

Exhibit_(JRW-1)

Kentucky-American Water Company

Cost of Capital

Estimated at November 30, 2005

Capital Source	Capitalization Ratio	Cost Rate	Weighted Cost Rate
Short-Term Debt	7.78%	2.70%	0.21%
Long-Term Debt	46.41%	6.33%	2.94%
Preferred Stock	4.60%	7.72%	0.36%
Common Equity	41.21%	8.75%	3.61%
Total	100.00%		7.11%

On May 28, 2003, President Bush signed the *Jobs and Growth Tax Relief Reconciliation Act of 2003*. The primary purpose of this legislation was to reduce taxes to enhance economic growth. A primary component of the new tax law was a significant reduction in the taxation of corporate dividends for individuals. Dividends have been described as “double-taxed.” First, corporations pay taxes on the income they earn before they pay dividends to investors, then investors pay taxes on the dividends that they receive from corporations. One of the implications of the double taxation of dividends is that, all else equal, it results in a high cost of raising capital for corporations.

The new tax legislation reduces the double taxation of dividends by lowering the tax rate on dividends from the 30 percent range (the average tax bracket for individuals) to 15 percent. This reduction in the taxation of dividends for individuals enhances their after-tax returns and thereby reduces their pre-tax required returns. This reduction in pre-tax required returns (due to the lower tax on dividends) effectively reduces the cost of equity capital for companies. The new tax law also reduced the tax rate on long-term capital gains from 20% to 15%.

To demonstrate the effect of the new legislation, assume that a utility has a 10% expected return – 5.0% in dividends and 5.0% in capital gains. The new tax law reduces the double-taxation by reducing the tax rate on dividends from the 30 percent range (the marginal tax bracket for the average individual taxpayer) to 15 percent. The table below illustrates the effect of the new tax law. Panel A shows that under the old tax law

a 10.0% pre-tax return provided for a 7.5% after tax return. Panel B shows that under the new tax law, with tax rates of 15% on both dividends and capital gains, the 10% pre-tax return is worth 8.5% on an after-tax basis. In Panel C, I have held the after-tax return constant (at 7.5%) to illustrate the effect of the new tax law on required pre-tax returns. Assuming that the entire after-tax 1% return difference (7.5% to 8.5%) is attributed to the lower taxation of dividends, the 10.0% pre-tax return under the new law is now only 8.82%. In other words, to generate an after-tax return of 7.5%, the new tax law reduced the required pre-tax return from 10.0% to 8.82%.

The Impact of the New Tax Law on Pre- and After- Tax Returns

<u>Panel A</u> Old Tax Law				<u>Panel B</u> New Tax Law			
10% Pre-Tax Return - 5% Dividend Yield & 5% Capital Gain				10% Pre-Tax Return - 5% Dividend Yield & 5% Capital Gain			
Tax Rates - Dividends 30% & Capital Gains 20%				Tax Rates - Dividends 15% & Capital Gains 15%			
	Pre-Tax Return	Tax Rate	After-Tax Return		Pre-Tax Return	Tax Rate	After-Tax Return
Dividends	5.00%	30.00%	3.50%	Dividends	5.00%	15.00%	4.25%
<u>Capital Gain</u>	<u>5.00%</u>	20.00%	<u>4.00%</u>	<u>Capital Gain</u>	<u>5.00%</u>	15.00%	<u>4.25%</u>
Total	10.00%		7.50%	Total	10.00%		8.50%

<u>Panel C</u> The Effect of the New Tax Law on Pre-Tax Returns			
7.50% After-Tax Return - 3.25% Dividend Yield & 4.25% Capital Gain			
Tax Rates - Dividends 15% & Capital Gains 15%			
	Pre-Tax Return	Tax Rate	After-Tax Return
Dividends	3.82%	15.00%	3.25%
<u>Capital Gain</u>	<u>5.00%</u>	15.00%	<u>4.25%</u>
Total	8.82%		7.50%

Exhibit_(JRW-3)
Summary Financial Statistics
Small Water Company Group

Company	S&P Bond Rating	Operating Revenue (\$mil)	Percent Water Revenue	Net Plant (\$mil)	Fixed Asset Coverage	Primary Service Area	Common Equity Ratio	Return on Equity	Debt Service Ratio
Artisan Resources Corp.	NR	36.5	97%	165.1	1.74	DE	36.0	7.4%	24.0
Connecticut Water Services, Inc.	A	51.1	92%	189	2.49	CT	52.0	10.9%	21.2
Middlesex Water Company	A+	65.0	87%	212.3	2.20	NJ	40.0	7.9%	28.7
Pennichuck Corporation	NR	21.3	88%	64	2.64	NH	49.0	3.6%	56.3
York Water Company	NR	21.5	87%	109.1	3.28	PA	55.0	13.6%	20.7
Mean	A-	39.1	90%	147.9	2.47		46.4	8.7%	30.2

*Based on total permanent capital
Data Source: C.A. Turner Utility Reports, August, 2004.

Summary Financial Statistics
Large Water Company Group

Company	S&P Bond Rating	Operating Revenue (\$bil)	Percent Water Revenue	Net Plant (\$bil)	Fixed Asset Coverage	Primary Service Area	Common Equity Ratio	Return on Equity	Debt Service Ratio
American States Water	A-	212.6	88%	545.7	1.86	CA	43.0	4.7%	33.2
Aqua America, Inc.	AA-	386.5	92%	1629.6	3.44	PA+	44.0	12.5%	23.3
California Water Service Group	NR	286.1	97%	672.2	1.73	CA	46.0	9.9%	19.8
SIW Corp.	NR	153.0	97%	274.2	2.71	CA	54.0	9.3%	18.6
Mean	A-	259.6	94%	780.4	2.43		46.8	9.1%	23.7

*Based on total permanent capital
Data Source: C.A. Turner Utility Reports, August, 2004.

Exhibit_(JRW-4)

Kentucky-American Water Company
Capital Structure
Quarterly Capitalization Amounts and Ratios
2001-2003

2001	Q 1 Cap.	Q1 Ratio	Q2 Cap.	Q2 Ratio	Q3 Cap.	Q3 Ratio	Q4 Cap.	Q4 Ratio	Average
LT Debt	70,500	50.1%	70,500	49.0%	70,500	48.6%	57,500	38.2%	46.5%
ST Debt	3,646	2.6%	5,511	3.8%	6,308	4.3%	24,667	16.4%	6.8%
Preferred	6,990	5.0%	6,990	4.9%	6,950	4.8%	6,950	4.6%	4.8%
Common	59,617	42.3%	60,806	42.3%	61,321	42.3%	61,322	40.8%	41.9%
Total	140,753	100.0%	143,807	100.0%	145,079	100.0%	150,439	100.0%	100.0%
2002	Q 1 Cap.	Q1 Ratio	Q2 Cap.	Q2 Ratio	Q3 Cap.	Q3 Ratio	Q4 Cap.	Q4 Ratio	Average
LT Debt	57,500	38.9%	81,500	53.3%	81,500	54.1%	68,500	45.1%	47.9%
ST Debt	22,673	15.4%	3,374	2.2%	0	0	14,649	9.6%	6.8%
Preferred	6,950	4.7%	6,950	4.5%	6,910	4.6%	6,910	4.6%	4.6%
Common	60,560	41.0%	61,162	40.0%	62,350	41.3%	61,768	40.7%	40.8%
Total	147,683	100.0%	152,986	100.0%	150,760	100.0%	151,827	100.0%	100.0%
2003	Q 1 Cap.	Q1 Ratio	Q2 Cap.	Q2 Ratio	Q3 Cap.	Q3 Ratio	Q4 Cap.	Q4 Ratio	Average
LT Debt	68,500	45.5%	68,500	44.8%	68,500	44.9%	68,500	44.4%	44.9%
ST Debt	12,675	8.4%	15,408	10.1%	14,394	9.4%	17,076	11.1%	9.8%
Preferred	6,910	4.6%	6,910	4.5%	6,854	4.5%	6,052	3.9%	4.4%
Common	62,375	41.5%	61,954	40.6%	62,864	41.2%	62,689	40.6%	41.0%
Total	150,460	100.0%	152,772	100.0%	152,612	100.0%	154,317	100.0%	100.0%

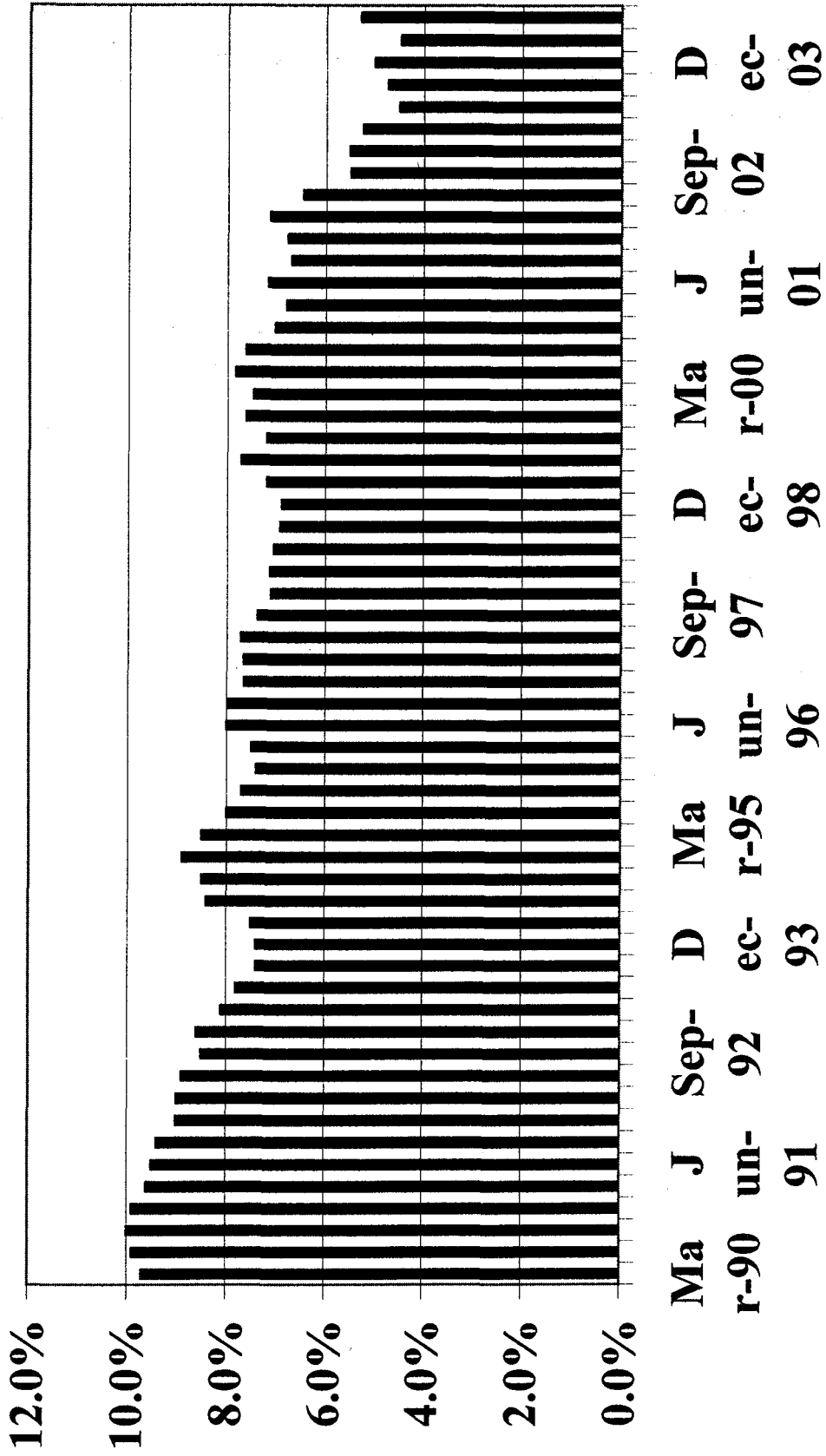
2001-2003 Quarterly Average

LT Debt	46.4%
ST Debt	7.8%
Preferred	4.6%
Common	41.2%
Total	100.0%

Data Source: KAWC Response to Attorney General Data Request No. 152

Exhibit_(JRW-5)

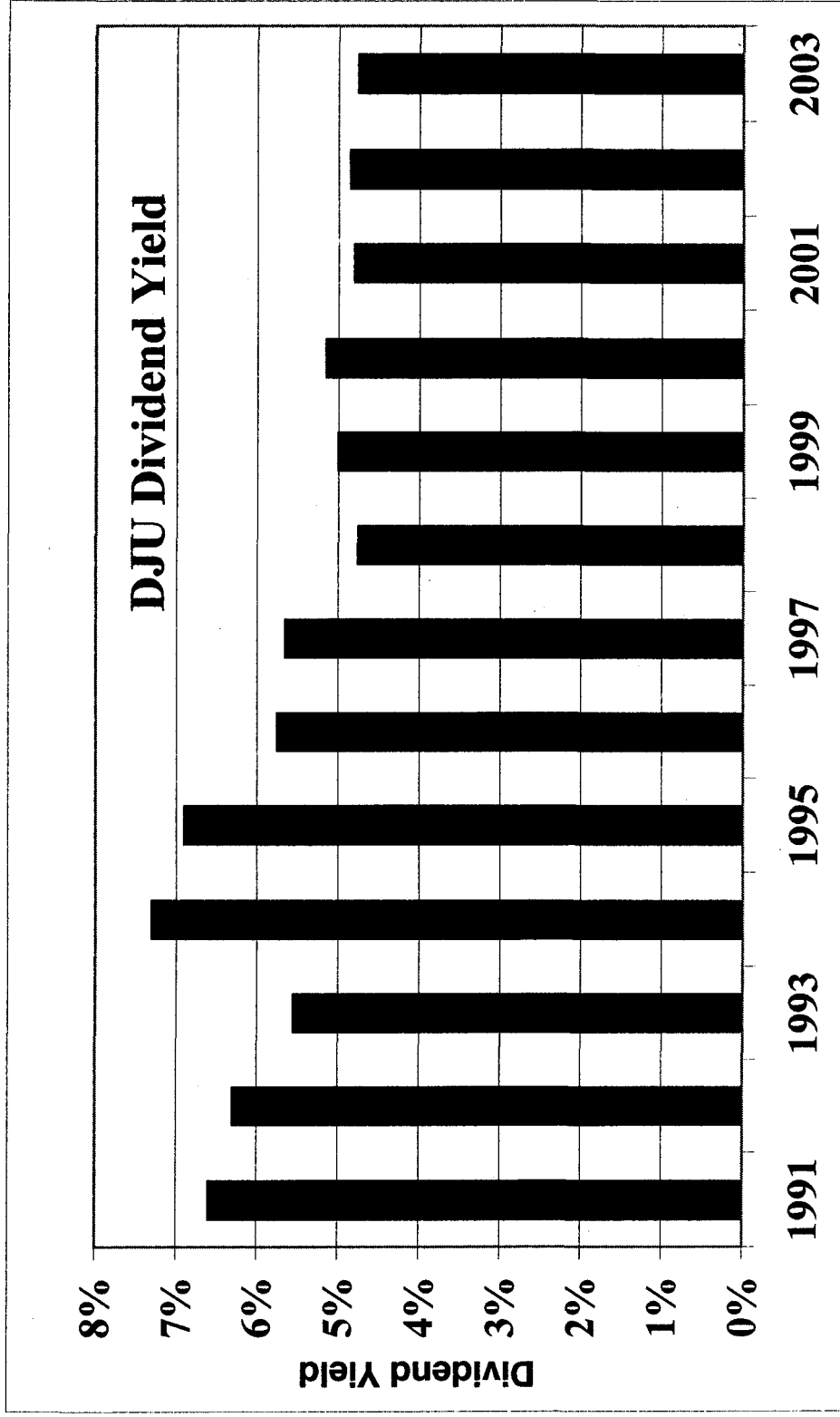
Long-Term 'A' Rated Public Utility Bonds



Data Source: Bloomberg (FMCJ Function).

Exhibit_(JRW-5)

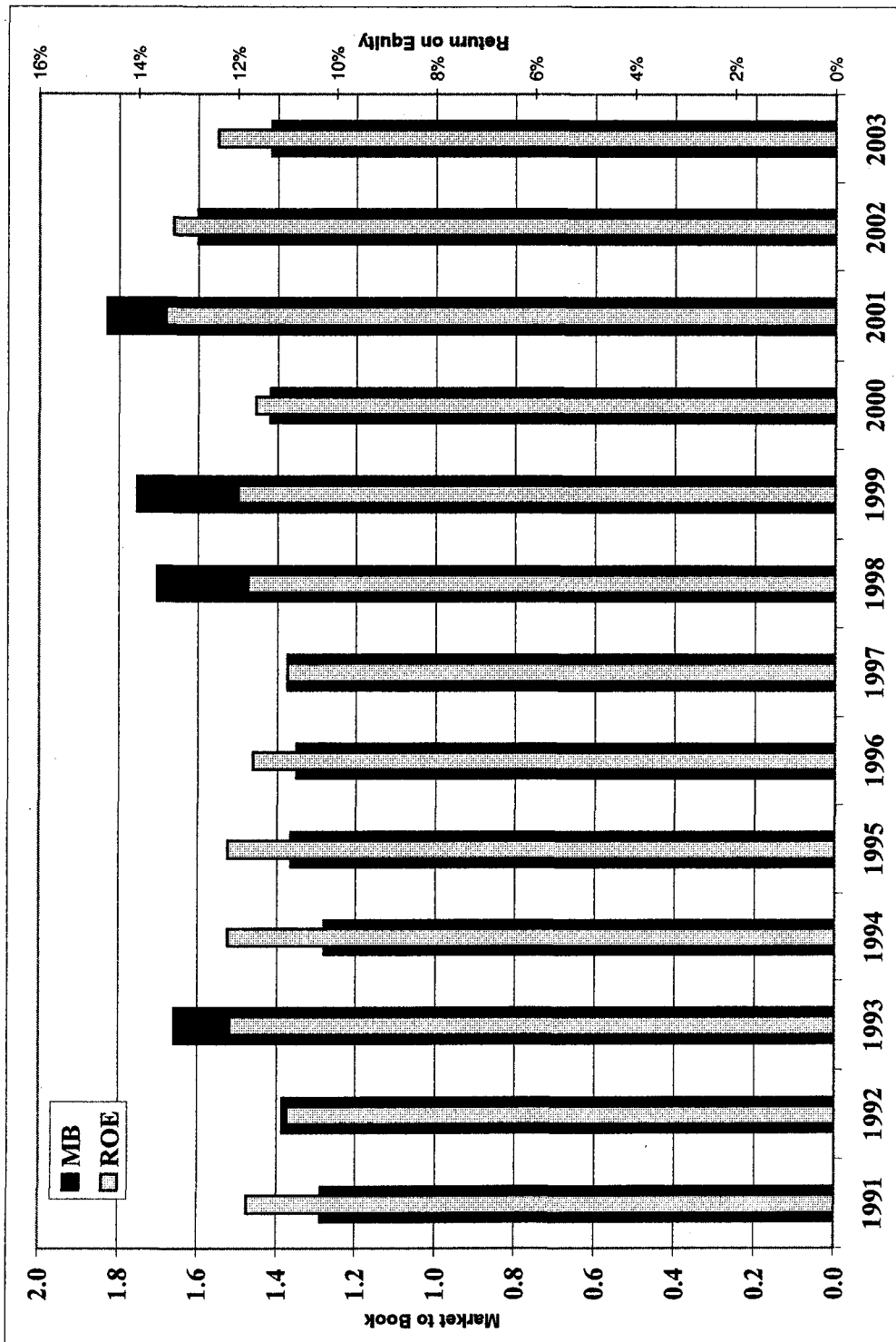
Dow Jones Utilities Dividend Yield



Data Source: Value Line Investment Survey

Exhibit_(JRW-5)

Dow Jones Utilities - Market to Book and ROE



Data Source: Value Line Investment Survey

Exhibit_(JRW-6)
Industry Average Betas

Industry Name	Number of Firms	Beta	Industry Name	Number of Firms	Beta	Industry Name	Number of Firms	Beta
E-Commerce	41	2.89	Coal	8	0.95	Electric Util. (Central)	27	0.80
Internet	289	2.72	Retail (Special Lines)	196	0.94	Building Materials	48	0.80
Semiconductor	113	2.59	Manuf. Housing/RV	18	0.93	Steel (General)	27	0.80
Semiconductor Equip	15	2.50	Retail Store	43	0.91	Homebuilding	44	0.80
Wireless Networking	63	2.21	Oilfield Svcs/Equip.	88	0.90	Industrial Services	190	0.79
Telecom. Equipment	124	1.87	Financial Svcs. (Div.)	231	0.90	Machinery	138	0.79
Computers/Peripherals	148	1.83	Auto Parts	62	0.90	Electric Utility (West)	15	0.79
Entertainment Tech	32	1.82	Office Equip/Supplies	31	0.90	Aerospace/Defense	72	0.79
Computer Software/Svcs	387	1.77	Publishing	40	0.90	Diversified Co.	102	0.78
Cable TV	24	1.71	Pharmacy Services	15	0.89	Cement & Aggregates	14	0.78
Foreign Telecom.	19	1.58	Insurance (Life)	45	0.88	Household Products	32	0.76
Power	19	1.45	Chemical (Basic)	16	0.88	Furn/Home Furnishings	36	0.76
Electronics	181	1.41	Apparel	59	0.88	Metal Fabricating	37	0.76
Telecom. Services	137	1.35	Recreation	73	0.87	Environmental	77	0.75
Electrical Equipment	86	1.34	Home Appliance	15	0.87	Restaurant	85	0.74
Precision Instrument	102	1.33	Newspaper	20	0.85	Toiletries/Cosmetics	21	0.74
Air Transport	43	1.32	Natural Gas (Div.)	39	0.85	Electric Utility (East)	29	0.73
Securities Brokerage	27	1.31	Hotel/Gaming	80	0.84	Textile	18	0.73
Biotechnology	84	1.20	Paper/Forest Products	40	0.84	Bank (Midwest)	43	0.73
Advertising	34	1.19	Steel (Integrated)	14	0.84	Petroleum (Producing)	128	0.73
Entertainment	84	1.18	Medical Supplies	236	0.84	Grocery	25	0.72
Bank (Foreign)	4	1.18	Trucking	39	0.83	Food Wholesalers	22	0.67
Foreign Electronics	13	1.16	Railroad	16	0.83	Tobacco	11	0.67
Drug	276	1.15	Packaging & Container	34	0.83	Investment Co.	22	0.66
Investment Co.(Foreign)	17	1.05	Bank (Canadian)	7	0.83	Canadian Energy	10	0.66
Information Services	29	1.04	Utility (Foreign)	6	0.83	Natural Gas (Distrib.)	31	0.65
Educational Services	34	1.03	Chemical (Diversified)	33	0.83	R.E.I.T.	144	0.64
Retail Building Supply	8	1.01	Shoe	24	0.82	Food Processing	104	0.64
Healthcare Information	35	1.00	Medical Services	197	0.82	Bank	504	0.62
Auto & Truck	21	0.99	Petroleum (Integrated)	34	0.82	Beverage (Soft Drink)	17	0.59
Metals & Mining (Div.)	54	0.98	Insurance (Prop/Cas.)	69	0.81	Thrift	242	0.57
Human Resources	27	0.98	Chemical (Specialty)	95	0.80	Beverage (Alcoholic)	24	0.57
Tire & Rubber	12	0.95	Maritime	23	0.80	Water Utility	16	0.57
						Precious Metals	48	0.41

Data Source: <http://www.stern.nyu.edu/~adamodar/>

Exhibit_(JRW-7)

**DCF Equity Cost Rate
Kentuck American Water Company**

Small Water Company Group

Dividend Yield*	3.30%
Adjustment Factor	<u>1.0275</u>
Adjusted Dividend Yield	3.39%
Growth Rate	<u>5.50%</u>
Equity Cost Rate	8.89%

* Page 2 of Exhibit_(JRW-7)

** Based on data provided on pages 3-5,
Exhibit_(JRW-7)

Large Water Company Group

Dividend Yield*	3.40%
Adjustment Factor	<u>1.02625</u>
Adjusted Dividend Yield	3.49%
Growth Rate	<u>5.25%</u>
Equity Cost Rate	8.74%

* Page 2 of Exhibit_(JRW-7)

** Based on data provided on pages 3-5,
Exhibit_(JRW-7)

Exhibit_(JRW-7)

Monthly Dividend Yields
Small Water Company Group
July 2003-August 2004

Company	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Artesian Resources Corp.	3.1%	3.1%	3.0%	3.1%	3.1%	2.8%	2.9%	2.9%	2.9%	3.2%	3.1%	3.6%
Connecticut Water Services, Inc.	2.9%	2.8%	0.2%	2.9%	2.9%	2.9%	2.8%	3.0%	3.0%	3.3%	3.4%	3.4%
Middlesex Water Company	3.2%	3.3%	3.5%	3.5%	3.5%	3.2%	3.1%	3.3%	3.1%	3.4%	3.4%	3.9%
Pennichuck Corporation	3.3%	3.2%	3.2%	3.0%	3.0%	3.0%	3.1%	3.1%	3.2%	3.3%	3.3%	3.4%
York Water Company	3.0%	3.1%	3.0%	3.2%	3.2%	3.0%	3.0%	2.8%	2.8%	3.0%	3.1%	3.4%
Mean	3.1%	3.1%	2.6%	3.1%	3.1%	3.0%	3.0%	3.0%	3.0%	3.2%	3.3%	3.5%

Monthly Dividend Yields
Large Water Company Group
July 2003-August 2004

Company	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
American States Water	3.4%	3.6%	3.6%	3.6%	3.6%	3.3%	3.5%	3.6%	3.6%	3.9%	4.0%	4.0%
Aqua America, Inc.	2.4%	2.3%	2.3%	2.4%	1.9%	2.1%	2.2%	2.4%	2.3%	2.5%	2.4%	2.5%
California Water Service Group	4.3%	4.3%	4.2%	4.4%	4.4%	3.9%	3.9%	4.1%	3.8%	4.2%	4.0%	4.3%
SIW Corp.	3.4%	3.3%	3.3%	3.4%	3.4%	3.2%	2.7%	2.9%	2.8%	3.2%	3.1%	3.3%
Mean	3.4%	3.4%	3.4%	3.5%	3.3%	3.1%	3.1%	3.3%	3.1%	3.5%	3.4%	3.5%

Data Source: C.A. Turner Utility Reports, monthly issues.

Exhibit_(JRW-7)

DCF Equity Cost Growth Rate Measures
Historic Growth Rates

Small Water Company Group

Large Water Company Group

Growth Rates	3 Year	5 Year	10 Year
ARTN B - Sales	9.6%	7.3%	6.0%
CTWS - Sales	4.3%	4.4%	2.1%
MSEX - Sales	5.6%	8.3%	6.1%
PNNW - Sales	-3.3%	4.2%	8.2%
YORW - Sales	4.2%	4.0%	3.9%
Mean	4.1%	5.7%	5.3%
Median	4.3%	4.4%	6.0%
ARTN B - EPS	7.2%	-0.1%	-0.1%
CTWS - EPS	1.9%	2.4%	2.6%
MSEX - EPS	6.5%	-2.9%	-0.9%
PNNW - EPS	-30.6%	-15.3%	-0.7%
YORW - EPS	3.8%	5.7%	3.1%
Mean	-2.2%	-2.0%	0.8%
Median	3.8%	-0.1%	-0.1%
ARTN B - DPS	2.8%	4.3%	14.8%
CTWS - DPS	1.2%	1.2%	1.2%
MSEX - DPS	1.9%	2.5%	2.1%
PNNW - DPS	4.8%	7.2%	10.1%
YORW - DPS	3.9%	3.4%	
Mean	2.9%	3.7%	7.1%
Median	2.8%	3.4%	6.1%
ARTN B - BVPS	7.2%	5.2%	3.9%
CTWS - BVPS	5.4%	4.1%	3.8%
MSEX - BVPS	2.7%	0.2%	3.4%
PNNW - BVPS	1.3%	-2.2%	4.6%
YORW - BVPS	4.1%	3.6%	3.9%
Mean	4.1%	2.2%	3.9%
Median	4.1%	3.6%	3.9%
Mean (of Means)	2.2%	2.4%	4.3%
Mean (of Medians)	3.8%	2.8%	4.0%

Data Source: www.mergent.com

Growth Rates	3 Year	5 Year	10 Year
AWR - Sales	5.0%	7.5%	7.0%
WTR - Sales	10.0%	19.5%	13.8%
CWT - Sales	4.2%	8.3%	6.2%
SJW - Sales	6.7%	7.2%	4.6%
Mean	6.5%	10.6%	7.9%
Median	5.8%	7.9%	6.6%
AWR - EPS	-15.1%	-6.3%	-3.4%
WTR - EPS	6.9%	8.4%	6.3%
CWT - EPS	-2.6%	-3.6%	-1.1%
SJW - EPS	20.5%	3.9%	5.3%
Mean	2.4%	0.6%	1.8%
Median	5.8%	3.9%	5.3%
AWR - DPS	1.1%	1.0%	1.0%
WTR - DPS	7.0%	6.1%	2.9%
CWT - DPS	0.8%	1.0%	1.6%
SJW - DPS	5.8%	4.4%	3.1%
Mean	3.6%	3.1%	2.1%
Median	5.8%	3.9%	2.9%
AWR - BVPS	0.7%	4.0%	3.5%
WTR - BVPS	11.8%	11.4%	5.8%
CWT - BVPS	5.5%	2.8%	1.0%
SJW - BVPS	4.9%	3.9%	5.6%
Mean	5.7%	5.5%	3.9%
Median	5.5%	3.9%	3.5%
Mean (of Means)	4.6%	5.0%	3.9%
Mean (of Medians)	5.7%	4.9%	4.6%

Exhibit_(JRW-7)

DCF Equity Cost Growth Rate Measures
Value Line Historic and Projected Rates

Small Water Company Group

Value Line
Historic Growth

Company	Past 10 Years			Past 5 Years		
	Earnings	Dividends	Book Value	Earnings	Dividends	Book Value
Connecticut Water Services, Inc.				2.5%	1.0%	3.5%
Middlesex Water Company				0.5%	2.5%	3.5%
York Water Company						
Mean				1.5%	1.8%	3.5%

Company	Value Line Projected Growth Est'd. '01-'03 to '07-'09			Return on Equity	Retention Rate	Internal Growth
	Earnings	Dividends	Book Value			
Connecticut Water Services, Inc.				10.9%	29.0%	3.2%
Middlesex Water Company				7.9%	-6.0%	-0.5%
York Water Company				11.4%	23.0%	2.6%
Mean				10.1%	15.3%	1.8%

Large Water Company Group

Value Line
Historic Growth

Company	Past 10 Years			Past 5 Years		
	Earnings	Dividends	Book Value	Earnings	Dividends	Book Value
American States Water		1.5%	4.5%	1.5%	1.0%	4.0%
Aqua America, Inc.	8.5%	5.0%	8.0%	9.5%	6.0%	9.5%
California Water Service Group	-0.5%	2.0%	2.5%	-6.5%	1.0%	1.0%
SJW Corp.				-0.5%	4.0%	4.0%
Mean	4.0%	2.8%	5.0%	1.0%	3.0%	4.6%

Data Source: Value Line Investment Survey, July 30, 2004.

Company	Value Line Projected Growth Est'd. '01-'03 to '07-'09			Return on Equity	Retention Rate	Internal Growth
	Earnings	Dividends	Book Value			
American States Water	9.5%	1.5%	4.0%	10.0%	49.0%	4.9%
Aqua America, Inc.	9.0%	7.0%	7.5%	13.0%	48.0%	6.2%
California Water Service Group	11.0%	1.0%	14.5%	11.0%	42.0%	4.6%
SJW Corp.				10.0%	47.0%	4.7%
Mean	9.8%	3.2%	8.7%	11.0%	46.5%	5.1%

Data Source: Value Line Investment Survey, July 30, 2004.

Exhibit_(JRW-7)

**DCF Equity Cost Growth Rate Measures
Analysts Projected EPS Estimates**

Small Water Company Group

Company	Yahoo	Reuters	Zack's	Average
	First Call			
Artesian Resources Corp.	8.5%	8.0%	8.0%	8.2%
Connecticut Water Services, Inc.	N/A	N/A	N/A	
Middlesex Water Company	6.0%	6.0%	6.0%	6.0%
Pennichuck Corporation	N/A	N/A	N/A	
York Water Company	7.0%	7.0%	7.0%	7.0%
Mean	7.2%	7.0%	7.0%	7.1%

Data Sources: www.zacks.com, www.investor.reuters.com,
<http://quote.yahoo.com>, August, 2004.

Large Water Company Group

Company	Yahoo	Reuters	Zack's	Average
	First Call			
American States Water	3.0%	3.0%	N/A	3.0%
Aqua America, Inc.	9.5%	8.8%	9.0%	9.1%
California Water Service Group	4.0%	3.0%	10.0%	5.7%
SJW Corp.	N/A	N/A	N/A	
Mean	5.5%	4.9%	9.5%	5.9%

Data Sources: www.zacks.com, www.investor.reuters.com,
<http://quote.yahoo.com>, August, 2004.

**CAPM Equity Cost Rate
Kentucky-Water Company**

Small Water Company Group

Risk-Free Interest Rate*	4.50%
Beta	0.65
<u>Ex Ante Equity Risk Premium**</u>	<u>3.80%</u>
CAPM Cost of Equity	6.97%

Large Water Company Group

Risk-Free Interest Rate*	4.50%
Beta	0.66
<u>Ex Ante Equity Risk Premium**</u>	<u>3.80%</u>
CAPM Cost of Equity	7.02%

* As of August, 2004

** Ex Ante Equity Risk Premiums

Average Ex Ante Equity Risk Premiums
from Derrig and Orr Study (2003) **4.00%**

Ex Ante Equity Risk Premium from
Building Blocks Approach" **3.60%**

Average **3.80%**

Derrig-Orr (2003) Ex Ante Equity Risk Premium Studies
Appendix B

APPENDIX B

Source	Risk-free Rate	ERP Estimate	Real risk-free rate	Nominal risk-free rate	Geometric	Arithmetic	Long horizon	Short horizon	Short-run expectation	Long-run expectation	Conditional	Unconditional
Historical Ibbotson Associates	3.8% ⁷	8.4% ²¹		X		X		X		X		X
Social Security Office of the Chief Actuary ¹	2.3%, 3.0% ⁸	4.7%, 4.0% ²²	X		X	X				X		X
John Campbell ²	3% to 3.5% ⁹	1.5-2.5%, 3-4% ²³	X		X	X	X	X		X	X	
Peter Diamond	2.2% ¹⁰	~4.8% ²⁴	X		X		X			X	X	
Peter Diamond ³	3.0% ¹¹	3.0% to 3.5% ²⁵	X		X		X			X	X	
John Shoven ⁴	3.0%, 3.5% ¹²	3.0% to 3.5% ²⁶	X		X		X			X	X	
Puzzle Research Robert Arnott and Peter Bernstein	3.7% ¹³	2.4% ²⁷	X		X		X			X	X	
Robert Arnott and Ronald Ryan	4.1% ¹⁴	-0.9% ²⁸	X		X		X			X	X	
John Campbell and Robert Shiller	N/A	Negative ²⁹	X		?		?		X		X	
James Claus and Jacob Thomas	7.64% ¹⁵	3.39% or less ³⁰		X		X	X			X	X	
George Constantinides	2.6% ¹⁶	6.9% ⁴¹	X			X		X		X		X
Bradford Cornell	5.6%, 3.6% ¹⁷	3.5-5.5%, 5-7% ⁴²		X		X	X	X		X	X	
Dimson, Marsh, & Staunton	1.0% ¹⁸	5.4% ⁴³	X			X		X		X	X	
Eugene Fama and Kenneth French	3.24% ¹⁹	3.83% & 4.78% ⁴⁴	X			X		X		X		X
Robert Harris and Felicia Marston	8.53% ²⁰	7.14% ⁴⁵		X		X	X		X		X	
Roger Ibbotson and Peng Chen	2.05% ²¹	4% and 6% ⁴⁶	X		X	X	X			X		X
Jeremy Siegel	4.0% ²²	-0.9% to -0.3% ⁴⁷	X		X		X			X	X	
Jeremy Siegel	3.5% ²³	2-3% ⁴⁸	X		X		X			?	X	
Surveys John Graham and Campbell Harvey	? by survey ²⁴	3-4.7% ⁴⁹		X		?	X		X		X	
Ivo Welch	N/A ²⁵	7% ⁵⁰		X		X		X		X	X	
Ivo Welch ⁵	5% ²⁶	5.0% to 5.5% ⁵¹		X		X		X		X	X	
Misc. Barclays Global Investors	5% ²⁷	2.5%, 3.25% ⁵²		X	X		X		X		X	
Richard Brealey and Stewart Myers	N/A ²⁸	6 to 8.5% ⁵³		X		X		X		X		X
Burton Malkiel	5.25% ²⁹	2.75% ⁵⁴		X	X		X			X	X	
Richard Wendt ⁶	5.5% ³⁰	3.5% ⁵⁵		X		X	X			X	X	

Long-run expectation considered to be a forecast of more than 10 years.
Short-run expectation considered to be a forecast of 10 years or less.

Richard Derrig and Elisha Orr, "Equity Risk Premium: Expectations Great and Small," Working Paper (version 3.0), Automobile Insurers Bureau of Massachusetts, August 28, 2003.

Derrig-Orr (2003) Ex Ante Equity Risk Premium Studies
Appendix B

Source	Risk-free Rate	ERP Estimate	Real risk-free rate	Nominal risk-free rate	Geometric	Arithmetic	Long-horizon	Short-horizon	Short-run expectation	Long-run expectation	Conditional	Unconditional
Historical Ibbotson Associates	3.8% ¹	8.4% ²¹		X		X		X		X		X
Social Security Office of the Chief Actuary ¹	2.3%, 3.0% ⁶	4.7%, 4.0% ³⁰	X		X		X			X		X
John Campbell ²	3% to 3.5% ⁹	1.5-2.5%, 3-4% ³⁰	X		X	X	X	X		X	X	
Peter Diamond	2.2% ³⁸	4.8% ³⁴	X		X		X			X	X	
Peter Diamond ³	3.0% ¹¹	3.0% to 3.5% ³⁸	X		X		X			X	X	
John Shoven ⁴	3.0%, 3.5% ¹⁰	3.0% to 3.5% ³⁸	X		X		X			X	X	
Puzzle Research Robert Arnott and Peter Bernstein	3.7% ³²	2.4% ³⁷	X		X		X			X	X	
Robert Arnott and Ronald Ryan	4.1% ³⁴	-0.9% ³⁸	X		X		X			X	X	
John Campbell and Robert Shiller	N/A	Negative ³⁶	X		?		?		X		X	
James Claus and Jacob Thomas	7.64% ³⁰	3.39% or less ⁴⁰		X		X	X			X	X	
George Constantinides	2.0% ³⁸	6.9% ³¹	X			X		X		X		X
Bradford Cornell	5.6%, 3.8% ³⁷	3.5-5.5%, 5-7% ⁴⁰		X		X	X	X		X	X	
Dimson, Marsh, & Staunton	1.0% ³⁴	5.4% ⁴²	X			X		X		X	X	
Eugene Fama and Kenneth French	3.24% ³⁸	3.83% & 4.78% ⁴⁴	X			X		X		X		X
Robert Harris and Felicia Marston	8.53% ³²	7.14% ⁴⁵		X		X	X		X		X	
Roger Ibbotson and Peng Chen	2.05% ²¹	4% and 6% ⁴⁶	X		X	X	X			X		X
Jeremy Siegel	4.0% ³²	-0.9% to -0.3% ⁴⁷	X		X		X			X	X	
Jeremy Siegel	3.5% ³²	2-3% ⁴⁸	X		X		X			?	X	
Surveys John Graham and Campbell Harvey	? by survey ²⁴	3-4.7% ⁴⁹		X		?	X		X		X	
Ivo Welch	N/A ³⁶	7% ⁵⁰		X		X		X		X	X	
Ivo Welch ⁵	5% ²⁶	5.0% to 5.5% ⁵¹		X		X		X		X	X	
Misc. Barclays Global Investors	5% ³⁷	2.5%, 3.25% ⁵²		X	X		X		X		X	
Richard Brealey and Stewart Myers	N/A ³⁸	6 to 8.5% ⁵³		X		X		X		X		X
Burton Malkiel	5.25% ³⁸	2.75% ⁵⁴		X	X		X			X	X	
Richard Wendt ⁶	5.5% ³⁴	3.3% ⁵⁵		X		X	X			X	X	

Long-run expectation considered to be a forecast of more than 10 years.
Short-run expectation considered to be a forecast of 10 years or less.

Richard Derrig and Elisha Orr, "Equity Risk Premium: Expectations Great and Small," Working Paper (version 3.0), Automobile Insurers Bureau of Massachusetts, August 28, 2003.

Survey of Professional Forecasters
Philadelphia Federal Reserve Bank
Long-Term Forecasts

LONG-TERM (10 YEAR) FORECASTS

SERIES: CPI INFLATION RATE

STATISTIC	
MINIMUM	1.500
LOWER QUANTILE	2.100
MEDIAN	2.500
UPPER QUANTILE	2.800
MAXIMUM	3.000
MEAN	2.420
STD. DEV.	0.383
N	27
MISSING	5

SERIES: REAL GDP GROWTH RATE

STATISTIC	
MINIMUM	2.500
LOWER QUANTILE	3.100
MEDIAN	3.400
UPPER QUANTILE	3.500
MAXIMUM	4.300
MEAN	3.380
STD. DEV.	0.386
N	27
MISSING	5

SERIES: PRODUCTIVITY GROWTH

STATISTIC	
MINIMUM	1.700
LOWER QUANTILE	2.000
MEDIAN	2.500
UPPER QUANTILE	3.100
MAXIMUM	3.800
MEAN	2.580
STD. DEV.	0.578
N	25
MISSING	7

SERIES: STOCK RETURNS (S&P 500)

STATISTIC	
MINIMUM	5.000
LOWER QUANTILE	7.000
MEDIAN	7.750
UPPER QUANTILE	8.050
MAXIMUM	10.000
MEAN	7.616
STD. DEV.	1.119
N	22
MISSING	10

SERIES: BOND RETURNS (10-YEAR)

STATISTIC	
MINIMUM	2.000
LOWER QUANTILE	4.800
MEDIAN	5.250
UPPER QUANTILE	5.700
MAXIMUM	6.500
MEAN	5.102
STD. DEV.	0.912
N	27
MISSING	5

SERIES: BILL RETURNS (3-MONTH)

STATISTIC	
MINIMUM	1.500
LOWER QUANTILE	2.850
MEDIAN	3.500
UPPER QUANTILE	4.000
MAXIMUM	5.600
MEAN	3.300
STD. DEV.	0.996
N	26
MISSING	6

Source: Philadelphia Federal Reserve Bank, Survey of Professional Forecasters, February 23, 2004.
<http://www.phil.frb.org/files/spf/spfq104.pdf>

CAPM
Real S&P 500 EPS Growth Rate

Year	S&P 500 EPS	Annual Inflation CPI	Inflation Adjustment Factor	Real S&P 500 EPS	
1960	3.10	1.4		3.10	
1961	3.37	0.7	1.0070	3.35	
1962	3.67	1.3	1.0201	3.59	
1963	4.13	1.6	1.0364	3.99	
1964	4.76	1	1.0468	4.55	
1965	5.30	1.9	1.0667	4.97	
1966	5.41	3.5	1.1040	4.90	
1967	5.46	3	1.1371	4.80	
1968	5.72	4.7	1.1906	4.81	
1969	6.10	6.2	1.2644	4.83	10-Year
1970	5.51	5.6	1.3352	4.13	2.9%
1971	5.57	3.3	1.3792	4.04	
1972	6.17	3.4	1.4261	4.33	
1973	7.96	8.7	1.5502	5.13	
1974	9.35	12.3	1.7409	5.37	
1975	7.71	6.9	1.8610	4.14	
1976	9.75	4.9	1.9522	4.99	
1977	10.87	6.7	2.0830	5.22	
1978	11.64	9	2.2705	5.13	
1979	14.55	13.3	2.5724	5.66	10-Year
1980	14.99	12.5	2.8940	5.18	2.3%
1981	15.18	8.9	3.1516	4.82	
1982	13.82	3.8	3.2713	4.23	
1983	13.29	3.8	3.3956	3.91	
1984	16.84	3.9	3.5281	4.77	
1985	15.68	3.8	3.6621	4.28	
1986	14.43	1.1	3.7024	3.90	
1987	16.04	4.4	3.8653	4.15	
1988	22.77	4.4	4.0354	5.64	
1989	24.03	4.6	4.2210	5.69	10-Year
1990	21.73	6.1	4.4785	4.85	-0.7%
1991	19.10	3.1	4.6173	4.14	
1992	18.13	2.9	4.7512	3.81	
1993	19.82	2.7	4.8795	4.06	
1994	27.05	2.7	5.0113	5.40	
1995	35.35	2.5	5.1365	6.88	
1996	35.78	3.3	5.3061	6.74	
1997	39.56	1.7	5.3963	7.33	
1998	38.23	1.6	5.4826	6.97	
1999	45.17	2.7	5.6306	8.02	10-Year
2000	52.00	3.4	5.8221	8.93	6.3%
2001	44.23	1.6	5.9152	7.48	
2002	47.24	2.4	6.0572	7.80	3-Year
2003	54.15	1.9	6.1723	8.77	-0.6%
Data Source: http://pages.stern.nyu.edu/~adamodar/				Real EPS Growth	2.45%

Exhibit_(JRW-9)

**DCF Equity Cost Growth Rate Measures
Analysts Projected EPS Estimates**

Dr. Vander Weide's Water Company Group

Company	Yahoo			Average
	First Call	Reuters	Zack's	
American States Water	3.0%	3.0%	N/A	3.0%
Aqua America, Inc.	9.5%	8.8%	9.0%	9.1%
California Water Service Group	4.0%	3.0%	10.0%	5.7%
Middlesex Water Company	6.0%	6.0%	6.0%	6.0%
Southwest Water Co..	9.0%	8.3%	8.3%	8.5%
York Water Company	7.0%	7.0%	7.0%	7.0%
Mean	6.4%	6.0%	8.1%	6.6%

Data Sources: www.zacks.com, www.investor.reuters.com,
<http://quote.yahoo.com>, August, 2004.

Exhibit (JRW-9)

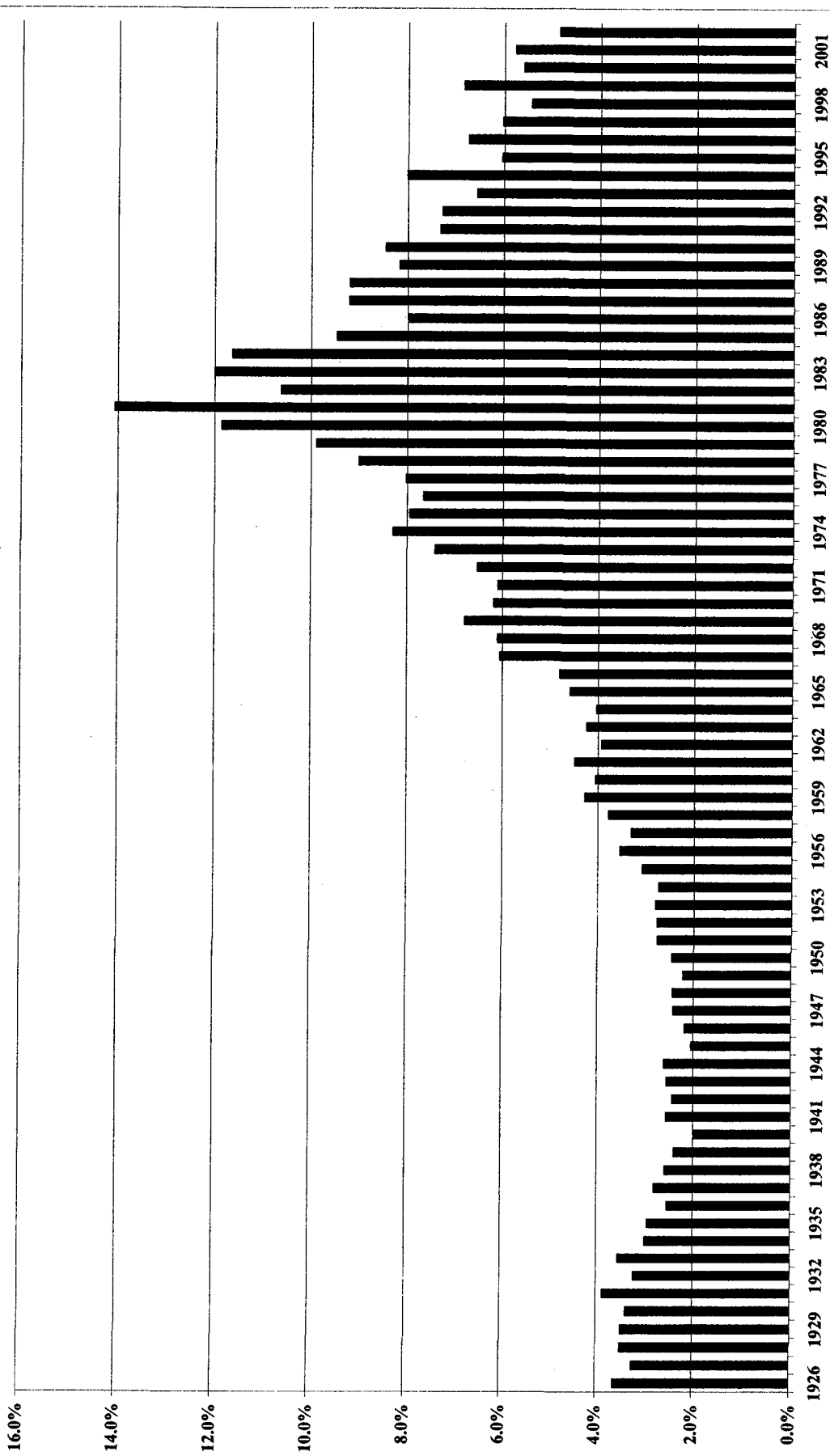
DCF Equity Cost Growth Rate Measures
Analysts Projected EPS Estimates

LDC Group

Company	Yahoo First Call	Reuters	Zack's	Average
AGL Resources	4.5%	5.1%	5.0%	4.9%
Atmos Energy	3.6%	5.4%	4.0%	4.3%
Energen Corp.	7.0%	7.3%	7.0%	7.1%
Equitable Resources	10.0%	9.4%	10.0%	9.8%
KeySpan Corp.	5.0%	5.4%	5.0%	5.1%
New Jersey Resources	5.5%	5.8%	6.0%	5.8%
NICOR	2.5%	3.4%	4.0%	3.3%
Northwest Natural Gas	4.3%	4.5%	4.0%	4.3%
Peoples Energy Corp.	4.0%	4.5%	5.0%	4.5%
Southwest Gas	3.1%	4.6%	5.0%	4.2%
UGI Corp.	8.0%	6.8%	7.0%	7.3%
WGL Holdings, Inc	3.8%	3.9%	4.0%	3.9%
Mean	5.1%	5.5%	5.5%	5.4%

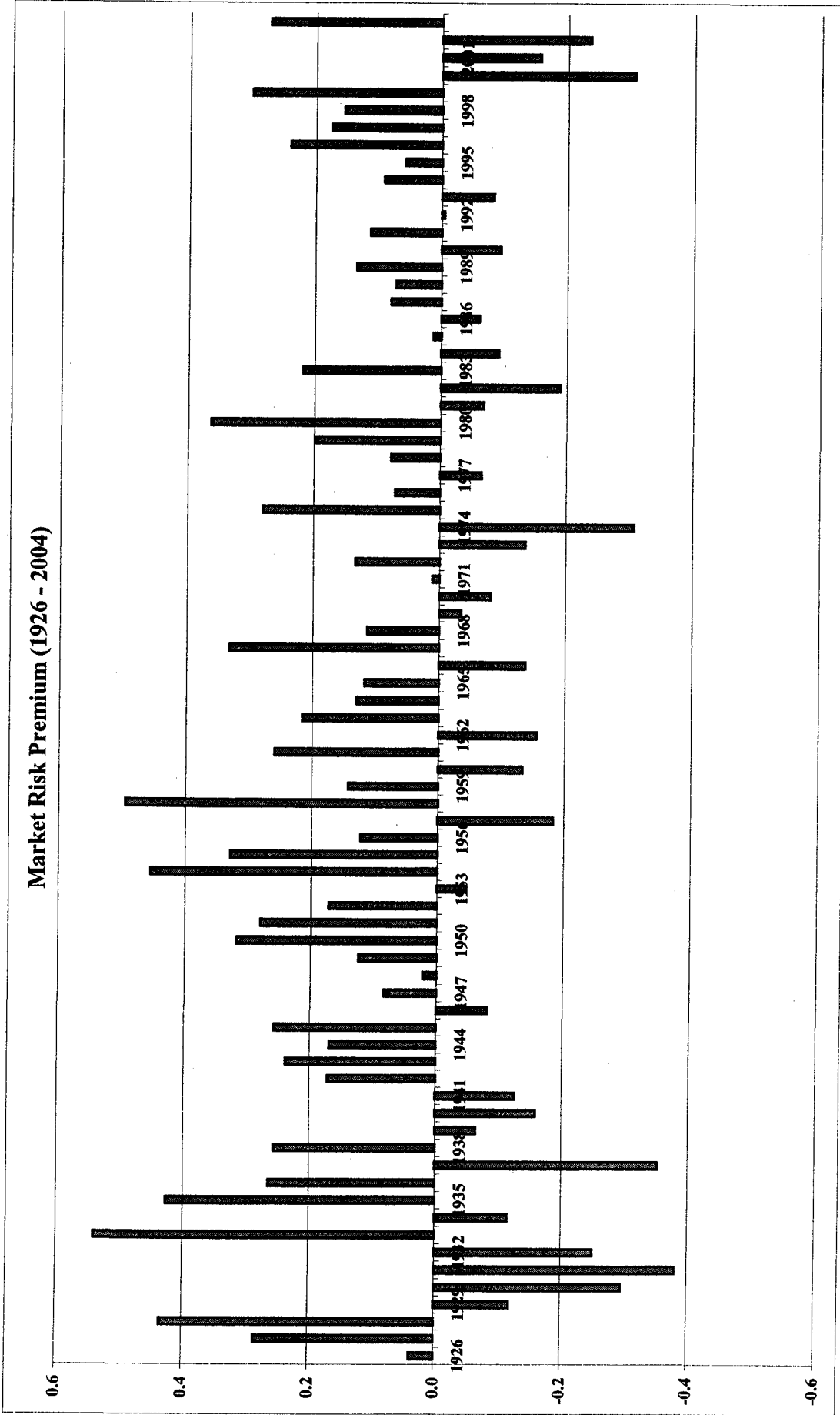
Data Sources: www.zacks.com, www.investor.reuters.com,
<http://quote.yahoo.com>, August, 2004.

LT US Treasury Yields (1926 - 2004)



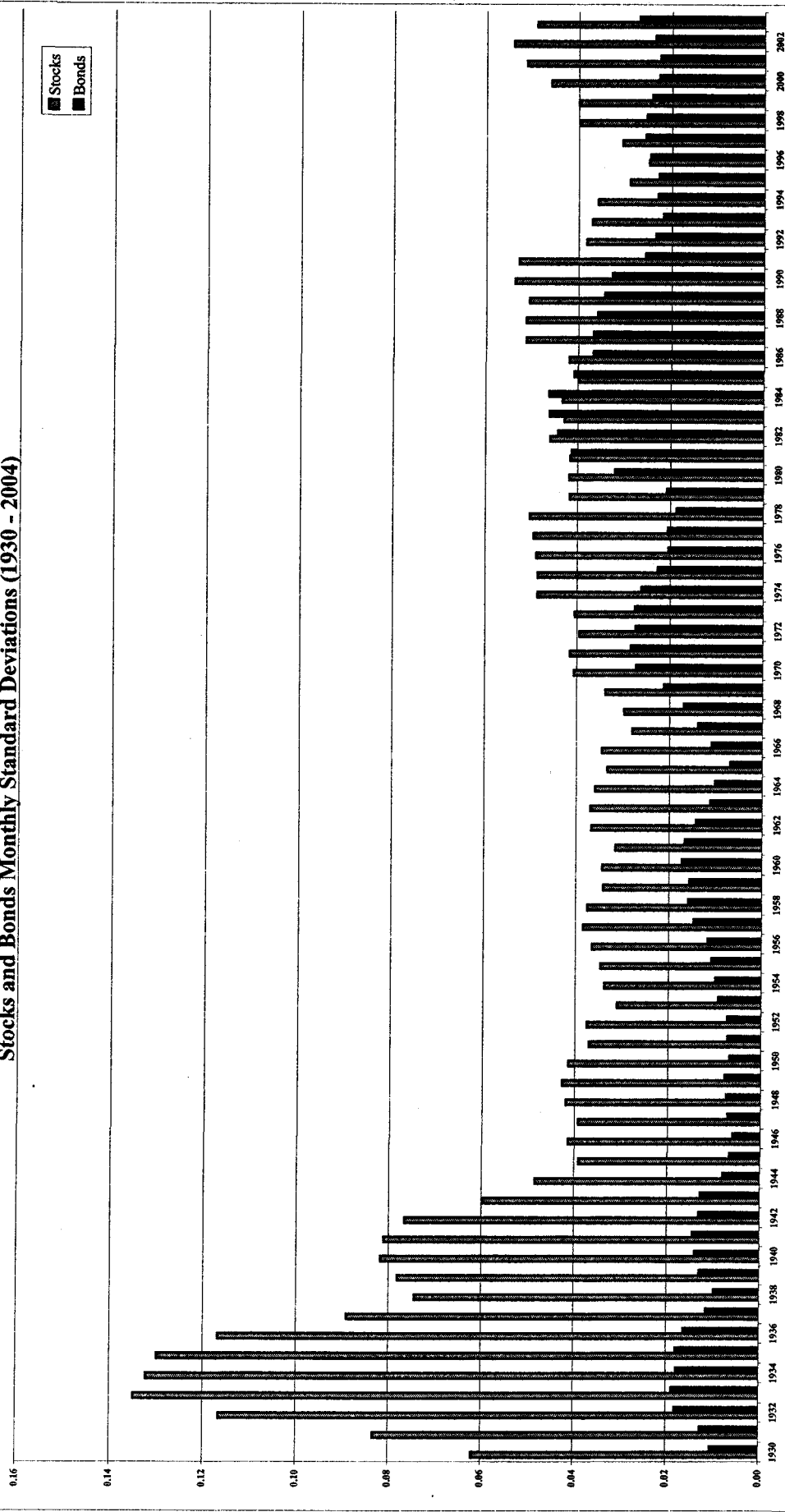
Data Source: Ibbotson Associates, SBBI Yearbook, 2004.

Market Risk Premium (1926 - 2004)

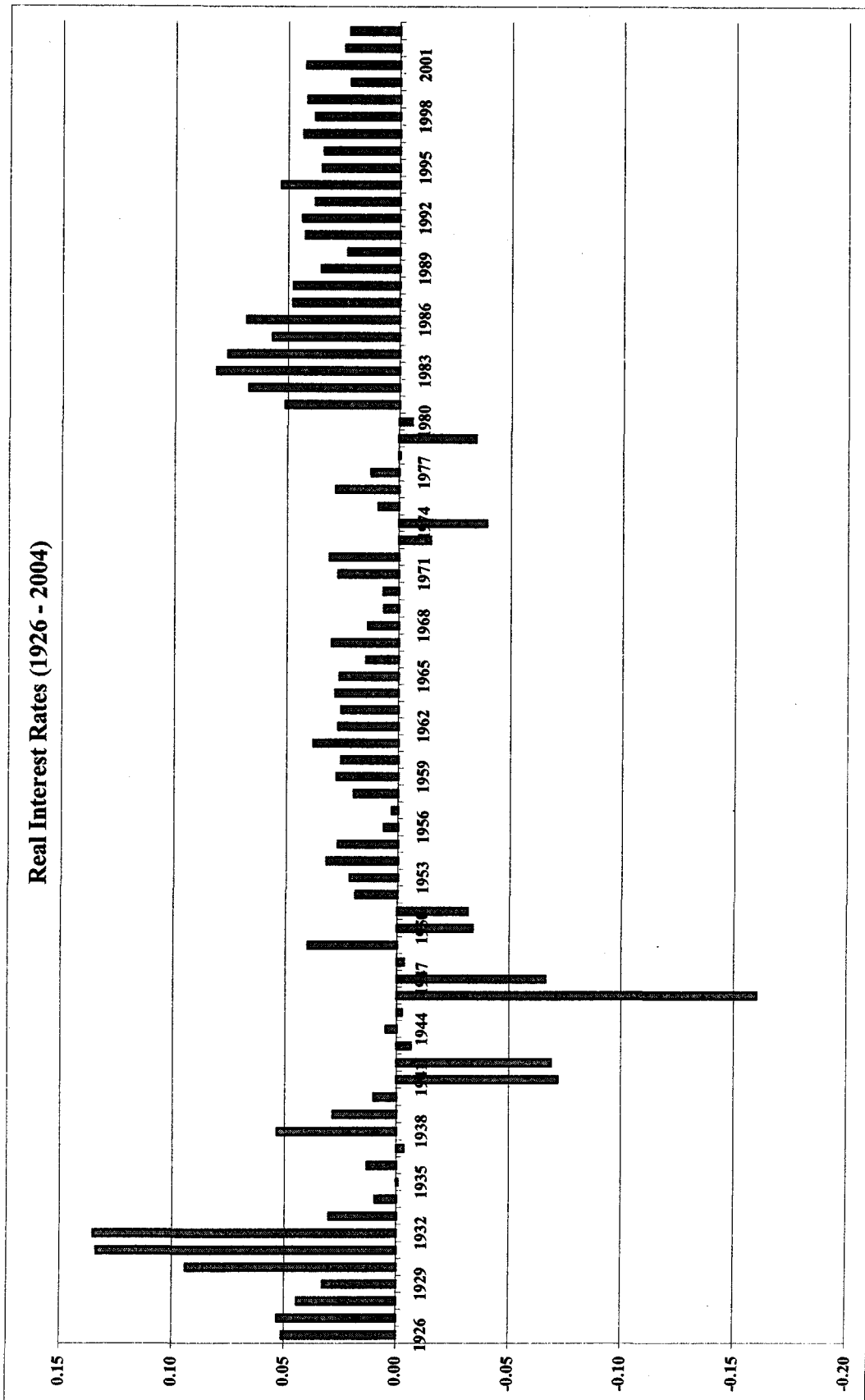


Data Source: Ibbotson Associates, S&P Yearbook, 2004.

Stocks and Bonds Monthly Standard Deviations (1930 - 2004)



Data Source: Ibbotson Associates, S&P Yearbook, 2004.



Data Source: Ibbotson Associates, SBBI Yearbook, 2004.