 180 countries around the world. Has five reportable segments: Beauty/Hair/Personal care (18% of fiscal 2017 sales); Grooming (10%); Health Care (12%); Fabric Care & Home Care (32%); Baby, Feminine & Family Care (28%). International sales accounted for 55% of fiscal 2017 sales and Wal-Mart Stores accounted for 16%. Divested battery business in 2/16. Has 95,000 employees. Off. & dir. own less than 1% of common stock; BlackRock, 5.8%; Vanguard, 6.6% (8/17 proxy). Chairman/President/CEO: David S. Taylor. Inc.: Ohio. Address: 1 Procter & Gamble Plaza, Cincinnati, Ohio 45202. Telephone: 513-983-1100. Internet: www.pg.com.

Shares of Procter & Gamble have been under pressure of late. In fact, the stock is down nearly 20% in value since the start of the year. And it is ranked Lowest (5) for year-ahead Timeliness. Even though the company has been making progress, investors were likely wary about the difficult operating environment it has been facing, and whether P&G's restructuring efforts will take hold in the near term.

The company is poised to rebound this year. (Fiscal year ends June 30th.) To review, P&G had been hit hard by an unfavorable currency environment over the past few years, as the strength of the U.S. dollar eroded some of the top-line gains from overseas markets. Nevertheless, the company has been pruning its portfolio and focusing on bolstering its remaining brands and product lines. Too, it will likely continue to strengthen its e-commerce division and distribution network to help expand its reach. What's more, the company may ramp up branding initiatives and merchandising and marketing campaign to gain market share. In all, share earnings ought to increase 8%, on a 3% revenue advance this year. Plus, the bottom line will likely grow at a mid-single-digit clip in fiscal 2019.

Restructuring efforts are under way. Management will probably continue to concentrate on cost controls and productivity improvements, though we imagine it will scale back streamlining efforts. In April, the company acquired the Consumer Health business of Darmstadt, Germany-based Merck KGaA for roughly 3.4 million euros. This addition should help expand P&G's geographic reach. Likewise, Procter is planning to end its OTC joint venture with Teva in July, and this deal will likely replace the lost business from that disbanded partnership.

P&G has been shoring up its finances. The company recently made a tender offer, and bought back approximately $1.4 billion of its long-term debt. This move should reduce interest expense.

This issue offers worthwhile total return potential over the coming 3- to 5-year span. The stock's attractive dividend yield, as well as the company's defensive qualities, adds to its investment appeal.

Orly Seidman *June 22, 2018*

(A) Fiscal years end June 30th. **(B)** Diluted core earnings. Excludes nonrecurring: '02, (25¢); '03, (19¢); '08, (12¢); '09, (64¢); '10, 58¢; '11, (61¢); '12, (73¢); '13, d19¢; '14, d21¢. EPS may not sum. Next earnings report due late July. **(C)** Dividends historically paid in Feb., May, Aug., and Nov. ■ DRIP available. **(D)** Includes intangibles. In '17: $68.9 bill., $26.98 a share. **(E)** In millions.

Company's Financial Strength	A++
Stock's Price Stability	100
Price Growth Persistence	15
Earnings Predictability	100

SMUCKER (J.M.) CO. NYSE-SJM

RECENT PRICE 109.14 | P/E RATIO 15.0 (Trailing: 15.7 Median: 17.0) | RELATIVE P/E RATIO 0.81 | DIV'D YLD 2.9% | VALUE LINE

TIMELINESS 3 Raised 3/2/18
SAFETY 1 Raised 5/1/09
TECHNICAL 4 Lowered 7/6/18
BETA .75 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	175	(+60%)	*15%*
Low	140	(+30%)	*9%*

Insider Decisions

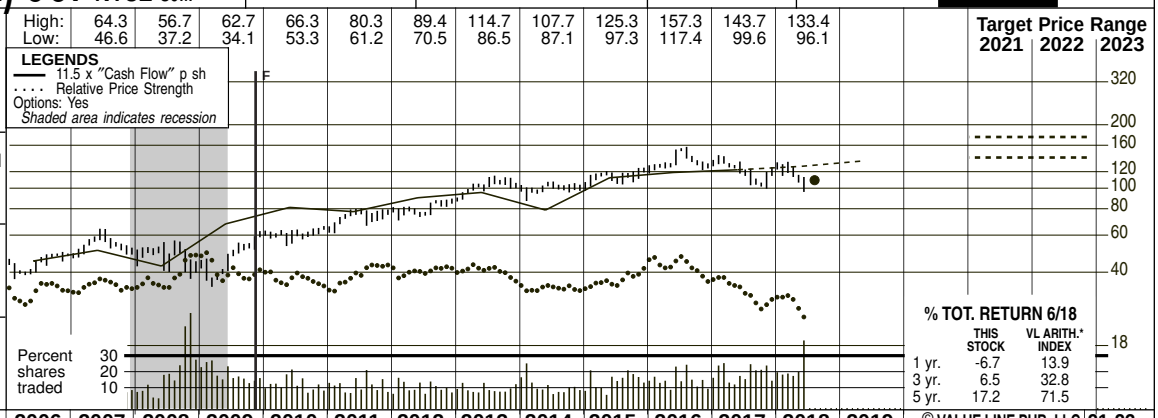
	S	O	N	D	J	F	M	A	M
to Buy	1	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	1	1	0	0	0	0

Institutional Decisions

	3Q2017	4Q2017	1Q2018
to Buy	315	306	329
to Sell	363	306	338
Hld's(000)	93087	87895	91258

	64.3	56.7	62.7	66.3	80.3	89.4	114.7	107.7	125.3	157.3	143.7	133.4
High:	46.6	37.2	34.1	53.3	61.2	70.5	86.5	87.1	97.3	117.4	99.6	96.1

LEGENDS
11.5 x "Cash Flow" p sh
Relative Price Strength
Options: Yes
Shaded area indicates recession



% TOT. RETURN 6/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-6.7	13.9
3 yr.	6.5	32.8
5 yr.	17.2	71.5

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
26.36	28.24	34.91	37.84	37.83	46.22	31.73	38.66	42.27	50.10	55.38	55.17	47.61	67.16	65.17	64.78	*72.90*	*74.80*	Sales per sh [A]	*83.85*
2.86	3.20	3.52	3.97	3.94	4.42	3.73	5.90	7.06	6.75	7.85	8.30	6.87	9.75	10.33	10.64	*11.05*	*11.75*	"Cash Flow" per sh	*13.90*
2.19	2.40	2.60	2.65	2.89	3.15	3.77	4.37	4.79	4.73	5.37	5.64	5.35	5.89	6.49	6.97	*7.10*	*7.70*	Earnings per sh [A B]	*9.30*
.83	.92	1.02	1.08	1.14	1.22	1.31	1.45	1.68	1.92	2.08	2.32	2.56	2.68	3.00	3.12	*3.18*	*3.36*	Div'ds Decl'd per sh [C ■]	*3.90*
1.00	2.00	1.50	1.11	1.00	1.40	.92	1.15	1.58	2.49	1.94	2.75	2.07	1.73	1.70	2.83	*3.15*	*2.65*	Cap'l Spending per sh	*2.75*
22.59	24.13	28.88	30.34	31.62	32.95	41.71	44.71	46.35	46.82	48.35	49.46	59.27	60.26	60.39	69.48	*73.50*	*77.55*	Book Value per sh [D]	*91.00*
49.77	50.17	58.54	56.95	56.78	54.62	118.42	119.12	114.17	110.28	106.49	101.70	119.58	116.31	113.44	113.57	*113.50*	*113.00*	Common Shs Outst'g [E]	*110.00*
16.5	18.4	18.1	17.1	16.5	16.9	12.0	12.5	13.2	16.2	16.0	18.3	19.6	20.1	21.0	17.0	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*17.0*
.90	1.05	.96	.91	.89	.90	.72	.83	.84	1.02	1.02	1.03	1.03	1.01	1.10	.85			Relative P/E Ratio	*.95*
2.3%	2.1%	2.2%	2.4%	2.4%	2.3%	2.9%	2.7%	2.7%	2.5%	2.4%	2.2%	2.4%	2.3%	2.2%	2.6%			Avg Ann'l Div'd Yield	*2.5%*
3757.9	4605.3	4825.7	5525.8	5897.7	5610.6	5692.7	7811.2	7392.3	7357.1	*8275*	*8450*	Sales ($mill) [A]	*9225*
17.5%	22.1%	23.0%	20.1%	20.5%	21.4%	19.2%	20.0%	22.4%	22.7%	*21.0%*	*21.5%*	Operating Margin	*22.5%*
119.8	181.9	239.6	208.4	250.9	256.4	268.4	430.1	419.0	413.1	*450*	*465*	Depreciation ($mill)	*510*
321.4	520.3	566.5	535.6	584.5	588.0	552.9	704.2	752.5	795.1	*805*	*865*	Net Profit ($mill)	*1020*
32.9%	33.1%	29.6%	35.3%	32.6%	32.8%	26.6%	29.1%	27.5%	26.6%	*24.5%*	*24.5%*	Income Tax Rate	*24.0%*
8.6%	11.3%	11.7%	9.7%	9.9%	10.5%	9.7%	9.0%	10.2%	10.8%	*9.7%*	*10.2%*	Net Profit Margin	*11.1%*
337.7	744.7	1154.3	1026.5	998.4	648.1	1029.7	360.4	d190.8	521.2	*d675*	*d400*	Working Cap'l ($mill)	*775*
910.0	900.0	1304.0	2020.5	1967.8	1879.8	5944.9	5146.0	4445.5	4688.0	*5450*	*5300*	Long-Term Debt ($mill)	*5800*
4939.9	5326.3	5292.4	5163.4	5148.8	5029.6	7086.9	7008.5	6850.2	7891.1	*8345*	*8765*	Shr. Equity ($mill)	*10010*
6.0%	8.9%	9.1%	8.0%	8.9%	9.1%	4.5%	6.5%	7.4%	7.0%	*6.5%*	*7.0%*	Return on Total Cap'l	*7.0%*
6.5%	9.8%	10.7%	10.4%	11.4%	11.7%	7.8%	10.0%	11.0%	10.1%	*9.5%*	*10.0%*	Return on Shr. Equity	*10.0%*
4.3%	6.6%	7.0%	6.2%	7.0%	7.0%	4.2%	5.5%	6.0%	5.6%	*5.5%*	*5.5%*	Retained to Com Eq	*6.0%*
34%	32%	34%	40%	38%	40%	46%	45%	45%	44%	*45%*	*44%*	All Div'ds to Net Prof	*42%*

CAPITAL STRUCTURE as of 4/30/18
Total Debt $4832.0 mill. **Due in 5 Yrs** $2094 mill.
LT Debt $4688.0 mill. **LT Interest** $174.0 mill.
(Total interest coverage: 7.20)
(37% of Cap'l)
Leases, Uncapitalized Annual rentals $42.8 mill.

Pension Assets-4/18 $639.7 mill.
Oblig. $497.0 mill.

Pfd Stock None
Common Stock 113,535,111 shs.
as of 6/12/18
MARKET CAP: $12.4 billion (Large Cap)

CURRENT POSITION ($MILL.)	2015	2016	04/30/18
Cash Assets	109.8	166.8	192.6
Receivables	450.1	438.7	385.6
Inventory (FIFO)	899.4	905.7	854.4
Other	114.1	130.6	122.4
Current Assets	1573.4	1641.8	1555.0
Accts Payable	459.4	477.2	512.1
Debt Due	284.0	953.0	144.0
Other	469.6	402.4	377.7
Current Liab.	1213.0	1832.6	1033.8

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '15-'17 to '21-'23
Sales	5.0%	6.0%	*4.0%*
"Cash Flow"	9.5%	7.0%	*5.0%*
Earnings	8.5%	5.5%	*6.5%*
Dividends	10.0%	9.0%	*5.0%*
Book Value	7.0%	6.0%	*6.0%*

Fiscal Year Begins	QUARTERLY SALES ($ mill.) [A] Jul.31	Oct.31	Jan.31	Apr.30	Full Fiscal Year
2015	1952.0	2077.7	1973.9	1807.6	7811.2
2016	1815.8	1913.9	1878.8	1783.8	7392.3
2017	1748.9	1923.6	1903.3	1781.3	7357.1
2018	*1975*	*2150*	*2125*	*2025*	*8275*
2019	*2010*	*2200*	*2175*	*2065*	*8450*

Fiscal Year Begins	EARNINGS PER SHARE [A B] Jul.31	Oct.31	Jan.31	Apr.30	Full Fiscal Year
2015	1.32	1.62	1.76	1.19	5.89
2016	1.57	1.76	1.70	1.46	6.49
2017	1.12	1.71	2.15	1.99	6.97
2018	*1.35*	*1.95*	*2.00*	*1.80*	*7.10*
2019	*1.55*	*2.10*	*2.10*	*1.95*	*7.70*

Cal-endar	QUARTERLY DIVIDENDS PAID [C ■] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.58	.58	.64	.64	2.44
2015	.64	.64	.67	.67	2.62
2016	.67	.67	.75	.75	2.84
2017	.75	.75	.78	.78	3.06
2018	.78	.78			

BUSINESS: The J.M. Smucker Co. is a leading manufacturer of jams, jellies, coffee, and peanut butter. Also produces cooking oils, ice-cream toppings, juices, baking ingredients, and pet foods. In addition to the *Smucker's* brand, the company markets products under numerous other brands including *Folgers, Jif, Crisco, Pillsbury, Dunkin' Donuts, Cafe Bustelo, Uncrustables, Natural Balance, Meow Mix, Milk-Bone, 9Lives, Kibbles 'n Bits, Pup-Peroni,* and *Nature's Recipe.* Has about 7,000 employees. Smucker family owns 3.9% of stock. Off./dir. own 3.5%; The Vanguard Group 10.1% (7/17 Proxy). Chrmn.: Richard Smucker. CEO & President: Mark Smucker. Inc.: Ohio. Address: One Strawberry Lane, Orrville, OH 44667. Telephone: 330-682-3000. Internet: www.jmsmucker.com.

Fiscal 2017 (ended April 30, 2018) concluded on a weaker-than-expected note for J.M. Smucker. The company posted adjusted April-period earnings of $1.99, which, while up year over year, fell well short of our expectation. (Note: Our per-share presentation includes amortization expense.) The primary culprit was another difficult performance from the U.S. Pet Foods unit, with flat sales leading to a 13% decrease in operating profit. The U.S. Retail Consumer Foods division also struggled, with declines in sales of *Jif* peanut butter and *Pillsbury* baking products keeping profit growth in check. One silver lining during an otherwise lackluster quarter was an improvement in the U.S. Retail Coffee segment, which had struggled earlier in the fiscal year.

We are lowering our share-net estimates for both fiscal 2018 and 2019. The downward revisions reflect a number of factors, some industrywide and others company specific. In general, Smucker operates in the ultracompetitive center-of-the-store isles, where pricing and promotional activity is fierce. This, along with the expected uptick in operating costs, particularly for peanuts, proteins, packaging, and freight, will likely weigh on margins. Further, in order to try to reverse some of the aforementioned top-line weakness, Smucker is expected to invest heavily in advertising, marketing, and product innovation over the next few fiscal years.

The transformation of the company is ongoing. In a nutshell, Smucker is focused on reducing its exposure to the maturing consumer foods category and increasing its stakes in the coffee and pet products arenas. On point, the company recently completed the purchase of Ainsworth Pet Nutrition, a leading producer of pet food and pet snacks, for $1.7 billion, and announced plans to explore a potential divestiture of its U.S. baking line (Pillsbury). In time, these moves should have a positive impact on margins.

Smucker shares are down more than 10% since our late-April report. This likely reflects the weaker-than-expected conclusion to fiscal 2017 and the reduced bottom-line outlook for fiscal 2018. The pullback, though, makes recovery potential to 2021-2023 more appealing.

William G. Ferguson *July 20, 2018*

(A) FY ends April 30th of the following calendar year. **(B)** Dil. egs. Excl. nonrecur./disc. gain/(loss): '02, (17¢); '03, (19¢); '04, (36¢); '05, (20¢); '06, (13¢); '07, (15¢); '08, (65¢); '09, (22¢); '10, (74¢); '11, (67¢); '12, (37¢); '13, (22¢); '14, ($2.02); '15, (13¢); '16, ($1.39); '17, $4.81. Egs. may not sum due to share change. Next egs. report due late August. **(C)** Div'd paid in Mar., June, Sept., Dec. ■ Div'd reinvest. plan avail. Paid $5-a-shr. spcl. div'd., 10/08. **(D)** Incl. intang. In FY '17: $104.41/sh. **(E)** In mill. **(F)** Merged with Folgers.

Company's Financial Strength	A+
Stock's Price Stability	90
Price Growth Persistence	70
Earnings Predictability	95

WALMART, INC. NYSE-WMT

RECENT PRICE **87.90** | P/E RATIO **18.4** (Trailing: 19.9 Median: 15.0) | RELATIVE P/E RATIO **0.98** | DIV'D YLD **2.4%** | VALUE LINE

TIMELINESS 4 Raised 11/24/17
SAFETY 1 Raised 2/15/02
TECHNICAL 2 Lowered 4/20/18
BETA .70 (1.00 = Market)

2021-23 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	140	(+60%)	*14%*
Low	115	(+30%)	*10%*

Insider Decisions

	J	J	A	S	O	N	D	J	F
to Buy	0	0	0	0	0	0	0	0	0
Options	10	6	1	0	6	0	0	14	2
to Sell	1	0	1	1	0	6	1	0	0

Institutional Decisions

	2Q2017	3Q2017	4Q2017
to Buy	713	704	718
to Sell	691	705	648
Hld's(000)	998023	995036	893157

	High:	51.4	63.8	57.5	56.3	60.0	77.6	81.4	88.1	91.0	75.2	100.1	110.0
	Low:	42.1	43.1	46.3	47.8	48.3	57.2	67.7	72.3	56.3	60.2	65.3	84.8

LEGENDS
10.0 x "Cash Flow" p sh
Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2021 | 2022 | 2023

Percent shares traded 12 8 4

% TOT. RETURN 3/18

	THIS STOCK	VL ARITH.* INDEX
1 yr.	26.4	9.7
3 yr.	17.3	24.3
5 yr.	35.4	68.8

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	© VALUE LINE PUB. LLC	21-23
56.09	60.00	68.02	75.79	84.40	95.34	103.34	107.82	119.98	130.76	141.57	147.32	150.45	152.48	159.41	166.25	*168.65*	*180.40*	Sales per sh [A]	*209.45*
2.61	2.95	3.47	3.78	4.27	4.83	5.16	5.64	6.42	6.92	7.69	7.92	7.93	7.64	7.72	7.91	*8.80*	*9.30*	"Cash Flow" per sh	*11.20*
1.81	2.03	2.41	2.63	2.92	3.16	3.42	3.66	4.07	4.45	5.02	5.11	5.07	4.57	4.32	4.42	*4.95*	*5.25*	Earnings per sh [A B]	*6.75*
.30	.36	.52	.60	.67	.88	.95	1.09	1.21	1.46	1.59	1.88	1.92	1.96	2.00	2.04	*2.08*	*2.12*	Div'ds Decl'd per sh ■[C]	*3.10*
8.95	10.12	11.67	12.77	14.91	16.26	16.63	18.69	19.49	20.86	23.04	23.59	25.22	25.47	25.52	26.38	*24.00*	*25.00*	Book Value per sh	*32.00*
4395.0	4311.0	4234.0	4165.0	4131.0	3973.0	3925.0	3786.0	3516.0	3418.0	3314.0	3233.0	3228.0	3162.0	3048.0	3010.0	*3000.0*	*2910.0*	Common Shs Outst'g [D]	*2600.0*
30.3	26.9	22.8	18.3	16.0	14.9	16.2	13.9	13.1	12.4	13.5	14.9	15.4	15.5	16.2	18.6	*Bold figures are*		Avg Ann'l P/E Ratio	*19.0*
1.66	1.53	1.20	.97	.86	.79	.97	.93	.83	.78	.86	.84	.81	.78	.85	1.00	*Value Line*		Relative P/E Ratio	*1.20*
.5%	.7%	.9%	1.2%	1.4%	1.9%	1.7%	2.1%	2.3%	2.7%	2.3%	2.5%	2.5%	2.8%	2.9%	2.5%	*estimates*		Avg Ann'l Div'd Yield	*2.8%*
405607	408214	421849	446950	469162	476294	485651	482130	485873	500343	*506000*	*525000*	Sales ($mill) [A]	*565500*
24.5%	25.4%	25.3%	25.0%	24.9%	24.8%	24.8%	25.1%	25.6%	25.6%	*25.0%*	*25.0%*	Gross Margin	*25.0%*
7.3%	7.6%	7.9%	7.7%	7.7%	7.7%	7.6%	7.0%	6.7%	6.7%	*6.5%*	*6.5%*	Operating Margin	*7.0%*
7720	8416	8970	10130	10773	10942	11453	11528	11695	11700	*11910*	*12080*	Number of Stores	*12605*
13512	14204	14921	15523	16999	16728	16426	14694	13452	13283	*14400*	*14950*	Net Profit ($mill)	*17550*
34.2%	34.1%	34.0%	33.4%	31.0%	32.2%	31.9%	30.3%	30.6%	*30.4%*	*25.5%*	*25.5%*	Income Tax Rate	*25.0%*
3.3%	3.5%	3.5%	3.5%	3.6%	3.5%	3.4%	3.0%	2.8%	2.7%	*2.8%*	*2.8%*	Net Profit Margin	*3.1%*
d6441	d7230	d6591	d7325	d11878	d8160	d1994	d4380	d9239	d18857	*d15000*	*d8800*	Working Cap'l ($mill)	*5300*
34549	36401	43842	47079	41417	44559	43692	44030	42018	36825	*42500*	*45200*	Long-Term Debt ($mill)	*48000*
65285	70749	68542	71315	76343	76255	81394	80546	77798	79404	*72000*	*72750*	Shr. Equity ($mill)	*86400*
14.5%	14.1%	14.1%	14.0%	15.3%	14.7%	14.0%	12.6%	12.1%	11.4%	*12.5%*	*12.5%*	Return on Total Cap'l	*13.0%*
20.7%	20.1%	21.8%	21.8%	22.3%	21.9%	20.2%	18.2%	17.3%	16.7%	*20.0%*	*20.5%*	Return on Shr. Equity	*20.5%*
15.0%	14.1%	15.3%	14.7%	15.2%	13.9%	12.6%	10.4%	9.3%	9.0%	*9.5%*	*10.5%*	Retained to Com Eq	*10.5%*
28%	30%	30%	33%	32%	37%	38%	43%	46%	46%	*42%*	*40%*	All Div'ds to Net Prof	*48%*

CAPITAL STRUCTURE as of 1/31/18
Total Debt $46487 mill. **Due in 5 Yrs** $12524 mill.
LT Debt $36825 mill. **LT Interest** $2300 mill.
Incl. $6780 mill. capitalized leases.
(Total interest coverage: 10.0x) (32% of Cap'l)

Leases, Uncapitalized Annual rentals $2270 mill.

No Defined Benefit Pension Plan
Pfd Stock None

Common Stock 2,950,696,818 shs.
as of 3/28/18

MARKET CAP: $259 billion (Large Cap)

CURRENT POSITION ($MILL.)	2015	2016	1/31/18
Cash Assets	8705	6867	6756
Receivables	5624	5835	5614
Inventory (LIFO)	44469	43046	43783
Other	1441	1941	3511
Current Assets	60239	57689	59664
Accts Payable	38487	41433	46092
Debt Due	6004	3920	9662
Other	20128	21575	22767
Current Liab.	64619	66928	78521

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '14-'16 to '21-'23
Sales	7.5%	5.0%	*5.0%*
"Cash Flow"	7.5%	4.0%	*6.5%*
Earnings	6.0%	3.0%	*5.5%*
Dividends	12.5%	9.5%	*8.0%*
Book Value	7.0%	5.0%	*4.0%*

Fiscal Year Begins	QUARTERLY SALES ($ mill.) [A] Apr.30	Jul.31	Oct.31	Jan.31	Full Fiscal Year
2015	114826	120229	117408	129667	482130
2016	115904	120854	118179	130936	485873
2017	117542	123355	123179	136267	500343
2018	*120625*	*125250*	*123700*	*136425*	*506000*
2019	*125150*	*130000*	*128350*	*141500*	*525000*

Fiscal Year Begins	EARNINGS PER SHARE [A B] Apr.30	Jul.31	Oct.31	Jan.31	Full Fiscal Year
2015	1.03	1.08	1.03	1.43	4.57
2016	.98	1.07	.98	1.30	4.32
2017	1.00	1.08	1.00	1.33	4.42
2018	*1.10*	*1.25*	*1.10*	*1.50*	*4.95*
2019	*1.15*	*1.30*	*1.15*	*1.65*	*5.25*

Calendar	QUARTERLY DIVIDENDS PAID ■ [C] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.48	.48	.48	.48	1.92
2015	.49	.49	.49	.49	1.96
2016	.50	.50	.50	.50	2.00
2017	.51	.51	.51	.51	2.04
2018	.52				

BUSINESS: Wal-Mart Stores, Inc. owns the world's largest retail chain, operating 3,522 supercenters (includes grocery departments), 415 discount stores, 660 Sam's Clubs, and 735 Neighborhood Markets in the U.S., plus 6,363 foreign stores, many in Latin America, with the rest in Asia, Canada, and the U.K. as of 1/31/18. Total store space: 1.164 billion square feet. Retail space is largely owned, and most stores are within 400 miles of a distribution center. Groceries accounted for 56% of U.S. sales; sales per square foot in 2016: about $420. Has 2,300,000 employees. Off./dir. own 51.6% of shares (4/18 proxy). Chairman: Gregory B. Penner. CEO and Pres.: Doug McMillon. Inc.: DE. Addr.: 702 S.W. 8th St., Bentonville, AR 72716. Tel.: 479-273-4000. Internet: www.walmart.com.

Walmart's stock has fallen back to earth. The shares were up over 60% in the 12 months leading up to the release of fiscal first-quarter results. That report did not go over well with investors, and the shares are down around 20% since the release. The bottom line was $0.04 shy of the average Wall Street estimate. The company expedited the start of some initiatives to take advantage of tax reform, which increased expenses and drove part of the miss. Domestic same-store sales rose 2.6% on a 1.6% rise in traffic. New technologies and apps that manage markdown activity and help associates improve in-stock levels contributed to the solid result. The e-commerce business slowed with Web-initiated sales (includes ship-to-home, ship-to-store, pick up today, online grocery, and transactions through Jet.com and smaller e-commerce brands) growing 23%, versus 50% in the fiscal third quarter. The company anniversaried the Jet.com acquisition and encountered an operational mishap that hindered results. Still, management is confident the growth rate will bounce back, resulting in a 40% advance for the Web business in 2018.

Walmart is proving to be an omnichannel thought leader. The company was way ahead of rivals in establishing innovative ways to merge the online and in-store shopping experiences. The most successful initiative has been grocery pickup, which rolled out to 1,100 locations over the past 18 months, and is expected to arrive at 1,000 more this year. New "pickup towers" at 118 locations make this process even faster and easier than going into a designated area of a supercenter. Notably, customers that regularly buy both in store and online spend about double the amount of conventional shoppers.

Although unfavorably ranked, the shares offer compelling risk-adjusted long-term price appreciation potential at current price levels. The financial strength of Walmart's core customer group — households making less than $50,000 per year—is improving thanks to higher wages, relatively low unemployment, and tax reform. This, coupled with Walmart's pristine execution of its omnichannel strategy, should translate into steady earnings growth in coming years.

Kevin Downing *April 27, 2018*

(A) Fiscal year ends Jan. 31st of following calendar year. Sales exclude rentals from licensed depts. **(B)** Based on diluted shares. May not sum due to rounding. Excls. n/r (losses)/gains: '01, ($0.01); '05, $0.03; '08, ($0.07); '09, $0.04; '10, $0.40; '11, $0.03; '13, ($0.23); '15 ($0.08). Next earnings report due mid-May. **(C)** Divds. historically paid in early Mar., May, Aug., and Dec. ■ Dividend reinvestment plan available. **(D)** In millions.

Company's Financial Strength	A++
Stock's Price Stability	95
Price Growth Persistence	25
Earnings Predictability	95

AT&T In . (T)

NYSE - NYSE Dela ed Price. Currency in USD

☆ Add to watchlist

Quote Lookup

31.71 -0.05 (-0.16%)
At close: 4:00PM EDT

31.72 +0.01 (0.03%)
After hours: 5:01PM EDT

Buy Sell

Summar Chart Conversations Statistics Profile Financials Options Holders Historical Data Analysis Sustainabilit NEW

Currenc in USD

Earning E imate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Anal sts	8	8	12	12
Avg. Estimate	0.85	0.92	3.4	3.5
Low Estimate	0.8	0.86	3	3.36
High Estimate	0.9	0.98	3.59	3.77
Year Ago EPS	0.79	0.74	3.05	3.4

Revenue E imate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Anal sts	6	5	9	9
Avg. Estimate	39.34B	45.97B	172.78B	185.97B
Low Estimate	38.42B	45.58B	171.5B	184.09B
High Estimate	39.9B	46.55B	174.18B	187.3B
Year Ago Sales	39.84B	39.76B	160.79B	172.78B
Sales Growth (ear/est)	-1.20%	15.60%	7.50%	7.60%

Earning Hi ry	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.73	0.75	0.65	0.87
EPS Actual	0.79	0.74	0.78	0.85
Difference	0.06	-0.01	0.13	-0.02
Surprise %	8.20%	-1.30%	20.00%	-2.30%

EPS Tren	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.85	0.92	3.4	3.5
7 Da s Ago	0.82	0.93	3.38	3.51
30 Da s Ago	0.89	0.87	3.39	3.43
60 Da s Ago	0.9	0.87	3.4	3.46
90 Da s Ago	0.91	0.88	3.46	3.47

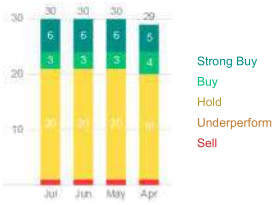
EPS Revi i n	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Da s	N/A	1	N/A	N/A
Up Last 30 Da s	1	3	4	3
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	2	1	1	1

Gr w h E imates	T	Industr	Sector	S&P 500
Current Qtr.	7.60%	N/A	N/A	0.43
Next Qtr.	24.30%	N/A	N/A	0.47
Current Year	11.50%	N/A	N/A	0.22
Next Year	2.90%	N/A	N/A	0.10
Next 5 Years (per annum)	5.29%	N/A	N/A	0.11
Past 5 Years (per annum)	5.39%	N/A	N/A	N/A

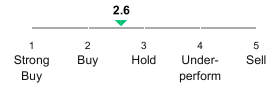
People Also Watch

Symbol	Last Price	Change	% Change
MCD McDonald's Corporation	157.93	-1.82	-1.14%
GE General Electric Company	13.75	+0.06	+0.44%
VZ Verizon Communications Inc.	51.14	-0.29	-0.56%
XOM Exxon Mobil Corporation	82.22	-0.09	-0.11%
PFE Pfizer, Inc.	37.66	+0.01	+0.03%

Recommendation Trends ›



Recommendation Rating ›



Analyst Price Targets (27) ›

Average 36.91

Low 24.00 High 43.00

Current 31.71

Finance Search for news, symbols or companies Search Technology Sign in

S&P 500	Dow 30	Nasdaq	Russell 2000	Crude Oil
2,815.62	25,199.29	7,854.44	1,691.87	68.98
+6.07 (+0.22%)	+79.40 (+0.32%)	-0.67 (-0.01%)	+4.61 (+0.27%)	+0.90 (+1.32%)

Church & Dwight Co., Inc. (CHD)

☆ Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

53.79 -0.98 (-1.79%)
At close: 4:02PM EDT

53.82 +0.05 (0.09%)
After hours: 4:11PM EDT

Buy Sell

Summary Chart Conversations Statistics Profile Financials Options Holders Historical Data Analysis Sustainability

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	19	18	20	21
Avg. Estimate	0.47	0.57	2.27	2.44
Low Estimate	0.46	0.52	2.23	2.29
High Estimate	0.5	0.59	2.28	2.5
Year Ago EPS	0.41	0.49	1.94	2.27

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	15	14	18	19
Avg. Estimate	1.01B	1.03B	4.11B	4.23B
Low Estimate	998M	1.01B	4.08B	4.15B
High Estimate	1.02B	1.07B	4.13B	4.29B
Year Ago Sales	898M	967.9M	3.78B	4.11B
Sales Growth (year/est)	12.10%	6.40%	8.70%	3.00%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.39	0.47	0.5	0.61
EPS Actual	0.41	0.49	0.52	0.63
Difference	0.02	0.02	0.02	0.02
Surprise %	5.10%	4.30%	4.00%	3.30%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.47	0.57	2.27	2.44
7 Days Ago	0.47	0.57	2.27	2.44
30 Days Ago	0.47	0.57	2.27	2.44
60 Days Ago	0.47	0.57	2.27	2.44
90 Days Ago	0.49	0.58	2.27	2.44

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	1	N/A	1	1
Up Last 30 Days	1	N/A	1	3
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	1	1	1

Growth Estimates	CHD	Industry	Sector	S&P 500
Current Qtr.	14.60%	N/A	N/A	0.43
Next Qtr.	16.30%	N/A	N/A	0.47
Current Year	17.00%	N/A	N/A	0.22
Next Year	7.50%	N/A	N/A	0.10
Next 5 Years (per annum)	10.45%	N/A	N/A	0.11
Past 5 Years (per annum)	9.85%	N/A	N/A	N/A

Average 51.50
Low 44.00 High 62.00
Current 53.79

Upgrades & Downgrades ›

US Markets are closed

Upgrade	Macquarie: Neutral to Outperform	5/7/2018
Downgrade	Deutsche Bank: Buy to Hold	4/20/2018
Upgrade	Oppenheimer: Perform to Outperform	2/7/2018
Initiated	Deutsche Bank: to Buy	12/14/2017
Upgrade	Societe Generale: Hold to Buy	11/29/2017
Initiated	Macquarie: to Neutral	9/15/2017

More Upgrades & Downgrades

Yahoo Small Business

Average 49.87
Low 44.00 High 61.00
Current 45.12

S&P 500	Dow 30	Nasdaq	Russell 2000	Crude Oil
2,815.62	25,199.29	7,854.44	1,691.87	68.98
+6.07 (+0.22%)	+79.40 (+0.32%)	-0.67 (-0.01%)	+4.61 (+0.27%)	+0.90 (+1.32%)

The Coca-Cola Company (KO)

NYSE - NYSE Delayed Price. Currency in USD

45.12 -0.13 (-0.29%)
At close: 4:00PM EDT

45.21 +0.09 (0.20%)
After hours: 4:21PM EDT

Summary Chart Conversations Statistics Profile Financials Options Holders Historical Data Analysis Sustainability NEW

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	20	19	26	26
Avg. Estimate	0.6	0.56	2.08	2.25
Low Estimate	0.53	0.54	2.03	2.17
High Estimate	0.62	0.6	2.13	2.4
Year Ago EPS	0.59	0.5	1.91	2.08

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	16	15	23	23
Avg. Estimate	8.55B	8.13B	31.66B	32.73B
Low Estimate	8.22B	7.79B	30.86B	31.03B
High Estimate	8.77B	8.89B	32.86B	34.57B
Year Ago Sales	9.71B	9.06B	35.42B	31.66B
Sales Growth (year/est)	-11.90%	-10.30%	-10.60%	3.40%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.58	0.49	0.39	0.46
EPS Actual	0.59	0.5	0.39	0.47
Difference	0.01	0.01	0	0.01
Surprise %	1.70%	2.00%	0.00%	2.20%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.6	0.56	2.08	2.25
7 Days Ago	0.6	0.56	2.09	2.26
30 Days Ago	0.61	0.57	2.09	2.26
60 Days Ago	0.61	0.57	2.1	2.27
90 Days Ago	0.63	0.56	2.09	2.26

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	N/A	N/A	N/A
Up Last 30 Days	1	N/A	N/A	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	1	1	1

Growth Estimates	KO	Industry	Sector	S&P 500
Current Qtr.	1.70%	N/A	N/A	0.43
Next Qtr.	12.00%	N/A	N/A	0.47
Current Year	8.90%	N/A	N/A	0.22
Next Year	8.20%	N/A	N/A	0.10
Next 5 Years (per annum)	7.23%	N/A	N/A	0.11
Past 5 Years (per annum)	-2.93%	N/A	N/A	N/A

Upgrades & Downgrades

US Markets are closed

Upgrade	Barclays: Equal-Weight to Overweight	5/17/2018
Upgrade	Goldman Sachs: Sell to Neutral	4/17/2018
Upgrade	Evercore ISI Group: In-Line to Outperform	1/12/2018
Initiated	Deutsche Bank: to Buy	12/14/2017
Upgrade	Wells Fargo: Market Perform to Outperform	11/14/2017
Initiated	Daiwa Capital: to Outperform	6/13/2017

S&P 500	Dow 30	Nasdaq	Russell 2000	Crude Oil
2,815.62	25,199.29	7,854.44	1,691.87	68.98
+6.07 (+0.22%)	+79.40 (+0.32%)	-0.67 (-0.01%)	+4.61 (+0.27%)	+0.90 (+1.32%)

Federal Realty Investment Trust (FRT)

☆ Add to watchlist

NYSE - NYSE Delayed Price. Currency in USD

123.16 -0.82 (-0.66%)
At close: 4:02PM EDT

123.16 0.00 (0.00%)
After hours: 4:41PM EDT

Buy Sell

Summary Chart Conversations Statistics Profile Financials Options Holders Historical Data Analysis Sustainability NEW

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	4	4	5	6
Avg. Estimate	0.77	0.78	3.19	3.3
Low Estimate	0.76	0.76	3.14	2.92
High Estimate	0.81	0.81	3.25	3.64
Year Ago EPS	1.05	1.47	3.97	3.19

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	10	10	11	12
Avg. Estimate	223.53M	227.1M	907.59M	953.84M
Low Estimate	221.34M	223M	894.54M	921M
High Estimate	227.1M	230.85M	917.8M	979.8M
Year Ago Sales	208.05M	217.95M	857.35M	907.59M
Sales Growth (year/est)	7.40%	4.20%	5.90%	5.10%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.8	0.72	0.73	0.78
EPS Actual	1.05	1.47	0.67	0.81
Difference	0.25	0.75	-0.06	0.03
Surprise %	31.20%	104.20%	-8.20%	3.80%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.77	0.78	3.19	3.3
7 Days Ago	0.77	0.78	3.19	3.3
30 Days Ago	0.77	0.78	3.18	3.35
60 Days Ago	0.77	0.78	3.18	3.34
90 Days Ago	0.8	0.81	3.21	3.41

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	N/A	N/A	N/A	N/A
Up Last 30 Days	1	N/A	1	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	FRT	Industry	Sector	S&P 500
Current Qtr.	-26.70%	N/A	N/A	0.43
Next Qtr.	-46.90%	N/A	N/A	0.47
Current Year	-19.60%	N/A	N/A	0.22
Next Year	3.40%	N/A	N/A	0.10
Next 5 Years (per annum)	5.00%	N/A	N/A	0.11
Past 5 Years (per annum)	15.99%	N/A	N/A	N/A

Upgrades & Downgrades ›

US Markets are closed

Upgrade	SunTrust Robinson Humphrey: Hold to Buy	6/25/2018
Upgrade	DA Davidson: Neutral to Buy	6/25/2018
Upgrade	UBS: Neutral to Buy	11/2/2017
Initiated	BMO Capital: to Outperform	9/12/2017
Downgrade	Evercore ISI Group: In-Line to Underperform	8/14/2017
Upgrade	Bank of America: Neutral to Buy	7/21/2017

More Upgrades & Downgrades

Yahoo Small Business

S&P 500	Dow 30	Nasdaq	Russell 2000	Crude Oil
2,815.62	25,199.29	7,854.44	1,691.87	68.98
+6.07 (+0.22%)	+79.40 (+0.32%)	-0.67 (-0.01%)	+4.61 (+0.27%)	+0.90 (+1.32%)

Kellogg Company (K)

NYSE - NYSE Delayed Price. Currency in USD

68.96 -1.69 (-2.39%)
At close: 4:01PM EDT

68.96 0.00 (0.00%)
After hours: 4:45PM EDT

Summary Chart Conversations Statistics Profile Financials Options Holders Historical Data Analysis Sustainability NEW

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	19	18	19	22
Avg. Estimate	1.05	1.13	4.45	4.69
Low Estimate	1.01	1.06	4.34	4.13
High Estimate	1.11	1.15	4.5	5
Year Ago EPS	0.97	1.05	4.04	4.45

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	15	15	18	19
Avg. Estimate	3.29B	3.4B	13.41B	13.62B
Low Estimate	3.2B	3.28B	13.04B	13.23B
High Estimate	3.39B	3.5B	13.71B	14.16B
Year Ago Sales	3.19B	3.27B	12.92B	13.41B
Sales Growth (year/est)	3.30%	4.00%	3.80%	1.60%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.92	0.94	0.96	1.08
EPS Actual	0.97	1.05	0.96	1.23
Difference	0.05	0.11	0	0.15
Surprise %	5.40%	11.70%	0.00%	13.90%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	1.05	1.13	4.45	4.69
7 Days Ago	1.05	1.13	4.45	4.7
30 Days Ago	1.05	1.13	4.45	4.7
60 Days Ago	1.05	1.14	4.45	4.7
90 Days Ago	1.1	1.18	4.45	4.7

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	1	1	1	1
Up Last 30 Days	1	1	2	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	2	2	2

Growth Estimates	K	Industry	Sector	S&P 500
Current Qtr.	8.20%	N/A	N/A	0.43
Next Qtr.	7.60%	N/A	N/A	0.47
Current Year	10.10%	N/A	N/A	0.22
Next Year	5.40%	N/A	N/A	0.10
Next 5 Years (per annum)	6.70%	N/A	N/A	0.11
Past 5 Years (per annum)	1.90%	N/A	N/A	N/A

S&P 500	Dow 30	Nasdaq	Russell 2000	Crude Oil
2,815.62	25,199.29	7,854.44	1,691.87	68.98
+6.07 (+0.22%)	+79.40 (+0.32%)	-0.67 (-0.01%)	+4.61 (+0.27%)	+0.90 (+1.32%)

Kimberly-Clark Corporation (KMB)

NYSE - NYSE Delayed Price. Currency in USD

103.90 -2.57 (-2.41%)
At close: 4:03PM EDT

103.11 -0.79 (-0.76%)
After hours: 5:16PM EDT

Summary Chart Conversations Statistics Profile Financials Options Holders Historical Data Analysis Sustainability NEW

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	14	12	17	18
Avg. Estimate	1.58	1.7	6.82	7.15
Low Estimate	1.52	1.64	6.64	6.78
High Estimate	1.66	1.77	7.1	7.5
Year Ago EPS	1.49	1.6	6.23	6.82

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	10	9	14	15
Avg. Estimate	4.62B	4.58B	18.53B	18.72B
Low Estimate	4.5B	4.49B	18.18B	18.03B
High Estimate	4.73B	4.72B	18.98B	19.39B
Year Ago Sales	4.55B	4.64B	18.26B	18.53B
Sales Growth (year/est)	1.50%	-1.30%	1.50%	1.00%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	1.49	1.54	1.55	1.69
EPS Actual	1.49	1.6	1.57	1.71
Difference	0	0.06	0.02	0.02
Surprise %	0.00%	3.90%	1.30%	1.20%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	1.58	1.7	6.82	7.15
7 Days Ago	1.58	1.72	6.85	7.19
30 Days Ago	1.6	1.74	6.91	7.27
60 Days Ago	1.61	1.75	6.92	7.29
90 Days Ago	1.64	1.78	6.97	7.38

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	1	N/A	N/A	1
Up Last 30 Days	1	N/A	N/A	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	2	2	2

Growth Estimates	KMB	Industry	Sector	S&P 500
Current Qtr.	6.00%	N/A	N/A	0.43
Next Qtr.	6.20%	N/A	N/A	0.47
Current Year	9.50%	N/A	N/A	0.22
Next Year	4.80%	N/A	N/A	0.10
Next 5 Years (per annum)	6.20%	N/A	N/A	0.11
Past 5 Years (per annum)	2.11%	N/A	N/A	N/A

Average 127.88
Low 93.00 High 124.00
Current 103.90

Upgrades & Downgrades

US Markets are closed

Initiated	Morgan Stanley: to Underweight	6/21/2018
Initiated	Deutsche Bank: to Hold	12/14/2017
Downgrade	Citigroup: Neutral to Sell	12/12/2017
Upgrade	Societe Generale: Hold to Buy	11/2/2017
Downgrade	JP Morgan: Neutral to Underweight	10/20/2017
Initiated	Berenberg: to Hold	6/9/2017

S&P 500	Dow 30	Nasdaq	Russell 2000	Crude Oil
2,815.62	25,199.29	7,854.44	1,691.87	68.98
+6.07 (+0.22%)	+79.40 (+0.32%)	-0.67 (-0.01%)	+4.61 (+0.27%)	+0.90 (+1.32%)

The Procter & Gamble Company (PG)

NYSE - NYSE Delayed Price. Currency in USD

79.72 -0.31 (-0.39%)
At close: 4:02PM EDT

79.73 +0.01 (0.01%)
After hours: 5:19PM EDT

Summary Chart Conversations Statistics Profile Financials Options Holders Historical Data Analysis Sustainability

Currency in USD

Earnings Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	19	15	23	23
Avg. Estimate	0.9	1.13	4.18	4.4
Low Estimate	0.86	1.07	4.15	4.21
High Estimate	0.95	1.19	4.24	4.59
Year Ago EPS	0.85	1.09	3.92	4.18

Revenue Estimate	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
No. of Analysts	16	12	20	20
Avg. Estimate	16.57B	16.86B	66.86B	67.8B
Low Estimate	16.03B	16.31B	66.35B	65.74B
High Estimate	16.88B	17.32B	67.2B	69.61B
Year Ago Sales	16.08B	16.65B	65.06B	66.86B
Sales Growth (year/est)	3.10%	1.30%	2.80%	1.40%

Earnings History	6/29/2017	9/29/2017	12/30/2017	3/30/2018
EPS Est.	0.78	1.08	1.14	0.98
EPS Actual	0.85	1.09	1.19	1
Difference	0.07	0.01	0.05	0.02
Surprise %	9.00%	0.90%	4.40%	2.00%

EPS Trend	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Current Estimate	0.9	1.13	4.18	4.4
7 Days Ago	0.9	1.14	4.18	4.42
30 Days Ago	0.91	1.15	4.19	4.45
60 Days Ago	0.91	1.16	4.19	4.47
90 Days Ago	0.92	1.18	4.18	4.5

EPS Revisions	Current Qtr. (Jun 2018)	Next Qtr. (Sep 2018)	Current Year (2018)	Next Year (2019)
Up Last 7 Days	1	N/A	1	N/A
Up Last 30 Days	1	N/A	1	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	2	1	3

Growth Estimates	PG	Industry	Sector	S&P 500
Current Qtr.	5.90%	N/A	N/A	0.43
Next Qtr.	3.70%	N/A	N/A	0.47
Current Year	6.60%	N/A	N/A	0.22
Next Year	5.30%	N/A	N/A	0.10
Next 5 Years (per annum)	5.92%	N/A	N/A	0.11
Past 5 Years (per annum)	0.34%	N/A	N/A	N/A

Average 80.08
Low 72.00 High 91.00
Current 79.72

Upgrades & Downgrades

US Markets are closed

Downgrade	Jefferies: Buy to Hold	7/9/2018
Downgrade	Bank of America: Buy to Neutral	4/20/2018
Downgrade	Deutsche Bank: Buy to Hold	4/20/2018
Downgrade	Argus: Buy to Hold	4/20/2018
Initiated	Berenberg: to Sell	2/28/2018
Upgrade	Goldman Sachs: Sell to Neutral	1/16/2018

S&P 500	Dow 30	Nasdaq	Russell 2000	Crude Oil
2,815.62	25,199.29	7,854.44	1,691.87	68.98
+6.07 (+0.22%)	+79.40 (+0.32%)	-0.67 (-0.01%)	+4.61 (+0.27%)	+0.90 (+1.32%)

The J. M. Smucker Company (SJM)

NYSE - NYSE Delayed Price. Currency in USD

109.01 -1.98 (-1.78%)
At close: 4:01PM EDT

109.01 0.00 (0.00%)
After hours: 4:45PM EDT

Summary Chart Conversations Statistics Profile Financials Options Holders Historical Data Analysis Sustainability NEW

Currency in USD

Earnings Estimate	Current Qtr. (Jul 2018)	Next Qtr. (Oct 2018)	Current Year (2019)	Next Year (2020)
No. of Analysts	14	8	8	8
Avg. Estimate	1.79	2.25	8.46	8.7
Low Estimate	1.6	2.15	8.32	7.83
High Estimate	1.93	2.35	8.62	9.2
Year Ago EPS	1.51	2.02	8.06	8.46

Revenue Estimate	Current Qtr. (Jul 2018)	Next Qtr. (Oct 2018)	Current Year (2019)	Next Year (2020)
No. of Analysts	11	6	10	9
Avg. Estimate	1.96B	2.14B	8.22B	8.34B
Low Estimate	1.91B	2.11B	8.08B	8.12B
High Estimate	2.01B	2.17B	8.29B	8.52B
Year Ago Sales	1.75B	1.92B	7.36B	8.22B
Sales Growth (year/est)	11.90%	11.10%	11.70%	1.50%

Earnings History	7/30/2017	10/30/2017	1/30/2018	4/29/2018
EPS Est.	1.62	1.9	2.14	2.18
EPS Actual	1.51	2.02	2.5	2.03
Difference	-0.11	0.12	0.36	-0.15
Surprise %	-6.80%	6.30%	16.80%	-6.90%

EPS Trend	Current Qtr. (Jul 2018)	Next Qtr. (Oct 2018)	Current Year (2019)	Next Year (2020)
Current Estimate	1.79	2.25	8.46	8.7
7 Days Ago	1.78	2.25	8.45	8.45
30 Days Ago	1.84	2.27	8.48	8.84
60 Days Ago	2	2.45	9.15	9.34
90 Days Ago	2.01	2.47	9.17	9.6

EPS Revisions	Current Qtr. (Jul 2018)	Next Qtr. (Oct 2018)	Current Year (2019)	Next Year (2020)
Up Last 7 Days	N/A	1	N/A	N/A
Up Last 30 Days	N/A	3	N/A	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	1	1

Growth Estimates	SJM	Industry	Sector	S&P 500
Current Qtr.	18.50%	N/A	N/A	0.43
Next Qtr.	11.40%	N/A	N/A	0.47
Current Year	5.00%	N/A	N/A	0.22
Next Year	2.80%	N/A	N/A	0.10
Next 5 Years (per annum)	4.50%	N/A	N/A	0.11
Past 5 Years (per annum)	10.69%	N/A	N/A	N/A

Average 08.77
Low 89.00 High 130.00
Current 109.01

Upgrades & Downgrades ›

US Markets are closed

Downgrade	Credit Suisse: Neutral to Underperform	4/16/2018
Upgrade	Susquehanna: Neutral to Positive	11/13/2017
Upgrade	Jefferies: Hold to Buy	7/24/2017
Downgrade	Stephens & Co.: to Equal-Weight	7/19/2017
Upgrade	Hilliard Lyons: to Long-Term Buy	7/11/2017
Downgrade	Morgan Stanley: to Underweight	4/10/2017

S&P 500	Dow 30	Nasdaq	Russell 2000	Crude Oil
2,815.62	25,199.29	7,854.44	1,691.87	68.98
+6.07 (+0.22%)	+79.40 (+0.32%)	-0.67 (-0.01%)	+4.61 (+0.27%)	+0.90 (+1.32%)

Walmart Inc. (WMT)
NYSE - NYSE Delayed Price. Currency in USD

☆ Add to watchlist

88.07 -0.12 (-0.14%)
At close: 4:00PM EDT

88.08 +0.01 (0.01%)
After hours: 5:19PM EDT

Buy Sell

Summary Chart Conversations Statistics Profile Financials Options Holders Historical Data Analysis Sustainability NEW

Currency in USD

Earnings Estimate	Current Qtr. (Jul 2018)	Next Qtr. (Oct 2018)	Current Year (2019)	Next Year (2020)
No. of Analysts	27	27	29	30
Avg. Estimate	1.22	1.05	4.82	4.99
Low Estimate	1.11	0.92	4.56	4.55
High Estimate	1.26	1.16	5.1	5.56
Year Ago EPS	1.08	1	4.42	4.82

Revenue Estimate	Current Qtr. (Jul 2018)	Next Qtr. (Oct 2018)	Current Year (2019)	Next Year (2020)
No. of Analysts	21	20	27	27
Avg. Estimate	126.09B	125.87B	514.45B	529.69B
Low Estimate	124.59B	124.16B	510.94B	506.68B
High Estimate	127.5B	128.18B	519.75B	541.32B
Year Ago Sales	123.36B	123.18B	500.34B	514.45B
Sales Growth (year/est)	2.20%	2.20%	2.80%	3.00%

Earnings History	7/30/2017	10/30/2017	1/30/2018	4/29/2018
EPS Est.	1.07	0.97	1.37	1.12
EPS Actual	1.08	1	1.33	1.14
Difference	0.01	0.03	-0.04	0.02
Surprise %	0.90%	3.10%	-2.90%	1.80%

EPS Trend	Current Qtr. (Jul 2018)	Next Qtr. (Oct 2018)	Current Year (2019)	Next Year (2020)
Current Estimate	1.22	1.05	4.82	4.99
7 Days Ago	1.22	1.05	4.82	4.99
30 Days Ago	1.22	1.05	4.82	4.99
60 Days Ago	1.23	1.06	4.84	5.06
90 Days Ago	1.23	1.11	4.93	5.25

EPS Revisions	Current Qtr. (Jul 2018)	Next Qtr. (Oct 2018)	Current Year (2019)	Next Year (2020)
Up Last 7 Days	N/A	N/A	N/A	N/A
Up Last 30 Days	N/A	N/A	1	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	WMT	Industry	Sector	S&P 500
Current Qtr.	13.00%	N/A	N/A	0.43
Next Qtr.	5.00%	N/A	N/A	0.47
Current Year	9.00%	N/A	N/A	0.22
Next Year	3.50%	N/A	N/A	0.10
Next 5 Years (per annum)	6.47%	N/A	N/A	0.11
Past 5 Years (per annum)	-2.61%	N/A	N/A	N/A

Upgrades & Downgrades ›

U.S. Markets closed

Downgrade	Gordon Haskett: Buy to Accumulate	5/17/2018
Upgrade	Argus: Hold to Buy	4/19/2018
Downgrade	Oppenheimer: Outperform to Perform	3/2/2018
Initiated	Credit Suisse: to Neutral	2/26/2018
Upgrade	Goldman Sachs: Neutral to Buy	1/18/2018
Upgrade	Citigroup: Neutral to Buy	12/19/2017

More Upgrades & Downgrades

Yahoo Small Business

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Access Zacks Data Feed

AT&T Inc. (T)

(Delayed Data from NYSE)

$31.71 USD

-0.05 (-0.16%)

Updated Jul 18, 2018 04:00 PM ET

After-Market: $31.73 +0.02 (0.06%) 5:22 PM ET

Add to port | Trades from $3

Zacks Rank: 2-Buy

Style Scores: A Value | C Growth | A Momentum | A VGM

Industry Rank: Bottom 13%(223 out of 255)

Industry: Wireless National

Quote Overview

Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	31.82	Earnings ESP	0.85%
Day Low	31.70	Most Accurate Est	0.87
Day High	31.95	Current Qtr Est	0.87
52 Wk Low	31.40	Current Yr Est	3.45
52 Wk High	39.80	Exp Earnings Date	*AMC 7/24/18
Avg. Volume	41,619,568	Prior Year EPS	3.05
Market Cap	194.97 B	Exp EPS Growth (3-5yr)	3.42%
Dividend	2.00 (6.30%)	Forward PE	9.26
Beta	0.42	PEG Ratio	2.70

Computer and Technology » Wireless National

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

Month | 3 Months | YTD

Interactive Chart | Fundamental Chart

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. **Click here to watch the full series. »**

Company Summary

AT&T provides communication, entertainment and internet services to consumers and businesses around the world. In the U.S., the company is the largest pay-TV provider and owns the second largest wireless network. AT&T provides connectivity, security, broadband, video and voice services under the AT&T, U-verse and DIRECTV brands.

Full Company Report for T »

Research Reports For T

All Zacks' Analyst Reports »

News For T

- Zacks News for T
- Other News for T

Ericsson (ERIC) Q2 Earnings Miss Estimates, Revenues Beat
07/18/18-8:41AM EST Zacks

Is Joining Forces the Only Path to Survival for Tribune (TRCO)...
07/17/18-2:41PM EST Zacks

T: What are Zacks experts saying now?
Zacks Private Portfolio Services

Netflix Sinks on Weak Q2 Subscriber: ETFs to Watch
07/17/18-9:35AM EST Zacks

Will Netflix's Subscriber Addition Dip Heat Up Streaming War?
07/17/18-8:27AM EST Zacks

Can Telecom Stocks Defy Tariff Ergonomics With Solid Q2?
07/17/18-8:06AM EST Zacks

More Zacks News for T

Will AT&T's Merger Appeal Pose a Threat to Comcast's Bid for Fox?
07/18/18-12:37PM EST Market Realist

Netflix To Bring Comedy To New Sirius XM Channel
07/18/18-12:31PM EST Benzinga

Why Sony Joined AT&T in Raising Streaming Service Fees
07/18/18-11:35AM EST Market Realist

Key Drivers of Accenture's Communications, Media & Tech Business
07/18/18-10:40AM EST Market Realist

Expectations for AT&T's Prepaid Net Additions in Q2 2018
07/18/18-9:31AM EST Market Realist

More Other News for T

Premium Research for T

Zacks Rank	Buy 2
Zacks Industry Rank	Bottom 13%(223 out of 255)
Zacks Sector Rank	Top 19% (3 out of 16)
Style Scores	A Value | C Growth | A Momentum | A VGM
Earnings ESP	0.85%

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Access Zacks Data Feed

Church & Dwight Co., Inc. (CHD)

(Real Time Quote from BATS)

$53.78 USD

-1.04 (-1.90%)

Updated Jul 18, 2018 03:58 PM ET

After-Market: **$53.77** -0.01 (-0.02%) 5:24 PM ET

Zacks Rank: 3-Hold

Style Scores: D Value | C Growth | F Momentum | D VGM

Industry Rank: Bottom 4%(246 out of 255)

Industry: Soap and Cleaning Materials

Quote Overview

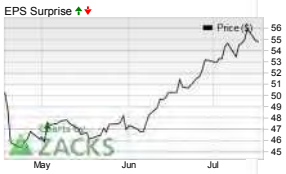
Stock Activity		Key Earnings Data	
Open	54.54	Earnings ESP	0.64%
Day Low	53.52	Most Accurate Est	0.47
Day High	54.75	Current Qtr Est	0.46
52 Wk Low	43.21	Current Yr Est	2.27
52 Wk High	55.94	Exp Earnings Date	*BMO 8/2/18
Avg. Volume	1,971,865	Prior Year EPS	1.94
Market Cap	13.40 B	Exp EPS Growth (3-5yr)	10.02%
Dividend	0.87 (1.59%)	Forward PE	24.15
Beta	0.42	PEG Ratio	2.41

Consumer Staples » Soap and Cleaning Materials

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. **Click here to watch the full series. »**

Research Reports For CHD

All Zacks' Analyst Reports »

News For CHD

- Zacks News for CHD
- Other News for CHD

Church & Dwight Hits 52-Week High: Is There More Room to Run?
07/13/18-7:45AM EST Zacks

Will Segment Sales Growth Drive PepsiCo's (PEP) Q2 Earnings?
07/05/18-8:45AM EST Zacks

CHD: What are Zacks experts saying now?
Zacks Private Portfolio Services

Will Online Strength Aid Helen of Troy (HELE) in Q1 Earnings?
07/02/18-4:10PM EST Zacks

Can Consumer International Unit Aid Church & Dwight Stock?
06/11/18-2:32PM EST Zacks

Church & Dwight (CHD) Down 1.3% Since Earnings Report: Can...
06/04/18-4:09AM EST Zacks

More Zacks News for CHD

Investors cautious on large swath of household names
07/18/18-2:02AM EST Seeking Alpha

Church & Dwight to Report Second Quarter 2018 Results
07/13/18-10:25AM EST Business Wire

Church & Dwight Vs. Procter & Gamble: The Discrepancy In Valuation Continues To Widen
07/16/18-3:15AM EST Seeking Alpha

Internationally Recognized Hair Loss Expert Dr. Alan J. Bauman attends Vegas Cosmetic Surgery & Aesthetic Dermatology Symposium to Advise Fortune 500 Companies on Product Development and Importance of Providing Verified Clinical Validation
07/19/18-3:15AM EST Seeking Alpha

Value And Quality Stocks In Consumer Staples
07/19/18-3:15AM EST Seeking Alpha

More Other News for CHD

Company Summary

Church & Dwight, Inc. is the leading U.S. producer of sodium bicarbonate, popularly known as baking soda, a natural product that cleans, deodorized, leavens and buffers. The Company's ARM & HAMMER brand is one of the nation's most trusted trademarks for a broad range of consumer and specialty products developed from the base of bicarbonate and related technologies. Church & Dwight's consumer products business is organized into two segments: Consumer Domestic, which encompasses both household and personal care products, and Consumer International, which primarily consists of personal care products. The combination of the core ARM & HAMMER brands and the other ten power brands make Church & Dwight one of the leading consumer packaged goods companies in the United States. It's third business segment is Specialty Products. This business is a leader in specialty inorganic chemicals, animal nutrition, and specialty cleaners.

Full Company Report for CHD »

Premium Research for CHD

Zacks Rank	Hold 3
Zacks Industry Rank	Bottom 4%(246 out of 255)
Zacks Sector Rank	Bottom 6% (15 out of 16)
Style Scores	D Value | C Growth | F Momentum | D VGM
Earnings ESP	0.64%

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Access Zacks Data Feed

Coca-Cola Company (The) (KO)

(Delayed Data from NYSE)

$45.12 USD

-0.13 (-0.29%)

Updated Jul 18, 2018 04:00 PM ET

After-Market: **$45.11** -0.01 (-0.02%) 5:26 PM ET

Zacks Rank: 4-Sell

Style Scores: D Value | C Growth | C Momentum | D VGM

Industry Rank: Bottom 9%(233 out of 255)

Industry: Beverages - Soft drinks

Quote Overview

Add to Ranked Stocks | Enter Symbol

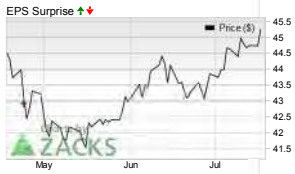
Stock Activity		Key Earnings Data	
Open	45.19	Earnings ESP	-0.42%
Day Low	44.84	Most Accurate Est	0.60
Day High	45.29	Current Qtr Est	0.60
52 Wk Low	41.45	Current Yr Est	2.08
52 Wk High	48.62	Exp Earnings Date	*BMO 7/25/18
Avg. Volume	9,791,577	Prior Year EPS	1.91
Market Cap	193.03 B	Exp EPS Growth (3-5yr)	8.05%
Dividend	1.56 (3.45%)	Forward PE	21.55
Beta	0.74	PEG Ratio	2.68

Consumer Staples » Beverages - Soft drinks

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. **Click here to watch the full series. »**

Research Reports For KO

All Zacks' Analyst Reports »

News For KO

- Zacks News for KO
- Other News for KO

Factors Setting the Tone for Coca-Cola's (KO) Q2 Earnings
07/18/18-9:33AM EST Zacks

Consumer Staples ETF (XLP) Hits New 52-Week High
07/11/18-9:03AM EST Zacks

KO: What are Zacks experts saying now?
Zacks Private Portfolio Services

Stock Market News For Jul 11, 2018
07/11/18-9:02AM EST Zacks

Nike Already Won the FIFA World Cup Over Adidas
07/10/18-6:38PM EST Zacks

PepsiCo (PEP) Stock Up on Q2 Earnings Beat, Revenues Lag
07/10/18-8:39AM EST Zacks

More Zacks News for KO

Warren Buffett may soon join the stock buyback party
07/18/18-10:00AM EST CNN

Saladworks, the Nation's Leading Salad-Centric Franchise Brand, Opens First Atlanta Location
07/18/18-10:00AM EST PR Newswire

Circulate Capital Launches New Venture to Invest in Solutions to Ocean Plastic
07/18/18-10:00AM EST PR Newswire

20 Russian Stocks to Watch After Trump's Helsinki Gaffe
07/18/18-2:13AM EST InvestorPlace

Shark Tank Winner Tiffany Krumins Joins the iHeartRadio Family
07/17/18-10:15AM EST PR Web

More Other News for KO

Company Summary

The Coca-Cola Company is the world's largest total beverage company. In addition to their namesake Coca-Cola drinks, some of their household names around the world include: AdeS soy-based beverages, Ayataka green tea, Dasani waters, Del Valle juices and nectars, Fanta, Georgia coffee, Gold Peak teas and coffees, Honest Tea, Minute Maid juices, Powerade sports drinks, Simply juices, smartwater, Sprite, vitaminwater, and Zico coconut water. At Coca-Cola, they are serious about making positive contributions to world. That starts with reducing sugar in drinks and bringing new and different drinks to people everywhere. It also means continuously working to reduce environmental impact, creating rewarding careers for associates, and bringing economic opportunity wherever they operate.

Full Company Report for KO »

Premium Research for KO

Zacks Rank	Sell 4
Zacks Industry Rank	Bottom 9%(233 out of 255)
Zacks Sector Rank	Bottom 6% (15 out of 16)
Style Scores	D Value | C Growth | C Momentum | D VGM
Earnings ESP	-0.42%

Federal Realty Investment Trust (FRT)

(Real Time Quote from BATS)

$123.15 USD

-0.81 (-0.65%)

Updated Jul 18, 2018 03:58 PM ET

After-Market: **$123.15** 0.00 (0.00%) 5:26 PM ET

Zacks Rank: 3-Hold

Style Scores: F Value | D Growth | A Momentum | D VGM

Industry Rank: Bottom 18%(209 out of 255)

Industry: REIT and Equity Trust - Retail

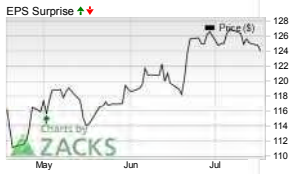
Stock Activity		Key Earnings Data	
Open	123.72	Earnings ESP	-0.23%
Day Low	122.32	Most Accurate Est	1.53
Day High	124.49	Current Qtr Est	1.53
52 Wk Low	106.41	Current Yr Est	6.18
52 Wk High	135.59	Exp Earnings Date	*AMC 8/1/18
Avg. Volume	429,195	Prior Year EPS	5.91
Market Cap	9.08 B	Exp EPS Growth (3-5yr)	6.00%
Dividend	4.00 (3.23%)	Forward PE	20.18
Beta	0.25	PEG Ratio	3.36

Finance » REIT and Equity Trust - Retail

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. **Click here to watch the full series. »**

Research Reports For FRT

All Zacks' Analyst Reports »

News For FRT

- Zacks News for FRT
- Other News for FRT

Federal Realty (FRT) Up 3.3% Since Earnings Report: Can It...
06/01/18-9:24AM EST Zacks

Interest Rates to Be Less of a Drag for REITs?
05/11/18-12:00AM EST Zacks

FRT: What are Zacks experts saying now?
Zacks Private Portfolio Services

Federal Realty (FRT) Q1 FFO & Revenues Beat, View Intact
05/03/18-9:14AM EST Zacks

REITs to Watch for Earnings on May 2: ESS, MAA, MAC & More
05/01/18-9:43AM EST Zacks

Regency Centers (REG) Q1 FFO and Revenues Beat Estimates
05/01/18-9:35AM EST Zacks

More Zacks News for FRT

Goldman pulls bearish outlook for retail REITs
07/17/18-7:38AM EST Seeking Alpha

Real Estate Earnings Preview
07/16/18-12:54PM EST Seeking Alpha

10 Dividend Stocks That Will Double Your Money
07/16/18-10:58AM EST InvestorPlace

How To Retire At 62 With A Measly Million
07/16/18-7:01AM EST Seeking Alpha

10 Dividend Stocks That Will Double Your Money
07/14/18-5:03AM EST The Online Investor

More Other News for FRT

Company Summary

Federal Realty Investment Trust is a recognized leader in the ownership, operation and redevelopment of high-quality retail based properties located primarily in major coastal markets from Washington, D.C. to Boston as well as San Francisco and Los Angeles. Federal Realty Investment Trust mission is to be the preeminent force in creating, operating, and re-imagining the most relevant retail and mixed use environments in the USA's largest markets that exceed the expectations of the communities they serve in every way while providing a superior return to shareholders. Federal Realty Investment Trust expertise includes creating urban, mixed-use neighborhoods like Santana Row in San Jose, California, Pike & Rose in North Bethesda, Maryland and Assembly Row in Somerville, Massachusetts. These unique and vibrant environments that combine shopping, dining, living and working provide a destination experience valued by their respective communities.

Full Company Report for FRT »

Premium Research for FRT

Zacks Rank	Hold 3
Zacks Industry Rank	Bottom 18%(209 out of 255)
Zacks Sector Rank	Bottom 38% (10 out of 16)
Style Scores	F Value | D Growth | A Momentum | D VGM
Earnings ESP	-0.23%

WP-53
McKenzie
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Kellogg Company (K)

(Real Time Quote from BATS)

$68.95 USD

-1.77 (-2.51%)

Updated Jul 18, 2018 03:58 PM ET

After-Market: **$68.96** +0.01 (0.01%)
5:26 PM ET

Add to portfolio | Trades from $3

Zacks Rank: 3-Hold 3
Style Scores: C Value | B Growth | F Momentum | B VGM
Industry Rank: Bottom 22%(200 out of 255)
Industry: Food - Miscellaneous

Quote Overview

View All Zacks #1 Ranked Stocks | Enter Symbol

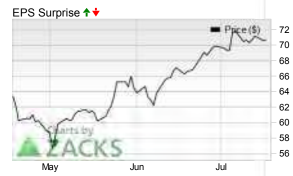
Stock Activity		Key Earnings Data	
Open	70.71	Earnings ESP	-0.48%
Day Low	68.70	Most Accurate Est	1.04
Day High	70.80	Current Qtr Est	1.04
52 Wk Low	56.40	Current Yr Est	4.45
52 Wk High	72.24	Exp Earnings Date	*BMO 8/2/18
Avg. Volume	2,302,394	Prior Year EPS	4.04
Market Cap	24.50 B	Exp EPS Growth (3-5yr)	7.29%
Dividend	2.16 (3.06%)	Forward PE	15.87
Beta	0.52	PEG Ratio	2.18

Consumer Staples » Food - Miscellaneous

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For K

All Zacks' Analyst Reports »

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. **Click here to watch the full series. »**

News For K

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Kellogg to Gain from Cost-Cut Plans, U.S. Snacks Arm a Worry
07/03/18-1:43PM EST Zacks

Dow 30 Stock Roundup: UnitedHealth Hikes Quarterly Dividend...
06/08/18-8:05AM EST Zacks

K: What are Zacks experts saying now?
Zacks Private Portfolio Services

Stock Market News For Jun 6, 2018
06/06/18-9:06AM EST Zacks

3 Food Stocks to Please Investors' Palate
06/06/18-8:31AM EST Zacks

Consumer Staples Hits New Low, Mexico Tariffs Add to Woes
06/06/18-7:35AM EST Zacks

More Zacks News for K

Nuclear Submarine Technology Finds Unexpected Value in Reducing Electricity Costs
07/18/18 EST Chicago Web

Investors cautious on large swath of household names
07/18/18-2:02AM EST Seeking Alpha

Kellogg Receives a Hold from RBC Capital
07/16/18-11:00AM EST Smarter Analyst

Why J.M. Smucker Looks Unappealing despite Dividend Hike
07/16/18-7:21AM EST Market Realist

Dividend Sensei's Portfolio Update 43: The 3 Essential Things All Investors Need To Get Rich
07/16/18 EST Seeking Alpha

More Other News for K

Company Summary

Kellogg Company - it strives to make foods people love. This includes their beloved brands -Kellogg's, Keebler, Special K, Pringles, Kellogg's Frosted Flakes, Pop-Tarts, Kellogg's Corn Flakes, Rice Krispies, Cheez-It, Eggo, Mini-Wheats and more - that nourish families so they can flourish and thrive. Kellogg is the world's leading cereal company; second largest producer of crackers and savory snacks; and a leading North American frozen foods company.

Full Company Report for K »

Premium Research for K

Zacks Rank	Hold 3
Zacks Industry Rank	Bottom 22%(200 out of 255)
Zacks Sector Rank	Bottom 6% (15 out of 16)
Style Scores	C Value | B Growth | F Momentum | B VGM
Earnings ESP	-0.48%

Kimberly-Clark Corporation (KMB)

(Real Time Quote from BATS)

$103.91 USD

-2.62 (-2.46%)

Updated Jul 18, 2018 03:58 PM ET

After-Market: **$103.91** 0.00 (0.00%) 5:28 PM ET

Zacks Rank: 4-Sell

Style Scores: C Value | B Growth | F Momentum | C VGM

Industry Rank: Bottom 7%(237 out of 255)

Industry: Consumer Products - Staples

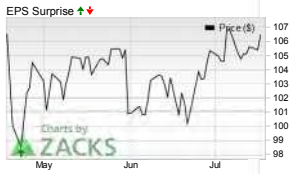
Stock Activity		Key Earnings Data	
Open	105.89	Earnings ESP	-1.57%
Day Low	103.80	Most Accurate Est	1.57
Day High	105.90	Current Qtr Est	1.60
52 Wk Low	97.10	Current Yr Est	6.82
52 Wk High	125.39	Exp Earnings Date	*BMO 7/24/18
Avg. Volume	1,974,729	Prior Year EPS	6.23
Market Cap	37.19 B	Exp EPS Growth (3-5yr)	6.97%
Dividend	4.00 (3.76%)	Forward PE	15.46
Beta	0.68	PEG Ratio	2.22

Consumer Staples » Consumer Products - Staples

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. **Click here to watch the full series. »**

Research Reports For KMB

All Zacks' Analyst Reports »

News For KMB

- Zacks News for KMB
- Other News for KMB

Can Savings Keep Kimberly-Clark (KMB) Afloat in Q2 Earnings?
07/18/18-7:33AM EST Zacks

Will Restructuring Plans Revive Kimberly-Clark's Stock?
06/25/18-7:26AM EST Zacks

KMB: What are Zacks experts saying now?
Zacks Private Portfolio Services

Top Research Reports for CSX Corporation, Eni & Kimberly-Clark
06/14/18-12:00AM EST Zacks

Top Analyst Reports for Merck, Occidental Petroleum & Capital...
06/07/18-12:00AM EST Zacks

Why Is Kimberly-Clark (KMB) Up 6.3% Since Its Last Earnings...
05/23/18-9:31AM EST Zacks

More Zacks News for KMB

Buy This Dividend Aristocrat For 10%+ Annual Returns
07/18/18-11:02AM EST Seeking Alpha

Circulate Capital Launches New Venture to Invest in Solutions to Ocean Plastic
07/18/18-10:00AM EST PR Newswire

What Analysts' Ratings Indicate for Kimberly-Clark
07/18/18-8:06AM EST Market Realist

Will Cost Pressures Hurt KMB's Q2 2018 EPS Growth Rate?
07/18/18-6:39AM EST Market Realist

Investors cautious on large swath of household names
07/18/18-2:02AM EST Seeking Alpha

More Other News for KMB

Company Summary

Kimberly-Clark Corporation and its well-known global brands are an indispensable part of life for people in more than 175 countries. Every day, nearly a quarter of the world's population trust K-C's brands and the solutions they provide to enhance their health, hygiene and well-being. Kimberly-Clark Professional partners with businesses to create Exceptional Workplaces, helping to make them healthier, safer and more productive. When consumers purchase our instantly recognizable brands, they also help make the world a better place. They seek opportunities to make more of their products with sustainable wood fiber, find ways to recycle their packaging, and challenge every day to discover ways to carry on the resources they enjoy today for generations to come.

Full Company Report for KMB »

Premium Research for KMB

Zacks Rank	Sell 4
Zacks Industry Rank	Bottom 7%(237 out of 255)
Zacks Sector Rank	Bottom 6% (15 out of 16)
Style Scores	C Value | B Growth | F Momentum | C VGM
Earnings ESP	-1.57%

Quote & News
Quote Overview

Quotes & News
Quote Overview
Zacks News
Partner News

Zacks Research
Snapshot
Analyst Report
Style Scores
Detailed Estimates
Comparison to Industry
Zacks Experts View

More Research
Broker Recommendations
Full Company Report
Earnings Announcements
Key Company Metrics
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Charts
Price, Consensus and EPS Surprise
Fundamental Charts
Comparative
Interactive Charts
Price and Consensus
Price & EPS Surprise
12 Month EPS
Broker Recommendations

Financials
Financial Overview
Income Statements
Balance Sheet
Cash flow Statements

Options
Option Chain
Options Greek Montage

Access Zacks Data Feed

Procter & Gamble Company (The) (PG)

(Real Time Quote from BATS)

$79.71 USD

-0.34 (-0.43%)

Updated Jul 18, 2018 03:58 PM ET

After-Market: **$79.71** 0.00 (0.00%) 5:30 PM ET

Zacks Rank: 4-Sell

Style Scores: B Value | D Growth | F Momentum | D VGM

Industry Rank: Bottom 4%(246 out of 255)

Industry: Soap and Cleaning Materials

Quote Overview

Enter Symbol

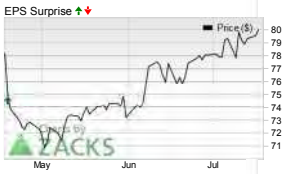
Stock Activity		Key Earnings Data	
Open	79.72	Earnings ESP	-1.77%
Day Low	79.33	Most Accurate Est	0.89
Day High	80.21	Current Qtr Est	0.91
52 Wk Low	70.73	Current Yr Est	4.40
52 Wk High	94.67	Exp Earnings Date	*BMO 7/31/18
Avg. Volume	7,832,059	Prior Year EPS	3.92
Market Cap	201.76 B	Exp EPS Growth (3-5yr)	7.16%
Dividend	2.87 (3.58%)	Forward PE	18.09
Beta	0.58	PEG Ratio	2.52

Consumer Staples » Soap and Cleaning Materials

*BMO = Before Market Open *AMC = After Market Close

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. **Click here to watch the full series. »**

Research Reports For PG

All Zacks' Analyst Reports »

News For PG

- Zacks News for PG
- Other News for PG

Proctor & Gamble Acquires Indie Beauty Brand First Aid Beauty
07/18/18-1:41PM EST Zacks

Consumer Staples ETF (XLP) Hits New 52-Week High
07/11/18-9:03AM EST Zacks

PG: What are Zacks experts saying now?
Zacks Private Portfolio Services

Stock Market News For Jul 11, 2018
07/11/18-9:02AM EST Zacks

Dow ETF in Focus Ahead of Q2 Earnings
07/10/18-9:10AM EST Zacks

Logitech Recommends Marjorie Lao From LEGO for its Board
06/28/18-9:42AM EST Zacks

More Zacks News for PG

Circulate Capital Launches New Venture to Invest in Solutions to Ocean Plastic
07/18/18-8:00AM EST PR Newswire

What Analysts' Ratings Indicate for Kimberly-Clark
07/18/18-8:06AM EST Market Realist

Procter & Gamble: Buy This Personal Care And Household Products Company For Above-Average Income

Will Cost Pressures Hurt KMB's Q2 2018 EPS Growth Rate?
07/18/18-6:39AM EST Market Realist

Why Kimberly-Clark Could Continue to Disappoint on Margins
07/17/18-10:58AM EST Market Realist

More Other News for PG

Company Summary

The Procter & Gamble Company is engaged in the manufacture and sale of a range of branded consumer packaged goods. The company operates in five segments: Beauty, Grooming, Health Care, Fabric Care and Home Care, and Baby Care and Family Care. The Beauty segment provides antiperspirants, deodorants, cosmetics, hair care products, personal cleansings, prestige products, and skin care products. The Grooming segment offers blades and razors, electronic hair removal devices, hair care appliances. The Health Care segment provides feminine care, gastrointestinal, incontinence, rapid diagnostics, respiratory, oral care, and other personal health care products. The Fabric Care and Home Care segment offers bleach and laundry additives, air care products, batteries, dish care items, fabric enhancers, laundry detergents, pet care products, and surface care products. The Baby Care and Family Care segment provides baby wipes, diapers and pants, tissues, and toilet papers. The Procter & Gamble is based in Cincinnati, Ohio.

Full Company Report for PG »

Premium Research for PG

Zacks Rank	Sell 4
Zacks Industry Rank	Bottom 4%(246 out of 255)
Zacks Sector Rank	Bottom 6% (15 out of 16)
Style Scores	B Value | D Growth | F Momentum | D VGM
Earnings ESP	-1.77%

Quote & News
Quote Overview

Quotes & News
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Zacks Research
Snapshot
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Zacks Experts View

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Access Zacks Data Feed

The J. M. Smucker Company (SJM)

(Delayed Data from NYSE)

$109.01 USD

-1.98 (-1.78%)

Updated Jul 18, 2018 04:01 PM ET

After-Market: **$109.02** +0.01 (0.01%) 5:30 PM ET

Add to port | Trades from $3

Zacks Rank:
5-Strong Sell 5

Style Scores:
C Value | D Growth | F Momentum | D VGM

Industry Rank:
Bottom 22%(200 out of 255)

Industry: Food - Miscellaneous

Quote Overview

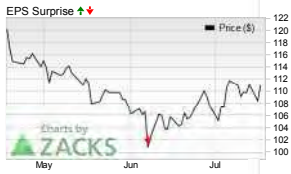
Add to Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	110.95	Earnings ESP	-1.45%
Day Low	108.46	Most Accurate Est	1.84
Day High	111.14	Current Qtr Est	1.87
52 Wk Low	96.13	Current Yr Est	8.43
52 Wk High	133.38	Exp Earnings Date	8/23/18
Avg. Volume	1,164,203	Prior Year EPS	7.96
Market Cap	12.60 B	Exp EPS Growth (3-5yr)	7.50%
Dividend	3.12 (2.81%)	Forward PE	12.86
Beta	0.63	PEG Ratio	1.71

Consumer Staples » Food - Miscellaneous

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For SJM

All Zacks' Analyst Reports »

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. **Click here to watch the full series. »**

News For SJM

- Zacks News for SJM
- Other News for SJM

TreeHouse Foods, B&G Foods to Gain From McCann's Oatmeal...
07/17/18-9:35AM EST Zacks

Can Smucker's Shareholder-Friendly Moves Help Revive Stock?
07/16/18-7:15AM EST Zacks

SJM: What are Zacks experts saying now?
Zacks Private Portfolio Services

Company News For Jul 11, 2018
07/11/18-9:04AM EST Zacks

Smucker (SJM) to Divest Baking Unit, Bolster Other Areas
07/10/18-8:12AM EST Zacks

Can United Natural's Growth Strategies Wipe Off Cost Woes?
07/09/18-1:43PM EST Zacks

More Zacks News for SJM

Will Mondel¿¿z Sustain Double-Digit EPS Growth in Q2 2018?
07/18/18-3:49AM EST Market Realist

What to Expect from Mondel¿¿z and Hershey in Q2 2018
07/18/18-2:14AM EST Market Realist

Investors cautious on large swath of household names
07/18/18-2:02AM EST Seeking Alpha

12 Dividend Increases: July 2-13, 2018
07/17/18-4:29AM EST Seeking Alpha

Video: Daily Dividend Report: SJM, NNN, CPG, JNJ, PEP
07/16/18-11:55AM EST Market News Video

More Other News for SJM

Company Summary

The J.M. Smucker Company has been committed to offering consumers quality products that bring families together to share memorable meals and moments. Smucker is a leading marketer and manufacturer of fruit spreads, retail packaged coffee, peanut butter, shortening and oils, ice cream toppings, sweetened condensed milk, and natural foods products in North America. Its family of brands includes Smucker's, Folgers, Dunkin' Donuts, Jif, Crisco, Pillsbury, Eagle Brand, R.W. Knudsen Family, Hungry Jack, Café Bustelo, Café Pilon, truRoots, White Lily and Martha White in the United States, along with Robin Hood, Five Roses, Carnation and Bick's in Canada. The Company remains rooted in the Basic Beliefs of Quality, People, Ethics, Growth and Independence established by its founder.

Full Company Report for SJM »

Premium Research for SJM

Zacks Rank	▼ Strong Sell 5
Zacks Industry Rank	Bottom 22%(200 out of 255)
Zacks Sector Rank	Bottom 6% (15 out of 16)
Style Scores	C Value | D Growth | F Momentum | D VGM
Earnings ESP	-1.45%
Research Reports for SJM	Analyst | Snapshot

Quote & News
Quote Overview

Quotes & News
Quote Overview
Zacks News
Partner News

Zacks Research
Snapshot
Analyst Report
Style Scores
Detailed Estimates
Comparison to Industry
Zacks Experts View

More Research
Broker Recommendations
Full Company Report
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Key Company Metrics
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Options Greek Montage

Access Zacks Data Feed

Walmart Inc. (WMT)

(Delayed Data from NYSE)

$88.07 USD

-0.12 (-0.14%)

Updated Jul 18, 2018 04:00 PM ET

After-Market: **$88.09** +0.02 (0.02%) 5:34 PM ET

Add to port | Trades from $3

Zacks Rank:
3-Hold

Style Scores:
B Value | B Growth | D Momentum | B VGM

Industry Rank:
Bottom 4%(244 out of 255)

Industry: Retail - Supermarkets

Quote Overview

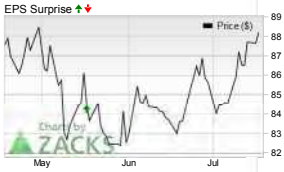
Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	88.33	Earnings ESP	0.00%
Day Low	87.94	Most Accurate Est	1.21
Day High	89.19	Current Qtr Est	1.21
52 Wk Low	75.55	Current Yr Est	4.83
52 Wk High	109.98	Exp Earnings Date	8/16/18
Avg. Volume	7,176,567	Prior Year EPS	4.42
Market Cap	261.25 B	Exp EPS Growth (3-5yr)	6.73%
Dividend	2.08 (2.36%)	Forward PE	18.13
Beta	0.52	PEG Ratio	2.69

Retail-Wholesale » Retail - Supermarkets

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For WMT

All Zacks' Analyst Reports »

News For WMT

- Zacks News for WMT
- Other News for WMT

Should You Buy Microsoft (MSFT) Stock Ahead of Q4 Earnings?
07/18/18-12:03PM EST Zacks

Amazon's Sales Figure to Expand With Prime Day Celebration
07/18/18-9:01AM EST Zacks

WMT: What are Zacks experts saying now?
Zacks Private Portfolio Services

Costco's Impressive Comps Run Likely to Drive Stock Higher
07/18/18-8:56AM EST Zacks

Company News For Jul 18, 2018
07/18/18-8:56AM EST Zacks

Walmart Likely to Venture Into Subscription-Based Streaming
07/18/18-8:44AM EST Zacks

More Zacks News for WMT

Why Microsoft Stock Is Worth Buying Before Earnings
07/18/18-12:55PM EST InvestorPlace

Why Microsoft Stock Is Worth a Buy Before Earnings
07/18/18-12:50PM EST InvestorPlace

Venminder Secures $5 Million Investment to Accelerate Growth of Leading Third-Party Risk Management Solution

Walmart Can't Hold a Candle to Amazon
07/18/18-10:58AM EST InvestorPlace

Buy Amazon Stock on This Temporary, Netflix-Induced Dip
07/18/18-10:32AM EST InvestorPlace

More Other News for WMT

Billion Dollar Secret

The Zacks Rank has been called the Billion Dollar Secret. **Click here to watch the full series. »**

Company Summary

Walmart Inc. is a multinational retail corporation which operates a chain of hypermarkets, discount department stores and grocery stores. Walmart Inc., formerly known as Wal-Mart Stores, Inc., is headquartered in Bentonville, Arkansas.

Full Company Report for WMT »

Premium Research for WMT

Zacks Rank	Hold 3
Zacks Industry Rank	Bottom 4%(244 out of 255)
Zacks Sector Rank	Top 13% (2 out of 16)
Style Scores	B Value | B Growth | D Momentum | B VGM
Earnings ESP	0.00%
Research Reports for WMT	Analyst | Snapshot


ALE US $ C 77.55 -0.16 77.53 / 77.58 1x2
At 10:29 d Vol 30,411 O 77.89 H 78.10 L 77.335 Val 2.361M
T US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
AT&T Inc Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 07/24/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (-0.500)
11) BEst Standard -0.500 07/12/18 0.00%
12) D.A. Davidson & Co James G Moorman 2.000 04/27/16 500.00%
13) Raymond James Frank G Louthan IV 4.000 06/01/15 900.00%
14) Argus Research Corp Joseph F Bonner 5.000 01/31/17 1000.00%
15) William Blair & Co James D Breen Jr -- 11/28/16 --
16) Wells Fargo Securities Jennifer M Fritzsche -- 07/12/18 --
17) Deutsche Bank Brett Feldman -- 07/17/13 --
18) Jefferies Michael L McCormack -- 06/03/15 --
19) BofAML David W Barden -- 10/20/15 --
20) KeyBanc Capital Markets Michael Bowen -- 01/29/14 --
21) Morningstar, Inc Allan C Nichols -- 06/21/18 --
*Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:45:25


ALE US $ C 77.53 -0.18 77.53/77.58T 1x1
At 10:30 d Vol 30,511 O 77.89N H 78.10Y L 77.335D Val 2.368M
CHD US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Church & Dwight Co Inc Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 08/02/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (10.243)
11) BEst Standard 10.243 06/08/18 0.00%
12) SunTrust Robinson Humphrey William B Chappell -- 08/02/13 --
13) William Blair & Co Jon R Andersen -- 11/03/16 --
14) Wells Fargo Securities Bonnie Herzog -- 05/03/18 --
15) Oppenheimer & Co Rupesh D Parikh -- 05/03/18 --
16) BofAML Olivia Tong -- 06/08/18 --
17) Morningstar, Inc Erin Lash -- 05/09/18 --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:45:43


ALE US $ C 77.53 -0.18 77.53/77.58T 1x1
At 10:30 d Vol 30,511 O 77.89N H 78.10Y L 77.335D Val 2.368M
KO US Equity
90) Actions
97) Output to Excel
Earnings & Estimates: Analyst Distribution
Coca-Cola Co/The
Period 2018* - Yr
Source Standard
Cur CAD
Earnings & Estimates Next Announcement 07/25/18
Measure LTG (%)
Deviation Filter 0 %
As of 07/13/18
Firm
Analyst
Estimate
Date
Deviation from Standard (8.247)
11) Gabelli & Co Damian A Witkowski 7.000 02/26/16 -15.12%
12) Argus Research Corp John D Staszak 8.000 11/04/16 -2.99%
13) BEst Standard 8.247 07/02/18 0.00%
14) BofAML Bryan D Spillane -- 07/02/18 --
15) Wells Fargo Securities Bonnie Herzog -- 06/13/18 --
16) Morningstar, Inc Sonia Vora -- 05/17/18 --
17) Susquehanna Financial Pablo Zuanic -- 03/07/16 --
18) RBC Capital Markets Nik Modi -- 03/23/17 --
19) BMO Capital Markets Amit Sharma -- 10/26/16 --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000
Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:46:01


ALE US $ C 77.53 -0.18 77.53/77.58T 1x1
At 10:30 d Vol 30,511 O 77.89N H 78.10Y L 77.335D Val 2.368M
FRT US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Federal Realty Investment Trust Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 08/01/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (4.398)
11) BEst Standard 4.398 07/06/18 0.00%
12) D.A. Davidson & Co James O Lykins 5.000 06/25/18 13.70%
13) Wells Fargo Securities Jeffrey J Donnelly -- 05/16/18 --
14) Evercore ISI Steve Sakwa -- 07/06/18 --
15) Morningstar, Inc Brad Schwer -- 04/02/18 --
16) SunTrust Robinson Humphrey Ki Bin Kim -- 07/28/14 --
17) BofAML Jeffrey Spector -- 05/11/18 --
*Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:46:19


ALE US $ C ↑ 77.605 -0.105 77.57 / 77.64T 3 x 1
At 10:32 d Vol 31,711 O 77.89N H 78.10Y L 77.335D Val 2.461M
K US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Kellogg Co Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 08/02/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (8.023)
11) Argus Research Corp David E Coleman 6.000 11/09/16 -25.22%
12) BEst Standard 8.023 07/03/18 0.00%
13) Susquehanna Financial Pablo Zuanic -- 03/07/16 --
14) Morningstar, Inc Erin Lash -- 05/15/18 --
15) Deutsche Bank Mario Contreras -- 11/14/16 --
16) Wells Fargo Securities John Joseph Baumgartner -- 05/04/18 --
17) BofAML Bryan D Spillane -- 07/02/18 --
18) Societe Generale Warren L Ackerman -- 02/12/16 --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
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ALE US $ C ↑ 77.605 -0.105 77.57 /77.64T 3x1
At 10:32 d Vol 31,711 O 77.89N H 78.10Y L 77.335D Val 2.461M
KMB US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Kimberly-Clark Corp Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 07/24/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (14.070)
11) Argus Research Corp John D Staszak 8.000 01/25/17 -43.14%
12) BEst Standard 14.070 06/14/18 0.00%
13) Berenberg Rosie Edwards -- 01/24/18 --
14) BofAML Olivia Tong -- 06/14/18 --
15) Janney Montgomery Scott LLC John San Marco -- 09/19/13 --
16) Wells Fargo Securities Bonnie Herzog -- 04/23/18 --
17) RBC Capital Markets Nik Modi -- 10/13/16 --
18) Morningstar, Inc Erin Lash -- 04/25/18 --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:47:24


ALE US $ C ↑ 77.64 -0.07 77.57 / 77.64Y 3x2
At 10:32 d Vol 31,811 O 77.89N H 78.10Y L 77.335D Val 2.469M
PG US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Procter & Gamble Co/The Period 2018* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 07/31/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (7.298)
11) BEst Standard 7.298 06/08/18 0.00%
12) Argus Research Corp John D Staszak 8.000 01/23/17 9.63%
13) William Blair & Co Jon R Andersen -- 10/25/16 --
14) Janney Montgomery Scott LLC John San Marco -- 09/19/13 --
15) Wells Fargo Securities Bonnie Herzog -- 05/20/18 --
16) Morningstar, Inc Erin Lash -- 04/25/18 --
17) RBC Capital Markets Nik Modi -- 11/28/16 --
18) Berenberg James Targett -- 02/27/18 --
19) BofAML Olivia Tong -- 06/08/18 --
20) Canaccord Genuity Alicia Forry -- 06/18/15 --
+Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:47:56


ALE US $ C ↑ 77.64 -0.07 77.57 /77.64T 2x2
At 10:32 d Vol 31,811 O 77.89N H 78.10Y L 77.335D Val 2.469M
SJM US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
JM Smucker Co/The Period 2019* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 08/21/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18
Firm Analyst Estimate Date Deviation from Standard (7.000)
11) BEst Standard 7.000 06/08/18 0.00%
12) Gabelli & Co Sarah Donnelly 8.500 06/05/15 21.43%
13) Susquehanna Financial Pablo Zuanic -- 03/07/16 --
14) Deutsche Bank Mario Contreras -- 10/31/16 --
15) William Blair & Co Jon R Andersen -- 08/23/16 --
16) Wells Fargo Securities John Joseph Baumgartner -- 06/08/18 --
17) Morningstar, Inc Zain Akbari -- 04/19/18 --
18) BofAML Evan Morris -- 05/14/17 --
*Current Period
Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
SN 225688 CDT GMT-5:00 H270-309-1 13-Jul-2018 10:48:37

ALE US $ C ↑ 77.58 -0.13 77.49 / 77.59T 3 x 1
At 10:42 d Vol 34,259 O 77.89N H 78.10Y L 77.335D Val 2.659M
GMT US Equity 90) Actions 97) Output to Excel Earnings & Estimates: Analyst Distribution
Walmart Inc Period 2019* - Yr Source Standard Cur CAD
Earnings & Estimates Next Announcement 08/16/18
Measure LTG (%) Deviation Filter 0 % As of 07/13/18

	Firm	Analyst	Estimate	Date	Deviation from Standard (6.830)
11)	Argus Research Corp	Christopher Graja	2.000	01/24/17	-70.72%
12)	BEst Standard		6.830	07/03/18	0.00%
13)	Cleveland Research Company	Scott Bender	--	07/03/18	--
14)	Jefferies	Daniel Binder	--	01/18/17	--
15)	Wells Fargo Securities	Edward Joseph Kelly Jr	--	05/17/18	--
16)	Morningstar, Inc	John Brick	--	06/25/18	--
17)	William Blair & Co	Mark R Miller	--	10/14/15	--
18)	Oppenheimer & Co	Rupesh D Parikh	--	05/17/18	--
19)	BofAML	Robert Ohmes	--	05/17/18	--
20)	Cowen	Oliver Chen	--	05/09/17	--
21)	Telsey Advisory Group	Joseph I Feldman	--	10/07/16	--

+Current Period Estimates in gray have been excluded from consensus.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2018 Bloomberg Finance L.P.
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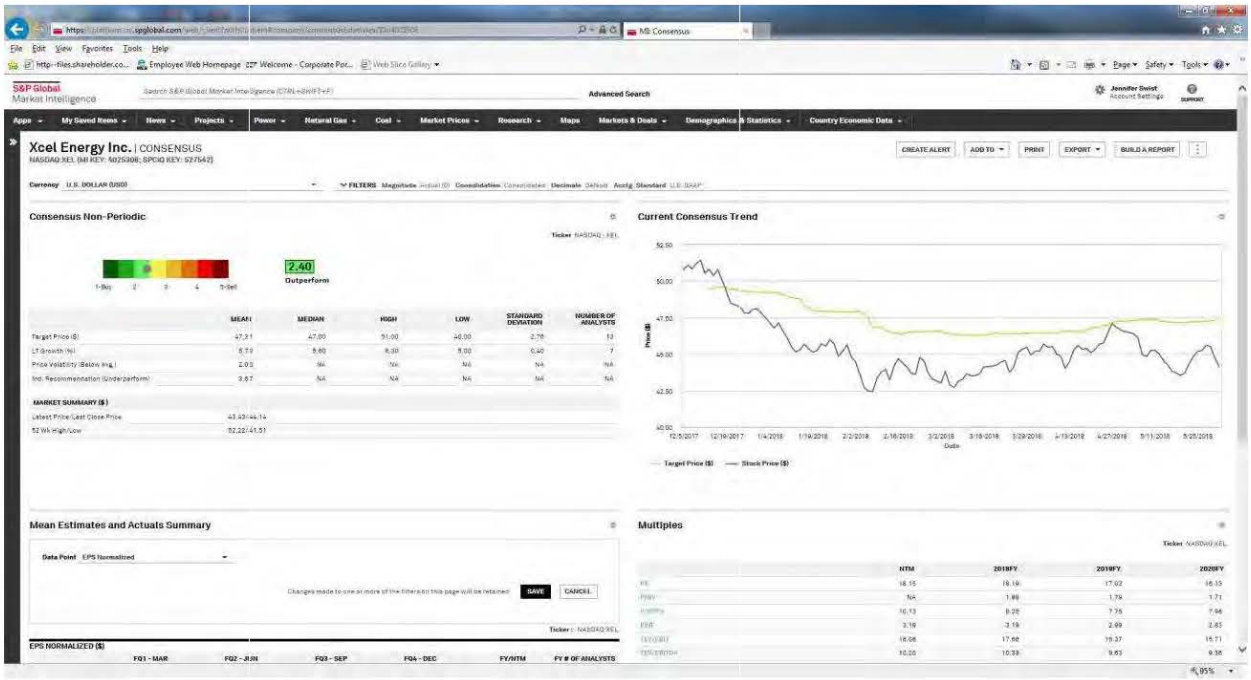
S&P Global
Market Intelligence
Xcel Energy Inc. | CONSENSUS
CREATE ALERT
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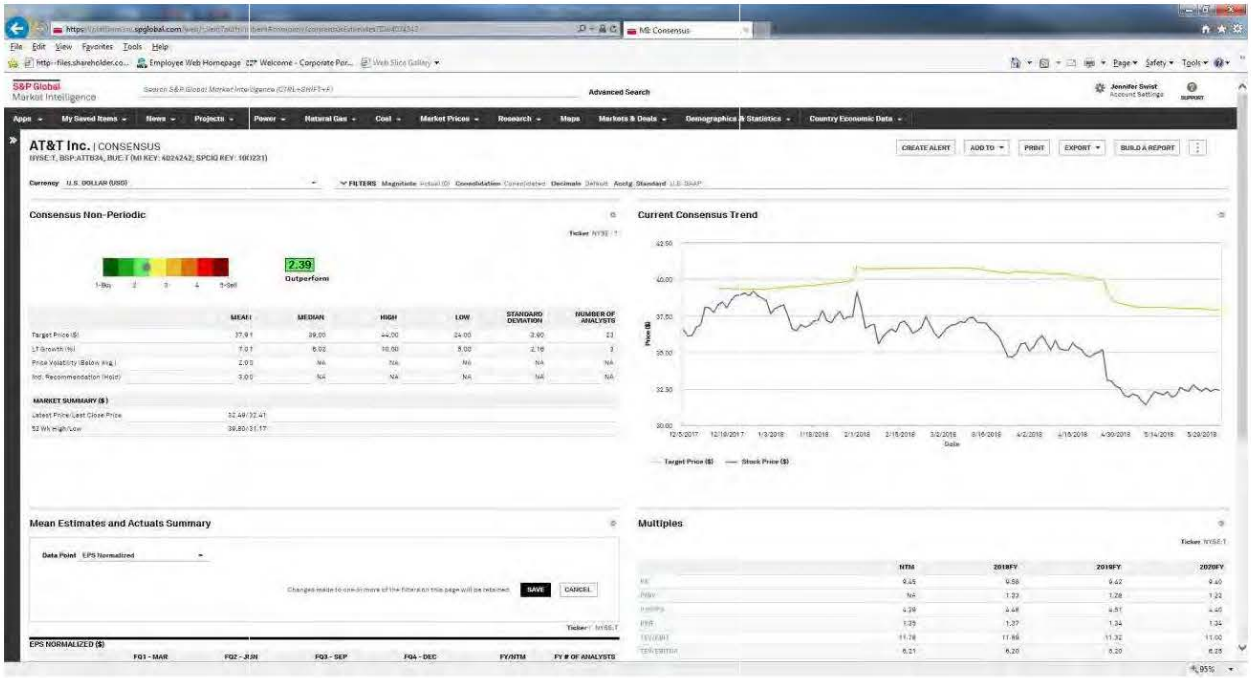
BUILD A REPORT
Consensus Non-Periodic
2.40
Outperform
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples


S&P Global
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AT&T Inc. | CONSENSUS
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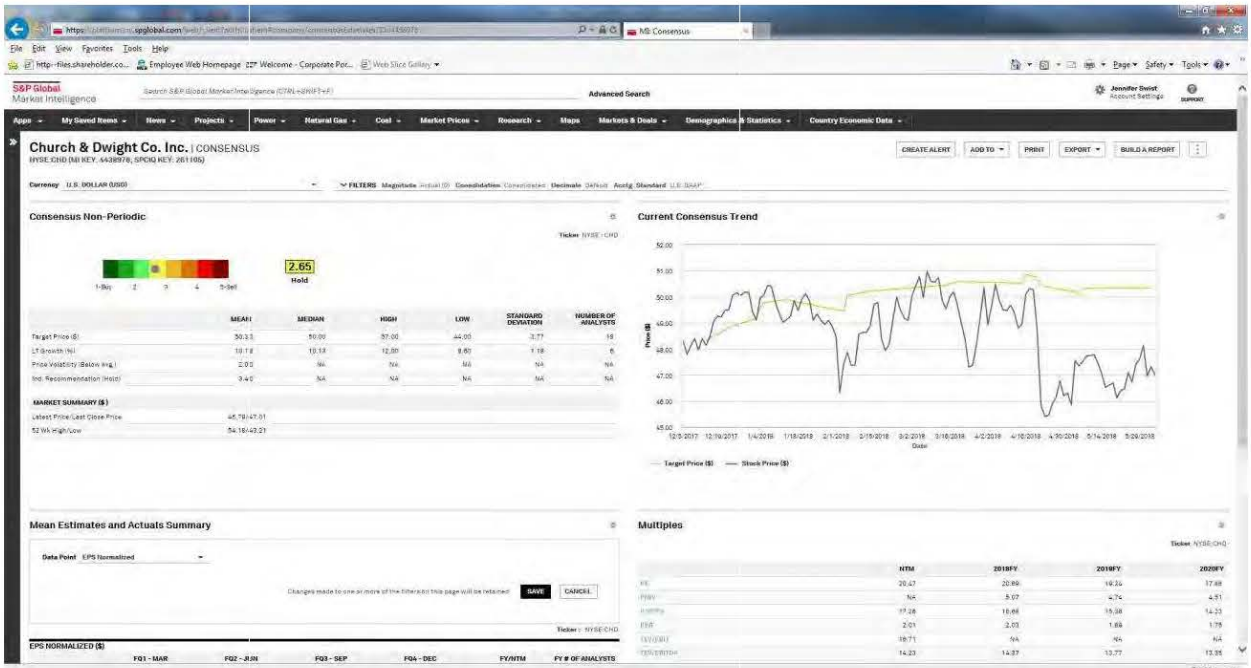
Consensus Non-Periodic
2.39
Outperform
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples


S&P Global
Market Intelligence
Church & Dwight Co. Inc. | CONSENSUS
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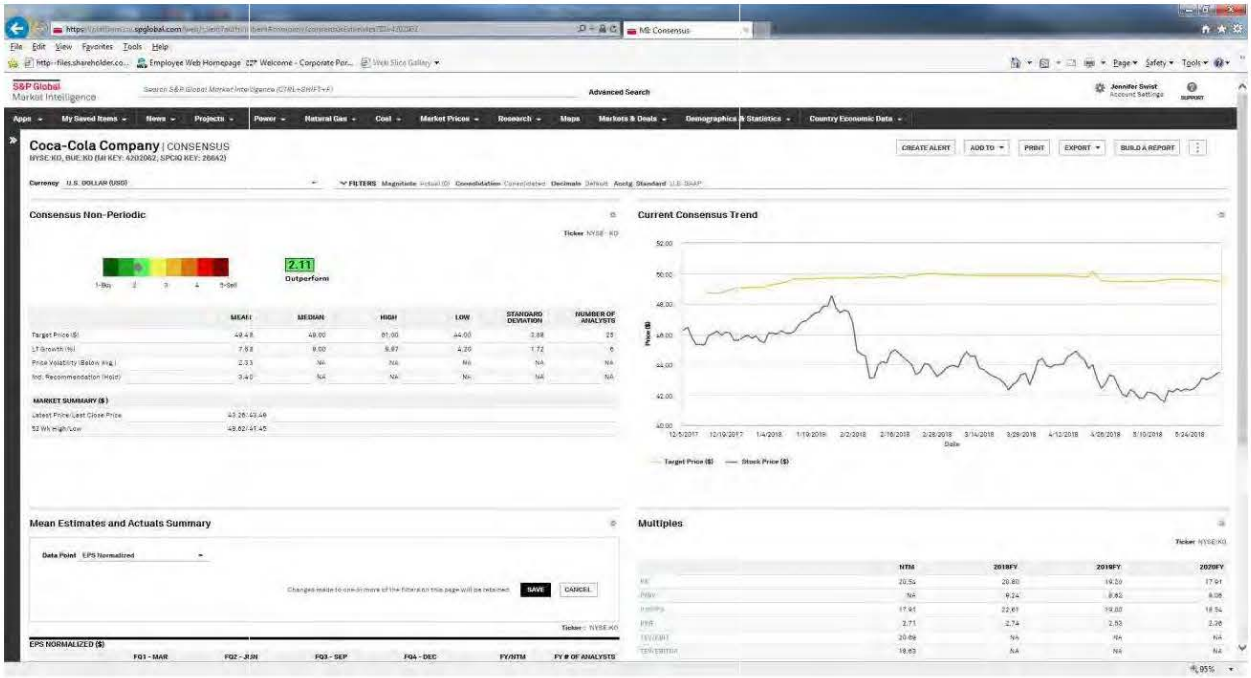
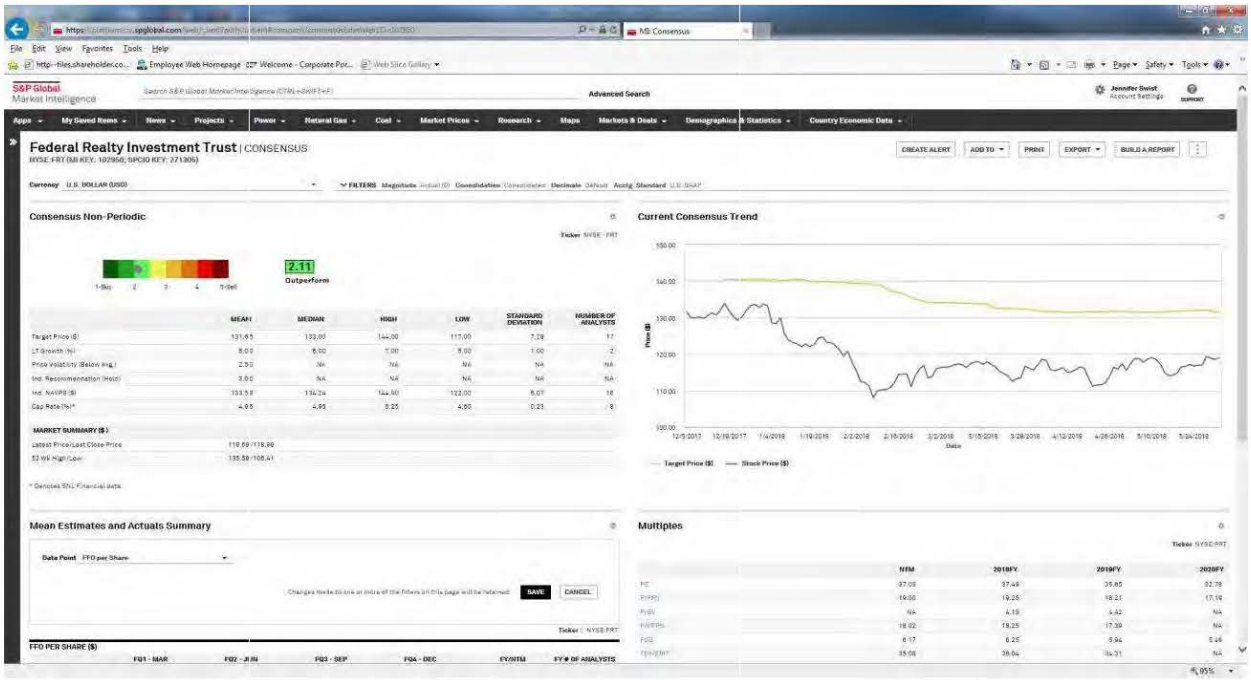
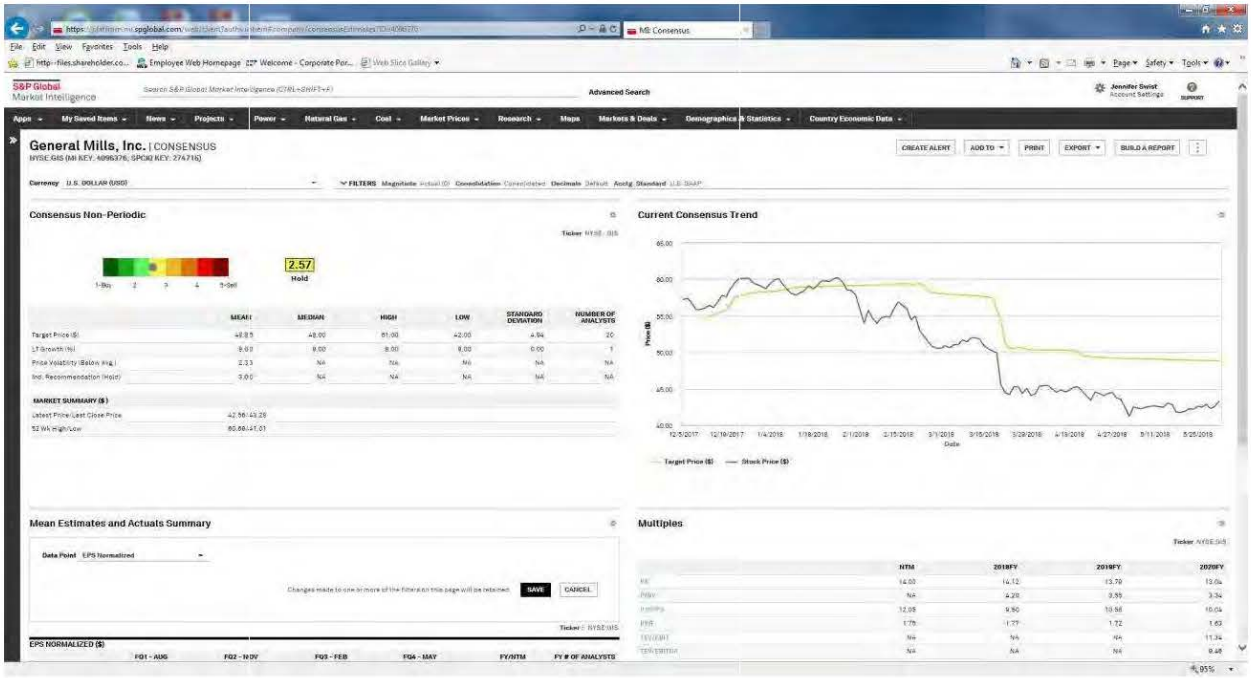
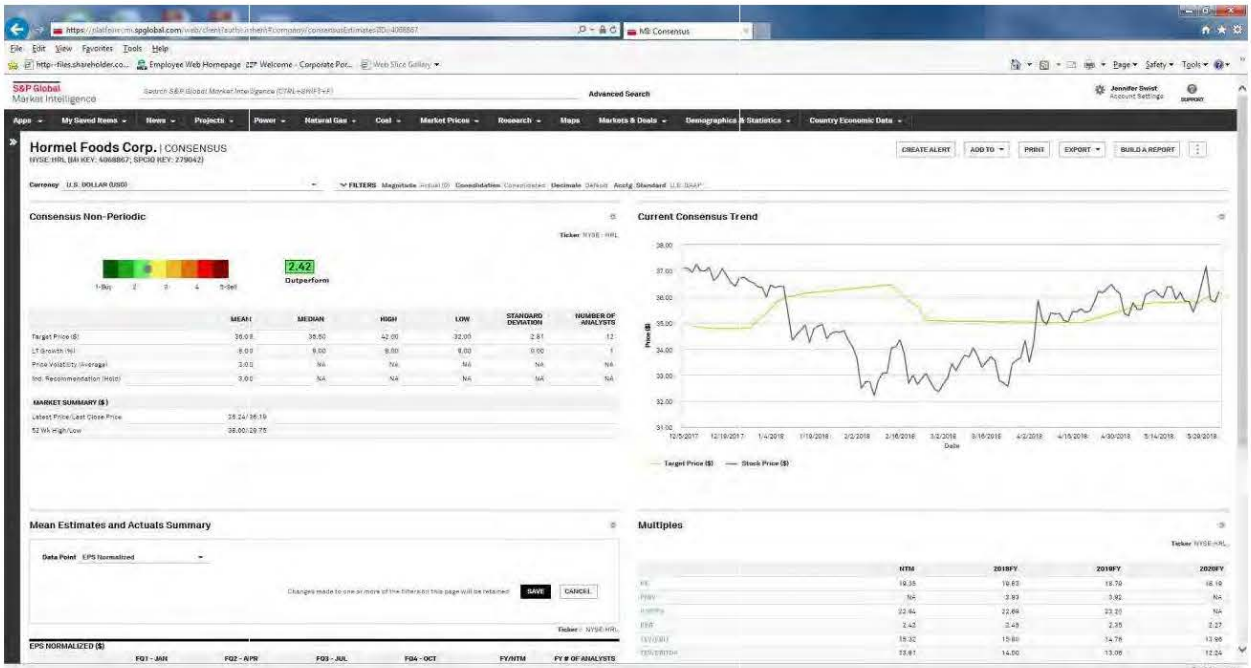
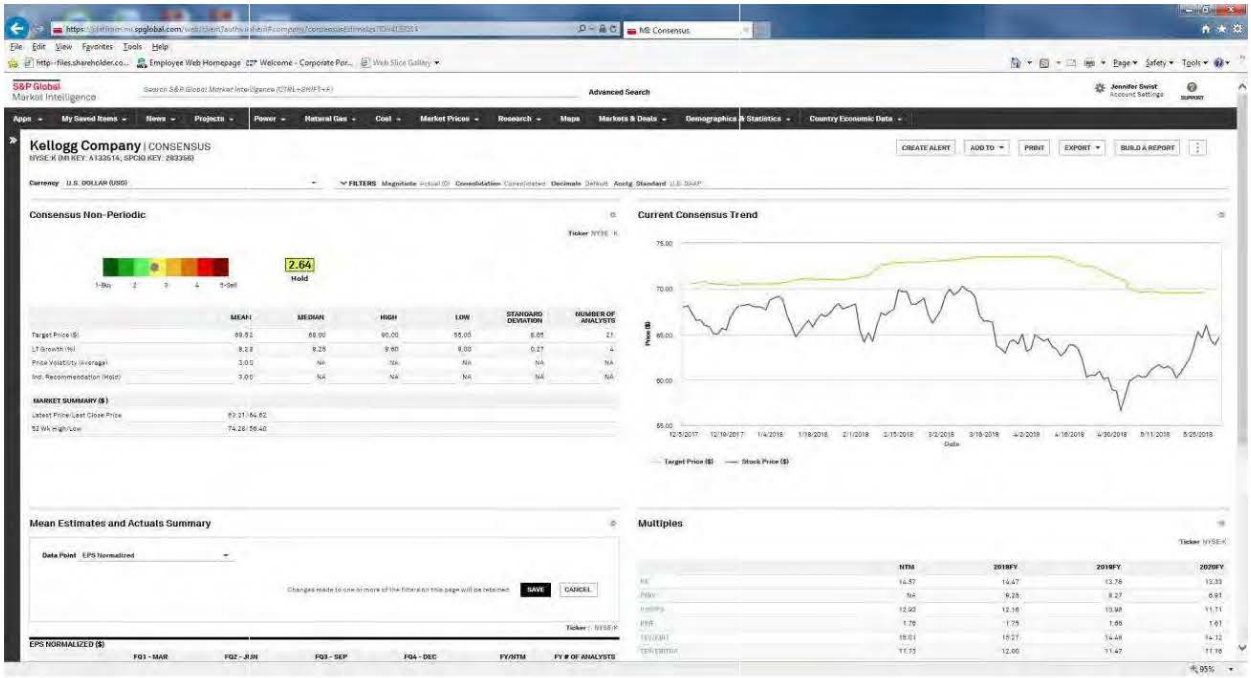
Hold
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples

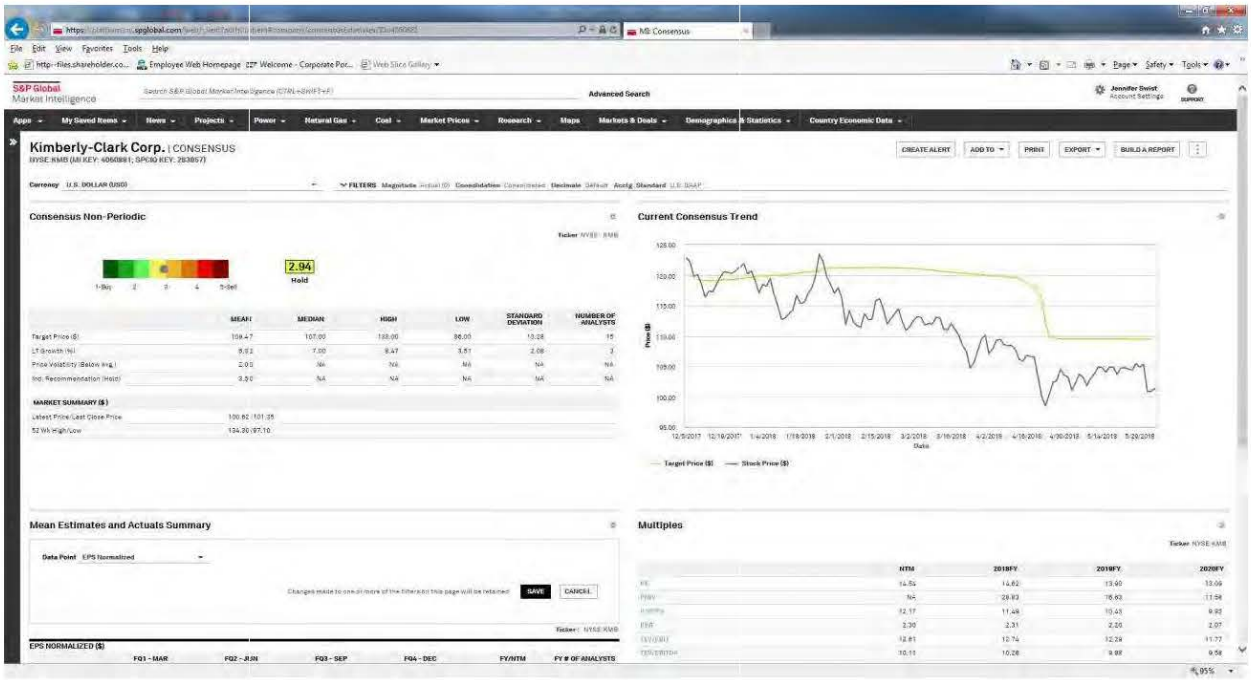

S&P Global
Market Intelligence
Coca-Cola Company | CONSENSUS
Consensus Non-Periodic
2.11
Outperform
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples


S&P Global
Market Intelligence
Federal Realty Investment Trust | CONSENSUS
Consensus Non-Periodic
2.11
Outperform
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples


S&P Global
Market Intelligence
General Mills, Inc. | CONSENSUS
Consensus Non-Periodic
2.57
Hold
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples


S&P Global
Market Intelligence
Hormel Foods Corp. | CONSENSUS
Consensus Non-Periodic
2.42
Outperform
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples


S&P Global
Market Intelligence
Kellogg Company | CONSENSUS
Consensus Non-Periodic
2.64
Hold
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples


S&P Global
Market Intelligence
Kimberly-Clark Corp. | CONSENSUS
Consensus Non-Periodic
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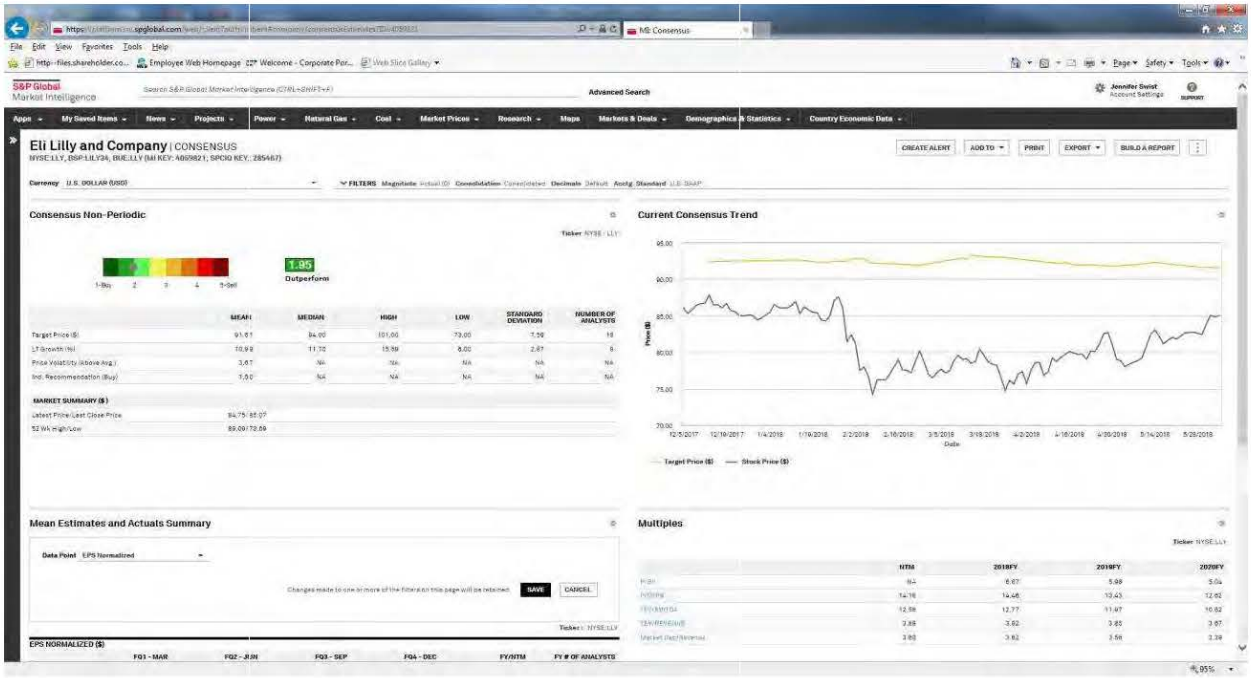
Hold
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples
EPS NORMALIZED ($)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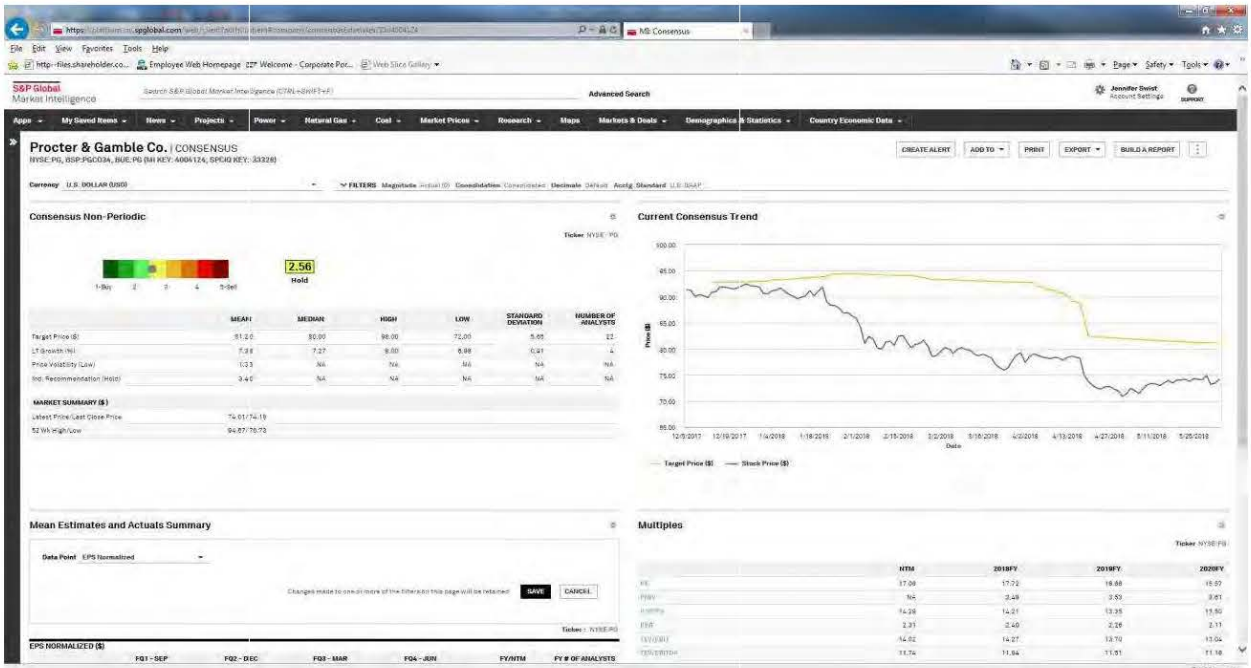
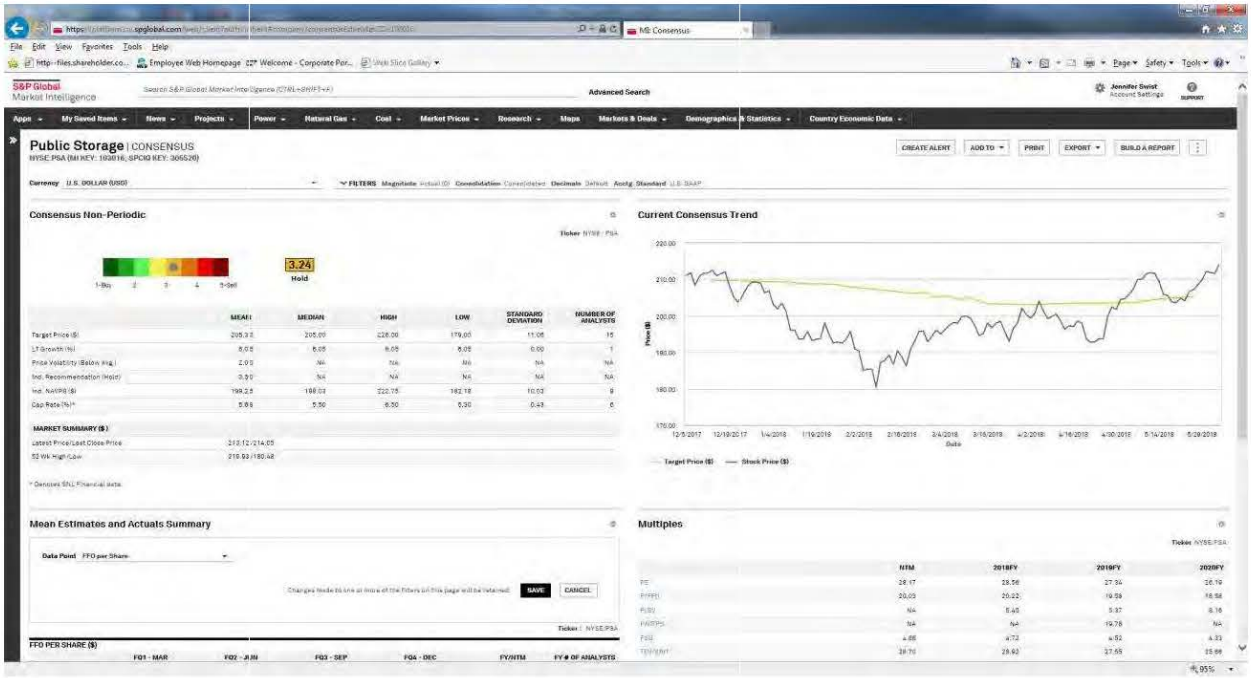
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples
EPS NORMALIZED ($)


S&P Global
Market Intelligence
Procter & Gamble Co. | CONSENSUS
Consensus Non-Periodic
2.56
Hold
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples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Market Intelligence
Public Storage | CONSENSUS
Consensus Non-Periodic
3.24
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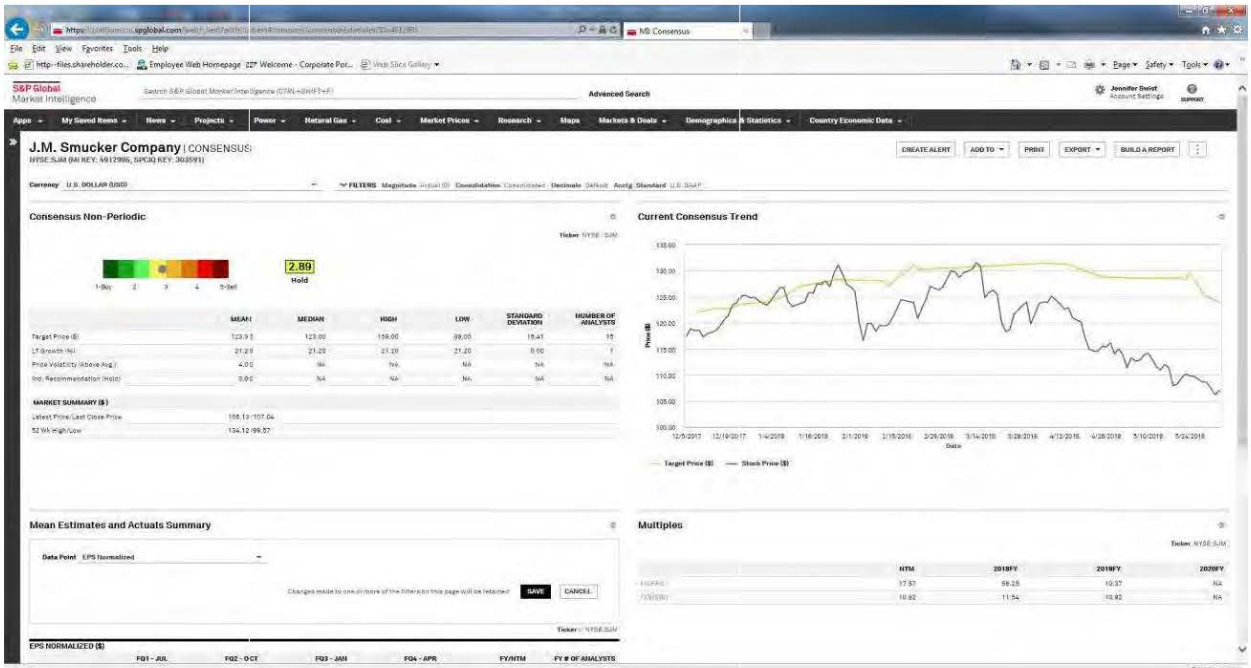
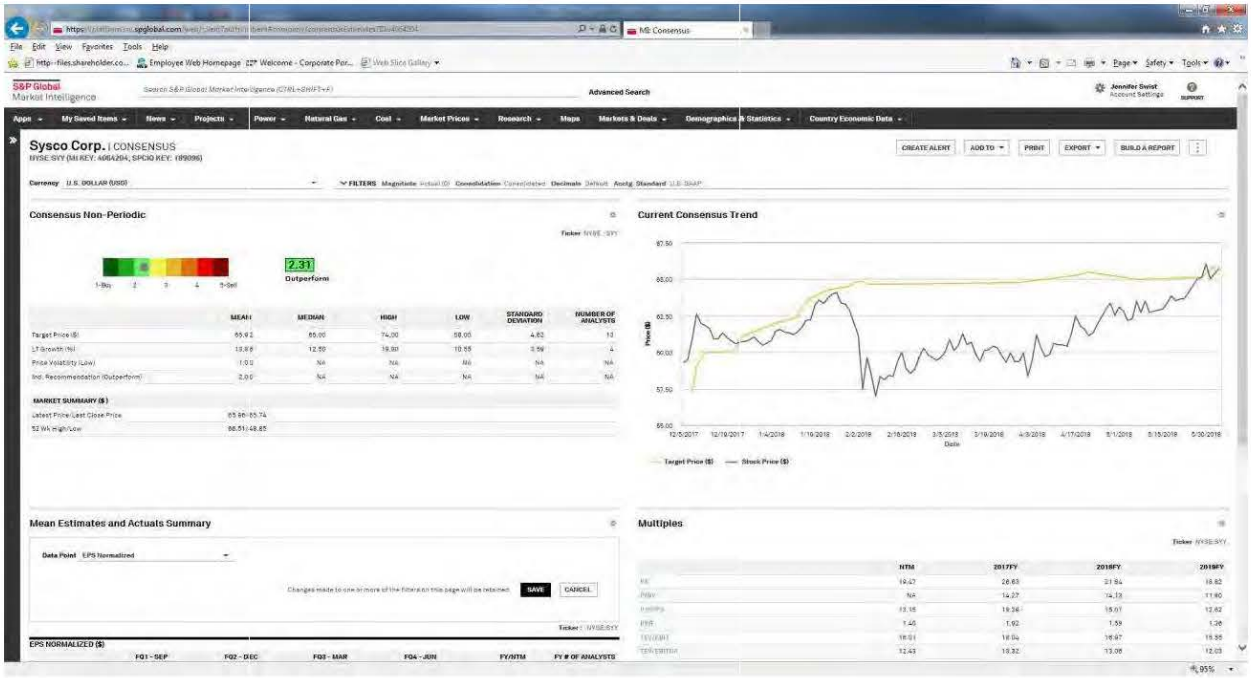
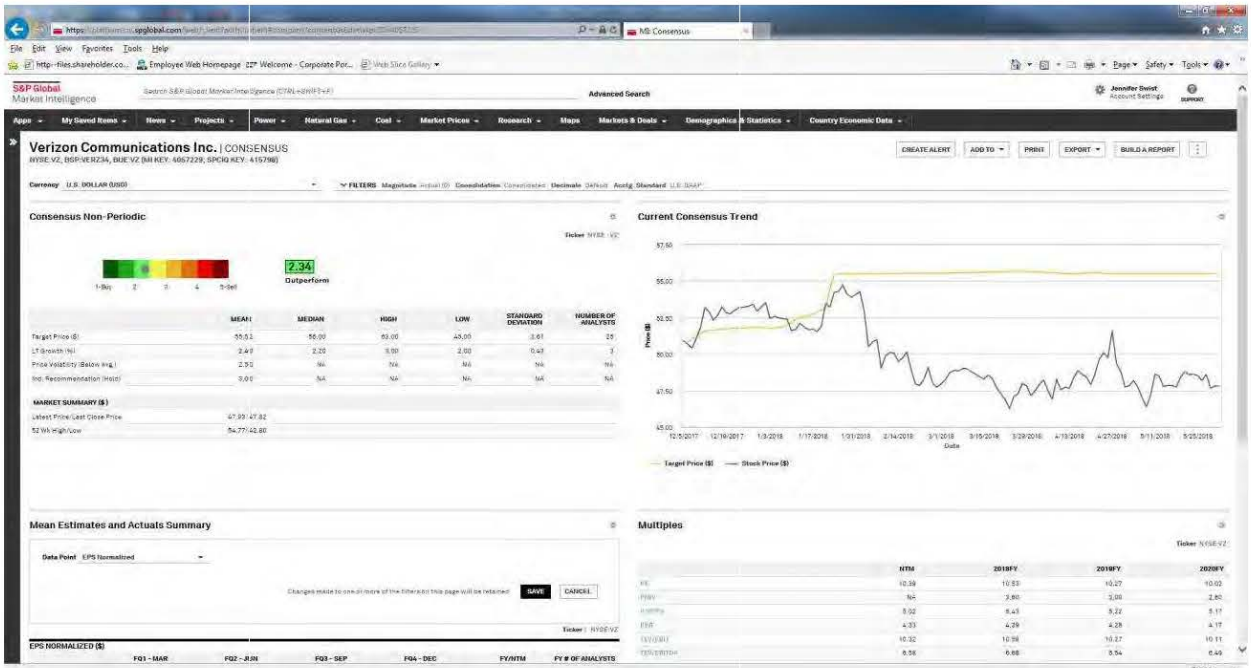
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples


S&P Global
Market Intelligence
J.M. Smucker Company | CONSENSUS
Consensus Non-Periodic
2.89
Hold
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples


S&P Global
Market Intelligence
Sysco Corp. | CONSENSUS
Consensus Non-Periodic
2.31
Outperform
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples


S&P Global
Market Intelligence
Advanced Search
Verizon Communications Inc. | CONSENSUS
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2.34
Outperform
Current Consensus Trend
Mean Estimates and Actuals Summary
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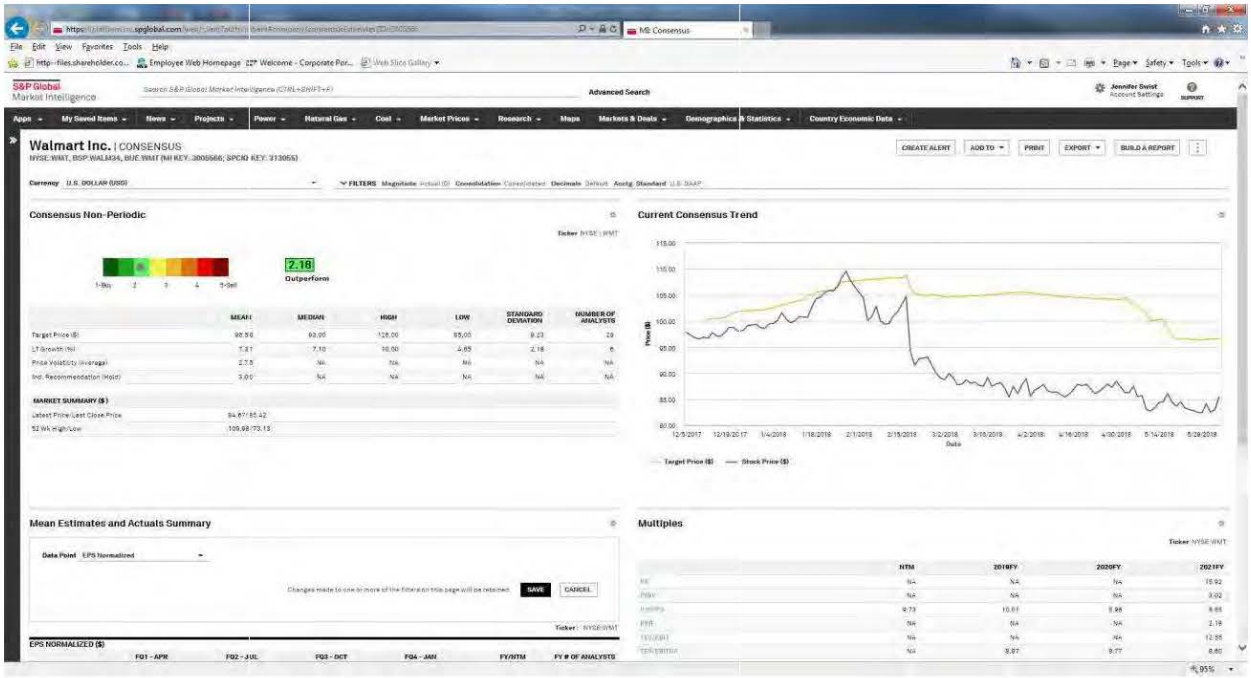
S&P Global
Market Intelligence
Advanced Search
Walmart Inc. | CONSENSUS
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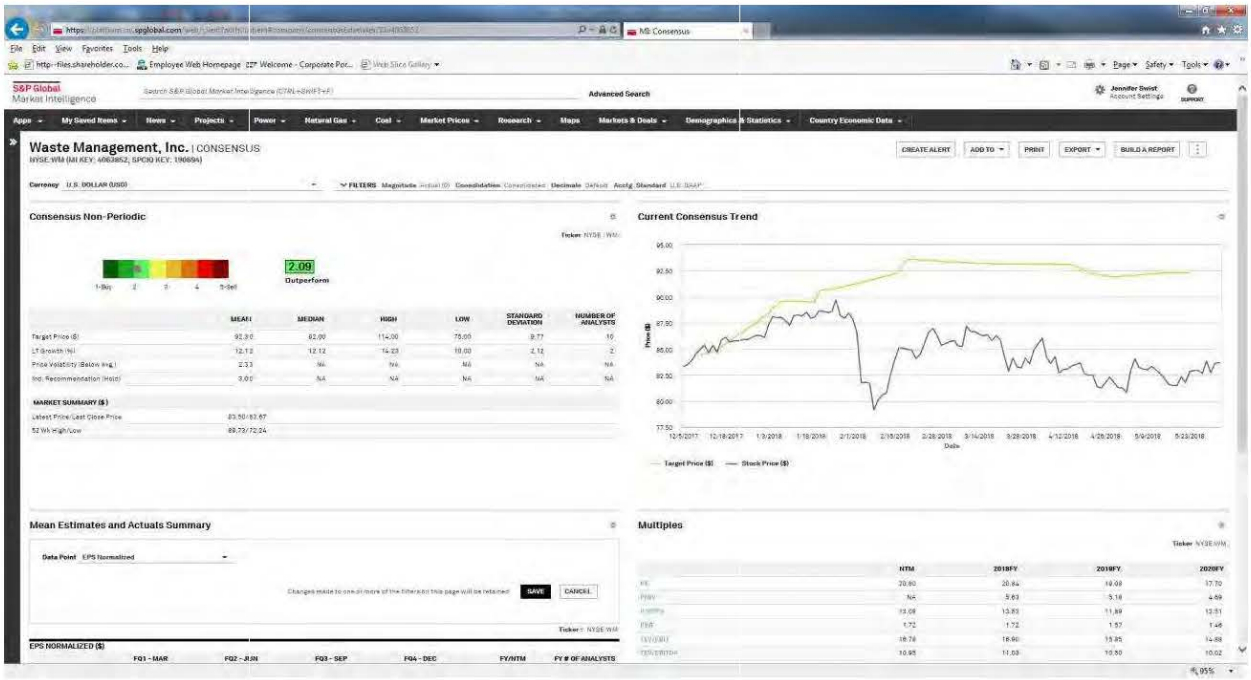
Consensus Non-Periodic
2.18
Outperform
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples


S&P Global
Market Intelligence
Waste Management, Inc. | CONSENSUS
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BUILD A REPORT
Consensus Non-Periodic
2.09
Outperform
Current Consensus Trend
Mean Estimates and Actuals Summary
Multiples

AT&T Inc (NY E:T)

Add to Watch List | Set Alert

31.71
Delayed Data
As of 4 00pm ET

-0.05 / -0.16%
Today's Change

31.17 — 39.80
52-Week Range

-18.44%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | hareholders | Competitors

Latest T News | Press Releases

Shoker Investment Counsel, Inc. Buys The Kraft Heinz Co, AT&T Inc, Schlumberger, Sell...
4 39pm / GuruFocus News - Paid Partner Content

World sset Management Inc Buys Broadcom Inc, SPDR S&P 500, iShares Core S&P Total U....
4 39pm / GuruFocus News - Paid Partner Content

Granite Springs Asset Management LLC Buys Jacobs Engineering Group Inc, Eagle Materia...
4 39pm / GuruFocus News - Paid Partner Content

Ericsson (ERIC) Q2 Earnings Miss Estimates, Revenues Beat
10 18am / Zacks.com - Paid Partner Content

The Zacks Analyst Blog Highlights: AT&T, Home Depot, Cisco, Ford and Mondelez
7 41am / Zacks.com - Paid Partner Content

Nelson Roberts Investment dvisors, LLC Buys iShares Core S&P Small-Cap, Vanguard FTS...
Jul 17 / GuruFocus ews - Paid Partner Content

T. Rowe Price Equity Fund's Top Trades in 2nd Quarter
Jul 17 / GuruFocus ews - Paid Partner Content

Is Joining Forces the Only Path to Survival for Tribune (TRCO) and Sinclair (SBGI)?
Jul 17 / Zacks.com - Paid Partner Content

US Market Green on Tuesday
Jul 17 / GuruFocus ews - Paid Partner Content

Top Research Reports for T&T, Home Depot & Cisco
Jul 17 / Zacks.com - Paid Partner Content

ee All T News

Today's Trading

Previous close	31.76
oday's open	31.82
Day's range	31.70 - 31.95
Volume	44,545,950
Average volume (3 months)	37,169,692
Market cap	$197.7B

Data as of 4:00pm E 07/18/2018

Growth & Valuation

Earnings growth (last year)	+126.91%
Earnings growth (this year)	+11.78%
Earnings growth (next 5 years)	+5.00%
Revenue growth (last year)	-1.98%
P/E ratio	6.4
Price/ ales	1.50
Price/Book	1.40

Competitors

	Today's change	Today's % change
VZ Verizon	-0.29	-0.56%
TEF elefonica	-0.02	-0.23%
OR N Orange SA	-0.12	-0.72%
BCE Bce Inc	-0.13	-0.31%

Data as of 4:02pm E 07/18/2018

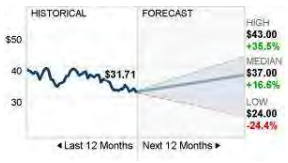
Financials

ext reporting date	July 25, 2018
EP forecast (this quarter)	$0.89
Annual revenue (last year)	$160.5B
Annual profit (last year)	$29.5B
et profit margin	18.34%

Profile

Sector	Communications
Industry	Major Telecommunications
Chairman President & Chief Executive Officer	Randall L. Stephenson
CFO Principal Accounting Officer & enior EVP	John J. Stephens
Corporate headquarters	Dallas, Texas

Forecasts



CNN Money Companies Markets Tech Media U.S.

Church & Dwight Co Inc (NYSE:CHD)

Add to Watch List | Set Alert

53.79
Delayed Data
As of 4:02pm ET

-0.98 / -1.79%
Today's Change

43.21 | 55.94
52-Week Range

+7.22%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest CHD News | Press Releases

Boston Advisors Llc Buys Alphabet Inc, Broadridge Financial Solutions Inc, WellCare H...
1:39pm / GuruFocus News - Paid Partner Content

Church & Dwight Hits 52-Week High: Is There More Room to Run?
Jul 13 / Zacks.com - Paid Partner Content

Will Segment Sales Growth Drive PepsiCo's (PEP) Q2 Earnings?
Jul 05 / Zacks.com - Paid Partner Content

See All CHD News

Today's Trading

Previous close	54.77
Today's open	54.54
Day's range	53.52 - 54.75
Volume	2,306,824
Average volume (3 months)	2,277,490
Market cap	$11.5B

Data as of 4:02pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+65.71%
Earnings growth (this year)	+17.06%
Earnings growth (next 5 years)	+10.00%
Revenue growth (last year)	+8.10%
P/E ratio	17.8
Price/Sales	3.40
Price/Book	5.25

Competitors

	Today's change	Today's % change
UN Unilever	-0.08	-0.14%
PG Procter & Gamble	-0.31	-0.39%

Data as of 4:02pm ET, 07/18/2018

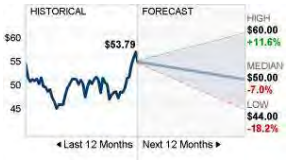
Financials

Next reporting date	August 2, 2018
EPS forecast (this quarter)	$0.47
Annual revenue (last year)	$3.8B
Annual profit (last year)	$743.4M
Net profit margin	19.69%

Profile

Sector	Consumer Non-Durables
Industry	Household/Personal Care
President, CEO & Non-Independent Director	Matthew Thomas Farrell
Executive Vice President-Global Operations	Rick Spann
Corporate headquarters	Ewing, New Jersey

Forecasts



CNN Money Companies Markets Tech Media U.S.

Coca-Cola Co (NYSE:KO)

Add to Watch List | Set Alert

45.12
Delayed Data
As of 4:00pm ET

-0.13 / -0.29%
Today's Change

41.45 | 48.62
52-Week Range

-1.66%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest KO News | Press Releases

PepsiCo: Shifting Focus Creating Investment Opportunity
2:14pm / GuruFocus News - Paid Partner Content

Smithbridge Asset Management Inc Buys Alphabet Inc, Kinder Morgan Inc, Schwab U.S. .....
1:39pm / GuruFocus News - Paid Partner Content

Factors Setting the Tone for Coca-Cola's (KO) Q2 Earnings
11:09am / Zacks.com - Paid Partner Content

Warren Buffett may soon join the stock buyback party
11:02am / CNNMoney.com

US Market Indexes Close Higher on Tuesday
Jul 17 / GuruFocus News - Paid Partner Content

Verus Financial Partners, Inc. Buys Facebook Inc, iShares Core Growth Allocation, The...
Jul 16 / GuruFocus News - Paid Partner Content

The One Stock Warren Buffett and Ken Fisher Keeps Buying in a Significantly Overvalue...
Jul 13 / GuruFocus News - Paid Partner Content

Chessman Wealth Strategies RIA Buys SPDR S&P 600 Small Cap Growth ETF (based on S&P S...
Jul 13 / GuruFocus News - Paid Partner Content

The One Stock Warren Buffett and Ken Fisher Keep Buying in a Significantly Overvalued...
Jul 13 / GuruFocus News - Paid Partner Content

Stock Market News For Jul 11, 2018
Jul 11 / Zacks.com - Paid Partner Content

See All KO News

Today's Trading

Previous close	45.25
Today's open	45.19
Day's range	44.84 - 45.29
Volume	7,351,313
Average volume (3 months)	11,834,847
Market cap	$178.9B

Data as of 4:00pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	-80.54%
Earnings growth (this year)	+9.76%
Earnings growth (next 5 years)	+7.75%
Revenue growth (last year)	-15.38%
P/E ratio	145.5
Price/Sales	5.67
Price/Book	10.49

Competitors

	Today's change	Today's % change
PEP Pepsi	-0.05	-0.04%
MNST Monster Beverage Cor...	-1.14	-1.83%
FMX Fomento Economico Me...	+0.39	+0.41%
CCE Coca-Cola European P...	-0.12	-0.29%

Data as of 4:15pm ET, 07/18/2018

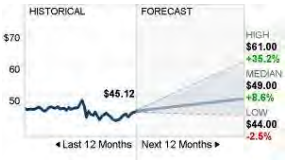
Financials

Next reporting date	July 25, 2018
EPS forecast (this quarter)	$0.61
Annual revenue (last year)	$35.0B
Annual profit (last year)	$1.2B
Net profit margin	3.37%

Profile

Sector	Consumer Non-Durables
Industry	Beverages: Non-Alcoholic
President, Chief Executive Officer & Director	James Quincey
CFO, President-Enabling Services & Executive VP	Kathy N. Waller
Corporate headquarters	Atlanta, Georgia

Forecasts



Federal Realty Investment Trust (NYSE:FRT)

Add to Watch List | Set Alert

123.16
Delayed Data
As of 4:02pm ET

-0.82 / -0.66%
Today's Change

106.41 | 135.59
52-Week Range

-7.27%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest FRT News | Press Releases

No recent news for Federal Realty Investment Trust.

Today's Trading

Previous close	123.98
Today's open	123.72
Day's range	122.32 - 124.49
Volume	342,689
Average volume (3 months)	426,906
Market cap	$8.6B

Data as of 4:02pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	-4.97%
Earnings growth (this year)	-20.94%
Earnings growth (next 5 years)	+4.60%
Revenue growth (last year)	+6.61%
P/E ratio	42.8
Price/Sales	11.25
Price/Book	4.07

Competitors

	Today's change	Today's % change
MGP MGM Growth Propertie...	+0.05	+0.16%
SLG SL Green Realty Corp	+0.41	+0.41%
EXR Extra Space Storage ...	-0.29	-0.31%
KIM Kimco Realty Corp	-0.03	-0.18%

Data as of 4:02pm ET, 07/18/2018

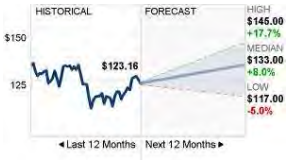
Financials

Next reporting date	August 2, 2018
EPS forecast (this quarter)	$0.77
Annual revenue (last year)	$852.6M
Annual profit (last year)	$211.3M
Net profit margin	24.79%

Profile

Sector	Finance
Industry	Real Estate Investment Trusts
President, Chief Executive Officer & Trustee	Donald C. Wood
Chief Operating Officer & VP-Western Coast	Jan Sweetnam
Corporate headquarters	Rockville, Maryland

Forecasts



Kellogg Co (NYSE:K)

Add to Watch List | Set Alert

68.96
Delayed Data
As of 4:01pm ET

-1.69 / -2.39%
Today's Change

56.40 | 72.24
52-Week Range

+1.44%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest K News | Press Releases

How companies changepackagingwithout alienating customers
Jul 15 / CNNMoney.com

Cold comfort: ConAgra buys Birds Eye maker for $10.9 billion
Jun 27 / CNNMoney.com

Campbell Soup is piping hot after reported interest from Kraft Heinz
Jun 25 / CNNMoney.com

'Stranger Things' caused an Eggo boom. Now sales are waffling
Jun 20 / CNNMoney.com

See All K News

Today's Trading

Previous close	70.65
Today's open	70.71
Day's range	68.70 - 70.80
Volume	2,385,162
Average volume (3 months)	2,839,862
Market cap	$21.4B

Data as of 4:01pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+84.98%
Earnings growth (this year)	+9.77%
Earnings growth (next 5 years)	+8.00%
Revenue growth (last year)	-0.65%
P/E ratio	16.7
Price/Sales	1.84
Price/Book	9.63

Competitors

	Today's change	Today's % change
POST Post Holdings Inc	-0.04	-0.05%

Data as of 4:02pm ET, 07/18/2018

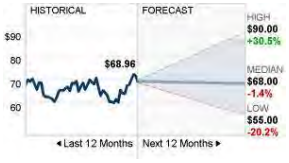
Financials

Next reporting date	August 2, 2018
EPS forecast (this quarter)	$1.05
Annual revenue (last year)	$12.9B
Annual profit (last year)	$1.3B
Net profit margin	9.82%

Profile

Sector	Consumer Non-Durables
Industry	Food: Major Diversified
Chairman & Chief Executive Officer	Steven A. Cahillane
Chief Financial Officer & Senior Vice President	Fareed A. Khan
Corporate headquarters	Battle Creek, Michigan

Forecasts



Kimberly-Clark Corp (NYSE:KMB)

Add to Watch List | Set Alert

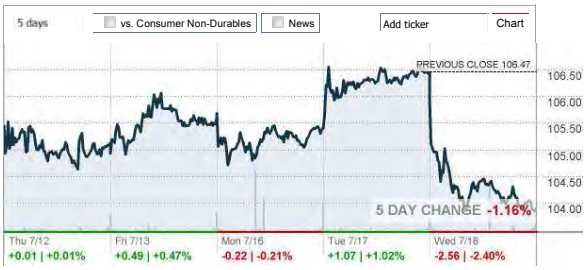
103.90
Delayed Data
As of 4:03pm ET

-2.57 / -2.41%
Today's Change

97.10 — 125.39
52-Week Range

-13.89%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors



Latest KMB News | Press Releases

Can Savings Keep Kimberly-Clark (KMB) Afloat in Q2 Earnings?
9:05am / Zacks.com - Paid Partner Content

See All KMB News

Today's Trading

Previous close	106.47
Today's open	105.89
Day's range	103.80 - 105.90
Volume	2,087,459
Average volume (3 months)	2,360,530
Market cap	$36.6B

Data as of 4:03pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+6.84%
Earnings growth (this year)	+11.11%
Earnings growth (next 5 years)	+7.00%
Revenue growth (last year)	+0.31%
P/E ratio	20.4
Price/Sales	2.35
Price/Book	58.50

Competitors

No competitors data available.

Financials

Next reporting date	July 24, 2018
EPS forecast (this quarter)	$1.61
Annual revenue (last year)	$18.3B
Annual profit (last year)	$2.3B
Net profit margin	12.48%

Profile

Sector	Consumer Non-Durables
Industry	Household/Personal Care
Chairman & Chief Executive Officer	Thomas J. Falk
President, Chief Operating Officer & Director	Michael D. Hsu
Corporate headquarters	Irving, Texas

Forecasts

Procter & Gamble Co (NYSE:PG)

Add to Watch List | Set Alert

79.72
Delayed Data
As of 4:02pm ET

-0.31 / -0.39%
Today's Change

70.73 — 94.67
52-Week Range

-13.23%
Year-to-Date

PG Regular Dividend: PG will begin trading ex-dividend on 07/19/18 with a $0.7172 dividend payable to shareholders of record as of 07/20/18.

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest PG News | Press Releases

Proctor & Gamble Acquires Indie Beauty Brand First Aid Beauty
3:25pm / Zacks.com - Paid Partner Content

Legacy Financial Advisors, Inc. Buys Procter & Gamble Co, Anheuser-Busch InBev SA/NV,...
Jul 17 / GuruFocus News - Paid Partner Content

Mcrae Capital Management Inc Buys Wyndham Hotels & Resorts Inc, Procter & Gamble Co, ...
Jul 16 / GuruFocus News - Paid Partner Content

Stock Market News For Jul 11, 2018
Jul 11 / Zacks.com - Paid Partner Content

Consumer Staples ETF (XLP) Hits New 52-Week High
Jul 11 / Zacks.com - Paid Partner Content

Dow ETF in Focus Ahead of Q2 Earnings
Jul 10 / Zacks.com - Paid Partner Content

See All PG News

Today's Trading

Previous close	80.03
Today's open	79.72
Day's range	79.33 - 80.21
Volume	9,101,661
Average volume (3 months)	9,260,045
Market cap	$184.3B

Data as of 4:02pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	+2.82%
Earnings growth (this year)	+6.90%
Earnings growth (next 5 years)	+6.50%
Revenue growth (last year)	-0.37%
P/E ratio	21.1
Price/Sales	3.67
Price/Book	3.45

Competitors

	Today's change	Today's % change
UN Unilever	-0.08	-0.14%
CHD Church & Dwight Co I...	-0.98	-1.79%

Data as of 4:02pm ET, 07/18/2018

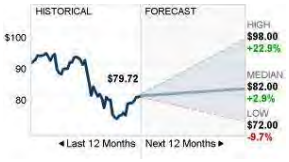
Financials

Next reporting date	July 31, 2018
EPS forecast (this quarter)	$0.91
Annual revenue (last year)	$65.1B
Annual profit (last year)	$10.0B
Net profit margin	15.54%

Profile

Sector	Consumer Non-Durables
Industry	Household/Personal Care
Chairman, President & Chief Executive Officer	David S. Taylor
Vice Chairman & Chief Financial Officer	Jon R. Moeller
Corporate headquarters	Cincinnati, Ohio

Forecasts



CNN Money Companies Markets Tech Media U.S.

J M Smucker Co (NYSE:SJM)

Add to Watch List | Set Alert

109.01
Delayed Data
As of 4:01pm ET

-1.98 / -1.78%
Today's Change

96.13 — 133.38
52-Week Range

-12.26%
Year-to-Date

Quote | Profile | News | Charts | Forecasts | Financials | Shareholders | Competitors

Latest SJM News | Press Releases

John Rogers' Ariel Fund 2nd Quarter Commentary
3:43pm / GuruFocus News - Paid Partner Content

Charles Bobrinskoy's 2nd Quarter Ariel Focus Fund Shareholder Letter
3:34pm / GuruFocus News - Paid Partner Content

TreeHouse Foods, B&G Foods to Gain From McCann's Oatmeal Deal
Jul 17 / Zacks.com - Paid Partner Content

Regent Investment Management LLC Buys AT&T Inc, Bank of America Corporation, Cardinal...
Jul 16 / GuruFocus News - Paid Partner Content

Can Smucker's Shareholder-Friendly Moves Help Revive Stock?
Jul 16 / Zacks.com - Paid Partner Content

Company News For Jul 11, 2018
Jul 11 / Zacks.com - Paid Partner Content

Smucker (SJM) to Divest Baking Unit, Bolster Other Areas
Jul 10 / Zacks.com - Paid Partner Content

Smucker is saying goodbye to Pillsbury and its doughboy
Jul 09 / CNNMoney.com

Can United Natural's Growth Strategies Wipe Off Cost Woes?
Jul 09 / Zacks.com - Paid Partner Content

Cold comfort: ConAgra buys Birds Eye maker for $10.9 billion
Jun 27 / CNNMoney.com

See All SJM News

Today's Trading

Previous close	110.99
Today's open	110.95
Day's range	108.46 - 111.14
Volume	995,539
Average volume (3 months)	1,294,094
Market cap	$12.7B

Data as of 4:01pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	-11.46%
Earnings growth (this year)	+6.67%
Earnings growth (next 5 years)	+7.00%
Revenue growth (last year)	-5.36%
P/E ratio	9.3
Price/Sales	1.98
Price/Book	1.85

Competitors

	Today's change	Today's % change
SENEA Seneca Foods Corp	-0.45	-1.63%
SENEB Seneca Foods Corp	0.00	0.00%

Data as of 4:00pm ET, 07/18/2018

Financials

Next reporting date	August 21, 2018
EPS forecast (this quarter)	$2.02
Annual revenue (last year)	$7.4B
Annual profit (last year)	$589.5M
Net profit margin	7.97%

Profile

Sector	Consumer Non-Durables
Industry	Food: Specialty/Candy
President, Chief Executive Officer & Director	Mark T. Smucker
Senior Vice President-Operations	James Randal Day
Corporate headquarters	Orrville, Ohio

Forecasts

Walmart Inc (NYSE:WMT)

Add to Watch List | Set Alert

88.07
Delayed Data
As of 4:00pm ET

-0.12 / -0.14%
Today's Change

75.55 — 109.98
52-Week Range

-10.82%
Year-to-Date

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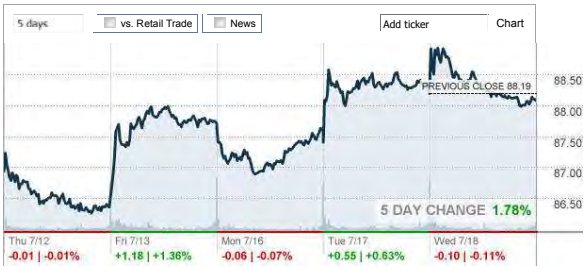

Latest WMT News | Press Releases

Should You Buy Microsoft (MSFT) Stock Ahead of Q4 Earnings?
1:40pm / Zacks.com - Paid Partner Content

Amazon's Sales Figure to Expand With Prime Day Celebration
10:47am / Zacks.com - Paid Partner Content

Costco's Impressive Comps Run Likely to Drive Stock Higher
10:33am / Zacks.com - Paid Partner Content

Company News For Jul 18, 2018
10:33am / Zacks.com - Paid Partner Content

Walmart Likely to Venture Into Subscription-Based Streaming
10:23am / Zacks.com - Paid Partner Content

Why Microsoft Just Picked a Side in the Walmart-Amazon War
7:31am / Zacks.com - Paid Partner Content

Walmart And Microsoft To Take On Amazon
2:48am / Zacks.com - Paid Partner Content

Why Alibaba Is a No-Brainer
Jul 17 / GuruFocus News - Paid Partner Content

Walmart Adds New Leaf to Digital Story With Microsoft Deal
Jul 17 / Zacks.com - Paid Partner Content

Amazon's Prime Continues to Grow Irrespective of Price Hike
Jul 17 / Zacks.com - Paid Partner Content

See All WMT News

Today's Trading

Previous close	88.19
Today's open	88.33
Day's range	87.94 - 89.19
Volume	5,044,439
Average volume (3 months)	9,271,417
Market cap	$249.2B

Data as of 4:00pm ET, 07/18/2018

Growth & Valuation

Earnings growth (last year)	-25.11%
Earnings growth (this year)	+10.60%
Earnings growth (next 5 years)	+7.25%
Revenue growth (last year)	+3.13%
P/E ratio	29.4
Price/Sales	0.64
Price/Book	3.20

Competitors

	Today's change	Today's % change
COST Costco	-0.03	-0.01%
TGT Target	-0.42	-0.54%
DG Dollar General	-0.31	-0.31%
DLTR Dollar Tree Inc	-0.10	-0.12%

Data as of 4:02pm ET, 07/18/2018

Financials

Next reporting date	August 16, 2018
EPS forecast (this quarter)	$1.22
Annual revenue (last year)	$500.3B
Annual profit (last year)	$9.9B
Net profit margin	1.97%

Profile

Sector	Retail Trade
Industry	Discount Stores
President, Chief Executive Officer & Director	C. Douglas McMillon
Chief Financial Officer & Executive Vice President	Brett M. Biggs
Corporate headquarters	Bentonville, Arkansas

Forecasts