

**This Integrated Resource Plan represents a snapshot of an ongoing resource planning process using current business assumptions. The planning process is constantly evolving and may be revised as conditions change and as new information becomes available. Before embarking on any final strategic decisions or physical actions, the Companies will continue to evaluate alternatives for providing reliable energy while complying with all regulations in a least-cost manner. Such decisions or actions will be supported by specific analyses and will be subject to the appropriate regulatory approval processes.**

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**THE U.S. ECONOMY**  
**THE 30-YEAR FOCUS**

**FIRST-QUARTER 2010**



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# Forecast Overview

by Patrick Newport

This issue of *The U.S. Economy, 30-Year Focus* presents IHS Global Insight's most recent set of long-range projections. Given the detail available in the current IHS Global Insight model, the projections for the next 30 years cover not just the macro concepts such as output, inflation, and unemployment, but also the more disaggregated variables such as production and employment by industry. This disaggregation provides a variety of concepts for analysts to use in their planning models. Many of these variables serve as inputs to IHS Global Insight's Regional and Energy models.

While the long-range outlooks have been of particular interest to utilities and state and local governments, which

have relatively long planning horizons, they can be equally relevant to analysts dealing with shorter intervals. This is especially true of the trend scenario, the principal long-range projection. The trend is completely consistent with IHS Global Insight's February short-term baseline (Control) solution (detailed in the February 2010 issue of *The U.S. Economic Outlook*), which represents our forecast through 2020. Thereafter, the economy is expected to make a transition to full employment (4.5-5.5% unemployment), and then evolve gradually along this full-employment growth path. Hence, the transition between the short- and long-term forecasts is smooth, making the trend projection an excellent base for 10-year planning purposes and policy simulations.

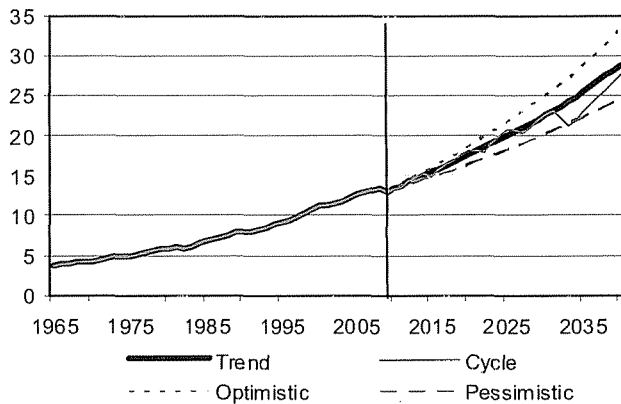
## A Comparison of the Past and Future (Percent)

	History 1979-2009	Trend 2010-2040	Cycle 2010-2040	Optim 2010-2040	Pesim 2010-2040
<b>Average Annual Real Growth</b>					
Potential Output	3.1	2.4	2.2	2.7	1.9
GDP	2.7	2.6	2.5	3.1	2.1
Consumption	3.0	2.4	2.3	3.0	2.0
Business Fixed Investment	3.8	4.5	4.3	5.0	4.0
Government	2.2	0.7	0.8	0.9	0.4
Exports	5.4	6.2	5.7	6.8	5.6
Imports	5.3	4.9	4.9	5.5	4.7
<b>Average Annual Growth</b>					
Labor Force	1.3	0.7	0.7	0.8	0.6
Productivity	1.9	2.0	1.8	2.2	1.5
Industrial Production	1.8	2.6	2.3	3.3	1.6
<b>Average Level</b>					
Inflation (Chain-wt. Implicit GDP deflator)	3.3	1.7	2.8	1.3	3.1
Unemployment	6.2	5.8	6.5	5.4	6.1
<b>Average Percent of GDP</b>					
Fuel Import Bill	1.4	1.5	1.4	1.7	1.5
Trade Balance	-2.5	0.0	-0.8	0.5	0.7
Federal Deficit	-2.7	-4.2	-1.0	-5.6	-6.8
Fixed Investment	11.4	11.3	11.6	11.2	11.2

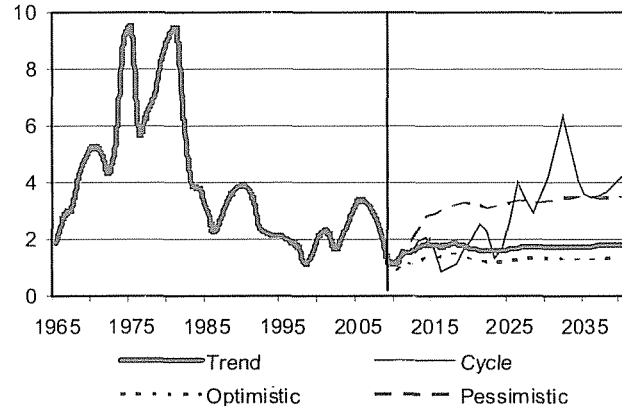
Note: Growth rates for the projection period are compound annual growth rates calculated between the years 2009 and 2040. Level Variables are averages for the years 2010 to 2040. Interpretation of the historical figures is similar.

**Real GDP**

(Trillions of chained 2005 dollars)

**GDP Price Inflation**

(Percent)

**The Four Long-Term Projections**

This *30-Year Focus* presents four projections: baseline, cyclical, optimistic, and pessimistic.

The **trend projection** is the baseline scenario. It assumes that after the economy gets back on track from the current downturn, it suffers no major mishaps between now and 2040. It grows smoothly, in the sense that actual output follows potential output relatively closely. This projection is best described as depicting the mean of all possible paths that the economy could follow in the absence of major dis-

ruptions. Such disruptions include large oil price shocks, untoward swings in macroeconomic policy, or a financial meltdown.

The **cyclical projection** is the primary alternative scenario. It superimposes business-cycle behavior on the trend scenario. Economic growth proceeds in a series of starts and stops, with periods of rapid expansion, followed by externally, or policy-induced recessions. The timing of the recessions is merely suggestive. Because it is impossible to predict the exact timing of business cycles much in

**Contributions to Real Potential GDP Growth**

(Average annual percent change)

	History	Trend		Cycle		Optim		Pessim		
	1993-2008	2009-23	2024-39	2009-23	2024-39	2009-23	2024-39	2009-23	2024-39	
<b>Factors of Production: Private Nonresidential</b>										
Labor Force (0.646)	0.9	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.1	
Capital Stock (0.259)	1.1	0.7	0.9	0.7	0.9	0.9	1.1	0.5	0.7	
Energy (0.07)	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	
Govt. Infrastructure (0.025)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	2.1	1.2	1.4	1.1	1.4	1.4	1.7	1.0	0.9	
<b>Contributions to Factor Productivity</b>										
Research and Development	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.2	
Other	0.9	1.0	0.9	0.8	0.8	1.0	1.0	0.7	0.6	
Total	1.2	1.1	1.1	0.9	1.0	1.2	1.2	0.8	0.8	
Real Potential Growth	2.6	2.2	2.5	2.1	2.4	2.6	3.0	1.7	1.7	

Note: Figures in parentheses are production function weights. All real data are in chained 2000 dollars. Labor and capital exclude labor and capital used to produce energy.

advance, it is unwise to focus on specific years. It is also inappropriate to calculate average growth rates between different points in the business cycle.

The **optimistic projection** is the upside scenario, in which economic growth proceeds smoothly but more rapidly than in the baseline, while prices rise more slowly. In this projection, population, labor force, and capital stock growth, as well as exogenous technological changes, occur more quickly than in the trend. Potential output thus climbs more rapidly, and because output is primarily supply-determined in the long run, real GDP grows 0.5 percentage point quicker per year.

The **pessimistic projection** is the downside scenario. Here, growth proceeds smoothly, but more slowly than in the baseline, and productivity growth is weaker. In this projection, population, labor force, and capital stock growth, together with exogenous technological changes, occur less rapidly than in the trend. Output thus climbs 0.5 percentage point more slowly per year.

### Probabilities

The underlying rate of growth in TREND30YR0210 is consistent with history, as well as with conjecture about the economy's unfolding structure. It can be regarded as the best-unbiased projection of the economy. Although any probabilities attached to long-run projections must be highly subjective, IHS Global Insight believes there is only a 10% chance that the economy's underlying path will be outside the bandwidth encompassed by the optimistic and pessimistic projections.

### Key Assumptions

**Demographics.** Demographic factors are a primary driving force in any long-term economic projection. The population's growth rate and changes in its composition have considerable impacts on the labor force, the full-employment unemployment rate, housing demand, and other spending categories—most notably, consumption of health services and purchases by state and local governments.

The population projections in IHS Global Insight's trend and cyclical scenarios are built on the Census Bureau's latest projections, which were released in August 2008. These projections replaced the Census 2004 "interim" projections, and incorporated new basic fertility, mortality, and migration assumptions. Since the Census's projections for

### Mortality Assumptions

(Ultimate levels by 2050)

	Trend/Cycle	Optim	Pessim
Life Expectancy at Birth (Years)			
Male	80.9	80.9	80.9
Female	85.3	85.3	85.3

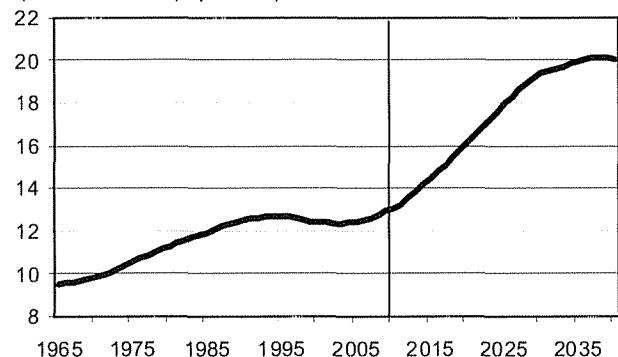
2001-08 are not the same as its latest population estimates, we have spliced the projections to the latest population estimates.

The "middle" projection is based on specific assumptions about immigration, fertility, and mortality rates. According to the Census, the fertility rate (the average number of births per woman upon completion of childbearing) will rise from 2.02 in 2001 to 2.06 in 2025 and then slip to 2.03 in 2050, while the mortality rate should continue to improve, with life expectancy for men and women rising steadily from 75.7 and 80.8 years, respectively, in 2010 to 79.6 and 84.2 years in 2040. Meanwhile, net immigration (including undocumented immigration) is estimated to rise from 1,173,000 persons in 2001 to 1,855,000 in 2040. Based on these assumptions, the U.S. population will average 0.9% growth per year through 2040, down from the 1.1% pace during the last 30 years. Thus, total population will rise from 282.8 million in 2000 to 406.2 million in 2040.

The age distribution of the population is also an important factor in the long-term outlook. As baby boomers begin to retire, the share of the U.S. population aged 65 years and over will jump from 13% in 2010 to 20% by 2040, pushing

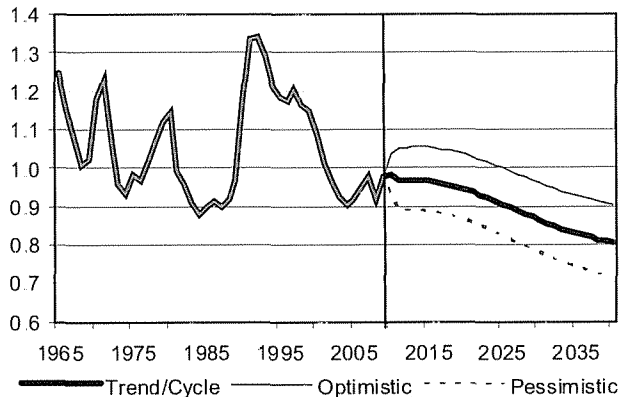
### The Share of Population Aged 65 and Older Rises

(Percent of total population)

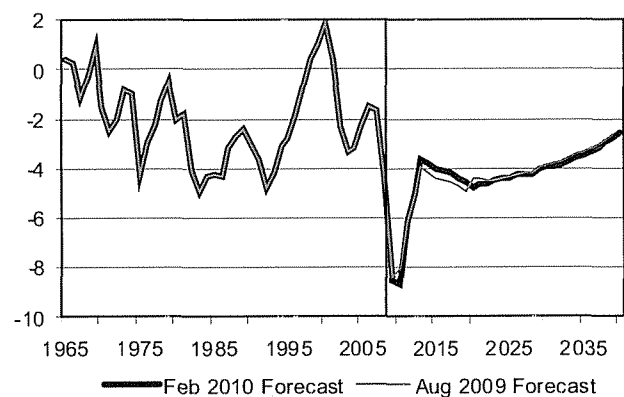


**Population Growth**

(Percent)

**The Federal Deficit Shrinks, Then Stalls**

(Percent of GNP, NIPA basis)



up outlays for Social Security, Medicare, and Medicaid. In addition, the growth rate of the working-age population will slow more than that of the overall population. After increasing 1.2% annually over the past 30 years, the population aged 16-64 years will grow only 0.6% over the forecast period.

The optimistic and pessimistic alternatives embody population projections different from those in the trend. The optimistic outlook assumes the U.S. population will increase more quickly because of higher net immigration. Conversely, the pessimistic alternative constricts growth in the labor force because of lower-assumed net immigration from the start of the forecast period. As a result, annual population growth averages 1.0% in the optimistic scenario and 0.8% in the pessimistic scenario. By 2040, the current population increases to 418 million in the optimistic projection, but to only 396 million in the pessimistic scenario, compared with 406 million in the baseline.

**Fiscal Policy.** We expect federal spending on defense, transfer payments, and federal aid to state and local governments to consume a good share of GDP. As a result, the federal government should post deficits in the unified budget over the forecast period. In the forecast, the deficit averages 4.2% of GDP in 2010-40. In the longer run, the baby boomers' retirement will cause deficits to grow, despite some increases in the Social Security tax rate.

**Monetary Policy and Inflation.** Monetary policy remains important in the long-term projections, not so much in determining the level of output, but rather in determining

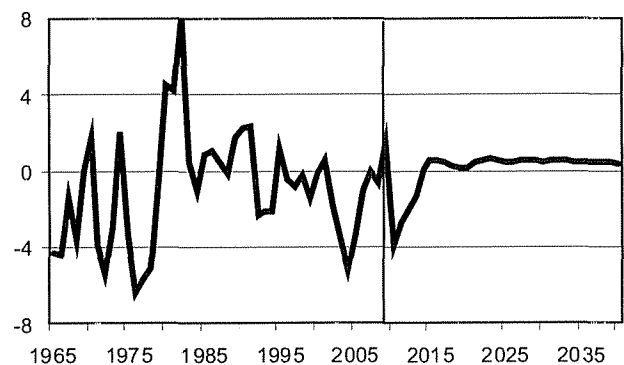
the rate of inflation. Ultimately, the Federal Reserve decides on the steady-state rate of inflation. Monetary policy can cause inflation to accelerate by being overly accommodative and pushing the unemployment rate temporarily below the rate at which inflation is stable. Alternatively, it can cause inflation to decelerate by being restrictive and pushing the unemployment rate temporarily above the rate at which inflation is stable.

In this forecast, we assume that the Fed's ultimate goal is a stable inflation rate. The CPI inflation rate is jumpy in the early years of the forecast because of spiking oil prices, and eventually settles to about 2.0%

Bond yields will generally move parallel to the funds rate over the forecast interval, but run somewhat higher. The

**Short-Term Interest Rates Will Settle at Their Equilibrium**

(Federal funds rate less nominal GDP growth, percentage points)



yield on 10-year treasuries rises slowly, and eventually converges to about 5.6%. The forecast implies a real federal funds rate of about 2.6% and a real long-term bond rate of 3.6%.

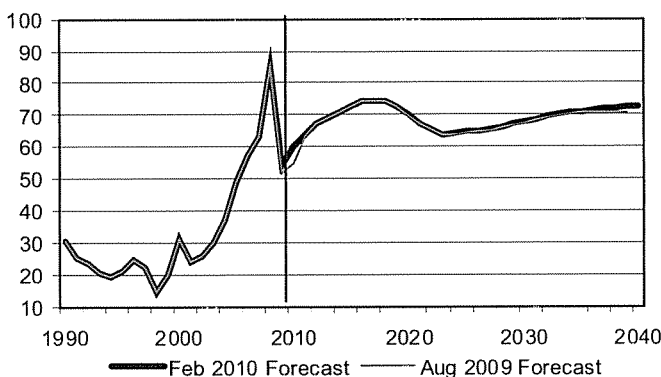
In the cyclical scenario, periods of overly expansive monetary policy are followed by intervals of overly restrictive policy, which translates into the periodic acceleration and deceleration of inflation. In the optimistic scenario, the Fed is assumed to keep a tight rein on the money supply, permitting little acceleration of inflation. Conversely, in the pessimistic scenario, the central bank is assumed to be reluctant to put the economy through the pain necessary to bring inflation back to baseline levels, choosing instead to tolerate an inflation rate that is higher than in the baseline.

**Energy.** Oil prices have climbed back, after having plunged during the global recession. Once global economies get back on track, prices will climb. IHS Global Insight's Energy Service expects the average acquisition price of foreign oil to remain above \$75 per barrel after 2011. With worldwide demand steadily increasing, the OPEC cartel will maintain some pricing power. The West Texas Intermediate price for oil is projected to reach \$142 per barrel by 2040, compared with the average price of \$26 in 2001.

In the long run, scarcity tends to bid energy prices up, while new technologies tend to hold them down. In the end, we project that these two forces will balance out over the forecast period.

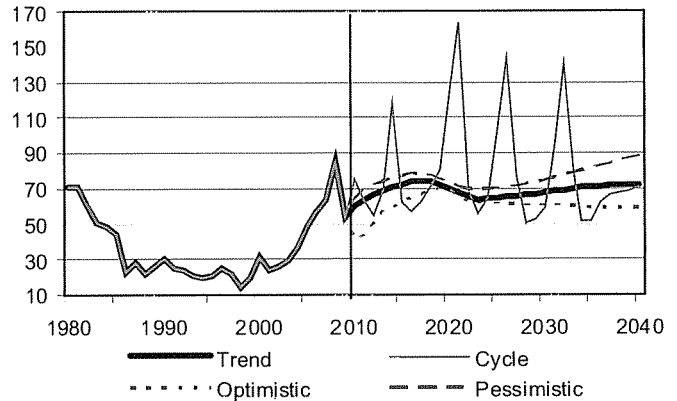
### Real Oil Prices Crash, Then Recover

(Refiners' acquisition cost of imported crude, 2005 dollars/barrel)



### Oil Price Paths Across the Four Scenarios

(Refiners' acquisition cost of imported crude, 2005 dollars/barrel)

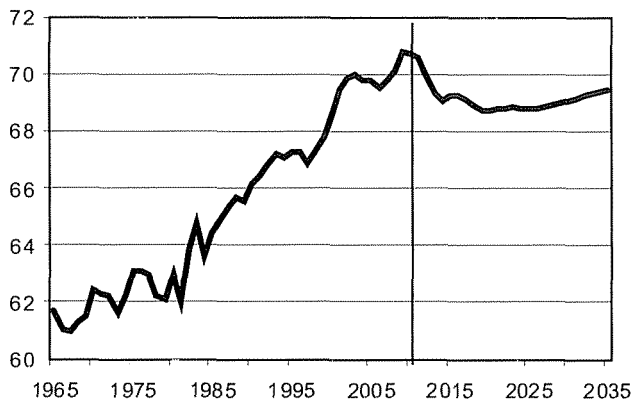


The oil price path in the cyclical scenario contains several oil spikes, where oil producers are assumed to mimic their behavior of the 1970s, raising oil prices substantially when the world economy is close to a cyclical peak. In the pessimistic scenario, nominal and real oil prices are higher than in the trend. In the optimistic scenario, nominal and real oil prices are below what they are in the trend.

Price projections are a trend. It is likely that there will be periods, possibly of several years at a time, when prices are either above or below the trend. A price outcome higher than the projected trend could result from stronger demand growth (perhaps notably in China) and/or weaker supply (more disappointments in non-OPEC and loss of productive capacity in OPEC due to political upsets). A price outcome lower than the projected trend could arise from recession, enforcement of higher efficiency standards, or better than expected supply prospects.

**International.** In the trend projection, the major U.S. trading partners are assumed to follow a growth pattern similar to that in the United States, with the pace of growth averaging 1.9% over the forecast period, down from an average 2.6% over the past 30 years. This slowdown reflects demographic forces similar to those operating in the United States, as well as the maturation of many developing economies. Owing to steady pressure from the current account deficit, the dollar will fluctuate, but on average, depreciate throughout our long-term forecast.

Variations in the international environment help explain some of the differences among the alternative scenarios. A

**The Consumption Share Stabilizes**  
(Percent of GDP)

faster (slower) rate of growth abroad partially explains the higher (lower) level of exports in the optimistic (pessimistic) scenario. Meanwhile, a cycle in the real exchange rate due to swings in domestic interest rates helps explain the trade pattern in the cyclical scenario.

**Demand Mix.** Although the overall level of output is determined by supply conditions, many mixes of aggregate demand are consistent with that level of output. Over the

forecast period, the demand mix will be dominated by the need to boost exports to balance the current account. Over the forecast period, the share of GDP going to exports rises from 13% in 2008 to 23% in 2040.

The sum of the remaining shares of GDP must decline to make room for the rising share devoted to exports. Government spending will bear some of the burden in 2009-40; the government's share of GDP will decline about 7 percentage points.

**Methodology Over the Short-Term Forecasting Horizon**

The trend remains consistent with the February Control forecast through 2020. The two bandwidth scenarios—optimistic and pessimistic—take the trend solution as their starting point and immediately diverge from it—according to their own underlying assumptions—at the beginning of the solution interval. This ensures that growth is always higher in the optimistic alternative, and lower in the pessimistic alternative. However, while average GDP growth, inflation, unemployment, and interest rates may be higher or lower than in the trend, depending on which is appropriate, these relationships will not necessarily hold for every individual quarter of the forecast period.

**Capsule Summary of the Long-Term Projections**

	<b>Trend</b>	<b>Cyclical</b>
<b>General Outlook</b>	The economy exhibits mild variations in growth and approaches its balanced-growth path. CPI inflation rises slowly, averaging 1.9%.	Typical business-cycle fluctuations.
<b>I. Principal Exogenous Assumptions</b>		
Demographic	Projections consistent with the Census Bureau's latest middle-growth forecast, which assumes a leveling off of the fertility rate at 2.1 births, an ultimate mortality rate of 79.0 years for men and 84.8 years for women, and net immigration grows to 1.338 million in 2010, 1.473 million in 2020, to 1.664 million in 2030 and 1.885 million in 2040.	
Energy imports	Real oil prices edge up over the forecast period. No embargoes are assumed.	Sharp price hikes occur in periods of peak demand.
Food prices	Wholesale farm prices average 0.9% annual increases.	Wholesale farm prices average 2.1% annual increases.
<b>II. Principal Policy Dimensions</b>		
Tax changes	Marginal personal tax rates inch up. Corporate tax rate eventually rises above 40% because of the fiscal deficits.	Similar to baseline.
Growth of federal spending	Real, +2.6% per year.	Real, +3.3% per year. Growth pattern resembles the trend's.
Federal Transfers	Real growth of 3.0% per year.	Real growth of 3.4% per year.
Budget deficit	Deficit averages 4.1% of GDP.	Deficit averages 5.6% of GDP.
Average federal government share of GDP	25.0%	26.5%
Monetary policy	Sufficient funds made available to promote stable credit growth. Money (M2) growth averages 4.6%.	Fluctuations in monetary policy contribute to severity of cycles. M2 averages 5.3% annual growth.
Federal funds rate	Rises gradually, eventually settling at 4.75%.	Ranges between 0.12% and 10.75%.



## Capsule Summary of the Long-Term Projections

	Trend	Cyclical
<b>III. Behavior of Economic Agents</b>		
Consumers	Consumer confidence relatively constant.	Cyclical swings in confidence, income, and wealth cause large fluctuations in expenditures, particularly on durable goods.
Average annual real consumption growth	2.4%	2.3%
Business	Decisions made in relatively stable environment.	Fluctuations in output, interest rates, and inflation lead to fluctuations in investment.
Average business fixed investment share in GDP	11.3%	11.2%
Average share of corporate cash flow in GNP	9.7%	10.6%
State and local government	Real expenditures dictated by demographics and ability to raise taxes. Average real growth in purchases of 0.9% per year.	Average real growth in purchases of 1.0% per year.
Federal budget position (Fiscal years)	Deficits	Deficits
International		
Average annual wholesale price	1.3% (OECD countries) 3.2% (Developing countries)	1.1% (OECD countries) 2.9% (Developing countries)
Real U.S. exchange rate	Declines over forecast period.	Declines over forecast period.
<b>IV. Other Parameters</b>		
Average annual productivity growth	2.0%	1.8%
Average annual potential output growth	2.4%	2.2%
Consumer price inflation	Eventually stabilized at 2.0%	Periodic demand surges, oil price shocks, and more aggressive wage responses boost the average inflation rate.
Consumer price index		
Average annual increase	1.9%	3.0%
Peak annual	2.0% (2040)	8.3% (2032)
Hourly earnings		
Average annual rise	3.4%	4.4%
Peak annual	3.70% (2029)	8.25% (2032)
Housing market	Demographics dictate slower growth of the housing stock.	Cycles in incomes and monetary policy affect the housing sector more severely.
Median new home price in	\$527,400	\$671,400
Average annual rise	3.0%	3.8%
Unemployment	Settles at about 5.2%.	Fluctuates with the business cycle.
Average rate	5.8%	6.5%

**Capsule Summary of the Long-Term Projections**

	<b>Optimistic</b>	<b>Pessimistic</b>
<b>General Outlook</b>	High growth. Deviations from trend due to differences in demographic assumptions, productivity growth, and investment.	Low growth.
<b>I. Principal Exogenous Assumptions</b>		
Demographic	Projections above the trend are a result of higher net immigration.	Projections below the trend due to lower net immigration.
Energy imports	Real oil prices rise slower than in the trend.	Real oil prices increase more than in the trend forecast.
Food prices	Wholesale farm prices rise 0.5% annually.	Wholesale farm prices average 2.5% annual increases.
<b>II. Principal Policy Dimensions</b>		
Tax changes	Lower tax rates.	Higher tax rates.
Growth of federal spending	Real, +1.9% per year.	Real, +3.2% per year.
Federal Transfers	Real growth of 2.7% per year.	Real growth of 3.0% per year.
Budget deficit	Surpluses after 2030.	Deficits throughout.
Average federal government share of GDP	21.7%	28.5%
Monetary policy	Stable and predictable.	Tight policies required to contain rising inflationary pressures.
Federal funds rate	Settles at 4.00%.	Rises to 7.75%.

**Capsule Summary of the Long-Term Projections**

	Optimistic	Pessimistic
<b>III. Behavior of Economic Agents</b>		
Consumers	Consumer confidence upbeat.	Lower real incomes depress consumer expenditures.
Average annual real consumption growth	3.0%	2.9%
Business	High demand expectations plus low inflation and interest rates enhance the business environment.	Higher inflation, higher interest rates, and weaker demand make investors more cautious.
Average business fixed investment share in GDP	11.6%	11.1%
Average share of corporate cash flow in GNP	10.5%	9.4%
State and local government	Average real growth in purchases of 1.2% per year.	Average real growth in purchases of 0.4% per year.
Federal budget position (Fiscal years)	Surpluses after 2030.	Deficits throughout.
International		
Average annual wholesale price inflation for major trading partners	0.9% (OECD countries)	1.4% (OECD countries)
	2.8% (Developing countries)	3.2% (Developing countries)
U.S. exchange rate	Real exchange rate declines.	Real exchange rate rises.
<b>IV. Other Parameters</b>		
Average annual productivity growth	2.2%	1.5%
Average annual potential output growth	2.7%	1.9%
Consumer price inflation	Converges to about 1.6%.	Inflation approaches 4.0%
Consumer price index		
Average annual increase	1.5%	3.3%
Peak annual	1.8% (2018)	3.8% (2040)
Hourly earnings		
Average annual rise	3.2%	4.7%
Peak annual	3.0% (2029)	5.1% (2032)
Housing market	The higher population projections push the housing stock above the trend.	Lower real incomes and high cost of funds depress housing starts.
Median new home price in 2040	\$465,500	\$765,400

# The Trend Projection

by Patrick J. Newport

## Slowing Growth and Federal Deficits: The Trend Projection

### Highlights

- *Real GDP growth will average 2.6% per year in 2009-40.*
- *The outlook for inflation remains moderate. Consumer price index (CPI) inflation will average 1.9% per year over the forecast period. Core inflation will also average 1.9%.*
- *Nonfarm business productivity growth averages 2.0% over the forecast period, compared with the 2.1% average experienced since 1953.*
- *The current-account deficit is negative throughout the forecast period.*
- *Real oil prices after 2012 remain high by historical standards.*
- *The labor market improves over the forecast period, with the unemployment rate eventually settling at 5.2%.*
- *The federal budget deficit remains in deficit throughout the forecast period.*

### Introduction

Economists focus on the short run. Will the Federal Reserve raise interest rates? Is the stock market overvalued? Will the economy slip into recession again next year? Is inflation set to take off? This focus is understandable. We care more about what will happen tomorrow than what will happen three years from today. The focus, though, is misplaced. When historians look back on the 20th century, the most striking economic fact that will distinguish it from previous centuries will not be the 21 recessions, but rather the steady, inexorable rise in per capita income.

The driving force behind rising per capita income is one that economists still do not quite understand: productivity growth. While they agree that new technologies eventually make workers more productive, many questions remain under debate. What determines the pace of technological progress? How long does it take for new technologies to catch on? As a growth accelerant, how does an innovation such as the Internet compare with the invention of the transistor, the airplane, or the electric bulb? Not knowing these answers makes productivity—and the course of the economy—extremely tricky to forecast.

A further complication made this forecast even trickier. Productivity surged between 1994 and 2000, possibly because of what Alan Greenspan called a revolution in information technologies. Although productivity growth eased as the economy slowed in 2001, it surged—for reasons that remain unclear—in 2002, 2003, and 2004. Then, productivity gains slowed again—over 2004-08, productivity growth averaged just 1.9%. But the latest productivity readings have been staggering. Year-over year, productivity was climbing 5.8% in the fourth quarter—nearly triple the 2.1% average gain of the past 50 years.

Going forward, where is productivity heading? In this forecast, productivity growth averages 2.0%, about the same as over the past 50 years. A new technological innovation, of course, could prove us wrong, and growth could be much rosier than portrayed in this forecast.

### Changes to the 30-Year Forecast

We have made few significant changes to the long-term forecast trend since last updating it in November 2009. The most significant changes occur in the first two years of the forecast. On the one hand, the recovery from the current downturn is a bit stronger than in November. On the other hand, the level of nonfarm employment in early 2010 is 680,000 lower in first-quarter 2010 because of data revisions.

The big picture over the forecast period is the same. Real GDP growth averages 2.6% (2.5% in the November 2009

forecast). CPI inflation averages 1.9% (1.8% in November 2009 forecast). Productivity average 2.0% (same as in November). The level of interest rates is nearly the same. The unemployment rate still hovers around 5%. Real oil prices are nearly the same. The fiscal deficits are still big, but as a share of GDP, they slowly get smaller after 2020—just as in the November forecast. Finally, the population projections are the same as in the November forecast.

### Long-Term Forecast Assumptions

In the trend scenario, after the first five years of the forecast, we assume an environment free of exogenous shocks. Economic output will converge towards its potential level, with all resources fully utilized. As a result, the growth rates of output, real incomes, real expenditures, and the general standard of living of the population are determined by the growth rate of potential GDP. The long-range outlook is dominated by supply factors, such as population growth and demographics, labor force participation rates, average weekly hours worked, national saving and capital stock accumulation, and productivity growth.

### Population and Demographics

The population projections are built on the Census Bureau's latest projections, which were released in August 2008. These projections have the U.S. population expanding at an annual rate of 0.9% in 2009-40, when the population reaches 404 million. Growth in the older-age cohorts will be stronger as the baby boomers age. The 65-years-

### Contributions to New Jobs

(Payroll employment, cumulative percent change)

	History		Trend		
	1981 -1991	1992 -2009	2010 -2020	2021 -2030	2031 -2040
Manufacturing	-8.9	-30.4	5.6	-13.0	-7.0
Mining and Construction	-0.1	22.0	20.2	17.2	19.7
Government	13.3	21.6	5.8	5.2	4.0
Private Services	21.2	20.6	15.1	10.5	9.8
Total New Jobs (Millions)	17.9	22.5	17.7	14.3	14.5

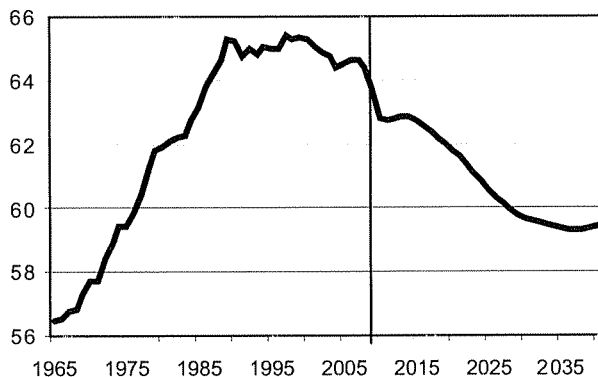
and-over population share rises from 12.9% in 2009 to 20.1% in 2040.

### Productivity and Aggregate Supply

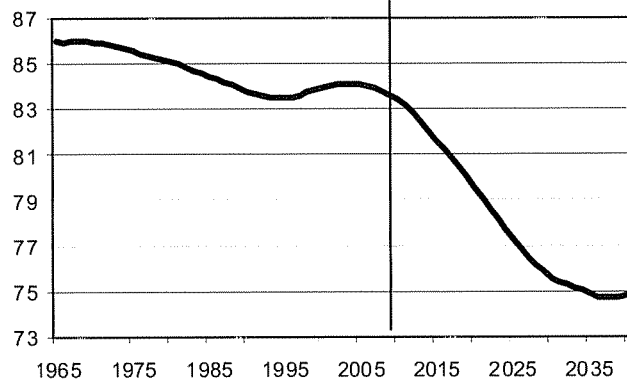
It is the economy's ability to increase supply in the long run that determines its potential growth path. Growth in aggregate supply depends on the increase in the labor force, the growth of the capital stock, and improvements in productivity.

IHS Global Insight believes that productivity growth will average 2.0% per year in 2009-40. This is lower than the stellar 2.9% average annual growth achieved during the 1960s, but about the average of the past 50 years. The real effective capital stock will grow 3.0% annually, compared with 3.8% in 1979-2009. The declining price of capital goods relative to other inputs accounts for the robust capital stock growth rates.

**The Labor-Force Participation Rate Falls**  
(Percent)



**Share of Population Aged 16-65 Falls**  
(Percent of total adult population)



## Government Policy

The federal budget deficit hit \$1.4 trillion in 2009 because of the recession and policies undertaken to combat it. Deficits then get smaller through 2013, but then they start to grow again.

An easy way for Congress to increase tax revenues is to let the tax cuts sunset as scheduled; however, this seems unlikely regardless of who may be in the White House or in control of Congress. One way or another, the well-off and not-so-well-off will be forced to pay more, perhaps by applying the Social Security tax to all incomes, as well as by raising marginal rates.

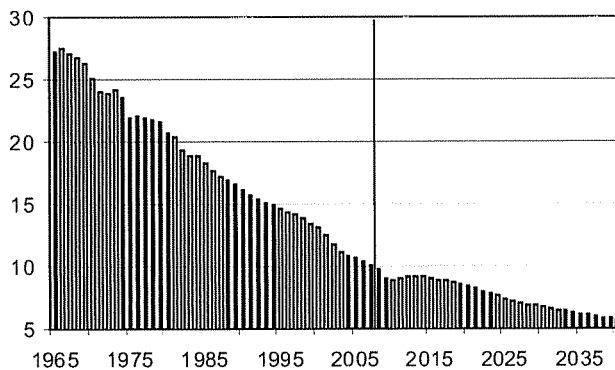
With the economy growing faster than the pace of government spending, the government sector's share of GDP will decline over the forecast period. The state and local government sector maintains the dominant share of total government purchases, growing from 61% in 2009 to 64% in 2040. At the federal level, the military accounted for 68% of federal purchases in 2009, and slowly drops to 60% in 2040.

## Monetary Policy and Financial Markets

The Federal Reserve decides on the steady-state rate of inflation. Monetary policy can cause inflation to accelerate by being overly accommodative. Alternatively, it can cause inflation to decelerate by being restrictive. In the forecast, the monetary authorities opt to maintain core inflation at about 1.8%.

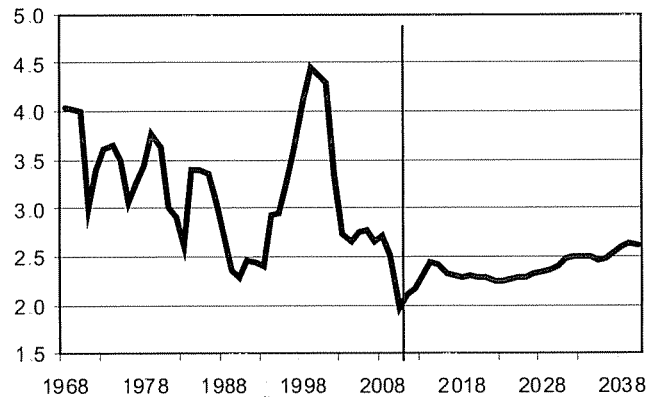
### Manufacturing's Share of Total Employment Continues to Erode

(Percent)



### Potential Output Growth

(Percent)



Bond yields will generally move parallel to the funds rate over the forecast interval, but run somewhat higher. The yield on 10-year Treasuries remains low by historical standards, hovering around 5.5% after 2014. The forecast implies a real federal funds rate of about 2.6% and a real long-term bond rate of 3.6%.

## Oil Prices

Oil prices tumbled during the global recession. Once the world economy got back on track, though, oil prices came back up.

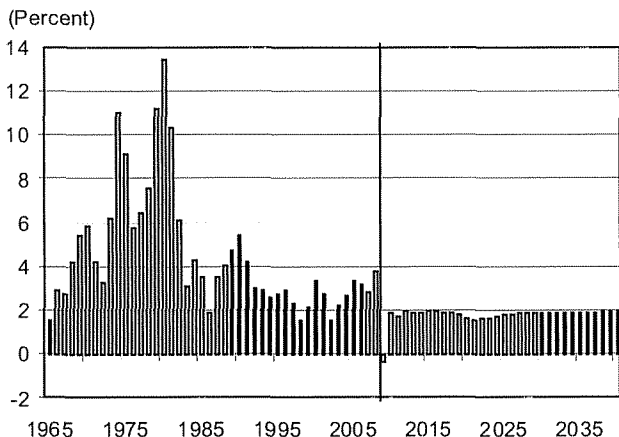
IHS Global Insight's Energy Service expects the average acquisition price of foreign oil to remain above \$80 per barrel after 2013. With worldwide demand steadily increasing, the OPEC cartel will maintain some pricing power. Although it is impossible to predict the precise timing of price changes, the trend projection assumes that imported oil prices will average \$102/barrel during 2013-40. The West Texas Intermediate price for oil is projected to reach \$142 per barrel in 2040, compared with the price of \$41.50 in 2004.

In the end, scarcity tends to bid energy prices up, while new technologies tend to hold them down. In the end, we project that these two forces will balance out—and that the real price of oil will stabilize after 2020. Nonetheless, real oil prices will remain high by historical standards.

## Foreign Assumptions

The major U.S. industrialized trading partners are assumed to follow a growth pattern similar to that in the United

**Consumer Price Inflation Remains in Check**



States, with the pace of growth averaging 1.9% over the forecast period, down from an average 2.4% over the past 30 years. This slowdown reflects demographic forces similar to those operating in the United States. The developing countries that trade with the United States will grow 4.1%, down from 4.5% growth during the past 30 years.

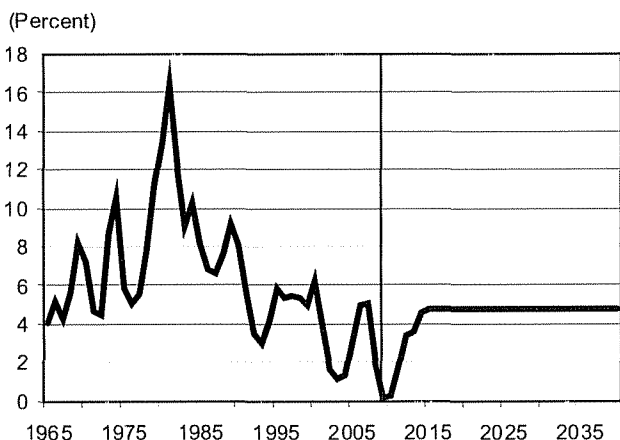
The dollar will have to depreciate steadily against foreign currencies throughout the forecast period in order to keep the U.S. current account deficit from growing too fast. Over the forecast period, the real U.S. trade-weighted dollar relative to industrialized country currencies depreciates 0.5% annually.

**Long-Term Forecast Highlights**

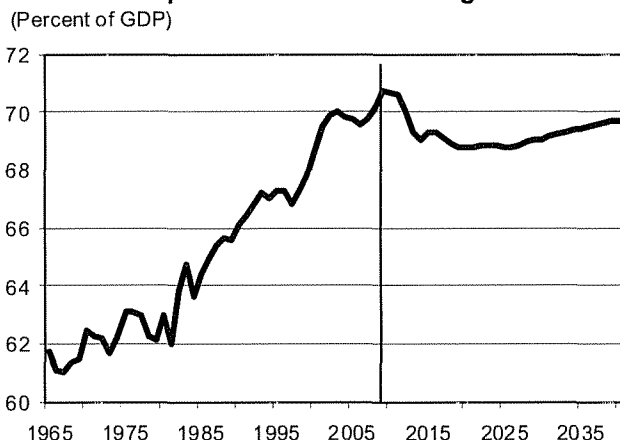
**Real GDP.** The trend projection assumes that the U.S. economy experiences no major mishaps between now and 2040. The projection is identical with our February 2010 baseline forecast through 2020, and represents IHS Global Insight’s best estimate of the economy’s path over that period. Beyond 2020, the projection should be interpreted as the mean of all possible near-full-employment paths the economy could follow. The smooth-growth characteristics of the trend projection make it most useful for tasks largely impervious to short-term cyclical fluctuations, such as planning capacity additions and evaluating new markets. This projection is also the best base from which to evaluate the effects of various assumptions about key exogenous elements, such as fiscal policy or energy prices, on the overall economic outlook.

Annual real GDP growth averages 2.6% in 2009-40, compared with 2.7% for the past 25 years. The economy’s underlying growth will slow as baby boomers begin to retire, slowing labor force growth. Potential output growth should hold up fairly well in the future, with greater business fixed investment and R&D spending offsetting the slowdown in labor force growth. Eventually, though, the effects of weaker labor force growth become dominant and, in a sense, self-perpetuating. As output growth drops off, business fixed investment rises more slowly, limiting capital stock growth and thus future output gains.

**The Federal Funds Rate**



**The Consumption Share Remains High**



**Personal Consumption Slows in Trend Scenario**  
(Average annual percent change)

	History		Trend		
	1981-1991	1992-2009	2010-2020	2021-2030	2031-2040
Total Expenditures	3.2	3.1	2.5	2.5	2.3
Consumption Excluding					
New Motor Vehicles	N/A	3.1	2.4	2.5	2.3
Durable Goods	4.6	5.8	4.9	4.8	5.2
Motor Vehicles & Parts	4.1	2.2	3.7	2.2	1.7
Furnishings & Durable					
Household Equip.	3.1	4.8	3.3	4.0	4.2
Recreational Goods & Vehicles	N/A	N/A	8.4	8.9	10.1
Information Processing Equip.	N/A	N/A	16.7	15.3	16.3
Other Recreational Goods					
& Vehicles	6.5	8.8	6.1	6.8	8.1
Other Durables	4.0	4.0	3.0	3.6	3.4
Nondurable Goods	2.2	2.6	2.0	2.5	1.9
Clothing & Shoes	4.2	3.9	3.1	3.7	3.2
Food & Beverages	N/A	N/A	1.7	1.2	0.7
Motor Vehicle Fuels,					
Lubricants & Fluids	1.9	1.4	-0.1	1.0	0.3
Fuel Oil & Other Fuels	-2.4	-2.3	-0.5	-0.4	-0.7
Other Nondurables	2.4	3.6	2.8	3.6	2.6
Tobacco	-2.7	-1.7	-4.7	-4.2	-8.5
Pharma. & Other Medical					
Products	4.0	5.5	5.1	4.7	2.8
Services	3.3	2.8	2.2	2.1	2.1
Household Cons. Expenditures					
(Services)	3.0	2.7	2.2	2.1	2.1
Housing & Utilities	2.5	2.3	1.4	1.7	1.5
Transportation	3.1	2.7	1.8	1.8	2.1
Health Care	2.8	2.7	3.0	3.0	2.4
Recreation	5.9	3.3	2.4	1.6	1.8
Financial Services & Insurance	4.6	3.1	2.2	1.8	1.7
Other Services	2.4	2.6	2.4	1.8	1.8

**Employment.** Slower long-run increases in the labor force indicate more moderate long-run employment growth in the future. Total civilian employment will rise at an average annual rate of 1.0% from 2009 to 2040. Total establishment employment will rise from 140.0 million in 2009 to 182 million in 2040, an increase of 30%. Manufacturing's share of total employment will continue to decline over the forecast period, falling to 5.7% in 2040, from 9.8% in 2009. The broad service sector will generate an increasing share of employment growth in the forecast period, although the federal government's share of employment will decline during the forecast period.

**Inflation.** Over the long run, inflation is a monetary phenomenon. Its future course will be determined by policies implemented by Ben Bernanke and his successors. Since we do not know who these successors will be, we assumed the Fed will try to contain inflation over the forecast period. The CPI is expected to average 1.9% annual increases

in 2009-40, somewhat less than the 3.9% average in 1979-2009. The broader-based GDP deflator will rise 1.7% per year.

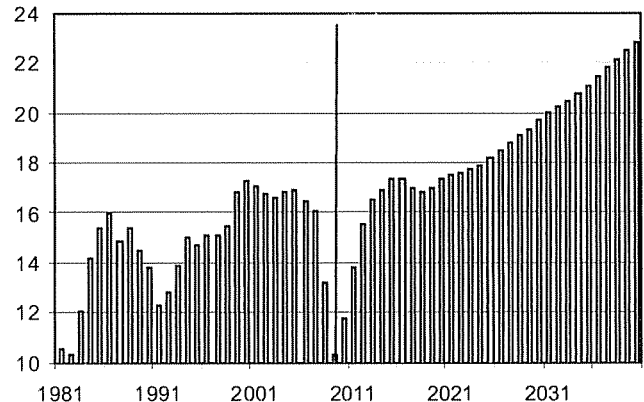
**Consumption.** Expenditures, in the long term, are primarily determined by the growth of real permanent income, demographic influences, and changes in relative prices. The share of personal consumption expenditures in GDP hovers around 69-70% of GDP over the forecast period. Real consumption growth will average 2.4% per year over the forecast period. In per capita terms, growth will advance about 1.5% per year, down 0.4 percentage point from the 1979-2009 rate. The share of consumption devoted to services will rise, mainly because of rising health expenditures, while that for goods will fall over the forecast period.

The long-term outlook for auto and light truck sales calls for a slowdown in the rate of increase relative to past performances. Light-vehicle sales are forecasted to reach 22.9 million units by 2040. Although the number of vehicles per person has increased significantly in the past 20 years, the United States is approaching a saturation point in the rate of vehicle ownership. Future growth in vehicle sales will be primarily driven by growth in population and demand for replacement vehicles. Automobile sales should be relatively strong throughout the projection period, averaging 10.5 million units per year.

Energy conservation efforts will continue. This stems partly from a stock/flow phenomenon: despite the trend toward

**Light-Vehicle Sales Revives**

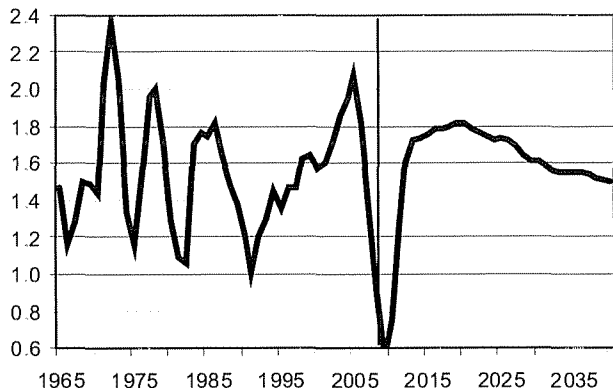
(Millions of units)



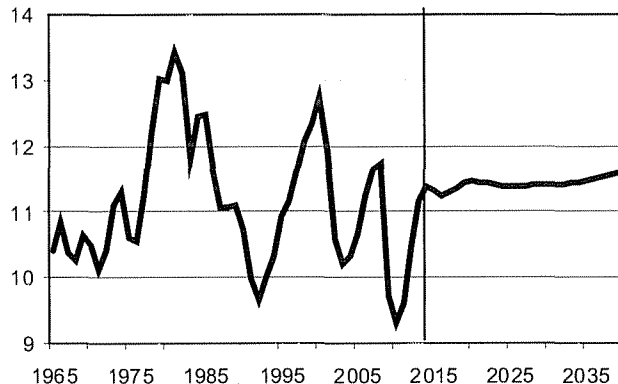


**Housing Starts Never Match 2005**

(Millions of units)

**Investment's Share of GDP Rebounds**

(Percent of GDP)



minivans and sport/utility vehicles, for example, the average new vehicle is still more fuel-efficient than the existing stock. Gasoline usage per vehicle should fall for several more years, even if relative energy prices remain flat. Similar considerations apply to business capital and housing stocks. The ongoing employment shift from manufacturing to services also implies lower energy usage per unit of output.

Real personal disposable income, which climbed 2.9% in 1979-2009, will again rise 2.5% annually over the next 30 years. This does not take into account the rising volume of withdrawals from existing retirement plans.

**Housing.** Household growth clearly depends on population growth, but real incomes, employment, the age distribution of the population, and societal values also influence it. Net additions to the housing stock are closely linked to household growth, which is the primary driver of housing starts. Many analysts tend to overlook another key factor for housing starts: the geographic location of the demand for net additions.

The 25-34 year-old cohort is key for the demand for new housing. This is the age group where individuals typically purchase their first home. The demand for new housing was boosted by the large gains in this age group in the late 1960s and 1970s, as the baby-boom generation entered the housing market. Unfortunately for the housing sector, the baby-boom generation began to pass through this age bracket in the mid-1980s, limiting the demand for additions

to the housing stock. The number of households in this cohort began a modest increase after 2005. The overall headship rate will gradually increase toward older segments due to the shift in the age composition.

The demographic demand for housing will be a bit stronger over the next 30 years than over the past 30 years. Thus, housing starts are projected to average 1.62 million units annually in 2009-40, compared with 1.47 million for 1979-2009. Meanwhile, the housing stock (excluding mobile homes) will climb from 116.3 million units in 2009 to 151.0 million units in 2040.

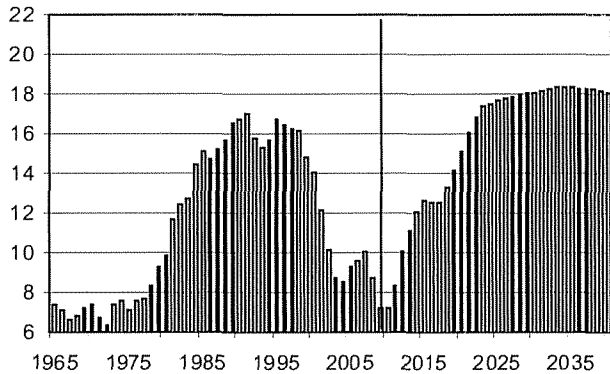
**Business Fixed Investment.** Good profitability and solid demand growth should keep investment healthy over the

**Saving and Investment Shares of GNP**  
(Percent)

	History	Trend	
	1995-2009	2010-2024	2025-2040
Household	5.8	7.3	8.5
Business	9.7	9.8	9.8
Government	-2.9	-5.6	-4.1
Total Saving	12.6	11.6	14.2
Total Investment	12.3	12.4	14.7
Gross Private Investment	16.0	15.1	15.0
Nonresidential Fixed Investment	11.2	11.1	11.6
Residential	4.5	3.7	3.2
Change in Inventories	0.3	0.3	0.2
Net Foreign Investment	-3.7	-2.7	-0.3
Statistical Discrepancy	-0.3	0.8	0.4

**Net Interest Paid by the Federal Government**

(Percent of federal government expenditures, excluding investment)



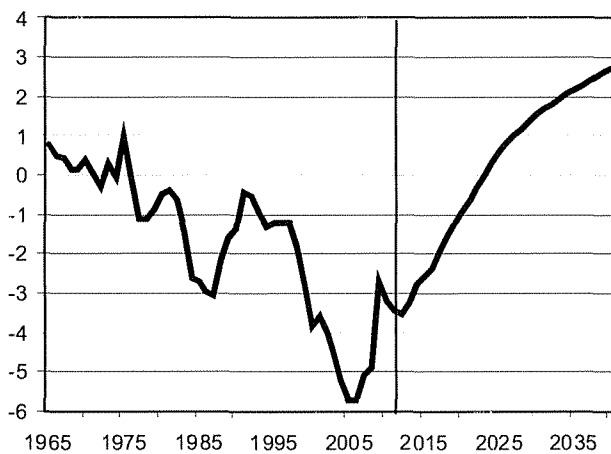
next 30 years. The share of GDP devoted to business fixed investment will hover around 11.0-12.0% of GDP through most of the forecast period. The effective capital stock (in

2005 dollar terms) is projected to increase 3.0% annually, below the 3.8% average growth rate recorded for 1979-2009. Inventory investment will remain a small percentage of GDP. Although inventories have played significant roles during past business cycles, inventory investment represents an average in the stable growth scenario and is thus artificially smooth. Capital inflow will contribute to net domestic investment throughout the forecast period, although the federal debt clearly hurt it in the later years of the forecast. The government saving projection assumes that state and local governments continue to run modest operating surpluses.

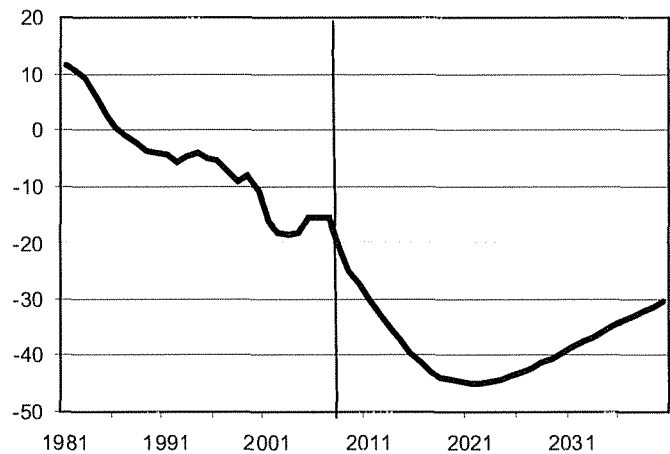
**International Trade.** A decline in the dollar relative to industrialized-country-currencies, combined with modest unit labor cost growth, will stimulate U.S. exports abroad and result in an eventual improvement in the U.S. current-account balance. IHS Global Insight projects that real exports will expand at an average annual rate of 6.9% over the entire forecast period. Real imports, meanwhile, will grow at an average annual rate of 4.9%.

**Trade Outlook**  
(Percent of GDP)

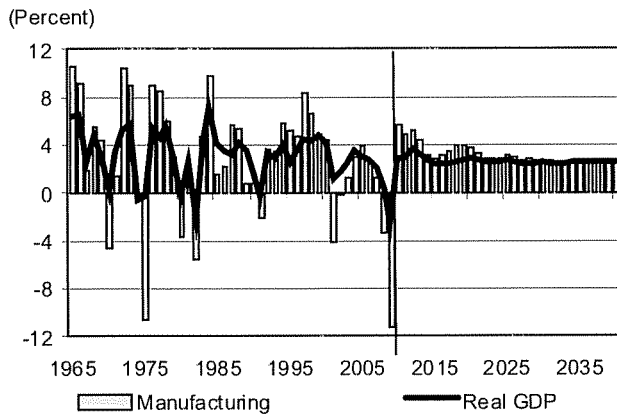
**The Goods and Service Trade Balance Improves**



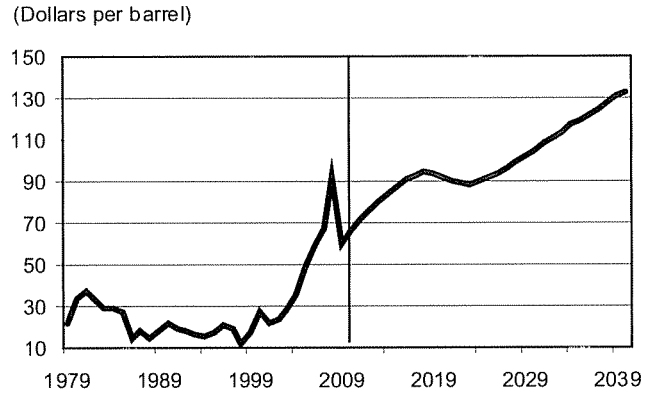
**Net U.S. Investment Position**



**Manufacturing Output Matches GDP Growth**



**Imported Oil Prices Rebound**



**Industrial Production**  
(Average annual percent change)

	History		Trend			
	1981-1991	1992-2009	2010-2040	2010-2020	2021-2030	2031-2040
Mining	-0.7	-0.4	-0.2	-0.1	-0.3	-0.3
Utilities	2.1	1.6	1.0	1.2	1.0	0.8
Manufacturing - SIC Basis	2.4	2.2	3.2	4.1	2.9	2.6
Food	1.9	1.6	1.6	1.8	1.6	1.5
Textile Mills	0.3	-3.6	-1.6	-2.1	-1.2	-1.5
Apparel	-0.6	-5.3	-4.3	-5.4	-3.7	-3.6
Logging*	-0.1	-1.0	-0.1	0.6	-0.7	-0.1
Furniture & Related Products	2.0	0.2	1.2	2.1	0.6	0.8
Paper & Products	1.9	-1.0	1.7	2.3	1.3	1.6
Newspapers, Periodicals, Books*	1.9	-1.4	1.7	0.7	2.1	2.3
Petroleum & Coal Products	-0.1	1.3	0.8	0.9	0.9	0.5
Chemicals	2.6	1.6	3.4	3.6	3.5	3.1
Rubber & Plastics Products	5.2	1.3	2.0	3.0	1.7	1.4
Leather & Allied Products	-3.4	-4.8	-3.0	-3.1	-2.9	-3.0
Nonmetallic Mineral Products	0.9	0.5	1.8	2.5	1.1	1.6
Primary Metals	-1.7	-1.6	1.1	4.2	-0.3	-0.9
Fabricated Metal Products	0.3	0.9	1.5	2.4	1.0	1.1
Machinery	-0.2	0.3	2.4	3.3	1.7	2.2
Computers & Electronic Products	10.3	14.8	9.8	15.0	9.4	4.7
Elec. Eq., Appliances, & Components	0.5	0.6	2.2	2.8	1.8	2.0
Transportation Equipment	2.4	0.5	3.3	3.9	2.8	2.9
Miscellaneous	3.6	2.9	4.3	4.0	4.2	4.8
All Manufacturing - NAICS	2.4	2.4	3.4	4.3	3.1	2.7
Durable Goods	2.6	3.6	4.8	6.6	4.5	3.1
Nondurable Goods	2.1	0.6	2.1	2.1	2.0	2.3
All Less Comp., Commun., & Chips	1.6	0.6	2.3	2.6	2.0	2.3

TABLE 1

## Summary of the U.S. Economy

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Composition of Real GDP, Percent Change										
Gross Domestic Product	-2.4	3.0	2.8	3.7	3.2	2.7	2.4	2.4	2.4	2.6
Final Sales of Domestic Product	-1.7	1.9	2.6	3.6	3.3	2.8	2.4	2.3	2.5	2.6
Total Consumption	-0.6	2.4	2.7	2.7	2.2	2.4	2.7	2.3	2.1	2.3
Durables	-4.0	6.6	7.2	7.0	3.8	3.9	6.8	4.4	2.2	2.6
Nondurables	-1.0	2.5	1.9	1.8	1.5	1.7	1.8	1.8	2.0	2.2
Services	0.1	1.8	2.2	2.4	2.2	2.4	2.3	2.1	2.1	2.3
Nonresidential Fixed Investment	-17.9	1.5	7.2	13.7	10.3	5.6	2.6	2.6	3.6	4.2
Equipment & Software	-16.9	9.8	12.6	11.9	8.6	4.9	2.5	3.5	4.8	5.6
Information Processing Equipment	-6.0	8.3	7.5	8.7	7.3	6.7	6.6	6.5	6.5	6.6
Computers & Peripherals	-5.9	19.4	10.8	19.1	19.8	17.6	18.4	18.5	19.0	19.2
Communications Equipment	-8.9	10.7	12.5	11.8	8.6	8.1	6.1	6.4	6.2	6.1
Industrial Equipment	-23.4	6.8	18.0	12.0	2.3	-1.2	0.0	0.8	1.1	3.3
Transportation equipment	-48.7	52.2	32.7	28.7	21.1	3.9	-11.4	-5.3	3.3	6.4
Aircraft	-24.5	14.4	19.4	17.6	9.5	4.8	2.8	1.7	1.7	2.6
Other Equipment	-19.7	-0.8	11.2	9.2	8.2	-7.2	6.5	4.8	4.3	4.3
Structures	-19.7	-14.6	-6.2	19.0	15.2	7.4	3.0	0.4	0.9	1.2
Commercial & Health Care	-25.6	-20.1	2.3	32.4	29.1	12.1	1.9	-0.6	0.2	0.9
Manufacturing	22.7	-29.5	-12.8	24.6	21.9	4.2	0.1	-4.4	0.5	2.3
Power & Communication	-1.3	-12.3	-15.9	5.4	2.7	6.9	5.2	1.8	0.2	-0.5
Mining & Petroleum	-41.6	11.8	-9.3	7.7	-0.9	-0.4	5.6	3.6	1.0	-0.6
Other	-18.3	-20.9	0.7	17.1	8.9	6.1	4.4	3.5	3.6	3.5
Residential Fixed Investment	-20.4	4.8	29.1	19.5	7.5	1.9	0.4	2.1	0.5	1.1
Exports	-9.9	9.7	6.3	7.8	8.8	7.6	6.3	6.7	7.2	7.2
Imports	-14.2	10.3	7.5	6.5	5.1	4.1	4.4	4.3	3.7	4.2
Federal Government	5.2	3.8	-2.9	-3.7	-1.8	-0.5	0.2	0.6	0.7	0.7
State & Local Government	-0.1	0.2	-0.3	0.3	1.6	1.1	0.7	0.6	0.9	1.0
Billions of Dollars										
Real GDP	12988.7	13374.7	13755.5	14267.7	14720.2	15111.9	15470.6	15840.1	16227.9	16658.0
Nominal GDP	14258.7	14843.4	15492.6	16316.3	17117.9	17891.5	18641.7	19418.1	20252.5	21166.9
Prices & Wages, Percent Change, Annual Rate										
GDP Deflator	1.2	1.1	1.5	1.5	1.7	1.8	1.8	1.7	1.8	1.8
Consumer Prices	-0.3	1.9	1.7	2.0	1.9	1.9	2.0	2.0	2.0	1.9
Excl. Food & Energy	1.7	1.4	1.6	1.8	1.8	1.9	1.8	1.9	1.9	1.9
Producer Prices, Finished Goods	-2.4	2.8	1.5	1.6	1.6	1.6	1.9	1.5	1.3	1.2
Employment Cost Index - Total Comp.	1.5	1.8	1.9	1.9	2.5	2.9	2.9	2.9	3.0	3.0
Other Key Measures										
Oil - WTI (\$ per barrel)	61.77	71.90	77.58	83.16	87.01	90.27	94.20	98.06	100.11	101.64
Productivity (%change)	3.0	3.5	0.5	0.6	0.8	1.4	1.8	2.0	2.0	2.1
Industrial Production (%change)	-9.7	4.3	3.9	4.5	3.8	2.8	2.5	2.7	2.8	3.2
Factory Operating Rate	66.9	71.5	74.6	77.1	78.1	78.1	77.8	78.0	78.4	79.1
Nonfarm Inven. Chg. (Bil. of 2000 \$)	-111.7	20.1	48.1	68.9	58.2	38.0	33.7	49.5	49.7	55.2
Consumer Sentiment Index	66.3	74.4	75.8	79.1	81.5	80.6	80.8	81.8	83.2	85.3
Light Vehicle Sales (Million units)	10.346	11.800	13.809	15.590	16.532	16.974	17.359	17.414	17.050	16.826
Housing Starts (Million units)	0.552	0.753	1.272	1.606	1.730	1.734	1.756	1.783	1.785	1.794
Exist. House Sales (Total, Million units)	4.573	4.791	4.835	5.417	5.696	5.714	5.781	5.820	5.817	5.826
Unemployment Rate (%)	9.3	9.9	9.3	8.3	7.5	7.0	6.8	6.6	6.3	6.0
Payroll Employment (%change)	-4.3	-0.7	1.5	2.8	2.4	1.5	1.0	0.8	0.8	0.9
Federal Surplus (Unified, FY, bil. \$)	-1417	-1375	-1082	-873	-656	-648	-720	-741	-793	-859
Current Account Balance (Bil. \$)	-432	-552	-626	-689	-681	-677	-677	-675	-628	-587
Financial Markets, NSA										
Federal Funds Rate (%)	0.16	0.24	1.70	3.34	3.55	4.59	4.75	4.75	4.75	4.75
3-Month Treasury Bill Rate (%)	0.15	0.43	2.08	3.39	3.62	4.56	4.60	4.60	4.60	4.60
10-Year Treasury Note Yield (%)	3.26	3.80	4.03	4.54	4.72	5.54	5.57	5.57	5.57	5.57
30-Year Fixed Mortgage Rate (%)	5.04	5.22	5.55	6.07	6.25	7.07	7.10	7.10	7.10	7.10
S&P 500 Stock Index	947	1150	1241	1323	1397	1470	1568	1668	1760	1830
(Percent change)	-22.5	21.5	7.9	6.6	5.5	5.3	6.6	6.4	5.5	4.0
Exchange Rate, Major Trading Partners	0.929	0.916	0.890	0.858	0.848	0.866	0.875	0.871	0.863	0.858
(% change)	4.5	-1.4	-2.9	-3.6	-1.1	2.1	1.0	-0.4	-0.9	-0.6
Incomes										
Personal Income (% change)	-1.4	3.9	4.2	5.2	5.3	5.4	4.9	4.7	4.8	5.0
Real Disposable Income (%change)	1.3	2.1	1.6	2.4	2.2	3.5	3.1	2.8	2.8	2.9
Saving Rate (%)	4.6	4.5	3.5	3.1	3.0	4.0	4.3	4.7	5.2	5.8
After-Tax Profits (Billions of \$)	1111	1277	1327	1385	1413	1365	1339	1337	1355	1426
(Percent change)	-5.1	15.0	3.9	4.4	2.0	-3.4	-2.0	-0.1	1.4	5.2
Disposable Income (%change)	1.5	3.7	3.1	4.1	3.9	5.3	5.0	4.7	4.7	4.9

TABLE 1

Summary of the U.S. Economy

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Composition of Real GDP, Percent Change											
Gross Domestic Product	2.8	2.8	2.7	2.6	2.5	2.5	2.7	2.5	2.5	2.4	2.4
Final Sales of Domestic Product	2.8	2.9	2.7	2.6	2.5	2.5	2.6	2.5	2.5	2.4	2.4
Total Consumption	2.5	2.8	2.8	2.6	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Durables	3.8	5.3	5.3	5.1	4.7	4.5	4.9	4.7	4.8	4.9	4.6
Nondurables	2.4	2.8	2.8	2.7	2.5	2.4	2.4	2.5	2.5	2.6	2.5
Services	2.4	2.5	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Nonresidential Fixed Investment	4.5	4.2	3.7	3.7	3.6	3.6	3.9	4.0	3.9	3.9	3.8
Equipment & Software	5.8	5.5	5.1	4.8	4.8	4.9	5.2	5.3	5.2	5.2	5.2
Information Processing Equipment	6.6	6.7	6.4	5.9	6.1	6.2	6.4	6.5	6.5	6.4	6.4
Computers & Peripherals	18.7	16.8	13.9	13.9	14.1	14.2	14.3	14.4	14.4	14.4	14.4
Communications Equipment	6.0	6.1	6.7	7.2	7.5	7.5	7.8	7.8	7.7	7.7	7.6
Industrial Equipment	3.8	3.5	3.6	3.6	3.2	2.8	2.9	3.4	3.7	3.6	3.7
Transportation equipment	7.4	5.1	3.4	3.4	3.7	4.2	5.2	4.6	4.0	4.2	4.4
Aircraft	3.1	3.7	4.0	4.4	4.4	4.9	5.1	4.7	4.5	4.3	4.3
Other Equipment	4.2	3.9	4.1	3.8	3.6	3.6	3.8	3.7	3.8	3.8	3.9
Structures	1.5	1.4	0.7	1.3	0.6	0.5	0.8	1.1	0.8	0.8	0.5
Commercial & Health Care	1.3	1.4	0.3	1.1	0.3	-0.1	0.3	0.6	0.4	0.0	-0.3
Manufacturing	2.1	1.6	1.0	1.2	0.4	0.5	0.9	1.2	1.2	1.2	1.0
Power & Communication	0.8	1.4	3.7	4.3	4.0	3.3	2.9	2.6	2.8	2.8	2.8
Mining & Petroleum	0.2	0.4	-0.8	-1.2	-2.0	-1.8	-0.5	1.4	-0.3	-0.2	-0.1
Other	3.2	2.0	-0.2	1.2	0.4	1.0	0.7	0.6	0.4	1.1	0.3
Residential Fixed Investment	1.7	1.7	0.0	0.2	0.1	0.0	1.3	0.9	-0.3	-1.1	-0.7
Exports	7.0	6.6	6.3	6.0	6.0	6.1	5.9	5.8	5.5	5.5	5.5
Imports	4.5	5.1	4.6	4.3	4.2	4.1	4.1	4.4	4.5	4.6	4.6
Federal Government	0.8	1.2	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7
State & Local Government	1.0	0.9	0.9	0.9	1.0	1.0	1.0	1.0	0.9	0.9	0.9
Billions of Dollars											
Real GDP	17125.0	17611.8	18085.5	18557.8	19026.5	19507.9	20026.3	20536.0	21039.7	21549.0	22064.7
Nominal GDP	22142.2	23147.5	24149.7	25170.1	26210.3	27298.1	28476.7	29684.8	30929.7	32220.9	33562.6
Prices & Wages, Percent Change, Annual Rate											
GDP Deflator	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7
Consumer Prices	1.8	1.7	1.6	1.6	1.7	1.8	1.8	1.9	1.9	1.9	1.9
Excl. Food & Energy	1.9	1.8	1.7	1.7	1.7	1.8	1.8	1.9	1.9	1.9	1.9
Producer Prices, Finished Goods	1.1	0.8	0.7	0.7	0.8	0.9	1.0	1.0	1.0	1.1	1.1
Employment Cost Index - Total Comp.	2.9	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9
Other Key Measures											
Oil - WTI (\$ per barrel)	100.81	98.9	97.0	96.0	95.0	97.0	99.0	101.0	103.0	106.0	109.0
Productivity (%change)	2.2	2.3	2.4	2.4	2.3	2.3	2.4	2.2	2.0	2.0	2.0
Industrial Production (%change)	3.4	3.2	2.8	2.4	2.3	2.3	2.7	2.4	2.2	2.3	2.1
Factory Operating Rate	79.6	80.0	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.2	80.1
Nonfarm Inven. Chg. (Bil. of 2000 \$)	56.6	56.7	54.8	53.4	54.2	54.1	57.3	59.6	58.7	60.5	61.4
Consumer Sentiment Index	87.7	89.6	90.6	91.2	91.4	91.3	91.4	91.2	91.1	90.9	90.3
Light Vehicle Sales (Million units)	16.994	17.4	17.5	17.6	17.7	17.9	18.2	18.5	18.8	19.1	19.4
Housing Starts (Million units)	1.815	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.6	1.6
Existing House Sales (Million units)	5.866	5.9	5.8	5.7	5.6	5.6	5.7	5.7	5.6	5.5	5.5
Unemployment Rate (%)	5.6	5.2	5.0	4.9	4.9	4.8	4.8	4.9	4.9	4.9	4.9
Payroll Employment (%change)	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Federal Surplus (Unified, FY, bil. \$)	-947	-1009	-1052	-1084	-1109	-1116	-1157	-1170	-1209	-1258	-1267
Current Account Balance (Bil. \$)	-547	-518	-470	-436	-404	-364	-325	-300	-277	-270	-254
Financial Markets, NSA											
Federal Funds Rate (%)	4.75	4.7	4.7	4.7	4.7	4.8	4.8	4.8	4.8	4.8	4.8
3-Month Treasury Bill Rate (%)	4.60	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
10-Year Treasury Note Yield (%)	5.57	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
30-Year Fixed Mortgage Rate (%)	7.10	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
S&P 500 Stock Index	1890	1958	2036	2125	2217	2312	2413	2517	2623	2732	2846
(Percent change)	3.3	3.6	4.0	4.4	4.3	4.3	4.4	4.3	4.2	4.2	4.2
Exchange Rate, Major Trading Partners	0.853	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9
(% change)	-0.5	-0.4	-0.2	0.1	-0.4	-0.2	-0.2	0.2	0.4	0.4	0.4
Incomes											
Personal Income (% change)	5.2	5.2	4.9	4.6	4.5	4.5	4.6	4.6	4.6	4.6	4.6
Real Disposable Income (%change)	3.2	3.4	3.0	2.7	2.3	2.3	2.6	2.3	2.5	2.4	2.3
Saving Rate (%)	6.4	6.9	7.0	7.2	7.1	7.1	7.2	7.2	7.3	7.3	7.2
After-Tax Profits (Billions of \$)	1506	1577	1630	1670	1716	1773	1845	1900	1946	1985	2017
(Percent change)	5.6	4.7	3.4	2.4	2.8	3.3	4.1	3.0	2.4	2.0	1.6
Disposable Income (%change)	5.1	5.1	4.6	4.4	4.0	4.1	4.4	4.2	4.4	4.3	4.2

TABLE 1

## Summary of the U.S. Economy

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
<i>Composition of Real GDP, Percent Change</i>											
Gross Domestic Product	2.5	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Final Sales of Domestic Product	2.5	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Total Consumption	2.4	2.5	2.4	2.4	2.4	2.4	2.5	2.4	2.4	2.4	2.4
Durables	4.8	5.0	4.8	4.7	5.0	5.0	5.0	4.8	4.7	4.6	4.6
Nondurables	2.4	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.4
Services	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Nonresidential Fixed Investment	4.0	4.0	3.9	4.0	4.2	4.2	4.3	4.4	4.3	4.3	4.3
Equipment & Software	5.4	5.4	5.3	5.4	5.5	5.5	5.6	5.6	5.6	5.6	5.5
Information Processing Equipment	6.4	6.5	6.5	6.5	6.5	6.5	6.6	6.6	6.6	6.6	6.5
Computers & Peripherals	14.6	14.7	14.5	14.5	14.6	14.6	14.6	14.6	14.6	14.7	14.8
Communications Equipment	7.7	7.6	7.4	7.5	7.6	7.6	7.7	7.6	7.6	7.6	7.3
Industrial Equipment	3.8	4.0	4.0	4.0	4.0	4.0	4.4	4.4	4.5	4.6	4.4
Transportation equipment	5.1	5.0	4.2	4.5	5.0	4.9	4.8	4.8	4.6	4.7	4.7
Aircraft	4.7	4.7	4.7	4.7	4.8	4.9	5.0	4.9	4.9	4.9	4.9
Other Equipment	4.1	4.0	4.0	4.1	4.2	4.3	4.3	4.3	4.2	4.1	4.2
Structures	0.7	0.4	0.6	0.7	0.8	1.0	1.1	1.3	1.1	1.1	1.1
Commercial & Health Care	-0.4	-0.8	-0.5	-0.2	-0.2	0.4	0.5	0.8	0.5	0.4	0.4
Manufacturing	0.9	1.0	1.1	1.0	1.2	1.2	1.3	1.2	1.3	1.3	1.1
Power & Communication	2.9	3.0	2.9	2.9	3.1	3.1	3.1	3.3	3.3	3.3	3.2
Mining & Petroleum	0.0	0.0	-0.2	0.1	-0.1	-0.1	0.1	0.1	0.0	0.0	0.4
Other	1.3	0.5	0.6	0.4	0.9	0.7	1.0	1.0	0.6	1.0	0.7
Residential Fixed Investment	0.7	0.6	-0.6	0.0	1.1	1.3	1.2	0.6	0.3	0.6	0.8
Exports	5.5	5.4	5.3	5.3	5.3	5.3	5.2	5.2	5.1	5.1	5.1
Imports	4.7	4.9	4.8	4.7	4.9	4.9	4.9	4.8	4.8	4.8	4.8
Federal Government	1.2	0.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.2
State & Local Government	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1
<i>Billions of Dollars</i>											
Real GDP	22621.2	23175.7	23729.6	24311.4	24923.1	25552.4	26201.8	26864.9	27536.4	28228.8	28941.7
Nominal GDP	35002.9	36484.2	38000.5	39600.7	41299.3	43080.0	44944.5	46886.4	48902.8	51018.9	53232.0
<i>Prices &amp; Wages, Percent Change, Annual Rate</i>											
GDP Deflator	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8
Consumer Prices	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0
Excl. Food & Energy	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Producer Prices, Finished Goods	1.1	1.1	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	0.9
Employment Cost Index - Total Comp.	2.9	2.9	2.8	2.8	2.8	2.9	2.9	2.8	2.8	2.8	2.8
<i>Other Key Measures</i>											
Oil - WTI (\$ per barrel)	112.0	115.0	118.0	121.0	124.0	127.0	130.0	133.0	136.0	139.0	142.0
Productivity (%change)	2.1	1.9	1.9	2.0	2.1	2.1	2.1	2.0	1.9	2.0	2.0
Industrial Production (%change)	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Factory Operating Rate	80.1	80.1	80.1	80.1	80.1	80.1	80.2	80.1	80.2	80.3	80.2
Nonfarm Inven. Chg. (Bil. of 2000 \$)	65.8	68.2	68.1	70.6	75.0	77.2	80.1	81.7	83.9	87.1	90.7
Consumer Sentiment Index	89.9	89.7	89.7	89.4	89.4	89.2	89.2	89.1	89.1	89.0	88.8
Light Vehicle Sales (Million units)	19.7	20.0	20.3	20.5	20.8	21.1	21.5	21.9	22.2	22.5	22.9
Housing Starts (Million units)	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.5	1.5	1.5	1.5
Existing House Sales (Million units)	5.5	5.5	5.5	5.5	5.5	5.6	5.6	5.6	5.6	5.6	5.7
Unemployment Rate (%)	5.0	5.0	5.0	5.1	5.1	5.1	5.1	5.2	5.2	5.2	5.2
Payroll Employment (%change)	1.0	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9
Federal Surplus (Unified, FY, bil. \$)	-1281	-1315	-1350	-1344	-1364	-1380	-1384	-1370	-1342	-1294	-1240
Current Account Balance (Bil. \$)	-247	-243	-238	-231	-235	-241	-252	-255	-233	-186	-131
<i>Financial Markets, NSA</i>											
Federal Funds Rate (%)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
3-Month Treasury Bill Rate (%)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
10-Year Treasury Note Yield (%)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
30-Year Fixed Mortgage Rate (%)	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
S&P 500 Stock Index	2968	3092	3219	3352	3494	3643	3801	3966	4139	4323	4506
(Percent change)	4.3	4.2	4.1	4.1	4.2	4.3	4.3	4.3	4.4	4.4	4.2
Exchange Rate, Major Trading Partners (% change)	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
(% change)	0.5	0.4	0.3	0.3	0.2	0.1	0.2	0.3	0.4	0.4	0.4
<i>Incomes</i>											
Personal Income (% change)	4.6	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.4	4.4
Real Disposable Income (%change)	2.4	2.4	2.3	2.2	2.4	2.4	2.4	2.3	2.3	2.2	2.2
Saving Rate (%)	7.2	7.1	7.0	6.9	6.8	6.8	6.7	6.6	6.4	6.3	6.1
After-Tax Profits (Billions of \$)	2066	2132	2186	2251	2320	2388	2457	2526	2611	2727	2858
(Percent change)	2.4	3.2	2.5	3.0	3.1	2.9	2.9	2.8	3.4	4.4	4.8
Disposable Income (%change)	4.3	4.3	4.2	4.1	4.3	4.3	4.3	4.3	4.2	4.2	4.2

TABLE 2  
Population, Labor Force and Potential GDP

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Millions										
Total Population	307.8	310.9	313.9	316.9	320.0	323.1	326.2	329.3	332.5	335.7
Under 5	21.2	21.4	21.6	21.8	22.0	22.2	22.3	22.5	22.7	22.8
Ages 5 through 21	70.5	70.9	71.1	71.3	71.5	71.8	72.2	72.7	73.3	74.0
Ages 16 and Up	242.2	244.8	247.3	249.7	252.1	254.5	257.0	259.5	262.0	264.6
Males Ages 25 through 54	64.6	64.7	64.9	65.0	65.2	65.4	65.6	65.8	66.1	66.3
Ages 55 through 64	35.0	36.3	37.4	38.1	38.9	39.7	40.5	41.3	41.9	42.4
Ages 65 and Up	39.7	40.5	41.5	42.9	44.3	45.7	47.2	48.6	50.2	51.7
Ages 85 and Up	5.9	6.0	6.2	6.3	6.4	6.5	6.6	6.7	6.7	6.7
Percent Change										
Total Population	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Under 5	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.7
Ages 5 through 21	0.5	0.5	0.4	0.2	0.3	0.4	0.6	0.7	0.8	0.9
Ages 16 and Up	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Males Ages 25 through 54	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.3
Ages 55 through 64	3.5	3.8	3.0	1.9	2.0	2.1	2.1	1.8	1.4	1.2
Ages 65 and Up	2.0	1.9	2.4	3.5	3.3	3.1	3.2	3.1	3.1	3.2
Ages 85 and Up	2.8	2.5	2.1	1.9	1.7	1.4	1.5	1.1	0.8	0.6
Labor Force and Employment										
Labor Force, Millions	154.2	153.7	155.2	156.8	158.5	160.0	161.2	162.4	163.5	164.7
Under 65	147.7	146.9	148.2	149.6	151.0	152.2	153.1	153.8	154.6	155.4
Ages 65 and Up	6.5	6.8	7.0	7.2	7.5	7.8	8.2	8.5	8.9	9.3
Participation Rate, Percent	63.7	62.8	62.8	62.8	62.9	62.9	62.7	62.6	62.4	62.2
Under 65	73.0	71.9	72.0	72.3	72.7	72.9	73.0	73.0	73.0	73.0
Ages 65 and Up	16.4	16.8	16.8	16.7	16.8	17.1	17.3	17.6	17.7	17.9
Employment, Millions										
Household Survey	139.9	138.5	140.7	143.8	146.7	148.8	150.3	151.7	153.2	154.7
Establishment Survey	130.9	130.0	131.9	135.6	138.9	141.0	142.4	143.5	144.6	145.8
Percent Change, Annual Rate	-4.3	-0.7	1.5	2.8	2.4	1.5	1.0	0.8	0.8	0.9
Unemployment Rate, Percent	9.3	9.9	9.3	8.3	7.5	7.0	6.8	6.6	6.3	6.0
Average Weekly Hours	31.9	32.1	32.3	32.3	32.4	32.4	32.4	32.4	32.4	32.4
Manufacturing Workweek	39.9	40.6	40.7	40.9	40.9	40.8	40.8	40.8	40.7	40.7
Durable Workweek	39.9	40.7	40.8	41.1	41.0	40.9	40.8	40.8	40.7	40.6
Nondurables Workweek	39.8	40.6	40.6	40.7	40.7	40.7	40.7	40.8	40.7	40.7
Manhours in Private Nonfarm Estab										
Billions of Hours, SAAR	182.0	182.1	186.8	192.9	197.7	200.8	202.7	204.3	205.9	207.7
Percent Change, Annual Rate	-5.6	0.1	2.6	3.3	2.5	1.5	0.9	0.8	0.8	0.9
Vendor Performance Index	51.4	58.3	55.2	55.6	53.8	52.3	51.5	52.0	52.2	52.6
Potential GDP										
Billions of Chained 2000 Dollars	14374.1	14658.1	14967.5	15292.9	15646.4	16029.0	16416.6	16798.9	17186.1	17579.9
Percent Change										
Potential GDP	2.5	2.0	2.1	2.2	2.3	2.4	2.4	2.3	2.3	2.3
Nonhousing, Non-Government	-3.4	3.6	3.6	4.5	3.7	3.0	2.7	2.7	2.8	3.0
Potential Output	2.2	2.4	2.8	2.5	2.6	2.7	2.6	2.5	2.5	2.5
Capital Stock	0.1	-0.3	0.9	2.4	3.5	3.8	3.5	3.1	3.1	3.2
R&D Capital Stock	2.6	2.3	2.3	2.4	2.7	2.7	2.7	2.6	2.6	2.7
Full-Employment Labor Force	0.4	1.2	1.9	1.1	0.6	0.6	0.6	0.6	0.6	0.5
Multifactor Productivity	1.6	1.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Nonfarm Productivity - Output per Hour										
Full-Employment	1.8	1.3	0.9	1.5	2.0	2.1	2.1	1.9	1.9	2.0
Actual	3.0	3.5	0.5	0.6	0.8	1.4	1.8	2.0	2.0	2.1
All Manufacturing	1.4	6.2	2.7	2.1	2.6	3.0	3.3	3.3	3.0	3.0
Durable Goods	-2.1	7.5	3.6	3.3	3.4	3.8	4.2	4.4	4.3	4.2
Nondurable Goods	2.7	4.3	1.6	0.7	1.6	2.0	2.2	1.9	1.5	1.6



TABLE 2  
Population, Labor Force and Potential GDP

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Millions											
Total Population	338.8	342.0	345.2	348.5	351.7	354.9	358.1	361.3	364.5	367.7	370.9
Under 5	23.0	23.1	23.2	23.4	23.5	23.6	23.7	23.9	24.0	24.1	24.3
Ages 5 through 21	74.8	75.5	76.3	77.0	77.7	78.4	79.0	79.7	80.3	80.9	81.6
Ages 16 and Up	267.2	269.9	272.5	275.1	277.8	280.5	283.1	285.8	288.5	291.3	294.0
Males Ages 25 through 54	66.5	66.7	67.0	67.3	67.7	68.0	68.2	68.6	69.0	69.6	70.2
Ages 55 through 64	42.7	42.9	42.8	42.5	42.2	42.0	41.8	41.7	41.4	40.9	40.5
Ages 65 and Up	53.4	55.2	57.0	58.8	60.6	62.4	64.3	66.1	67.8	69.4	71.0
Ages 85 and Up	6.8	6.9	7.0	7.1	7.2	7.4	7.5	7.8	8.1	8.4	8.8
Percent Change											
Total Population	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Under 5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.6
Ages 5 through 21	1.0	1.0	1.0	1.0	0.8	0.9	0.8	0.8	0.8	0.8	0.8
Ages 16 and Up	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9
Males Ages 25 through 54	0.3	0.3	0.5	0.5	0.5	0.4	0.4	0.5	0.7	0.8	0.9
Ages 55 through 64	0.9	0.4	-0.2	-0.6	-0.8	-0.5	-0.4	-0.4	-0.8	-1.1	-1.1
Ages 65 and Up	3.2	3.3	3.2	3.2	3.1	3.0	3.0	2.8	2.6	2.4	2.3
Ages 85 and Up	0.7	1.3	1.3	1.4	1.9	2.2	2.5	2.9	3.8	4.6	4.0
Labor Force and Employment											
Labor Force, Millions	165.7	166.8	167.9	168.8	169.8	170.7	171.6	172.5	173.5	174.6	175.7
Under 65	156.1	156.7	157.3	157.8	158.3	158.8	159.3	159.8	160.5	161.3	162.1
Ages 65 and Up	9.6	10.1	10.5	11.0	11.4	11.9	12.3	12.7	13.0	13.3	13.6
Participation Rate, Percent	62.0	61.8	61.6	61.4	61.1	60.9	60.6	60.3	60.1	59.9	59.8
Under 65	73.0	73.0	73.0	72.9	72.9	72.9	72.8	72.7	72.7	72.7	72.7
Ages 65 and Up	18.1	18.2	18.4	18.7	18.9	19.0	19.1	19.2	19.2	19.2	19.1
Employment, Millions											
Household Survey	156.4	158.1	159.4	160.5	161.5	162.5	163.2	164.1	165.1	166.1	167.1
Establishment Survey	147.2	148.6	149.9	151.3	152.6	154.0	155.5	156.9	158.4	159.9	161.4
Percent Change, Annual Rate	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Unemployment Rate, Percent	5.6	5.2	5.0	4.9	4.9	4.8	4.8	4.9	4.9	4.9	4.9
Average Weekly Hours	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4
Manufacturing Workweek	40.6	40.6	40.6	40.7	40.7	40.7	40.7	40.7	40.7	40.8	40.8
Durables Workweek	40.5	40.5	40.5	40.6	40.6	40.6	40.6	40.6	40.6	40.7	40.7
Nondurables Workweek	40.7	40.8	40.8	40.8	40.9	40.9	40.9	40.9	40.9	40.9	40.9
Manhours in Private Nonfarm Estab.	209.7	211.6	213.6	215.7	217.7	219.7	221.9	224.0	226.1	228.3	230.5
Billions of Hours, SAAR	209.7	211.6	213.6	215.7	217.7	219.7	221.9	224.0	226.1	228.3	230.5
Percent Change, Annual Rate	1.0	0.9	1.0	1.0	0.9	0.9	1.0	1.0	0.9	1.0	1.0
Vendor Performance Index	52.7	52.4	52.1	51.8	51.7	51.6	51.7	51.6	51.7	51.7	51.6
Potential GDP											
Billions of Chained 2000 Dollars	17983.5	18393.4	18812.6	19235.6	19669.1	20115.0	20574.8	21046.1	21534.8	22038.2	22557.0
Percent Change											
Potential GDP	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.4
Nonhousing, Non-Government	3.2	3.2	3.1	2.9	2.8	2.8	3.0	2.8	2.7	2.7	2.7
Potential Output	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6
Capital Stock	3.4	3.5	3.5	3.4	3.4	3.3	3.4	3.4	3.4	3.4	3.4
R&D Capital Stock	2.7	2.8	2.8	2.9	3.0	3.0	3.1	3.1	3.1	3.2	3.2
Full-Employment Labor Force	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5
Multifactor Productivity	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Nonfarm Productivity - Output per Hour											
Full-Employment	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1
Actual	2.2	2.3	2.4	2.4	2.3	2.3	2.4	2.2	2.0	2.0	2.0
All Manufacturing	3.5	4.0	4.0	4.0	4.1	4.1	4.3	4.3	4.0	4.1	4.0
Durable Goods	4.6	5.2	5.2	5.1	5.3	5.3	5.6	5.6	5.3	5.4	5.3
Nondurable Goods	2.2	2.5	2.5	2.6	2.7	2.6	2.7	2.7	2.5	2.5	2.4

TABLE 2  
Population, Labor Force and Potential GDP

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Millions											
Total Population	374.1	377.3	380.5	383.7	386.9	390.1	393.3	396.5	399.8	403.0	406.2
Under 5	24.4	24.6	24.8	24.9	25.1	25.3	25.5	25.8	26.0	26.2	26.4
Ages 5 through 21	82.2	82.8	83.4	83.9	84.5	85.1	85.6	86.2	86.8	87.4	88.0
Ages 16 and Up	296.7	299.4	302.1	304.8	307.5	310.2	312.8	315.5	318.1	320.7	323.3
Males Ages 25 through 54	70.8	71.4	72.0	72.5	73.0	73.5	73.9	74.4	75.0	75.5	76.0
Ages 55 through 64	40.2	40.0	40.1	40.2	40.4	40.6	40.9	41.4	42.0	42.6	43.2
Ages 65 and Up	72.5	73.6	74.7	75.7	76.7	77.9	79.0	79.8	80.4	81.0	81.5
Ages 85 and Up	9.1	9.5	10.1	10.7	11.3	11.8	12.4	12.9	13.4	14.0	14.6
Percent Change											
Total Population	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Under 5	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Ages 5 through 21	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Ages 16 and Up	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
Males Ages 25 through 54	0.8	0.9	0.8	0.8	0.7	0.6	0.6	0.7	0.7	0.7	0.7
Ages 55 through 64	-0.8	-0.3	0.1	0.4	0.4	0.5	0.8	1.1	1.4	1.5	1.4
Ages 65 and Up	2.0	1.6	1.4	1.3	1.4	1.5	1.3	1.0	0.8	0.7	0.7
Ages 85 and Up	3.6	4.5	6.7	5.9	5.1	4.9	4.4	4.4	4.3	4.2	4.2
Labor Force and Employment											
Labor Force, Millions	177.0	178.4	179.9	181.4	182.8	184.1	185.5	187.0	188.7	190.5	192.2
Under 65	163.1	164.4	165.8	167.2	168.5	169.7	171.0	172.5	174.1	175.9	177.5
Ages 65 and Up	13.9	14.1	14.1	14.2	14.3	14.4	14.5	14.6	14.6	14.6	14.6
Participation Rate, Percent	59.7	59.6	59.6	59.5	59.4	59.4	59.3	59.3	59.3	59.4	59.4
Under 65	72.8	72.8	72.9	73.0	73.0	73.1	73.1	73.2	73.3	73.4	73.4
Ages 65 and Up	19.1	19.1	18.9	18.8	18.6	18.4	18.3	18.3	18.2	18.0	17.9
Employment, Millions											
Household Survey	168.2	169.5	170.9	172.2	173.5	174.7	176.0	177.4	179.0	180.6	182.1
Establishment Survey	162.9	164.2	165.6	166.9	168.3	169.8	171.2	172.7	174.2	175.8	177.4
Percent Change, Annual Rate	1.0	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9
Unemployment Rate, Percent	5.0	5.0	5.0	5.1	5.1	5.1	5.1	5.2	5.2	5.2	5.2
Average Weekly Hours	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4
Manufacturing Workweek	40.8	40.8	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7
Durable Workweek	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.6	40.6	40.6
Nondurables Workweek	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.8	40.8	40.8	40.8
Manhours in Private Nonfarm Estab.											
Billions of Hours, SAAR	232.8	234.9	236.9	238.8	240.9	243.1	245.3	247.5	249.8	252.2	254.5
Percent Change, Annual Rate	1.0	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9	1.0	0.9
Vendor Performance Index	51.7	51.7	51.6	51.6	51.6	51.6	51.7	51.6	51.7	51.8	51.5
Potential GDP											
Billions of Chained 2000 Dollars	23096.8	23667.7	24260.1	24866.2	25485.6	26112.6	26758.8	27439.6	28153.6	28894.8	29652.3
Percent Change											
Potential GDP	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6
Nonhousing, Non-Government	2.8	2.8	2.6	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Potential Output	2.6	2.8	2.8	2.8	2.7	2.7	2.7	2.8	2.9	2.9	2.9
Capital Stock	3.4	3.4	3.4	3.4	3.4	3.4	3.5	3.5	3.5	3.5	3.5
R&D Capital Stock	3.2	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4
Full-Employment Labor Force	0.6	0.8	0.7	0.7	0.7	0.6	0.7	0.8	0.8	0.9	0.8
Multifactor Productivity	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Nonfarm Productivity - Output per Hour											
Full-Employment	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1
Actual	2.1	1.9	1.9	2.0	2.1	2.1	2.1	2.0	1.9	2.0	2.0
All Manufacturing	4.0	3.8	3.8	4.0	4.1	4.1	4.1	4.0	3.9	3.9	3.9
Durable Goods	5.3	5.0	5.0	5.3	5.3	5.3	5.2	5.0	4.8	4.8	4.8
Nondurable Goods	2.5	2.4	2.4	2.5	2.5	2.7	2.6	2.7	2.7	2.7	2.8

# The Cyclical Projection

by Michael Montgomery

## Business Planning in an Uncertain Environment: The Cyclical Projection

### Highlights

- *Four recessions (and a relapse in 2010) disrupt economic growth in the cyclical projection, but the economy rebounds each time. The nascent 2010 recovery suffers a relapse, but real GDP does not fall below the 2009 nadir.*
- *The shocks to confidence, income, and employment work together to keep real investment below the trend through most of the forecast period, producing a lower capital stock and lower potential GDP.*
- *The unemployment rate averages 6.5% in the cycle forecast, compared with 5.8% in the trend.*
- *As in the recessions of 1975 and 1982, oil price spikes exacerbate business downturns.*

This long-term planning scenario explicitly includes business-cycle fluctuations. The expansions and contractions are built to typify those of the postwar period. As in the past, exogenous shocks exacerbate the business cycles depicted in this projection. The timing of the recessions (beyond the first) is, of course, only **suggestive**. Cycles are assumed to be products of policy mistakes exacerbated by oil-price shocks.

### Peak-to-Trough Movements During Recessions

Beginning in 2008, the cyclical projection includes five recessions (counting 2008/10 as one). Collectively, these resemble the depth and duration of a typical postwar downturn, with the decline in real GDP from the peak of economic expansion to the trough of activity average.

The world economy is emerging from a major recession. The precise language is awkward as the National Bureau of Economic Research has not officially declared it over. The recent expansion ran longer than the postwar average, but less than the expansions of the 1980s or 1990s. The housing downturn magnified other imbalances and thrown the

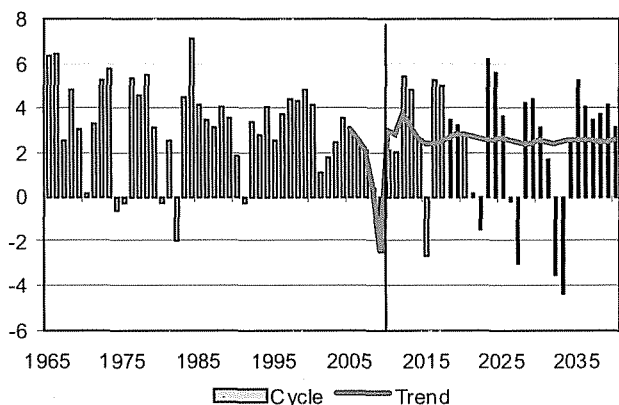
### Peak-to-Trough Movements During Recessions

(Percent change)

Recession:	History					Cycle				
	1975	1980	1982	1991	2001	2008	2013	2020	2025	2031
Gross Domestic Product	-3.2	-2.2	-2.7	-1.4	0.0	-3.7	-4.2	-3.8	-5.1	-8.2
Consumption	-0.8	-1.2	1.0	-0.7	1.2	-1.9	-1.8	-2.2	-2.6	-4.9
Durable Goods	-8.8	-6.8	-3.1	-6.4	2.9	-12.2	-13.6	-12.1	-11.1	-14.8
Nondurable Goods	-3.4	-1.6	0.8	-0.8	0.4	-2.9	-1.1	-1.3	-0.5	-2.6
Services	3.3	0.4	2.1	0.6	1.2	0.3	-0.2	-1.1	-2.2	-4.4
Nonresidential Fixed Investment	-10.1	-4.3	-6.8	-3.8	-5.1	-19.0	-15.9	-14.7	-22.3	-22.5
Equipment	-9.5	-5.9	-8.0	-2.3	-6.4	-21.3	-23.7	-22.1	-28.0	-26.9
Structures	-11.1	-1.7	-4.7	-6.9	-1.9	-14.7	3.8	1.5	-9.6	-12.1
Nonfarm Inventory Accumulation (a)	NA	NA	NA	-53.5	-83.6	-175.7	-279.8	-251.1	-319.2	-357.9
Residential Fixed Investment	-30.3	-17.1	-18.4	-16.2	2.4	-34.4	-16.4	-16.0	-21.3	-37.3
Federal Government Purchases	3.1	1.2	3.7	0.8	5.0	10.6	0.1	0.8	1.0	1.4
State and Local Government Purchases	5.6	-2.7	0.8	1.8	2.6	0.3	0.8	0.9	1.1	-0.2
Exports	3.8	1.7	-7.6	2.3	-9.4	-12.6	-6.2	-4.9	-6.7	-15.1
Imports	-11.0	-13.9	2.9	-4.2	-6.7	-20.0	-12.4	-10.6	-14.1	-17.7
Industrial Production	-11.3	-5.8	-6.9	-3.1	-4.2	-13.9	-9.0	-6.6	-8.4	-13.4
Output per Hour	0.2	-0.8	-1.6	-0.2	2.1	2.7	-2.0	-1.2	-0.3	-0.5
Payroll Employment	-1.1	-0.9	-2.4	-0.9	-0.4	-4.9	-1.7	-1.7	-3.3	-6.1

**Real GDP Growth Remains Volatile**

(Percent)



credit system into turmoil. The cyclical scenario projects this recession to be severe as recessions go, with a 3.8% peak-to-trough GDP drop. The next expansion continues until 2014, when a slump in consumer confidence and higher oil prices reduce consumer spending, pushing the economy into another recession before the economy has fully recovered from this one. Over the remainder of the projection period, three additional recessions start in 2021, 2026, and 2031. The current weakness purges some excess inventories and allows an extended run before the next batch of problems develop, but another run-up in oil prices happens when the economy is vulnerable. The severity of these downturns varies, although each falls within the

range of other postwar recessions. The 2031 episode is the sharpest downturn, for both depth and duration; it is worse than the current episode but lasts much longer, with seven quarters of declining real GDP—and it seems to keep getting increasingly worse.

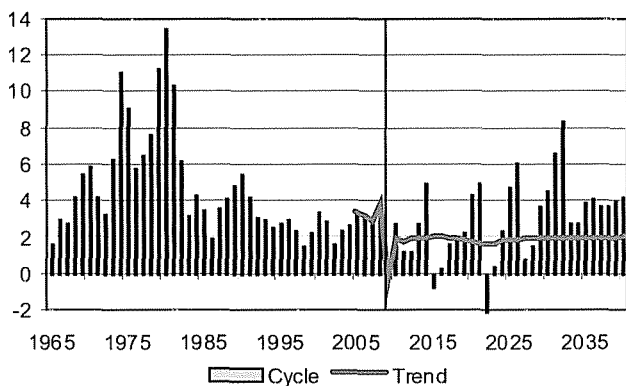
**Projection Detail**

**Participation Rates and the Labor Force.** The cyclical and trend projections use the same population assumptions. Projected labor force growth is thus similar. In the cyclical projection, lower real wages and higher average unemployment discourage some workers from entering the labor force when the economy is weak, but have the opposite effect when the economy is strong. Overall participation is 191 million by 2040, just below the trend. Demographics curb labor force gains in both scenarios, as baby boomers leave their working years behind and swell the ranks of retirees.

**Inflation.** Prices are more volatile in the cyclical projection than in the trend. As the expansion matures, demand pressures rekindle inflation, prompting the Federal Reserve to restrict the growth of reserves. Eventually, the higher interest rates dampen demand pressures and slow inflation. However, the increased volatility raises inflationary expectations, forcing the Fed to intervene quickly in response to any evidence of higher prices. Racked by chronically uncomfortable jobless rates, the Fed goes too far, too often to push growth.

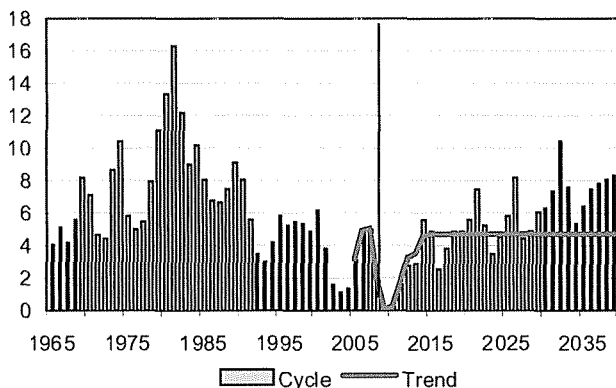
**Inflation Will Rise Despite Higher Interest Rates**

(Percent)



**Federal Reserve Preserves Its Inflation-Fighting Credibility by Raising Interest Rates**

(Federal funds rate, percent)



In this scenario, consumer price inflation averages 2.9% annually through 2040, about 1.1 percentage points higher than the trend, although at times it is much worse. Quarterly changes (at annual rates) in the consumer price index range from -8.3% to 9.3%, with oil spikes exacerbating core inflation as much as 10 percentage points. The economy stays comfortably away from general deflation, but gets close to it in 2015. The depth and duration of the last recession (2031) is enough to wring a lot of price pressures out of the economy, while still leaving inflation that is uncomfortable.

The duration and timing of inflationary periods are of prime importance to the business planner. Inflation typically begins to accelerate about a year or so before a recession. Then, when CPI inflation exceeds 2.5-3.0%, the Fed tightens its reins, interest rates rise, and the economy slows. Typically, price increases begin to moderate about two quarters after the onset of recession. The cyclical scenarios assume the Federal Open Market Committee gets well behind the curve and has to slam on the brakes. There is no single model variable to measure financial market stress, but wild gyrations in rates can trigger it.

**Financial Conditions.** Before the Federal Reserve adopted its gradualist approach to monetary policy, it was often guilty of stepping too hard on the accelerator or the brake, creating a stop-and-go environment. In the cyclical scenario, we expect some return to that abruptness, predicated on imperfect information, reaction to external shocks, and simple policy mistakes. The Fed does not want to reverse its success of the 1990s, and therefore remains vigilant, reacting forcefully when inflation accelerates; the urge to not let the genie out of the bottle produces more frequent slamming of the cork back in.

Because inflation is more volatile in this cyclical scenario, the federal funds rate is also more volatile. During periods of Fed tightening, the funds rate can rise to near 10%, or 500 basis points above trend levels.

The yield curve typically inverts during credit crunches, which means that short-term interest rates are higher than long-term rates. This usually happens when the Fed is determined to reduce inflation by raising short-term rates and slowing economic growth. Credible Fed action thus reassures markets that the return on bonds will not be eroded by inflation. Greater market confidence then moderates

the rise in long-term yields, while the immediate shortage of liquidity boosts short-term rates sharply, causing an inversion of the yield curve. As the recession unfolds, a decline in demand for long-term funds by businesses scaling back their investment plans can maintain the inversion.

The business planner should note that interest rates usually begin to rise progressively faster about three quarters or so before a recession arrives, and generally peak in the early stages of the contraction. During the recession and early recovery, rates will decline dramatically. Given this, planners should remember that short-term interest rate cycles, while extremely volatile, are only temporary.

**Consumer Spending and Income.** Consumer spending—the single-largest component of GDP—is somewhat insulated from business-cycle fluctuations because of its nondiscretionary components. Real consumption of services and nondurable goods (such as food and clothing) therefore remains fairly stable throughout the projection period;

**Personal Consumption Slows in Cyclical Scenario**  
(Average annual percent change)

	History		Cycle		
	1981-1991	1992-2009	2010-2020	2021-2030	2031-2040
Total Expenditures	3.2	3.1	2.6	2.1	2.3
Consumption Excluding New Motor Vehicles	N/A	3.1	2.6	2.1	2.3
Durable Goods	4.6	5.8	5.2	4.3	4.8
Motor Vehicles & Parts	4.1	2.2	4.4	1.6	0.1
Furnishings & Durable Household Equip.	3.1	4.8	3.5	3.5	5.9
Recreational Goods & Vehicles	N/A	N/A	8.6	8.4	9.6
Information Processing Equip. & Other Recreational Goods	N/A	N/A	17.2	14.4	14.7
& Vehicles	6.5	8.8	6.3	6.4	8.0
Other Durables	4.0	4.0	3.2	3.4	3.9
Nondurable Goods	2.2	2.6	2.1	2.2	2.0
Clothing & Shoes	4.2	3.9	3.1	3.6	4.7
Food & Beverages	N/A	N/A	1.8	0.9	1.1
Motor Vehicle Fuels, Lubricants & Fluids	1.9	1.4	-0.2	0.6	1.6
Fuel Oil & Other Fuels	-2.4	-2.3	-0.9	-0.4	-1.1
Other Nondurables	2.4	3.6	2.9	3.2	2.0
Tobacco	-2.7	-1.7	-4.6	-4.5	-6.2
Pharma. & Other Medical Products	4.0	5.5	5.2	4.2	1.5
Services	3.3	2.8	2.4	1.8	2.1
Household Cons. Expenditures (Services)	3.0	2.7	2.4	1.8	2.0
Housing & Utilities	2.5	2.3	1.4	1.5	1.3
Transportation	3.1	2.7	2.1	1.2	1.3
Health Care	2.8	2.7	3.2	2.6	2.0
Recreation	5.9	3.3	2.4	0.7	1.6
Financial Services & Insurance	4.6	3.1	2.3	1.9	3.2
Other Services	2.4	2.6	2.7	1.2	2.5

nondurables grow 2.1%, just below the trend, while services also grow 2.1%, two ticks below the trend.

Discretionary purchases of durable goods, however, fluctuate with interest rates and economic conditions, which influence consumers' buying decisions about such big-ticket items as cars and home appliances. Spending on new cars and light trucks, for instance, can rise or fall by 20-30% per year. Durables consumption on average grows about 0.1 percentage point more slowly than in the baseline and ends up 1.2% worse in late 2039. The timing of recessions is critical to comparisons of durables growth—just one year earlier, durables would be 5% worse in the cyclical scenario, and two years earlier it would be almost 10% worse.

Consumer confidence also plays an important role in the cyclical projection. In favorable economic times, when the unemployment rate is low and people feel more secure about their jobs, consumers spend more and save less. When interest rates rise and fears of inflation take over, consumers cut back or postpone discretionary purchases. On average, though, the underlying uncertainty within this scenario dampens demand for big-ticket items over the entire projection period.

The consumer confidence index provides a fairly accurate gauge of consumers' buying patterns, although it does a better job of predicting recessions than recoveries. Confidence typically slips a quarter or two before a recession (often from rising inflation), and rebounds only when

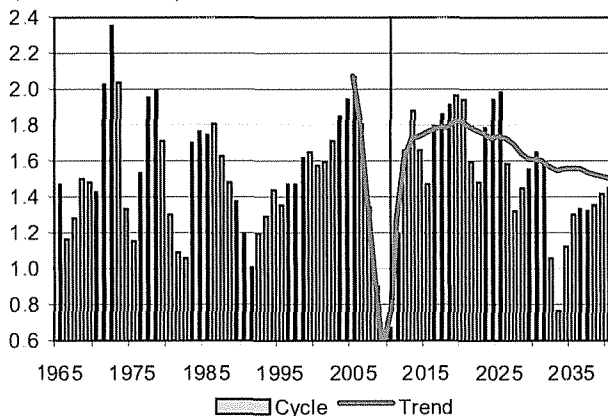
positive economic news convinces consumers that the recession is over. A core component of consumer confidence is the classic misery index of the inflation rate + the unemployment rate. The misery index averages 2.2 percentage points worse in the cycle, but at times is almost 10.0 points worse.

**Housing.** Over the short term, the housing market reacts to prevailing economic conditions. Typically, housing activity leads the economic cycle; home sales begin to decline midway through an expansion in response to rising mortgage rates and home prices, and then revive toward the end of a recession as rates fall and affordability improves. Builders respond quickly to changing demand by adjusting the pace of residential construction. Thus, housing starts can exhibit volatile cyclical swings from year to year, ranging from about 0.4 million to 2.0 million units. The current housing market is so bad that it would be difficult to make it worse; the last recession is so bad, housing sinks almost as low as today.

Although demographics and replacement demand are the primary determinants of long-term housing activity, this cyclical economic environment nevertheless takes its toll during recessions, often exacerbated by rising inflation expectations near the peak, which push up mortgage rates. During downturns, housing starts fall as much as 45% below the trend level; conversely, in upturns, they rise over 10%. These swings are not unusual: next to inventories, housing is the most volatile sector of the economy. Periods

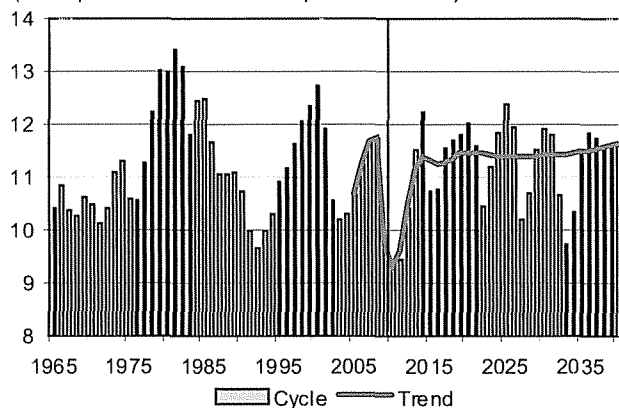
### Economic Fluctuations Sharply Affect Housing

(Millions of starts)



### Uncertainty Creates Swings in Investment

(Fixed private investment as a percent of GDP)



**Saving and Investment Shares of GNP**  
(Percent)

	History	Cycle	
	1994-2008	2010-2024	2025-2040
Household	5.8	7.3	8.5
Business	9.7	9.8	9.8
Government	-2.9	-5.6	-4.1
Total Saving	12.6	11.6	14.2
Total Investment	12.3	12.4	14.7
Gross Private Investment	16.0	15.1	15.0
Nonresidential Fixed Investment	11.2	11.1	11.6
Residential	4.5	3.7	3.2
Change in Inventories	0.3	0.3	0.2
Net Foreign Investment	-3.7	-2.7	-0.3
Statistical Discrepancy	-0.3	0.8	0.4

of high inflation-uncertainty and high short-rates push mortgage rates up to levels dampening consumer's desire to buy homes.

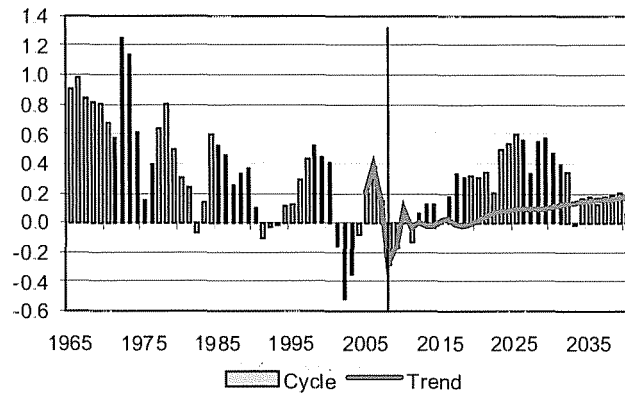
**Business Fixed Investment.** An uncertain economic landscape is bad for business investment, which suffers long-term damage. In a downturn, climbing interest rates and weak final demand reduce the rate of return on investments. In addition, sluggish cash flow restricts a corporation's ability to replace, upgrade, and expand its capital base. During periods of tight monetary policy, high interest rates choke real fixed investment, which falls below its trend levels during recessions.

Slumping business confidence also undercuts investment. An investment rebound typically lags the overall recovery, as companies first use existing spare capacity to meet growing demand. The business community must also be convinced that the rebound in demand is solid enough to justify adding new plant and equipment. Moreover, investment decisions take time to implement, with projects requiring a period of planning and preparation. Eventually, though, corporations upgrade their facilities during expansions to return capacity utilization rates to their trend levels.

Still, sharp fluctuations in business investment have a slight dampening effect on long-term capital formation. As a share of GDP, business investment averages 11.5% in the cyclical scenario. At key turning points in the cycle, investment's share of GDP can be as much as 1.0 percentage points higher (or 1.5 percentage points lower) than in the

**Cycles Mean Feast, Then Famine for State and Local Government Operating Surplus**

(Percent of GDP, NIPA basis)



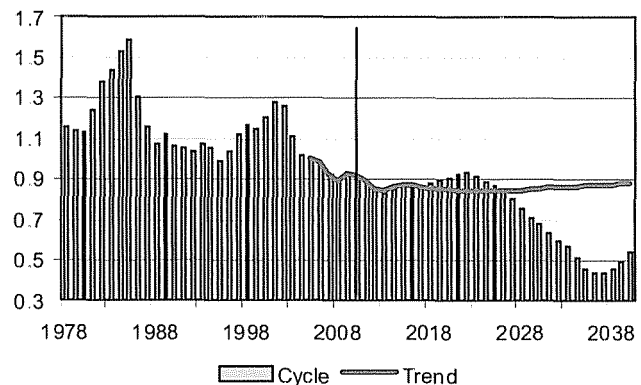
trend. The capacity shortfall widens as time goes on because of the lower capital stock accumulated in the cycle.

Inventories traditionally play a key role in business-cycle fluctuations. In this scenario, swings in stock accumulation continue to exacerbate the falloff in real GDP, as firms strive to reduce inventory by trimming production schedules. Stocks usually mirror the peak-to-trough movements in the overall economy, with some buildup occurring near the peak and drawdowns occurring just after the trough. Swings are wildest in durable goods, such as motor vehicles, as well as the broader manufacturing sector.

**Government.** Changing economic conditions cause wide swings in the budgets of federal, state, and local govern-

**Dollar's Exchange-Rate Swings Influence Trade**

(Trade-weighted dollar, 2005=1.0)



**Industrial Production**

(Average annual percent change)

	History		Cycle			
	1981-1991	1992-2009	2010-2020	2021-2030	2031-2040	
Mining	-0.7	-0.4	-0.7	0.2	-1.0	-0.7
Utilities	2.1	1.6	0.8	1.3	0.7	0.6
Manufacturing - SIC Basis	2.4	2.2	2.3	4.5	2.4	1.1
Food	1.9	1.6	1.6	1.9	1.3	1.5
Textile Mills	0.3	-3.6	-2.3	-2.0	-1.4	-1.6
Apparel	-0.6	-5.3	-4.6	-5.1	-4.1	-3.3
Logging*	-0.1	-1.0	-0.7	0.9	-1.2	-0.7
Furniture & Related Products	2.0	0.2	0.2	2.7	-0.4	0.4
Paper & Products	1.9	-1.0	0.9	2.5	0.8	0.6
Newspapers, Periodicals, Books*	1.9	-1.4	1.0	1.1	1.7	2.2
Petroleum & Coal Products	-0.1	1.3	0.6	1.1	0.5	0.4
Chemicals	2.6	1.6	2.6	3.8	2.9	1.5
Rubber & Plastics Products	5.2	1.3	1.0	3.3	1.2	0.0
Leather & Allied Products	-3.4	-4.8	-4.2	-2.9	-2.5	-5.4
Nonmetallic Mineral Products	0.9	0.5	1.0	2.9	0.5	1.2
Primary Metals	-1.7	-1.6	-0.6	4.9	0.3	-3.5
Fabricated Metal Products	0.3	0.9	0.4	3.0	1.0	-1.0
Machinery	-0.2	0.3	1.0	4.2	1.6	-0.8
Computers & Electronic Prod.	0.3	14.8	10.0	15.9	8.7	6.1
Elec. Eq., Appliances, & Components	0.5	0.6	0.6	3.9	0.7	-1.7
Transportation Equipment	2.4	0.5	2.0	4.0	3.4	0.4
Miscellaneous	3.6	2.9	4.3	4.3	4.0	5.1
All Manufacturing - NAICS	2.4	2.4	2.6	4.8	2.8	1.3
Durable Goods	2.6	3.6	3.9	7.2	4.3	1.9
Nondurable Goods	2.1	0.6	1.4	2.3	1.5	1.0
All Less Comp., Commun., & Chips	1.6	0.6	1.5	3.0	1.8	0.8

ments. In the cyclical projection, the federal budget remains in deficit throughout the forecast period. Still, the underlying economic volatility creates a cycle in the surplus: rising transfer payments during recessions increase the federal government's mandatory spending, causing the surplus to narrow. The federal budget averages close to a balanced over the projection period because of higher tax rates.

At the state and local government levels, operating budget surpluses shrink sharply during recessions. Rising demand for services, combined with lower tax receipts and less federal support, erodes the customary cushion. Since states and localities cannot run consistent deficits, spending sometimes has to be cut, exacerbating the cycle.

**International.** Fluctuating economic conditions cause greater volatility in the exchange rate, as the dollar responds to shifting inflation and interest rates. Although higher interest rates attract investment funds to the United States, higher inflation discourages investors from holding dollar-denominated assets. On balance, the real exchange—

the nominal exchange rate adjusted for changes between price levels here and abroad—is about the same as in the trend, implying a loss of international competitiveness. The exchange rate rises when the U.S. economy becomes an attractive place to invest—that is, when interest rates are high and inflation is low. The dollar usually strengthens in the period immediately following a recession.

Incorporating business cycles increase the volatility of the real trade balance, but the lower demand for manufactured goods during recessions also reduces this balance. Over the forecast period, the merchandise trade deficit as a percent of GDP averages 0.7% in the cyclical projection. In individual years, this deficit can be up to 2.0 percentage points better or worse than in the trend. The surplus at the end is larger in the cycle than in the baseline, and most of this is because of weaker consumption.

**Profits and Equities.** Corporate profits fluctuate sharply during business cycles. Pretax profits fall dramatically in a recession, but rebound just as quickly with the recovery; the cycle in profits is thus short but steep. Before taxes, profits as a percent of GNP range from 2% above the baseline to 2% below, but average slightly above the baseline over the whole 30-year span because of the last five years.

Equities follow earnings and thus also exhibit strong, yet short, cyclical patterns: the stock market can lose more than 30% of its value during an economic downturn, but rally just as quickly during the ensuing recovery. Typically, stocks begin to decline a quarter before the onset of recession, and then fall precipitously as the downturn deepens. Stock prices generally start to rebound a quarter before the recession ends. Stock market moves were not exaggerated in the cycle scenario, but often magnify swings in con-

**Contributions to New Jobs**

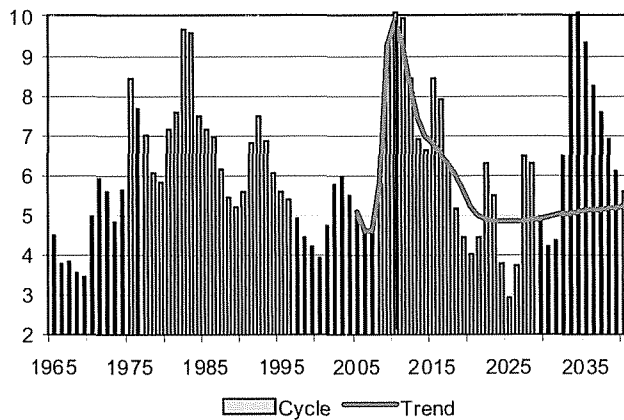
(Payroll employment, cumulative percent change)

	History		Cycle		
	1981-1991	1992-2009	2010-2020	2021-2030	2031-2040
Manufacturing	-8.9	-30.4	12.0	-14.7	-15.0
Mining and Construction	-0.1	22.0	25.5	10.9	17.6
Government	13.3	21.6	10.7	9.4	4.4
Private Services	21.2	20.6	19.4	9.8	7.2
Total New Jobs (Millions)	17.9	22.5	23.5	15.1	11.5



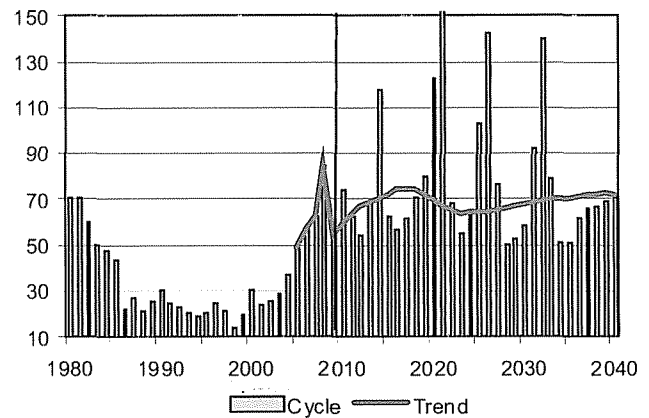
### Unemployment Rate Surges During Recessions

(Percent)



### Oil Price Spikes Will Complicate Planning

(Real foreign crude, 2005 dollars per barrel)



sumption. The nominal value of stocks may be close in both scenarios, but adjusted for higher inflation in the cycle, the purchasing power of stock prices is much lower in the cycle.

**Production and Employment.** On average, total industrial production declines sharply in recessions. Utilization rates in manufacturing are also volatile, ranging from above 85% during periods of peak demand to 65% during recessions, like in the second quarter of 2009. Those industries particularly sensitive to interest-rate fluctuations, such as motor vehicles, suffer deeper output declines. On the other hand, industries such as instruments (often medical), food, and utilities remain relatively resistant to changing economic conditions.

Consequently, employment weathers recessions better in some industries than it does in industries such as primary metals, rubber and plastics, and lumber. Overall, weaker productivity gains and shifts in labor force composition prevent the unemployment rate from reaching the double-digit rates of the early 1980s. The reorientation of the economy away from manufacturing and toward services also moderates the swings in unemployment. Therefore, we anticipate a jobless rate between 3% and 10%. Steady declines in labor-force growth also help contain unemployment in the cyclical projection. The unemployment rate gets as bad as this cycle in 2031, but stays there longer.

**Energy.** Oil price assumptions strongly influence economic conditions. The inflation-adjusted U.S. refiners' acquisi-

tion price of foreign crude exceeds the level in the trend projection; however, this simulation includes several sharp oil price jumps during periods of strong demand, when OPEC can exert greater leverage or let market forces alone drive prices. As in the past, higher energy prices fuel inflationary pressures, which can precipitate recessions.

OPEC's oil price shocks have been sustained in some past cases, but have failed in others. This projection incorporates the same assumption on future oil price shocks as our previous cyclical simulation: price increases are always successful, but the shocks themselves are less disruptive than they have been in the past. Although industries dependent on oil remain vulnerable to temporary price volatility, energy price run-ups are generally short-lived, although often to extremes. The economy has managed real oil prices (in 2005 dollars) above \$100/barrel, so it may require very sharp acceleration to tip the economy over the edge without another major issue; in 2008 that problem was a financial crunch from the housing bubble. It should be remembered that \$100/barrel oil is more of a macroeconomic shock when it is reached by rising from \$25/barrel than when it is consistently high—the amount of increase, more than the price level itself, creates the shock. Real prices range from only 75% of the baseline level to more than two and a half times its level. The 30-year average real oil price is only 12% higher in the cyclical scenario, but the peaks and troughs are massively different. Nominal price swings are compounded by higher inflation in the cyclical scenario.

TABLE 1

## Summary of the U.S. Economy

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Composition of Real GDP, Percent Change										
Gross Domestic Product	-2.4	2.1	2.0	5.4	4.8	2.6	-2.6	5.3	5.0	3.5
Final Sales of Domestic Product	-1.7	1.3	1.8	4.7	5.0	3.0	-1.3	3.3	5.3	3.8
Total Consumption	-0.6	1.6	2.1	4.0	3.3	1.2	-0.2	4.3	4.0	3.6
Durables	-4.0	2.5	7.7	12.5	6.9	-1.8	-2.6	17.1	3.5	4.7
Nondurables	-1.0	2.1	1.1	2.6	2.3	0.6	-0.3	3.2	3.4	2.9
Services	0.1	1.2	1.6	3.2	3.0	1.9	0.2	2.9	4.2	3.6
Nonresidential Fixed Investment	-17.9	0.7	4.7	17.2	15.9	8.7	-13.3	7.4	12.9	5.5
Equipment & Software	-16.9	8.5	9.4	17.2	15.0	6.7	-18.3	16.6	14.2	4.1
Information Processing Equipment	-6.0	8.1	5.9	10.2	14.8	5.0	-6.5	16.2	10.0	2.5
Computers & Peripherals	-5.9	18.7	9.8	21.4	20.6	14.7	16.7	24.2	16.8	17.9
Communications Equipment	-8.9	10.3	10.9	9.8	11.7	11.4	1.3	4.3	10.5	7.2
Industrial Equipment	-23.4	5.5	14.0	18.9	4.0	-2.0	-7.8	4.8	6.5	5.7
Transportation equipment	-48.7	43.2	23.3	51.6	30.2	19.5	-63.7	50.8	45.8	6.5
Aircraft	-24.5	11.4	17.6	22.0	12.8	6.3	-5.5	4.6	1.8	10.0
Other Equipment	-19.7	-2.4	8.2	13.9	13.6	7.1	-8.6	12.7	13.5	5.2
Structures	-19.7	-14.2	-7.1	17.0	18.4	14.0	-1.4	-10.1	10.0	8.6
Commercial & Health Care	-25.6	-20.4	-4.8	37.0	40.7	17.0	-9.6	-14.0	25.3	10.3
Manufacturing	22.7	-29.6	-13.6	28.0	17.2	7.0	3.1	-8.2	-10.9	19.9
Power & Communication	-1.3	-12.5	-17.3	5.8	5.4	8.4	2.3	0.7	3.7	1.0
Mining & Petroleum	-41.6	14.9	-2.2	-7.7	-4.0	27.6	9.4	-24.7	5.3	3.5
Other	-18.3	-20.8	0.6	16.3	9.2	7.9	3.9	1.2	4.7	6.8
Residential Fixed Investment	-20.4	0.7	26.2	28.7	13.3	-4.7	-11.5	15.5	5.8	1.9
Exports	-9.9	8.7	3.3	11.1	13.4	11.0	-5.4	8.9	15.0	8.0
Imports	-14.2	8.4	5.1	11.6	8.2	2.9	-9.4	15.3	9.4	4.9
Federal Government	5.2	3.8	-2.9	-3.7	-1.8	-0.5	0.2	0.6	0.7	0.7
State & Local Government	-0.1	0.1	-0.8	0.2	2.6	2.3	0.3	-0.3	1.9	1.8
Billions of Dollars										
Real GDP	12988.7	13267.2	13534.1	14266.4	14955.6	15341.5	14935.2	15727.5	16518.2	17094.1
Nominal GDP	14258.7	14738.7	15273.2	16333.9	17454.4	18264.7	18085.3	19200.9	20365.6	21310.2
Prices & Wages, Percent Change, Annual Rate										
GDP Deflator	1.2	1.2	1.6	1.5	1.9	2.0	1.7	0.8	1.0	1.1
Consumer Prices	-0.3	2.7	1.2	1.2	2.7	4.9	-0.8	0.2	1.6	1.8
Excl. Food & Energy	1.7	1.5	1.7	1.6	2.1	2.5	1.7	0.7	1.3	1.4
Producer Prices, Finished Goods	-2.4	4.7	0.1	-0.3	3.4	8.4	-4.3	-1.7	1.5	1.8
Employment Cost Index - Total Comp.	1.5	1.8	1.8	1.5	2.8	3.3	2.6	1.0	1.8	2.5
Other Key Measures										
Oil - WTI (\$ per barrel)	61.77	88.65	77.09	69.08	87.35	147.83	83.02	76.66	83.69	96.32
Productivity (%change)	3.0	2.9	0.5	1.6	1.1	0.9	-0.4	4.9	1.9	1.2
Industrial Production (%change)	-9.7	3.1	2.2	7.8	6.1	3.0	-6.3	7.8	7.9	4.3
Factory Operating Rate	66.9	70.2	72.6	78.6	80.7	79.3	70.4	78.9	81.7	81.6
Nonfarm Inven. Chg. (Bil. of 2000 \$)	-111.7	-6.4	20.2	124.9	101.0	48.8	-161.2	157.8	126.8	71.6
Consumer Sentiment Index	66.3	67.8	74.8	85.2	86.6	71.5	64.3	84.1	91.7	96.5
Light Vehicle Sales (Million units)	10.346	10.756	12.933	16.479	18.176	17.887	13.290	18.435	18.621	18.288
Housing Starts (Million units)	0.552	0.667	1.200	1.662	1.878	1.667	1.477	1.802	1.857	1.913
Existing House Sales (Million units)	4.573	4.680	4.646	5.488	6.069	5.639	5.257	5.962	6.033	5.972
Unemployment Rate (%)	9.3	10.1	10.0	8.5	6.9	6.7	8.5	8.0	6.3	5.2
Payroll Employment (%change)	-4.3	-1.0	0.8	3.4	3.7	2.2	-1.5	0.9	2.9	2.5
Federal Surplus (Unified, FY, bil. \$)	-1417	-1387	-1191	-930	-541	-483	-959	-865	-694	-713
Current Account Balance (Bil. \$)	-432	-590	-605	-658	-697	-897	-421	-537	-575	-614
Financial Markets, NSA										
Federal Funds Rate (%)	0.16	0.18	1.62	2.82	2.95	5.62	4.94	2.60	3.82	4.89
3-Month Treasury Bill Rate (%)	0.15	0.35	1.99	2.98	3.13	5.45	4.64	2.73	3.81	4.69
10-Year Treasury Note Yield (%)	3.26	3.82	4.12	4.23	4.50	6.65	5.48	4.09	5.13	5.71
30-Year Fixed Mortgage Rate (%)	5.04	5.27	5.69	5.72	5.89	8.10	7.56	5.54	6.36	7.08
S&P 500 Stock Index	947	1096	1028	1325	1621	1681	1205	1726	1887	1920
(Percent change)	-22.5	15.8	-6.3	28.9	22.3	3.7	-28.3	43.2	9.3	1.8
Exchange Rate, Major Trading Partners	0.929	0.916	0.888	0.854	0.838	0.855	0.870	0.868	0.859	0.879
(% change)	4.5	-1.4	-3.1	-3.8	-1.8	2.0	1.8	-0.2	-1.1	2.3
Incomes										
Personal Income (% change)	-1.4	3.6	3.4	5.7	6.9	6.5	1.6	3.4	6.7	5.7
Real Disposable Income (%change)	1.3	1.2	1.5	3.3	2.5	2.3	2.3	3.1	4.9	4.0
Saving Rate (%)	4.6	4.5	4.1	3.3	2.3	3.2	5.6	4.4	5.1	5.4
After-Tax Profits (Billions of \$)	1111	1232	1262	1469	1566	1344	1076	1555	1544	1494
(Percent change)	-5.1	11.0	2.4	16.5	6.6	-14.2	-19.9	44.5	-0.7	-3.3
Disposable Income (%change)	1.5	3.4	2.7	4.3	4.7	6.2	2.4	3.4	6.2	5.5

TABLE 1

Summary of the U.S. Economy

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<i>Composition of Real GDP, Percent Change</i>											
Gross Domestic Product	3.2	2.9	0.2	-1.4	6.2	5.6	3.7	-0.2	-2.9	4.3	4.4
Final Sales of Domestic Product	3.3	2.9	0.7	-1.0	4.8	5.8	4.0	0.6	-2.4	2.9	4.5
Total Consumption	3.0	2.1	0.1	-0.1	4.7	5.0	3.0	-0.7	-1.0	2.9	4.0
Durables	5.2	3.6	-6.0	1.2	15.0	12.8	5.7	-10.4	-1.2	11.3	9.7
Nondurables	2.8	2.2	0.7	0.0	3.9	3.8	2.9	1.2	0.0	2.9	3.6
Services	2.7	1.8	0.8	-0.2	3.7	4.4	2.7	0.0	-1.3	1.9	3.4
Nonresidential Fixed Investment	4.7	5.1	-2.8	-9.5	16.4	12.2	8.7	-3.3	-15.8	11.7	13.4
Equipment & Software	6.3	6.6	-5.5	-10.7	29.7	12.2	8.7	-5.7	-17.4	22.5	14.6
Information Processing Equipment	9.4	11.6	-5.4	-4.5	30.5	6.0	10.8	-5.3	-11.7	25.6	9.2
Computers & Peripherals	18.2	15.3	11.1	15.2	17.3	11.9	12.4	11.1	17.2	14.4	12.9
Communications Equipment	5.6	6.5	5.5	3.3	7.5	11.9	8.8	6.8	-0.6	1.3	9.5
Industrial Equipment	7.3	-3.2	-1.1	-7.1	7.9	10.0	13.1	5.0	-15.4	0.2	15.9
Transportation equipment	-1.0	5.6	-13.3	-41.3	96.3	36.5	2.2	-18.8	-48.0	71.0	40.2
Aircraft	6.4	0.1	-1.7	-1.8	9.1	8.8	12.6	2.1	-5.5	3.9	6.1
Other Equipment	3.5	2.6	-3.5	-9.5	15.7	14.4	5.3	-3.9	-12.4	10.9	12.1
Structures	1.3	1.6	3.0	-6.8	-7.6	12.4	8.9	2.1	-12.2	-8.1	10.6
Commercial & Health Care	-0.1	-0.5	-3.8	-16.7	-3.8	30.5	10.2	-3.2	-27.6	-8.7	29.5
Manufacturing	5.7	-4.7	-0.7	1.0	-2.3	-6.8	16.7	3.2	-3.8	-3.6	0.6
Power & Communication	0.0	2.3	3.4	-1.7	2.6	7.4	5.4	2.1	0.7	0.9	3.1
Mining & Petroleum	3.6	18.5	32.7	-0.7	-33.8	2.4	8.1	29.6	1.4	-32.4	-5.9
Other	0.9	0.6	0.4	0.0	-0.5	3.6	4.1	-2.0	-2.5	1.8	2.5
Residential Fixed Investment	2.4	0.5	-11.0	-8.4	15.9	8.2	3.6	-11.7	-13.3	5.3	3.9
Exports	7.9	8.4	4.7	-4.7	11.2	13.2	7.8	5.6	-6.0	8.2	9.7
Imports	4.9	4.2	-2.0	-5.8	16.4	11.8	5.0	-2.8	-8.9	12.1	11.7
Federal Government	0.8	1.2	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7
State & Local Government	1.2	1.3	1.0	0.2	0.3	2.5	1.7	1.8	0.2	-0.2	2.1
<i>Billions of Dollars</i>											
Real GDP	17649.2	18161.6	18191.1	17932.7	19050.8	20114.5	20855.4	20818.1	20206.2	21071.4	22007.6
Nominal GDP	22364.2	23471.4	24102.6	24290.6	26146.1	28057.3	29889.3	31018.3	31138.2	33415.5	36125.7
<i>Prices &amp; Wages, Percent Change, Annual Rate</i>											
GDP Deflator	1.6	2.0	2.5	2.2	1.3	1.6	2.7	4.0	3.4	2.9	3.5
Consumer Prices	2.2	4.3	5.0	-2.1	0.3	2.3	4.7	6.1	0.7	1.5	3.7
Excl. Food & Energy	1.8	2.2	2.8	2.0	1.2	1.9	2.8	4.0	3.6	3.0	3.6
Producer Prices, Finished Goods	2.3	7.2	8.2	-8.3	-2.4	2.4	7.0	9.3	-4.2	-2.4	3.1
Employment Cost Index - Total Comp.	3.0	3.3	3.9	2.7	1.4	3.0	4.6	5.9	4.8	3.3	4.9
<i>Other Key Measures</i>											
Oil - WTI (\$ per barrel)	109.41	166.0	224.2	100.2	83.7	96.9	154.9	220.4	125.6	87.2	93.5
Productivity (%change)	1.9	2.2	0.5	1.7	5.2	2.0	1.4	0.2	1.2	4.2	1.7
Industrial Production (%change)	3.5	3.1	0.3	-4.0	7.3	8.0	3.5	-0.6	-6.0	4.6	5.7
Factory Operating Rate	81.9	81.7	78.4	74.9	82.7	84.8	83.7	78.9	73.3	80.0	82.2
Nonfarm Inven. Chg. (Bil. of 2000 \$)	65.8	67.2	-31.7	-92.0	194.2	169.2	105.2	-63.7	-165.5	156.4	154.4
Consumer Sentiment Index	101.8	98.8	68.4	81.6	100.6	115.9	113.6	70.8	70.4	85.7	95.6
Light Vehicle Sales (Million units)	18.414	18.6	15.0	13.9	18.3	21.2	20.8	15.7	13.9	17.8	19.9
Housing Starts (Million units)	1.970	1.9	1.6	1.5	1.8	1.9	2.0	1.6	1.3	1.4	1.6
Existing House Sales (Million units)	6.029	5.9	5.3	5.1	5.8	5.9	5.9	5.2	5.0	5.3	5.2
Unemployment Rate (%)	4.5	4.1	4.5	6.3	5.5	3.8	2.9	3.8	6.5	6.3	5.0
Payroll Employment (%change)	1.7	1.2	0.2	-1.8	1.5	3.7	2.8	0.4	-2.8	0.5	2.8
Federal Surplus (Unified, FY, bil. \$)	-750	-750	-1152	-1801	-1406	-936	-750	-1008	-1993	-1848	-1640
Current Account Balance (Bil. \$)	-600	-751	-781	-87	-176	-312	-435	-216	581	513	398
<i>Financial Markets, NSA</i>											
Federal Funds Rate (%)	4.95	5.7	7.5	5.3	3.5	4.6	5.9	8.3	4.5	5.0	6.1
3-Month Treasury Bill Rate (%)	4.72	5.3	7.0	5.1	3.7	4.6	5.7	7.7	4.4	5.1	6.2
10-Year Treasury Note Yield (%)	5.73	6.4	7.8	5.8	4.8	5.8	6.8	8.5	5.7	6.3	7.1
30-Year Fixed Mortgage Rate (%)	7.19	7.9	9.4	7.9	6.1	7.0	8.1	10.1	8.0	7.6	8.4
S&P 500 Stock Index	2083	2164	1890	1711	2598	2662	2915	2756	2779	3502	3390
(Percent change)	8.5	3.9	-12.6	-9.5	51.8	2.5	9.5	-5.5	0.8	26.0	-3.2
Exchange Rate, Major Trading Partners (% change)	0.902	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7
(% change)	2.6	1.3	1.8	1.2	-2.0	-3.3	-2.2	-2.9	-4.4	-6.1	-5.9
<i>Incomes</i>											
Personal Income (% change)	5.6	5.7	5.4	1.8	4.9	7.3	6.7	6.8	2.4	5.5	8.7
Real Disposable Income (%change)	3.0	2.2	1.9	2.1	2.9	4.4	2.3	1.3	0.8	2.5	4.3
Saving Rate (%)	5.4	5.5	7.0	9.1	7.6	7.0	6.3	8.1	9.9	9.6	9.9
After-Tax Profits (Billions of \$)	1545	1539	1233	1400	1997	1993	1992	1578	1758	2348	2407
(Percent change)	3.4	-0.4	-19.9	13.6	42.6	-0.2	-0.1	-20.8	11.4	33.5	2.5
Disposable Income (%change)	5.1	5.7	5.9	2.1	3.6	6.4	6.1	6.5	3.1	4.8	7.9

TABLE 1

## Summary of the U.S. Economy

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Composition of Real GDP, Percent Change											
Gross Domestic Product	3.1	1.7	-3.5	-4.4	2.7	5.2	4.1	3.5	3.7	4.2	3.1
Final Sales of Domestic Product	3.3	1.8	-2.5	-4.2	1.4	5.1	4.3	3.6	3.8	4.1	3.2
Total Consumption	3.4	1.9	-1.7	-2.8	1.3	3.7	4.2	3.5	3.8	4.6	4.4
Durables	8.5	4.2	-9.8	-3.5	10.5	9.9	8.2	4.7	6.7	10.0	8.8
Nondurables	3.4	2.9	-0.1	-1.9	1.3	2.3	2.7	3.0	2.8	3.2	3.7
Services	2.8	1.3	-1.3	-3.0	0.5	3.4	4.2	3.6	3.8	4.4	4.2
Nonresidential Fixed Investment	8.0	2.2	-11.5	-11.0	11.6	18.3	8.2	4.1	4.0	6.7	6.2
Equipment & Software	8.8	3.6	-15.9	-9.9	20.8	21.3	6.8	4.5	5.3	8.7	8.2
Information Processing Equipment	8.4	6.6	-15.7	-2.2	22.2	17.3	1.3	5.1	8.5	11.5	12.5
Computers & Peripherals	13.6	13.1	11.3	16.3	16.3	12.4	13.9	14.9	15.6	16.4	16.7
Communications Equipment	11.1	4.5	-4.5	1.4	7.6	10.9	10.2	10.1	9.9	9.7	9.1
Industrial Equipment	16.7	1.6	-7.1	-12.3	10.5	16.8	18.9	6.2	-1.0	1.7	0.9
Transportation equipment	6.1	-2.7	-32.8	-32.1	53.1	49.5	9.7	-2.5	-0.9	6.4	2.9
Aircraft	11.0	4.6	-3.2	-2.6	3.3	8.7	11.2	7.0	4.1	4.6	4.6
Other Equipment	6.2	2.2	-9.4	-14.5	8.6	17.1	11.1	8.2	8.4	9.5	7.0
Structures	6.0	-1.1	-1.4	-12.8	-5.9	11.0	11.6	3.2	0.9	2.3	1.7
Commercial & Health Care	7.4	-4.3	-11.6	-35.8	-2.5	36.0	19.0	3.7	0.3	3.3	3.3
Manufacturing	13.4	2.2	-0.8	-2.3	-2.8	-1.3	19.2	7.6	-0.3	-1.1	-2.2
Power & Communication	4.1	2.9	3.3	0.0	-0.4	4.0	5.2	4.8	6.2	5.3	3.0
Mining & Petroleum	-2.7	5.2	32.9	7.3	-33.0	-4.6	1.2	1.1	-0.1	1.4	2.1
Other	3.4	-2.5	1.2	-1.8	-1.0	4.1	4.3	-1.9	-1.3	1.2	0.8
Residential Fixed Investment	5.3	-1.4	-18.5	-21.3	19.3	13.5	3.8	-0.6	1.8	4.2	3.9
Exports	5.3	4.5	-3.1	-11.7	3.2	11.4	8.9	8.5	7.6	6.3	2.7
Imports	7.3	4.0	-6.3	-10.4	10.5	12.2	8.9	6.7	6.7	8.6	8.0
Federal Government	1.2	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.2
State & Local Government	1.2	0.9	0.7	-1.1	-1.3	1.5	1.2	1.4	2.0	2.0	1.9
Billions of Dollars											
Real GDP	22696.5	23074.7	22278.3	21302.9	21871.7	23018.3	23965.5	24806.4	25733.9	26804.6	27648.5
Nominal GDP	38815.3	41533.3	42606.8	42861.0	45795.3	49908.3	53769.5	57611.3	61953.4	67064.1	72051.6
Prices & Wages, Percent Change, Annual Rate											
GDP Deflator	4.2	5.3	6.3	5.2	4.1	3.6	3.5	3.5	3.7	3.9	4.2
Consumer Prices	4.5	6.6	8.4	2.8	2.7	3.9	4.1	3.7	3.7	4.0	4.2
Excl. Food & Energy	4.3	5.0	5.8	5.4	4.4	4.0	3.8	3.7	3.7	3.9	4.1
Producer Prices, Finished Goods	4.0	8.8	12.6	-1.9	-1.5	2.9	4.2	3.2	3.1	3.4	3.5
Employment Cost Index - Total Comp.	6.0	6.7	7.4	6.0	3.8	4.0	4.4	4.6	4.8	5.1	5.6
Other Key Measures											
Oil - WTI (\$ per barrel)	107.7	174.5	275.4	166.0	114.3	119.0	148.3	162.0	170.4	181.5	194.5
Productivity (%change)	1.2	1.2	-0.9	1.3	4.0	2.7	1.4	1.6	2.1	2.1	1.6
Industrial Production (%change)	1.9	0.0	-4.0	-10.0	1.9	7.9	2.1	2.8	3.5	3.8	1.9
Factory Operating Rate	81.0	78.4	69.6	63.7	68.6	72.1	72.9	73.1	73.7	74.3	71.7
Nonfarm Inven. Chg. (Bil. of 2000 \$)	101.9	61.3	-207.9	-223.2	138.0	183.4	133.0	106.1	103.6	135.2	102.9
Consumer Sentiment Index	98.6	89.3	47.3	49.2	66.1	76.7	77.6	79.8	82.5	86.5	86.0
Light Vehicle Sales (Million units)	20.7	20.3	14.7	14.3	17.7	20.0	20.1	18.9	18.4	19.0	18.8
Housing Starts (Million units)	1.7	1.6	1.1	0.8	1.1	1.3	1.3	1.3	1.4	1.4	1.5
Existing House Sales (Million units)	5.3	5.2	4.3	3.9	4.6	4.7	4.6	4.4	4.4	4.5	4.6
Unemployment Rate (%)	4.2	4.4	6.5	10.0	10.7	9.4	8.3	7.6	7.0	6.1	5.6
Payroll Employment (%change)	2.3	0.8	-1.9	-4.4	-1.0	2.5	2.7	2.1	2.0	2.3	1.9
Federal Surplus (Unified, FY, bil. \$)	-1512	-1496	-2490	-4216	-4414	-4138	-3925	-3684	-3630	-3582	-3671
Current Account Balance (Bil. \$)	423	551	928	1402	989	912	1286	2017	2895	3595	4064
Financial Markets, NSA											
Federal Funds Rate (%)	6.4	7.4	10.5	7.6	5.4	6.5	7.5	7.8	8.1	8.4	8.7
3-Month Treasury Bill Rate (%)	6.4	7.2	9.9	7.5	5.6	6.7	7.6	7.7	7.9	8.2	8.5
10-Year Treasury Note Yield (%)	7.5	8.4	10.6	8.5	7.3	8.4	9.2	9.6	9.7	9.8	9.9
30-Year Fixed Mortgage Rate (%)	8.9	9.8	12.3	10.8	8.9	9.6	10.5	11.0	11.1	11.2	11.3
S&P 500 Stock Index	3728	3897	3109	2530	2963	3092	3913	4927	5714	6373	6370
(Percent change)	10.0	4.5	-20.2	-18.6	17.1	4.4	26.5	25.9	16.0	11.5	0.0
Exchange Rate, Major Trading Partners (% change)	0.7	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.5	0.5	0.5
Incomes	-4.6	-5.9	-5.6	-5.5	-9.4	-10.8	-4.6	0.9	4.4	8.0	9.2
Personal Income (% change)	8.2	7.9	6.7	2.6	5.4	8.6	8.5	8.1	8.3	8.8	8.6
Real Disposable Income (%change)	3.4	1.9	0.4	-1.2	1.3	4.4	3.9	3.2	4.1	4.6	4.5
Saving Rate (%)	9.9	9.9	11.8	13.4	13.4	14.0	13.8	13.5	13.8	13.9	14.0
After-Tax Profits (Billions of \$)	2419	2474	2158	2729	3542	3831	4163	4672	5386	6235	6934
(Percent change)	0.5	2.3	-12.8	26.4	29.8	8.2	8.7	12.2	15.3	15.8	11.2
Disposable Income (%change)	7.8	7.8	7.5	3.1	4.9	8.2	7.7	6.9	7.9	8.6	8.8

TABLE 2  
Population, Labor Force and Potential GDP

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Millions										
Total Population	307.8	310.9	313.9	316.9	320.0	323.1	326.2	329.3	332.5	335.7
Under 5	21.2	21.4	21.6	21.8	22.0	22.2	22.3	22.5	22.7	22.8
Ages 5 through 21	70.5	70.9	71.1	71.3	71.5	71.8	72.2	72.7	73.3	74.0
Ages 16 and Up	242.2	244.8	247.3	249.7	252.1	254.5	257.0	259.5	262.0	264.6
Males Ages 25 through 54	64.6	64.7	64.9	65.0	65.2	65.4	65.6	65.8	66.1	66.3
Ages 55 through 64	35.0	36.3	37.4	38.1	38.9	39.7	40.5	41.3	41.9	42.4
Ages 65 and Up	39.7	40.5	41.5	42.9	44.3	45.7	47.2	48.6	50.2	51.7
Ages 85 and Up	5.9	6.0	6.2	6.3	6.4	6.5	6.6	6.7	6.7	6.7
Percent Change										
Total Population	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Under 5	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.7
Ages 5 through 21	0.5	0.5	0.4	0.2	0.3	0.4	0.6	0.7	0.8	0.9
Ages 16 and Up	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Males Ages 25 through 54	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.3
Ages 55 through 64	3.5	3.8	3.0	1.9	2.0	2.1	2.1	1.8	1.4	1.2
Ages 65 and Up	2.0	1.9	2.4	3.5	3.3	3.1	3.2	3.1	3.1	3.2
Ages 85 and Up	2.8	2.5	2.1	1.9	1.7	1.4	1.5	1.1	0.8	0.6
Labor Force and Employment										
Labor Force, Millions	154.2	153.7	154.9	156.5	158.6	160.3	160.8	161.3	163.0	164.8
Under 65	147.7	146.9	147.9	149.4	151.1	152.5	152.6	152.9	154.2	155.7
Ages 65 and Up	6.5	6.8	7.0	7.1	7.4	7.8	8.1	8.5	8.8	9.1
Participation Rate, Percent	63.7	62.8	62.6	62.7	62.9	63.0	62.6	62.2	62.2	62.3
Under 65	73.0	71.9	71.9	72.2	72.7	73.0	72.8	72.5	72.8	73.1
Ages 65 and Up	16.4	16.8	16.8	16.6	16.8	17.0	17.2	17.4	17.5	17.7
Employment, Millions										
Household Survey	139.9	138.2	139.5	143.3	147.6	149.6	147.1	148.5	152.8	156.3
Establishment Survey	130.9	129.6	130.6	135.1	140.0	143.0	140.8	142.1	146.3	149.9
Percent Change, Annual Rate	-4.3	-1.0	0.8	3.4	3.7	2.2	-1.5	0.9	2.9	2.5
Unemployment Rate, Percent	9.3	10.1	10.0	8.5	6.9	6.7	8.5	8.0	6.3	5.2
Average Weekly Hours										
Average Weekly Hours	31.9	32.1	32.3	32.4	32.5	32.4	32.2	32.3	32.5	32.5
Manufacturing Workweek	39.9	40.5	40.5	41.2	41.3	41.1	39.6	41.3	41.3	41.1
Durables Workweek	39.9	40.5	40.4	41.4	41.5	41.3	39.3	41.4	41.4	41.1
Nondurables Workweek	39.8	40.5	40.5	40.8	40.8	40.7	40.3	41.0	41.0	41.0
Manhours in Private Nonfarm Estab.										
Billions of Hours, SAAR	182.0	181.3	184.3	192.3	200.1	203.6	197.9	201.1	208.6	213.9
Percent Change, Annual Rate	-5.6	-0.3	1.6	4.3	4.0	1.8	-2.8	1.6	3.7	2.6
Vendor Performance Index	51.4	56.8	54.7	60.2	55.7	50.5	44.4	61.2	55.4	53.3
Potential GDP										
Billions of Chained 2000 Dollars	14374.1	14642.5	14927.1	15214.7	15559.5	15979.1	16392.7	16666.4	17002.6	17401.0
Percent Change										
Potential GDP	2.5	1.9	1.9	1.9	2.3	2.7	2.6	1.7	2.0	2.3
Nonhousing, Non-Government	-3.4	2.5	2.6	6.7	5.6	2.7	-3.6	6.6	5.9	3.9
Potential Output	2.2	2.2	2.5	2.4	2.6	2.7	2.2	1.9	2.5	2.5
Capital Stock	0.1	-0.4	0.4	2.2	4.7	5.7	1.5	1.7	4.3	4.2
R&D Capital Stock	2.6	2.3	2.2	2.3	2.7	3.0	2.8	2.4	2.6	2.8
Full-Employment Labor Force	0.4	1.2	2.0	1.2	0.5	0.2	0.4	1.0	0.5	0.3
Multifactor Productivity	1.6	1.2	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9
Nonfarm Productivity - Output per Hour										
Full-Employment	1.8	1.0	0.6	1.3	2.1	2.5	1.7	1.0	2.0	2.2
Actual	3.0	2.9	0.5	1.6	1.1	0.9	-0.4	4.9	1.9	1.2
All Manufacturing	1.4	4.9	2.7	4.6	2.9	0.6	1.3	7.9	4.0	1.5
Durable Goods	-2.1	5.8	3.6	7.0	3.5	0.6	0.6	12.6	4.8	1.4
Nondurable Goods	2.7	3.4	1.7	1.7	2.2	0.6	1.9	2.1	2.9	1.5

TABLE 2

## Population, Labor Force and Potential GDP

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Millions											
Total Population	338.8	342.0	345.2	348.5	351.7	354.9	358.1	361.3	364.5	367.7	370.9
Under 5	23.0	23.1	23.2	23.4	23.5	23.6	23.7	23.9	24.0	24.1	24.3
Ages 5 through 21	74.8	75.5	76.3	77.0	77.7	78.4	79.0	79.7	80.3	80.9	81.6
Ages 16 and Up	267.2	269.9	272.5	275.1	277.8	280.5	283.1	285.8	288.5	291.3	294.0
Males Ages 25 through 54	66.5	66.7	67.0	67.3	67.7	68.0	68.2	68.6	69.0	69.6	70.2
Ages 55 through 64	42.7	42.9	42.8	42.5	42.2	42.0	41.8	41.7	41.4	40.9	40.5
Ages 65 and Up	53.4	55.2	57.0	58.8	60.6	62.4	64.3	66.1	67.8	69.4	71.0
Ages 85 and Up	6.8	6.9	7.0	7.1	7.2	7.4	7.5	7.8	8.1	8.4	8.8
Percent Change											
Total Population	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Under 5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.6
Ages 5 through 21	1.0	1.0	1.0	1.0	0.8	0.9	0.8	0.8	0.8	0.8	0.8
Ages 16 and Up	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9
Males Ages 25 through 54	0.3	0.3	0.5	0.5	0.5	0.4	0.4	0.5	0.7	0.8	0.9
Ages 55 through 64	0.9	0.4	-0.2	-0.6	-0.8	-0.5	-0.4	-0.4	-0.8	-1.1	-1.1
Ages 65 and Up	3.2	3.3	3.2	3.2	3.1	3.0	3.0	2.8	2.6	2.4	2.3
Ages 85 and Up	0.7	1.3	1.3	1.4	1.9	2.2	2.5	2.9	3.8	4.6	4.0
Labor Force and Employment											
Labor Force, Millions	166.3	167.6	168.5	168.4	169.0	170.7	172.4	173.5	173.3	173.6	175.2
Under 65	156.7	157.5	157.9	157.5	157.6	158.9	160.2	160.8	160.3	160.3	161.7
Ages 65 and Up	9.6	10.1	10.6	10.9	11.3	11.7	12.2	12.7	13.1	13.3	13.5
Participation Rate, Percent	62.2	62.1	61.8	61.2	60.8	60.9	60.9	60.7	60.1	59.6	59.6
Under 65	73.3	73.4	73.3	72.8	72.6	72.9	73.2	73.2	72.6	72.3	72.5
Ages 65 and Up	17.9	18.3	18.5	18.6	18.7	18.8	18.9	19.2	19.3	19.2	19.0
Employment, Millions											
Household Survey	158.9	160.8	160.9	157.7	159.6	164.1	167.3	167.0	162.0	162.6	166.4
Establishment Survey	152.5	154.4	154.7	151.9	154.1	159.8	164.2	164.8	160.3	161.0	165.6
Percent Change, Annual Rate	1.7	1.2	0.2	-1.8	1.5	3.7	2.8	0.4	-2.8	0.5	2.8
Unemployment Rate, Percent	4.5	4.1	4.5	6.3	5.5	3.8	2.9	3.8	6.5	6.3	5.0
Average Weekly Hours	32.5	32.5	32.4	32.2	32.5	32.6	32.6	32.4	32.2	32.4	32.6
Manufacturing Workweek	41.0	41.0	40.5	39.8	41.3	41.5	41.5	40.7	39.7	41.0	41.2
Durable Workweek	41.0	41.1	40.5	39.4	41.3	41.6	41.6	40.7	39.2	40.9	41.2
Nondurable Workweek	41.0	40.9	40.6	40.5	41.2	41.3	41.2	40.8	40.5	41.2	41.1
Manhours in Private Nonfarm Estab.											
Billions of Hours, SAAR	217.6	219.9	219.4	213.2	218.6	228.1	234.7	233.8	223.9	226.6	234.5
Percent Change, Annual Rate	1.7	1.0	-0.2	-2.8	2.5	4.4	2.9	-0.4	-4.2	1.2	3.5
Vendor Performance Index	53.3	51.2	46.2	49.4	62.9	55.9	51.7	43.9	46.4	59.1	54.6
Potential GDP											
Billions of Chained 2000 Dollars	17796.0	18205.7	18640.7	19009.5	19295.4	19724.3	20219.5	20740.0	21159.1	21458.6	21889.2
Percent Change											
Potential GDP	2.3	2.3	2.4	2.0	1.5	2.2	2.5	2.6	2.0	1.4	2.0
Nonhousing, Non-Government	3.6	3.1	-0.1	-2.0	7.6	6.4	4.1	-0.6	-3.8	5.2	5.1
Potential Output	2.4	2.4	2.2	1.4	2.0	2.6	2.6	2.4	1.5	1.8	2.4
Capital Stock	4.0	4.6	3.2	-0.2	2.9	5.5	5.4	4.2	-0.6	1.4	4.1
R&D Capital Stock	3.0	2.9	2.8	2.7	2.7	3.1	3.4	3.4	3.0	2.9	3.1
Full-Employment Labor Force	0.3	0.1	0.1	0.2	0.7	0.1	0.1	-0.1	0.3	0.9	0.3
Multifactor Productivity	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Nonfarm Productivity - Output per Hour											
Full-Employment	2.1	2.2	2.0	1.2	1.3	2.6	2.5	2.5	1.2	0.9	2.1
Actual	1.9	2.2	0.5	1.7	5.2	2.0	1.4	0.2	1.2	4.2	1.7
All Manufacturing	2.4	2.4	-0.3	4.6	9.8	5.6	1.9	0.1	2.9	8.7	5.2
Durable Goods	3.6	3.6	0.1	5.7	14.2	5.8	1.9	0.6	3.9	13.2	5.7
Nondurable Goods	1.0	1.0	-0.8	3.1	4.3	5.4	1.9	-0.5	1.6	3.1	4.6

TABLE 2  
Population, Labor Force and Potential GDP

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Millions											
Total Population	374.1	377.3	380.5	383.7	386.9	390.1	393.3	396.5	399.8	403.0	406.2
Under 5	24.4	24.6	24.8	24.9	25.1	25.3	25.5	25.8	26.0	26.2	26.4
Ages 5 through 21	82.2	82.8	83.4	83.9	84.5	85.1	85.6	86.2	86.8	87.4	88.0
Ages 16 and Up	296.7	299.4	302.1	304.8	307.5	310.2	312.8	315.5	318.1	320.7	323.3
Males Ages 25 through 54	70.8	71.4	72.0	72.5	73.0	73.5	73.9	74.4	75.0	75.5	76.0
Ages 55 through 64	40.2	40.0	40.1	40.2	40.4	40.6	40.9	41.4	42.0	42.6	43.2
Ages 65 and Up	72.5	73.6	74.7	75.7	76.7	77.9	79.0	79.8	80.4	81.0	81.5
Ages 85 and Up	9.1	9.5	10.1	10.7	11.3	11.8	12.4	12.9	13.4	14.0	14.6
Percent Change											
Total Population	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Under 5	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Ages 5 through 21	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Ages 16 and Up	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
Males Ages 25 through 54	0.8	0.9	0.8	0.8	0.7	0.6	0.6	0.7	0.7	0.7	0.7
Ages 55 through 64	-0.8	-0.3	0.1	0.4	0.4	0.5	0.8	1.1	1.4	1.5	1.4
Ages 65 and Up	2.0	1.6	1.4	1.3	1.4	1.5	1.3	1.0	0.8	0.7	0.7
Ages 85 and Up	3.6	4.5	6.7	5.9	5.1	4.9	4.4	4.4	4.3	4.2	4.2
Labor Force and Employment											
Labor Force, Millions	177.1	178.8	179.7	179.1	178.9	180.2	182.1	184.3	186.6	189.1	191.4
Under 65	163.3	164.8	165.6	165.0	165.0	166.4	168.5	170.6	172.7	174.9	177.1
Ages 65 and Up	13.7	14.0	14.2	14.0	13.9	13.7	13.6	13.8	14.0	14.2	14.3
Participation Rate, Percent	59.7	59.7	59.5	58.7	58.2	58.1	58.2	58.4	58.7	59.0	59.2
Under 65	72.8	73.0	72.8	72.0	71.5	71.7	72.1	72.4	72.7	73.0	73.2
Ages 65 and Up	18.9	19.0	19.0	18.6	18.1	17.6	17.3	17.2	17.4	17.5	17.5
Employment, Millions											
Household Survey	169.5	171.0	168.0	161.2	159.9	163.3	167.1	170.3	173.6	177.5	180.6
Establishment Survey	169.4	170.8	167.5	160.1	158.4	162.4	166.8	170.3	173.6	177.6	180.9
Percent Change, Annual Rate	2.3	0.8	-1.9	-4.4	-1.0	2.5	2.7	2.1	2.0	2.3	1.9
Unemployment Rate, Percent	4.2	4.4	6.5	10.0	10.7	9.4	8.3	7.6	7.0	6.1	5.6
Average Weekly Hours	32.5	32.4	32.2	32.0	32.2	32.4	32.4	32.4	32.4	32.5	32.5
Manufacturing Workweek	41.1	41.0	40.0	39.1	40.2	40.5	40.5	40.6	40.6	40.8	40.7
Durables Workweek	41.1	41.1	39.9	38.4	39.9	40.5	40.4	40.5	40.5	40.7	40.7
Nondurables Workweek	41.1	41.0	40.2	40.1	40.6	40.7	40.7	40.7	40.8	40.9	40.8
Manhours in Private Nonfarm Estab.											
Billions of Hours, SAAR	240.3	241.9	234.5	220.6	219.7	226.9	234.3	239.8	244.8	251.1	256.1
Percent Change, Annual Rate	2.5	0.7	-3.1	-6.0	-0.4	3.3	3.3	2.3	2.1	2.6	2.0
Vendor Performance Index	50.9	48.3	41.9	47.3	53.8	54.3	53.1	52.6	52.6	52.3	49.0
Potential GDP											
Billions of Chained 2000 Dollars	22414.8	22989.8	23548.3	23952.0	24286.3	24756.7	25358.3	25985.8	26623.8	27289.9	28021.4
Percent Change											
Potential GDP	2.4	2.6	2.4	1.7	1.4	1.9	2.4	2.5	2.5	2.5	2.7
Nonhousing, Non-Government	3.5	1.8	-4.4	-5.4	3.4	6.2	4.8	4.0	4.2	4.7	3.5
Potential Output	2.7	2.9	2.2	1.4	1.9	2.4	2.8	2.8	2.7	2.8	3.0
Capital Stock	4.6	4.3	1.6	-1.6	0.4	4.1	4.4	4.0	3.8	4.2	4.6
R&D Capital Stock	3.4	3.4	3.3	2.9	2.7	2.9	3.3	3.5	3.5	3.7	3.8
Full-Employment Labor Force	0.5	0.7	0.5	0.9	1.4	0.6	0.6	0.7	0.7	0.7	0.6
Multifactor Productivity	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0
Nonfarm Productivity - Output per Hour											
Full-Employment	2.3	2.1	1.7	0.5	0.6	1.9	2.2	2.1	2.0	2.1	2.3
Actual	1.2	1.2	-0.9	1.3	4.0	2.7	1.4	1.6	2.1	2.1	1.6
All Manufacturing	2.8	1.9	-1.5	0.7	9.5	7.8	1.5	3.6	4.4	4.1	3.4
Durable Goods	2.8	2.8	-0.7	0.8	13.5	10.1	-0.2	4.7	6.0	5.0	3.5
Nondurable Goods	2.9	0.8	-2.5	0.5	4.5	4.9	3.5	2.1	2.5	3.0	3.3

# The Optimistic and Pessimistic Projections

by Patrick J. Newport

## A Range of Possibilities: The Optimistic and Pessimistic Projections

### Highlights

- *Real GDP advances 3.1% per year on average over the next 30 years in the optimistic scenario (optim). This is above the 3.0% growth rate recorded in 1978-2008, and higher than the projected averages of 2.6% in the baseline (trend) and 2.1% in the pessimistic scenario (pessim).*
- *Despite optim's strong growth, inflation as measured by the GDP deflator averages a moderate 1.3%, compared with the averages of 1.7% in the trend and 2.8% in the pessim.*
- *While the federal budget remains in deficit over the next 30 years in the trend and the pessim, the budget swings into surplus in 2030 in the optim.*
- *In the pessim, business fixed investment grows only 4.0% a year on average, compared with 5.0% in the optim and 4.5% in the baseline.*
- *Output per man-hour rises 2.2% in the optim, 2.0% in trend, and 1.5% in the pessim.*

The optimistic scenario is characterized by strong GDP growth and moderate inflation, with higher rates of growth in capital spending and factor-productivity relative to the trend. The pessimistic alternative (which encompasses opposite assumptions on labor force, capital stock, and factor productivity) exhibits higher inflation than optim, partly because of escalating energy prices.

In the optimistic case, real GDP growth averages 3.1% annually, which is above the 3.0% gains achieved in 1978-2008. Consumer price inflation, on the other hand, averages only 1.5%, well below the previous 30-year rate of 4.1%. The high-growth, low-inflation environment depict-

ed here is especially favorable to durable-goods spending categories such as business fixed investment, housing construction, and motor vehicles. In contrast, the low-growth environment of the pessimistic projection debilitates these same sectors. For example, in optim, housing starts are 74% higher than its trend level by 2040, while in pessim, it is 43% lower.

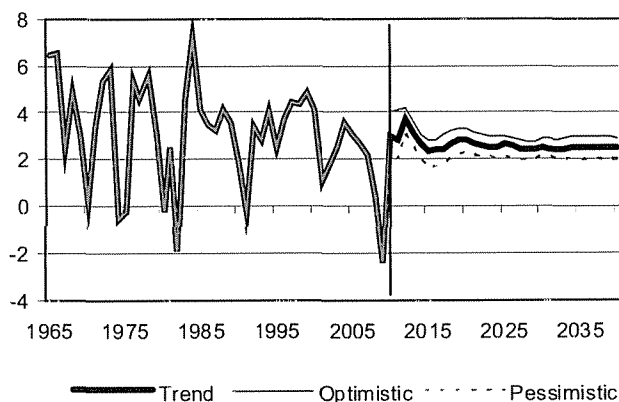
### Projection Detail

**Participation Rates and the Labor Force.** These two scenarios incorporate different demographic assumptions from those in the trend, leading to varying labor force growth and participation rates. The optimistic outlook assumes that the U.S. population will grow more quickly because of higher net immigration. The pessimistic alternative constricts growth in the labor force, the result of lower assumed net immigration. As a result, the U.S. population increases from 286 million in 2001 to 418 million by 2040 in the optim, but to 396 million in the pessim, compared with the 406 million in the trend. Annual population growth averages 1.0% in optim, 0.8% in passim and 0.9% in the baseline.

Thus, by 2040, the adult population (aged 16 and over) is roughly 2.7% higher in optim than in the trend, while it is

### Output Growth Will Weaken

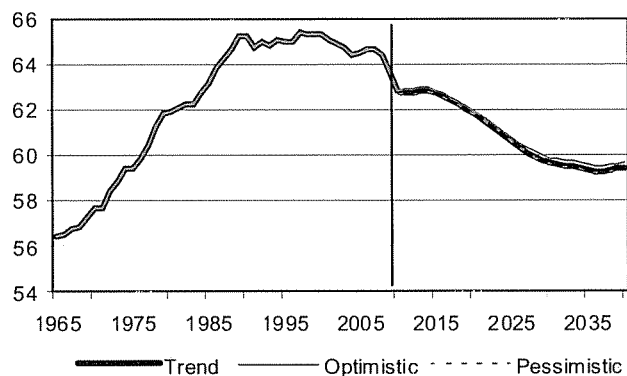
(Real GDP, annual percent change)





**Labor-Force Participation Rates**

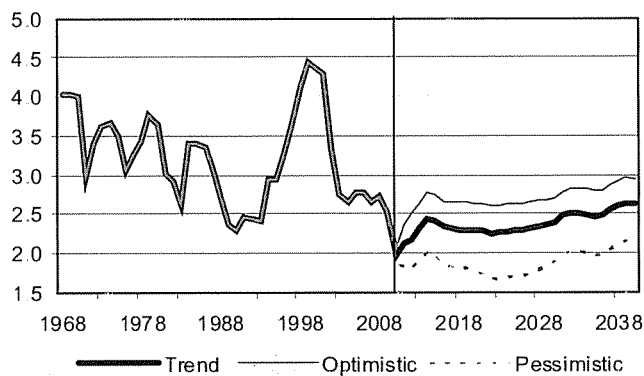
(Percent)



2.2% lower in pessim, directly affecting the labor force. By 2040, the civilian labor force is 3.1% higher in optim and 2.5% lower in pessim relative to the trend. Labor-force growth averages 0.8% in optim and 0.6% in pessim over the next 30 years, compared with the 0.7% annual gains in the trend.

**Actual Output Growth Will Be Constrained by Slower Potential Output Gains**

(Potential output, percent change)



**Potential Output.** Over the longer term, the economy’s actual growth is constrained by the expansion of potential output. The optimistic scenario, with its above-trend supply factors, yields average potential output growth of 2.7% per year through 2040. In the pessimistic scenario, with its slower labor-force and capital-stock growth, potential production is limited to 1.9% gains over the forecast interval.

**Inflation.** The subdued inflation in the optimistic scenario depends on relatively low energy prices and moderate wage increases. When combined with faster productivity growth, consumer price inflation averages 1.5% per year through 2040, compared with 1.9% in the trend and 4.1% over the past 30 years. In the pessimistic case, inflation is fanned by higher commodity prices. Rising energy prices, wages, and

**Bandwidth Projections at a Glance**

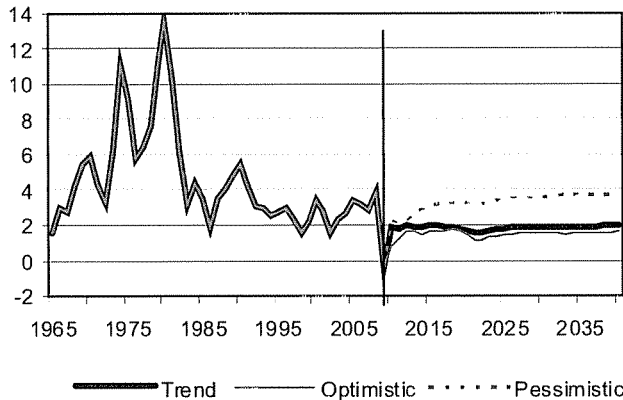
(Average annual percent change)

	2010-40		
	Optim	Pessim	Spread
Real GDP	3.1	2.1	1.0
Consumption	3.0	2.0	1.0
Motor Vehicles	3.4	2.0	1.3
Nonresidential Fixed Investment	5.0	4.0	1.0
Residential Fixed Investment	3.7	0.8	2.9
Exports	6.8	5.6	1.2
Imports	5.5	4.7	0.8
Total Government	0.9	0.4	0.5
Chain-Wt. Implicit GDP Deflator	1.3	3.1	-1.8
Output per Hour	2.2	1.5	0.7
Real Short-Term Interest Rates (Basis pts.)	2.2	3.7	-1.5
Federal Funds Rate (Basis pts.)	3.7	7.2	-3.5
Unemployment Rate (% pts.)	5.4	6.1	-0.7
Foreign Crude Oil (\$/barrel)	81.5	138.7	-57.2
Real After-Tax Profits	4.1	1.5	2.6
Real Disposable Income	2.9	2.3	0.6
Population	1.0	0.8	0.2
Real Disposable Income Per Capita	1.8	1.5	0.4
Housing Starts (Mil. Units)	2.5	1.1	1.4

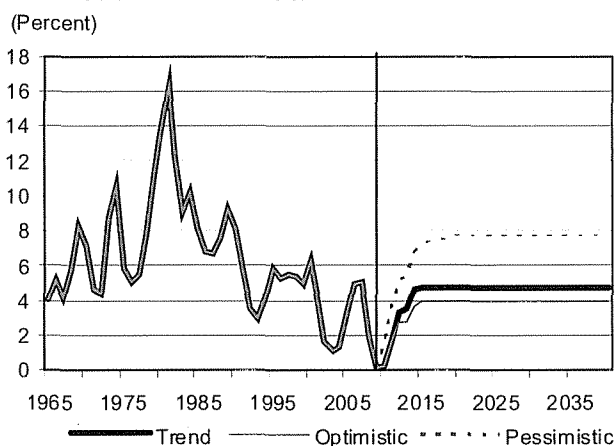
Note: All data represent compound annual growth rates calculated over the entire forecast period, except where units are given. Data accompanied by units represents the absolute change over the forecast period. All real data are in chained 2000 dollars.

**Consumer Price Inflation**

(Percent)



### The Federal Funds Rate



import prices combine to push consumer price inflation also up to 3.8% annually in 2040 in the pessim.

**Financial Conditions.** The federal funds rate averages 7.2% in pessim and 3.7% in optim, compared with the trend's 4.4% rate. The rate would be higher in pessim, but the Federal Reserve compromises between fighting the inflationary forces of rising oil prices and pushing the economy into recession. At the long end of the maturity spectrum, the 10-year government bond yield reaches a high of 5.1% before settling back down to 4.6% by the end of the projection period in the optim, while topping out at 8.7% in 2040 in the pessim. The steeper yield curve in pessim reflects mounting concerns about the inflationary outlook, given the Fed's accommodative monetary policy and accelerating inflation.

**Consumer Spending and Income.** Real consumer spending averages 3.0% annual growth in optim, 0.6 percentage point above the trend rate. Real per capita consumption expands an average of 1.9% (optim), compared with its 2.0% annual rate over the past 30 years.

Income-sensitive durable goods are affected the most. Spending on consumer durables rises an average 5.6% per year in optim, 0.8 percentage point stronger than the trend growth rate; in pessim, growth in the same spending category averages just 4.3%. In the optimistic scenario, light-vehicle sales average 19.5 million units per year, pushing the stock of cars and light trucks 5% above its trend level by 2040.

### Personal Consumption

(Average annual percent change)

	History		Optim		Pessim	
	1981-1991	1992-2009	2010-2024	2025-2040	2010-2024	2025-2040
Total Expenditures	3.2	3.1	3.1	2.9	2.0	2.0
Consumption Excluding New Motor Vehicles	N/A	3.1	3.0	2.9	2.0	2.0
Durable Goods	4.6	5.8	5.7	5.5	4.2	4.3
Motor Vehicles & Parts	4.1	2.2	3.9	2.9	2.7	1.4
Furnishings & Durable Household Equip.	3.1	4.8	4.7	5.3	2.2	4.6
Recreational Goods & Vehicles	N/A	N/A	9.6	9.2	8.0	7.7
Information Processing Equip.	N/A	N/A	16.9	15.1	15.8	14.5
Other Recreational Goods & Vehicles	6.5	8.8	7.6	7.3	5.7	5.3
Other Durables	4.0	4.0	3.5	3.6	3.0	3.6
Nondurable Goods	2.2	2.6	2.6	2.8	1.9	1.9
Clothing & Shoes	4.2	3.9	4.0	4.0	3.0	3.6
Food & Beverages	N/A	N/A	1.8	1.1	1.4	0.9
Motor Vehicle Fuels, Lubricants & Fluids	1.9	1.4	0.6	1.2	-0.1	0.5
Fuel Oil & Other Fuels	-2.4	-2.3	0.2	0.2	-0.9	-1.3
Other Nondurables	2.4	3.6	3.4	3.6	2.6	2.4
Tobacco	-2.7	-1.7	-4.4	-5.5	-4.8	-6.2
Pharma. & Other Medical Products	4.0	5.5	5.6	4.2	4.6	2.7
Services	3.3	2.8	2.8	2.6	1.7	1.8
Household Cons. Expenditures (Services)	3.0	2.7	2.8	2.5	1.7	1.7
Housing & Utilities	2.5	2.3	2.2	2.3	0.9	1.1
Transportation	3.1	2.7	2.4	2.3	1.0	1.0
Health Care	2.8	2.7	3.3	3.0	2.7	2.5
Recreation	5.9	3.3	3.2	2.4	1.4	0.5
Financial Services & Insurance	4.6	3.1	2.8	2.2	1.8	2.4
Other Services	2.4	2.6	3.0	2.3	1.9	1.5

Real personal income averages 3.2% annual gains in optim, up from 2.8% in the trend. Income grows only 2.6% per year in pessim.

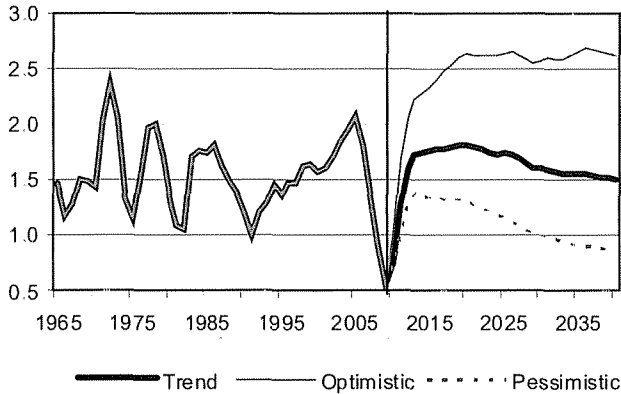
**Housing.** Since the demographic forces of population growth and household formation are the main long-term determinants of new residential construction, we would expect the housing outlook to be weaker in pessim and stronger in optim relative to the trend. In fact, the disparity between interest rates in the two bandwidth alternatives drives their respective housing outlooks even further apart. The conventional mortgage rate averages 6.3% in optim, below its 9.7% average in pessim and 6.9% in the trend.

### Demographics and Interest Rates Determine the Housing Outlook

Housing starts average slightly more than 2.4 million units per year (or 846,000 units above trend) in optim and 1.09

**Demographics and Interest Rates Determine the Housing Outlook**

(Housing starts, millions of units)

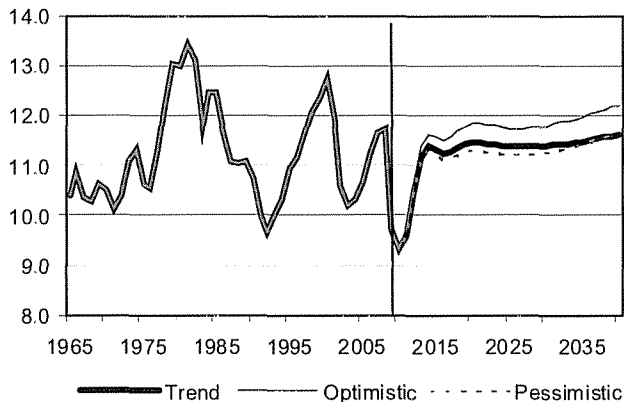


million (or 524,000 below trend) in pessim. By 2040, the housing stock in optim is 17% above the trend level, while in pessim, it stands about 9% below. Because of the gloomier inflation picture in pessim, the slower economy pushes the average nominal price of a new home to \$1.154 million in 2040, compared with \$757,800 in the trend and \$690.2,200 in the optimistic alternative.

**Business Fixed Investment.** The extremely volatile investment sector reacts strongly to the differing assumptions in the alternatives. Business investment suffers long-term damage in pessim, as weak final demand and higher interest rates raise the cost of capital, lower the rate of return on

**Business Fixed Investment**

(Percent of GDP)

**Saving and Investment Shares of GNP**

(Percent)

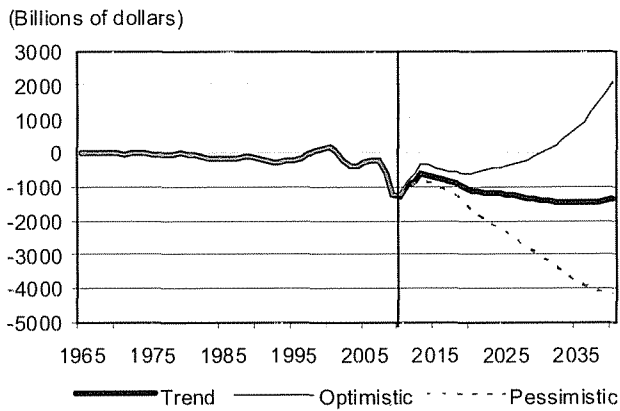
	History	Optim		Pessim	
	1995 -2009	2010 -2024	2025 -2040	2010 -2024	2025 -2040
Household	5.8	6.3	5.5	9.4	9.5
Business	9.7	10.1	10.7	-7.3	10.7
Government	-2.9	-3.6	0.7	11.1	0.7
Total Saving	12.3	13.6	17.3	14.2	13.9
Total Investment	4.5	4.6	4.1	0.2	0.2
Gross Private Investment	1.9	7.1	14.9	3.9	3.0
Nonresidential Fixed Investment	-3.7	-2.6	1.2	0.8	0.4
Residential	-0.3	0.8	0.4	3.0	2.5
Change in Inventories	5.8	8.9	13.3	0.1	0.1
Net Foreign Investment	16.0	16.2	16.2	11.0	11.4
Statistical Discrepancy	12.6	12.8	16.8	11.9	15.5

investments, and weaken investor confidence. The economy's overall sluggishness also hurts the profitability of corporations, limiting the funds available for investment. Thus, business fixed investment grows only 4.0% annually in the pessimistic case, compared with 4.5% in the trend and 5.0% in the optimistic scenario.

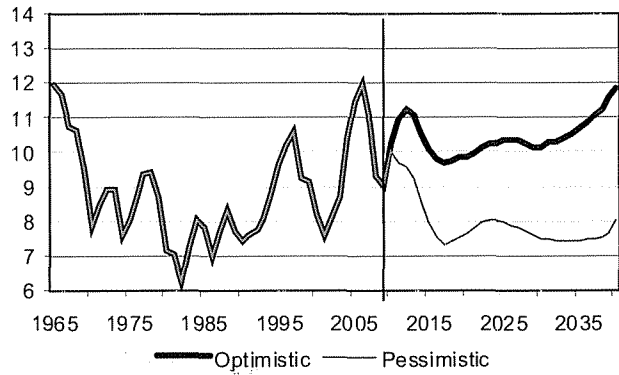
Corporations may choose from several options to finance plant and equipment expansion. The type of inflationary environment in which they operate is likely to influence whether they finance by issuing stocks or bonds, selling short-term commercial paper or obtaining bank loans, or using internally generated funds. The higher inflation in the pessimistic environment encourages firms to rely more heavily on relatively scarce internal funds to finance investment—avoiding the payouts associated with stocks, bonds, and bank loans. In addition, high inflation depresses the real value of depreciation allowances, constraining corporate cash flow and, subsequently, business fixed investment.

**Government.** The taxation policy assumptions in the two bandwidth scenarios are similar to those in the trend. The government expenditure assumptions are different, however, largely reflecting the different growth paths and demographic assumptions of the optim and pessim projections. In pessim, a weaker economy leads to a higher ratio of federal spending to GDP. Higher interest rates on past debt and larger operating deficits boost federal interest payments, exacerbating the persistent shortfalls.

**Federal Budget Paths Diverge in the Bandwidth Scenarios**



**Profits Slide in the Long Run On Slower Growth**  
(Pretax economic profits share of GNP)



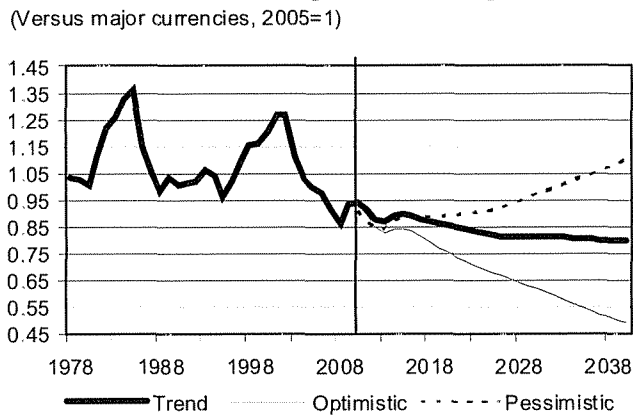
Federal government outlays as a share of GDP average 21.7% in optim, 28.4% in pessim, and 25.0% in the trend. They are higher in pessim because of the slower economy and the need to make larger transfer payments. As a share of GDP, the federal budget deficit is 4.2% of GDP in the trend, compared with 6.8% in the pessim and 1.0% in optim.

Unlike the federal government, state and local governments must maintain budgets close to balance. Therefore, their spending is tied closely to available revenue, which is created by economic activity within their regions. Increases in real state and local government purchases average 1.2% in optim, 0.9% in trend, and 0.4% in pessim.

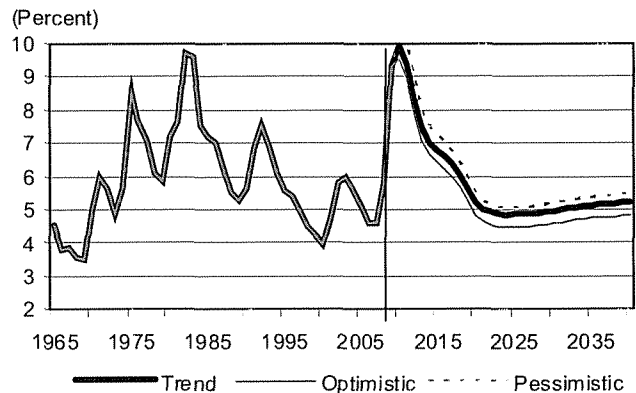
**International.** The world is assumed to become more open to trade in all the scenarios, but it opens up most quickly in the optimistic alternative and most slowly in the pessimistic projection. In the optimistic outlook, the nation's major trading partners are also assumed to experience strong output growth and low inflation. Real export growth averages 6.8% per year in optim, versus 6.2% in the trend and 5.6% in the pessim; real import growth averages 5.5% annually in optim, versus 4.9% in the trend and 4.7% in the pessim.

**Industrial Production and Employment.** In the pessimistic scenario, the index of industrial production is about 28% below the trend level by 2040. Total nonfarm employ-

**Dollar's Real Trade-Weighted Exchange Rate**



**Unemployment Rate Varies Only Slightly Across the Bandwidth Alternatives**



### Contributions to New Jobs

(Payroll employment, cumulative percent change)

	History		Optim		Pessim	
	1981 -1991	1992 -2009	2010 -2024	2025 -2040	2010 -2024	2025 -2040
Manufacturing	-8.9	-30.4	2.4	-13.3	-4.2	-16.7
Mining and Construction	-0.1	22.0	31.8	33.8	26.2	31.4
Government	13.3	21.6	10.3	9.7	6.7	6.5
Private Services	21.2	20.6	25.5	16.6	16.7	12.8
Total New Jobs (Millions)	17.9	22.5	29.9	25.0	19.6	17.8

ment is about 5% lower, consistent with the labor-force participation projections. The pattern of employment losses by industry reflects output differences from trend levels, as well as productivity losses in individual industries.

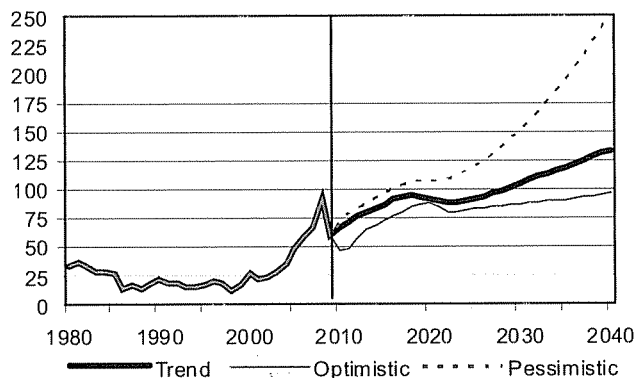
### Industrial Production

(Average annual percent change)

	History	Optim	Pessim
	1981-2009	2010-40	2010-40
Mining	-0.3	-0.2	-0.3
Utilities	0.9	1.4	0.6
Manufacturing - SIC Basis	1.3	4.0	2.0
Food	0.9	2.0	1.2
Textile Mills	-2.2	0.1	-2.8
Apparel	-3.2	-2.8	-4.7
Logging*	-0.6	0.7	-1.1
Furniture & Related Products	0.1	2.5	0.1
Paper & Products	-0.6	3.2	0.3
Newspapers, Periodicals, Books*	-0.8	3.0	0.6
Petroleum & Coal Products	0.8	1.0	0.4
Chemicals	1.0	3.8	2.4
Rubber & Plastics Products	0.8	3.2	1.1
Leather & Allied Products	-2.9	-1.2	-4.4
Nonmetallic Mineral Products	0.3	2.6	1.1
Primary Metals	-1.0	2.3	0.1
Fabricated Metal Products	0.5	2.8	0.7
Machinery	0.2	3.1	1.5
Computers & Electronic Products	8.7	11.0	8.1
Elec. Eq., Appliances, & Components	0.3	2.9	1.5
Transportation Equipment	0.3	3.7	2.4
Miscellaneous	1.7	4.7	2.7
All Manufacturing - NAICS	1.4	4.1	2.1
Durable Goods	2.2	5.6	3.3
Nondurable Goods	0.4	2.7	1.2
All Less Comp., Commun., & Chips	0.3	3.0	1.4

### Foreign Oil Prices Fall Then Rise

(Average refiners' acquisition price of imported oil, dollars/barrel)



Over the projection period, total payroll employment rises by about 46 million in the trend, just under 55 million in optim, and 37 million in pessim; the last 30 years saw total payrolls increase by about 42 million workers. Total employment in the optimistic scenario is about 5% above its trend level by 2040. Manufacturing employment slips up from 11.9 million in 2009 to 10.6 million in 2040 in the optim. In the pessim, manufacturing payrolls decline to 9.5 million.

**Energy.** The optimistic scenario assumes that energy availability is greater than in the trend, facilitating stronger economic growth by the United States and its major trading partners. Total U.S. energy usage is boosted to 128 quadrillion British thermal units (quads) by 2040 in this scenario, compared with 112 quads in the trend.

In the long run, production costs determine energy prices. Technological improvements lower production costs, but drilling deeper holes raises them. In the optim scenario, technology eventually wins out: in the optim, the real oil price falls to \$59.1 in 2040, compared with \$72.2 in the trend; in the pessim, the price drops in the middle years, but then rises to \$89.5 per barrel by the end of the projection period.

TABLE 1  
Summary of the U.S. Economy—The Optimistic Projection

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Composition of Real GDP, Percent Change										
Gross Domestic Product	-2.4	4.0	4.2	4.2	3.6	3.1	2.8	2.9	3.1	3.2
Final Sales of Domestic Product	-1.7	2.7	3.9	4.3	3.7	3.2	2.8	2.8	3.0	3.2
Total Consumption	-0.6	3.3	3.8	3.5	2.6	2.8	3.2	2.8	2.7	2.9
Durables	-4.0	9.6	8.6	7.8	4.1	4.2	7.2	5.3	3.4	3.5
Nondurables	-1.0	3.1	3.0	2.4	1.9	2.1	2.2	2.1	2.3	2.5
Services	0.1	2.4	3.3	3.1	2.6	2.8	2.9	2.7	2.8	2.9
Nonresidential Fixed Investment	-17.9	2.7	10.1	14.4	11.0	5.8	3.1	3.1	4.3	5.0
Equipment & Software	-16.9	11.9	15.8	11.8	8.5	5.2	3.2	4.2	5.5	6.2
Information Processing Equipment	-6.0	8.8	8.1	9.5	7.7	7.2	7.2	7.1	7.2	7.2
Computers & Peripherals	-5.9	20.5	11.5	20.2	20.3	18.1	18.7	18.7	19.2	19.4
Communications Equipment	-8.9	11.2	14.4	13.8	9.7	8.5	6.0	6.1	6.2	6.3
Industrial Equipment	-23.4	9.4	22.6	10.9	2.6	-0.3	2.2	2.4	2.0	3.9
Transportation equipment	-48.7	64.0	43.6	23.4	17.2	3.1	-10.5	-4.2	4.8	7.1
Aircraft	-24.5	18.3	22.4	18.4	10.0	4.0	3.2	2.3	2.6	3.4
Other Equipment	-19.7	1.5	15.3	9.8	8.9	7.5	6.6	5.0	4.8	4.5
Structures	-19.7	-15.1	-4.6	22.6	18.1	7.4	2.9	0.7	1.5	2.4
Commercial & Health Care	-25.6	-18.6	12.0	40.1	31.9	11.1	1.6	-0.1	1.3	2.8
Manufacturing	22.7	-28.6	-13.4	25.0	22.1	2.5	0.3	-3.7	0.7	3.0
Power & Communication	-1.3	-11.9	-14.0	6.8	3.4	7.1	5.4	1.0	0.1	-0.3
Mining & Petroleum	-41.6	4.9	-17.5	6.9	2.4	1.0	6.9	5.3	2.3	1.5
Other	-18.3	-21.1	1.2	17.5	9.5	6.1	4.2	3.2	3.3	3.6
Residential Fixed Investment	-20.4	18.8	42.8	16.3	7.2	3.4	1.3	3.4	3.2	2.8
Exports	-9.9	9.9	6.9	8.2	9.2	8.1	6.8	7.2	7.8	7.8
Imports	-14.2	12.5	10.5	6.9	5.7	4.5	4.9	5.0	4.5	4.8
Federal Government	5.2	3.8	-2.9	-3.7	-1.8	-0.5	0.2	0.6	0.7	0.7
State & Local Government	-0.1	0.3	0.5	1.0	2.2	1.5	0.9	0.8	1.1	1.2
Billions of Dollars										
Real GDP	12988.7	13511.0	14072.4	14660.3	15191.6	15658.9	16095.9	16555.2	17062.3	17611.6
Nominal GDP	14258.7	14961.8	15765.4	16599.0	17406.3	18180.3	18940.9	19748.5	20652.1	21631.5
Prices & Wages, Percent Change, Annual Rate										
GDP Deflator	1.2	0.9	1.2	1.1	1.2	1.3	1.4	1.4	1.5	1.5
Consumer Prices	-0.3	0.8	1.3	1.7	1.7	1.5	1.6	1.7	1.7	1.8
Excl. Food & Energy	1.7	1.2	1.3	1.4	1.4	1.4	1.4	1.5	1.6	1.6
Producer Prices, Finished Goods	-2.4	0.4	0.7	1.5	1.7	1.1	1.6	1.2	1.1	1.3
Employment Cost Index - Total Comp.	1.5	1.6	1.6	1.6	2.2	2.6	2.7	2.8	2.8	2.8
Other Key Measures										
Oil - WTI (\$ per barrel)	61.77	51.60	54.78	63.33	72.18	75.30	80.32	84.25	87.64	91.97
Productivity (%change)	3.0	3.9	1.3	0.6	0.9	1.5	2.0	2.2	2.4	2.4
Industrial Production (%change)	-9.7	6.4	4.4	4.2	3.8	3.1	2.7	2.8	3.2	3.5
Factory Operating Rate	66.9	72.9	77.0	78.9	79.8	79.8	79.4	79.7	80.3	81.0
Nonfarm Inven. Chg. (Bil. of 2000 \$)	-111.7	48.3	81.8	72.4	67.3	47.1	42.3	59.9	64.2	68.7
Consumer Sentiment Index	66.3	80.5	79.7	82.8	84.3	83.6	83.3	84.5	86.0	88.2
Light Vehicle Sales (Million units)	10.346	12.528	14.545	16.274	17.104	17.453	17.759	17.908	17.684	17.489
Housing Starts (Million units)	0.552	1.003	1.685	2.055	2.215	2.271	2.321	2.398	2.473	2.529
Existing House Sales (Million units)	4.573	5.360	5.836	6.387	6.657	6.758	6.863	6.995	7.169	7.263
Unemployment Rate (%)	9.3	9.5	8.9	7.9	7.1	6.6	6.4	6.2	6.0	5.7
Payroll Employment (%change)	-4.3	-0.2	2.1	3.3	2.7	1.8	1.2	1.0	1.0	1.1
Federal Surplus (Unified, FY, bil. \$)	-1417	-1354	-968	-689	-389	-338	-410	-438	-493	-528
Current Account Balance (Bil. \$)	-432	-510	-624	-660	-664	-650	-669	-676	-650	-630
Financial Markets, NSA										
Federal Funds Rate (%)	0.16	0.24	1.70	2.70	2.75	3.69	4.00	4.00	4.00	4.00
3-Month Treasury Bill Rate (%)	0.15	0.46	2.06	2.78	2.85	3.68	3.86	3.86	3.87	3.87
10-Year Treasury Note Yield (%)	3.26	3.61	3.86	3.98	4.17	4.93	5.05	5.07	5.12	5.15
30-Year Fixed Mortgage Rate (%)	5.04	5.00	5.44	5.60	5.75	6.49	6.61	6.61	6.65	6.69
S&P 500 Stock Index	947	1222	1435	1676	1874	1956	1995	2032	2087	2199
(Percent change)	-22.5	29.0	17.5	16.8	11.8	4.4	2.0	1.9	2.7	5.4
Exchange Rate, Major Trading Partners	0.929	0.904	0.865	0.823	0.807	0.819	0.826	0.819	0.805	0.789
(% change)	4.5	-2.7	-4.4	-4.8	-2.0	1.6	0.8	-0.8	-1.8	-1.9
Incomes										
Personal Income (% change)	-1.4	4.4	4.9	5.2	5.2	5.2	4.8	4.7	4.9	5.1
Real Disposable Income (%change)	1.3	3.3	2.4	2.6	2.2	3.9	3.7	3.4	3.5	3.3
Saving Rate (%)	4.6	4.8	3.4	2.5	1.9	2.8	3.2	3.7	4.3	4.7
After-Tax Profits (Billions of \$)	1111	1330	1437	1529	1566	1531	1496	1504	1546	1629
(Percent change)	-5.1	19.7	8.1	6.4	2.4	-2.2	-2.3	0.5	2.7	5.4
Disposable Income (%change)	1.5	4.0	3.4	3.8	3.5	5.2	5.2	5.0	5.1	5.0

TABLE 1

## Summary of the U.S. Economy—The Optimistic Projection

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Composition of Real GDP, Percent Change</b>											
Gross Domestic Product	3.3	3.3	3.1	3.1	3.0	2.9	3.0	2.9	2.8	2.8	2.7
Final Sales of Domestic Product	3.3	3.3	3.2	3.1	3.0	3.0	3.0	2.9	2.8	2.8	2.7
Total Consumption	3.0	3.3	3.3	3.1	3.0	2.8	2.8	2.8	2.8	2.8	2.7
Durables	4.5	5.9	5.9	5.8	5.5	5.0	5.2	5.3	5.4	5.3	5.0
Nondurables	2.7	3.0	3.0	3.0	2.8	2.7	2.7	2.7	2.8	2.8	2.7
Services	2.9	3.0	2.9	2.8	2.6	2.6	2.6	2.4	2.5	2.5	2.4
Nonresidential Fixed Investment	5.0	4.7	4.1	4.1	4.0	3.9	3.7	4.1	4.2	4.2	4.0
Equipment & Software	6.1	5.7	5.5	5.2	5.3	5.2	5.5	5.5	5.5	5.5	5.6
Information Processing Equipment	7.2	7.3	6.9	6.4	6.6	6.7	6.9	7.0	6.9	6.9	6.8
Computers & Peripherals	19.0	17.0	14.3	14.4	14.5	14.6	14.8	14.8	14.8	14.7	14.7
Communications Equipment	6.3	6.4	6.9	7.3	7.6	7.6	7.8	7.8	7.6	7.6	7.5
Industrial Equipment	4.0	3.9	4.4	4.5	4.2	3.6	3.8	4.2	4.5	4.5	4.6
Transportation equipment	7.2	5.0	3.6	4.0	4.3	4.3	5.0	4.6	4.3	4.4	4.6
Aircraft	3.8	4.2	4.4	4.9	4.8	5.3	5.4	5.0	4.8	4.6	4.7
Other Equipment	4.2	3.8	3.8	3.7	3.4	3.3	3.4	3.3	3.4	3.4	3.5
Structures	2.7	2.4	1.1	1.5	1.0	0.8	-0.2	0.8	1.3	1.0	0.3
Commercial & Health Care	3.0	2.7	1.0	1.6	1.1	0.4	-1.6	0.2	1.4	0.6	-0.5
Manufacturing	2.5	2.0	1.3	1.6	0.8	0.8	1.1	1.3	1.5	1.5	1.3
Power & Communication	1.0	1.4	3.6	4.2	3.9	3.3	2.9	2.7	2.9	2.8	2.9
Mining & Petroleum	3.0	3.4	0.3	-2.1	-2.0	-1.2	-1.2	0.9	-0.7	-0.9	-1.2
Other	3.3	2.1	-0.1	1.3	0.5	1.1	0.8	0.7	0.4	1.2	0.4
Residential Fixed Investment	3.0	2.7	1.0	1.1	1.3	0.8	1.9	1.5	0.0	-0.9	-0.6
Exports	7.6	7.3	6.9	6.6	6.6	6.7	6.5	6.4	6.2	6.2	6.2
Imports	4.9	5.4	4.9	4.7	4.7	4.5	4.4	4.7	4.8	5.0	4.8
Federal Government	0.8	1.2	0.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
State & Local Government	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1
<b>Billions of Dollars</b>											
Real GDP	18193.0	18795.5	19386.6	19985.6	20583.1	21189.9	21827.0	22459.2	23088.9	23726.1	24372.5
Nominal GDP	22654.3	23701.1	24741.6	25806.5	26894.3	28015.6	29208.5	30431.5	31692.7	32992.8	34336.8
<b>Prices &amp; Wages, Percent Change, Annual Rate</b>											
GDP Deflator	1.4	1.3	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3
Consumer Prices	1.6	1.5	1.2	1.2	1.4	1.4	1.4	1.5	1.5	1.5	1.5
Excl. Food & Energy	1.6	1.4	1.4	1.3	1.4	1.4	1.5	1.5	1.5	1.6	1.6
Producer Prices, Finished Goods	1.2	0.8	0.2	0.1	0.5	0.4	0.5	0.6	0.6	0.6	0.6
Employment Cost Index - Total Comp.	2.7	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.7
<b>Other Key Measures</b>											
Oil - WTI (\$ per barrel)	94.58	95.5	91.2	87.5	87.9	88.7	89.5	90.2	91.1	92.0	92.9
Productivity (%change)	2.4	2.5	2.6	2.7	2.5	2.5	2.5	2.4	2.3	2.2	2.2
Industrial Production (%change)	3.8	3.7	3.4	3.2	3.1	3.0	3.4	3.1	2.9	3.0	2.9
Factory Operating Rate	81.4	81.8	82.0	82.1	82.2	82.3	82.4	82.5	82.7	82.9	83.0
Nonfarm Inven. Chg. (Bil. of 2000 \$)	68.3	68.6	67.9	68.4	69.5	69.0	70.9	74.4	74.8	76.9	78.6
Consumer Sentiment Index	90.7	93.0	94.4	95.0	94.9	94.2	93.3	93.5	93.6	93.4	92.8
Light Vehicle Sales (Million units)	17.632	18.0	18.2	18.4	18.6	18.7	19.0	19.3	19.6	20.0	20.3
Housing Starts (Million units)	2.593	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.6	2.6	2.5
Existing House Sales (Million units)	7.383	7.4	7.3	7.3	7.3	7.4	7.5	7.6	7.5	7.3	7.3
Unemployment Rate (%)	5.3	4.8	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Payroll Employment (%change)	1.2	1.2	1.1	1.1	1.1	1.0	0.7	0.7	0.8	0.8	0.8
Federal Surplus (Unified, FY, bil. \$)	-555	-542	-507	-469	-424	-365	-333	-262	-210	-166	-68
Current Account Balance (Bil. \$)	-601	-573	-500	-438	-396	-331	-258	-199	-139	-80	-1
<b>Financial Markets, NSA</b>											
Federal Funds Rate (%)	4.00	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
3-Month Treasury Bill Rate (%)	3.87	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
10-Year Treasury Note Yield (%)	5.15	5.1	5.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
30-Year Fixed Mortgage Rate (%)	6.70	6.7	6.7	6.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5
S&P 500 Stock Index	2322	2424	2516	2602	2700	2808	2912	3022	3125	3243	3391
(Percent change)	5.6	4.4	3.8	3.4	3.8	4.0	3.7	3.8	3.4	3.8	4.6
Exchange Rate, Major Trading Partners	0.773	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
(% change)	-2.1	-2.0	-1.7	-1.4	-1.7	-1.3	-1.4	-1.1	-1.1	-1.4	-1.6
<b>Incomes</b>											
Personal Income (% change)	5.2	5.2	4.8	4.4	4.4	4.3	4.4	4.4	4.4	4.4	4.4
Real Disposable Income (%change)	3.4	3.5	3.2	3.1	2.6	2.7	2.8	2.5	2.7	2.7	2.4
Saving Rate (%)	5.0	5.2	5.2	5.2	4.9	4.7	4.7	4.5	4.4	4.3	4.1
After-Tax Profits (Billions of \$)	1713	1786	1846	1916	1993	2077	2181	2276	2362	2444	2525
(Percent change)	5.2	4.2	3.4	3.8	4.1	4.2	5.0	4.3	3.8	3.5	3.3
Disposable Income (%change)	4.9	4.9	4.4	4.3	4.0	4.0	4.2	3.9	4.2	4.1	3.9

TABLE 1  
Summary of the U.S. Economy—The Optimistic Projection

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Composition of Real GDP, Percent Change											
Gross Domestic Product	2.9	2.9	2.8	2.9	3.0	3.0	3.0	3.0	3.0	3.0	2.9
Final Sales of Domestic Product	2.9	2.9	2.8	2.9	3.0	3.0	3.0	3.0	3.0	3.0	2.9
Total Consumption	2.8	2.8	2.8	2.8	2.9	2.9	3.0	3.0	3.0	3.0	2.9
Durables	5.3	5.7	5.4	5.3	5.7	5.8	5.9	5.8	5.6	5.6	5.4
Nondurables	2.7	2.8	2.7	2.8	2.8	2.7	2.7	2.8	2.8	2.9	2.9
Services	2.5	2.5	2.5	2.5	2.6	2.6	2.7	2.7	2.7	2.7	2.6
Nonresidential Fixed Investment	4.2	4.5	4.5	4.3	4.5	4.5	4.7	4.8	4.7	4.6	4.4
Equipment & Software	5.8	5.9	5.8	5.8	6.0	6.0	6.0	6.0	5.9	5.9	5.7
Information Processing Equipment	6.8	6.8	6.8	6.8	6.9	6.9	6.9	6.9	6.9	6.9	6.8
Computers & Peripherals	14.9	14.9	14.8	14.7	14.8	14.8	14.8	14.8	14.8	14.9	15.1
Communications Equipment	7.7	7.6	7.5	7.5	7.6	7.7	7.7	7.6	7.6	7.6	7.2
Industrial Equipment	4.8	5.2	5.3	5.3	5.4	5.4	5.5	5.5	5.5	5.6	4.9
Transportation equipment	5.5	5.7	4.9	4.7	5.5	5.3	5.1	5.1	4.8	4.8	4.6
Aircraft	5.0	5.1	5.2	5.2	5.2	5.3	5.4	5.3	5.2	5.2	5.2
Other Equipment	3.8	3.9	4.0	3.9	4.2	4.2	4.2	4.2	4.1	4.0	3.9
Structures	0.6	1.0	1.2	0.7	0.9	0.9	1.3	1.8	1.6	1.3	0.9
Commercial & Health Care	-0.5	0.7	1.0	0.0	0.2	0.2	0.9	2.0	1.6	0.8	0.1
Manufacturing	1.2	1.4	1.5	1.3	1.5	1.3	1.4	1.2	1.2	1.1	0.9
Power & Communication	3.0	3.1	3.1	3.1	3.2	3.3	3.3	3.4	3.4	3.4	3.2
Mining & Petroleum	-1.0	-1.0	-1.1	-0.8	-0.9	-0.8	-0.6	-0.4	-0.4	-0.4	0.2
Other	1.3	0.6	0.7	0.6	1.0	0.8	1.1	1.2	0.8	1.2	0.9
Residential Fixed Investment	1.2	1.5	0.2	0.6	2.1	2.2	2.0	1.2	0.6	0.5	0.5
Exports	6.2	6.2	6.1	6.1	6.1	6.0	5.9	5.9	5.8	5.8	5.7
Imports	5.0	5.4	5.3	5.1	5.4	5.4	5.5	5.5	5.5	5.4	5.3
Federal Government	1.2	0.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.2
State & Local Government	1.1	1.2	1.2	1.2	1.3	1.4	1.4	1.4	1.4	1.5	1.6
Billions of Dollars											
Real GDP	25074.9	25796.5	26526.3	27290.1	28106.5	28949.8	29824.7	30722.7	31635.2	32570.9	33517.4
Nominal GDP	35786.9	37301.2	38853.5	40481.5	42230.4	44063.8	45982.5	47978.7	50047.2	52215.1	54455.3
Prices & Wages, Percent Change, Annual Rate											
GDP Deflator	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Consumer Prices	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.7
Excl. Food & Energy	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7
Producer Prices, Finished Goods	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6
Employment Cost Index - Total Comp.	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Other Key Measures											
Oil - WTI (\$ per barrel)	93.8	94.7	95.5	96.3	97.1	98.2	99.2	100.5	101.8	103.0	105.0
Productivity (%change)	2.4	2.2	2.2	2.3	2.4	2.4	2.4	2.3	2.2	2.2	2.2
Industrial Production (%change)	2.9	2.8	2.8	2.9	3.0	3.1	3.1	3.1	3.2	3.2	3.1
Factory Operating Rate	83.3	83.6	83.9	84.2	84.6	84.9	85.3	85.7	86.0	86.4	86.5
Nonfarm Inven. Chg. (Bil. of 2000 \$)	86.0	93.4	93.6	96.7	105.0	108.5	113.5	116.9	120.5	124.3	126.1
Consumer Sentiment Index	92.6	93.4	93.2	92.9	92.6	92.2	92.4	92.5	92.6	92.4	92.2
Light Vehicle Sales (Million units)	20.7	21.2	21.5	21.8	22.1	22.5	23.0	23.4	23.8	24.2	24.6
Housing Starts (Million units)	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.6	2.6
Existing House Sales (Million units)	7.3	7.4	7.3	7.3	7.4	7.6	7.7	7.7	7.7	7.7	7.8
Unemployment Rate (%)	4.6	4.6	4.6	4.7	4.7	4.7	4.7	4.8	4.8	4.8	4.8
Payroll Employment (%change)	0.9	1.0	1.0	1.0	0.9	0.9	0.9	1.0	1.1	1.1	1.1
Federal Surplus (Unified, FY, bil. \$)	43	153	275	436	590	763	966	1205	1471	1775	2102
Current Account Balance (Bil. \$)	77	151	243	353	460	584	717	879	1091	1364	1677
Financial Markets, NSA											
Federal Funds Rate (%)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
3-Month Treasury Bill Rate (%)	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
10-Year Treasury Note Yield (%)	4.9	4.9	4.9	4.9	4.8	4.8	4.7	4.7	4.6	4.6	4.6
30-Year Fixed Mortgage Rate (%)	6.5	6.4	6.4	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1
S&P 500 Stock Index	3554	3721	3887	4068	4263	4466	4676	4885	5115	5361	5619
(Percent change)	4.8	4.7	4.5	4.7	4.8	4.8	4.7	4.5	4.7	4.8	4.8
Exchange Rate, Major Trading Partners (% change)	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5
	-1.8	-2.0	-2.1	-2.2	-2.3	-2.3	-2.1	-1.9	-1.8	-1.8	-0.5
Incomes											
Personal Income (% change)	4.4	4.3	4.3	4.3	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Real Disposable Income (%change)	2.5	2.5	2.6	2.5	2.7	2.7	2.7	2.6	2.6	2.6	2.5
Saving Rate (%)	3.9	3.6	3.3	3.0	2.8	2.6	2.3	2.0	1.7	1.3	1.0
After-Tax Profits (Billions of \$)	2640	2789	2926	3086	3275	3481	3711	3960	4247	4588	4968
(Percent change)	4.5	5.6	4.9	5.5	6.1	6.3	6.6	6.7	7.2	8.0	8.3
Disposable Income (%change)	4.0	4.0	4.0	4.0	4.1	4.2	4.2	4.1	4.1	4.1	4.1



TABLE 2  
Population, Labor Force and Potential GDP—The Optimistic Projection

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Millions										
Total Population	307.8	311.0	314.3	317.6	321.0	324.3	327.8	331.2	334.7	338.2
Under 5	21.2	21.4	21.6	21.8	22.1	22.3	22.5	22.7	22.9	23.1
Ages 5 through 21	70.5	70.9	71.3	71.5	71.8	72.2	72.7	73.3	74.0	74.8
Ages 16 and Up	242.2	244.9	247.6	250.2	252.9	255.5	258.1	260.8	263.6	266.4
Males Ages 25 through 54	64.6	64.8	65.0	65.2	65.4	65.7	65.9	66.2	66.5	66.8
Ages 55 through 64	35.0	36.4	37.5	38.3	39.0	39.9	40.7	41.5	42.1	42.6
Ages 65 and Up	39.7	40.5	41.4	42.9	44.3	45.7	47.2	48.6	50.2	51.8
Ages 85 and Up	5.9	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.7	6.8
Percent Change										
Total Population	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0
Under 5	0.8	0.9	1.0	1.1	1.0	1.0	1.0	0.9	0.8	0.8
Ages 5 through 21	0.5	0.5	0.5	0.3	0.4	0.6	0.7	0.8	0.9	1.0
Ages 16 and Up	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.1	1.1
Males Ages 25 through 54	0.4	0.3	0.4	0.3	0.3	0.4	0.4	0.5	0.4	0.4
Ages 55 through 64	3.5	3.9	3.2	1.9	2.0	2.1	2.1	1.9	1.5	1.2
Ages 65 and Up	2.0	1.9	2.2	3.5	3.4	3.1	3.2	3.1	3.1	3.2
Ages 85 and Up	2.8	2.6	2.1	1.9	1.7	1.4	1.5	1.1	0.8	0.7
Labor Force and Employment										
Labor Force, Millions	154.2	153.9	155.7	157.4	159.3	160.9	162.3	163.5	164.9	166.1
Under 65	147.7	147.1	148.7	150.2	151.8	153.1	154.0	154.9	155.9	156.8
Ages 65 and Up	6.5	6.8	7.0	7.2	7.5	7.9	8.2	8.6	9.0	9.3
Participation Rate, Percent	63.7	62.9	62.9	62.9	63.0	63.0	62.9	62.7	62.5	62.4
Under 65	73.0	72.0	72.1	72.4	72.8	73.0	73.0	73.0	73.1	73.1
Ages 65 and Up	16.4	16.8	16.9	16.8	16.9	17.2	17.4	17.7	17.8	18.0
Employment, Millions										
Household Survey	139.9	139.3	141.8	145.0	148.0	150.2	151.9	153.4	155.0	156.7
Establishment Survey	130.9	130.6	133.4	137.8	141.6	144.1	145.8	147.3	148.8	150.5
Percent Change, Annual Rate	-4.3	-0.2	2.1	3.3	2.7	1.8	1.2	1.0	1.0	1.1
Unemployment Rate, Percent	9.3	9.5	8.9	7.9	7.1	6.6	6.4	6.2	6.0	5.7
Average Weekly Hours										
Manufacturing Workweek	39.9	40.8	40.9	41.1	41.1	41.0	41.0	41.0	41.0	40.9
Durables Workweek	39.9	40.9	41.1	41.3	41.3	41.1	41.0	41.1	41.0	41.0
Nondurables Workweek	39.8	40.7	40.7	40.8	40.8	40.8	40.9	40.9	40.9	40.9
Manhours in Private Nonfarm Estab. Billions of Hours, SAAR										
Percent Change, Annual Rate	182.0	183.5	189.4	196.4	201.9	205.4	207.9	210.1	212.4	214.9
Percent Change, Annual Rate	-5.6	0.8	3.2	3.7	2.8	1.8	1.2	1.1	1.1	1.2
Vendor Performance Index	51.4	60.2	56.5	55.8	54.0	52.2	51.4	52.1	52.6	52.8
Potential GDP										
Billions of Chained 2000 Dollars	14374.1	14671.0	15016.4	15394.1	15799.7	16235.7	16680.3	17123.2	17576.5	18042.2
Percent Change										
Potential GDP	2.5	2.1	2.4	2.5	2.6	2.8	2.7	2.7	2.6	2.6
Nonhousing, Non-Government	-3.4	4.9	5.2	4.9	4.1	3.4	3.1	3.2	3.4	3.6
Potential Output	2.2	2.6	3.1	2.9	2.9	3.0	3.0	2.9	2.9	2.8
Capital Stock	0.1	-0.2	1.6	3.1	4.2	4.4	4.1	3.8	3.7	3.9
R&D Capital Stock	2.6	2.3	2.4	2.7	3.0	3.0	2.9	2.8	2.8	2.9
Full-Employment Labor Force	0.4	1.4	2.0	1.0	0.6	0.6	0.6	0.7	0.7	0.6
Multifactor Productivity	1.6	1.6	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Nonfarm Productivity - Output per Hour										
Full-Employment	1.8	1.4	1.1	1.8	2.3	2.4	2.3	2.2	2.2	2.3
Actual	3.0	3.9	1.3	0.6	0.9	1.5	2.0	2.2	2.4	2.4
All Manufacturing	1.4	8.7	2.7	1.1	2.2	3.1	3.2	3.1	3.2	3.0
Durable Goods	-2.1	9.5	4.2	3.0	3.6	4.3	4.5	4.7	4.9	4.5
Nondurable Goods	2.7	5.5	2.0	1.3	1.5	2.3	2.2	2.1	1.8	1.8

TABLE 2  
Population, Labor Force and Potential GDP—The Optimistic Projection

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Millions											
Total Population	341.7	345.2	348.8	352.3	355.9	359.5	363.1	366.7	370.3	373.9	377.5
Under 5	23.2	23.4	23.5	23.7	23.9	24.0	24.2	24.3	24.5	24.6	24.8
Ages 5 through 21	75.6	76.5	77.4	78.2	79.0	79.8	80.5	81.3	82.0	82.8	83.5
Ages 16 and Up	269.2	272.1	275.0	277.9	280.8	283.8	286.7	289.7	292.7	295.7	298.8
Males Ages 25 through 54	67.1	67.3	67.7	68.1	68.5	68.9	69.2	69.7	70.2	70.8	71.5
Ages 55 through 64	43.1	43.3	43.2	43.0	42.7	42.5	42.4	42.3	42.0	41.6	41.2
Ages 65 and Up	53.4	55.2	57.0	58.8	60.7	62.5	64.5	66.3	68.0	69.7	71.3
Ages 85 and Up	6.8	6.9	7.0	7.1	7.2	7.4	7.6	7.8	8.1	8.4	8.8
Percent Change											
Total Population	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Under 5	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.7	0.7
Ages 5 through 21	1.1	1.2	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.9
Ages 16 and Up	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0
Males Ages 25 through 54	0.4	0.4	0.6	0.6	0.6	0.6	0.4	0.6	0.8	0.9	1.0
Ages 55 through 64	1.0	0.5	-0.1	-0.6	-0.7	-0.5	-0.3	-0.2	-0.6	-0.9	-1.1
Ages 65 and Up	3.2	3.4	3.2	3.2	3.2	3.0	3.1	2.8	2.6	2.5	2.3
Ages 85 and Up	0.6	1.4	1.3	1.4	1.9	2.1	2.5	2.8	3.7	4.6	4.0
Labor Force and Employment											
Labor Force, Millions	167.4	168.6	169.8	170.9	172.1	173.2	174.2	175.4	176.6	177.9	179.2
Under 65	157.7	158.5	159.2	159.9	160.5	161.3	161.8	162.6	163.4	164.4	165.5
Ages 65 and Up	9.7	10.1	10.6	11.1	11.5	12.0	12.4	12.8	13.2	13.5	13.7
Participation Rate, Percent	62.2	62.0	61.8	61.5	61.3	61.0	60.8	60.5	60.3	60.2	60.0
Under 65	73.1	73.1	73.1	73.0	72.9	72.9	72.8	72.8	72.7	72.7	72.8
Ages 65 and Up	18.2	18.3	18.5	18.8	19.0	19.1	19.2	19.3	19.3	19.3	19.3
Employment, Millions											
Household Survey	158.6	160.4	161.9	163.2	164.4	165.5	166.5	167.5	168.7	169.9	171.1
Establishment Survey	152.3	154.1	155.8	157.5	159.3	160.8	161.9	163.1	164.3	165.6	167.0
Percent Change, Annual Rate	1.2	1.2	1.1	1.1	1.1	1.0	0.7	0.7	0.8	0.8	0.8
Unemployment Rate, Percent	5.3	4.8	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Average Weekly Hours											
Manufacturing Workweek	40.9	40.9	40.9	41.0	41.0	41.0	41.1	41.0	41.1	41.1	41.1
Durables Workweek	40.9	40.8	40.9	40.9	41.0	41.0	41.0	41.0	41.0	41.0	41.0
Nondurables Workweek	40.9	40.9	40.9	41.0	41.1	41.1	41.1	41.1	41.1	41.1	41.1
Manhours in Private Nonfarm Estab.											
Billions of Hours, SAAR	217.6	220.1	222.7	225.3	228.0	230.5	233.2	235.7	238.3	240.9	243.5
Percent Change, Annual Rate	1.2	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1
Vendor Performance Index	52.8	52.5	52.2	52.1	51.9	51.8	51.9	51.9	52.0	52.1	52.0
Potential GDP											
Billions of Chained 2000 Dollars	18521.5	19008.8	19508.0	20015.5	20536.9	21075.7	21630.9	22199.0	22787.7	23395.8	24022.7
Percent Change											
Potential GDP	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7
Nonhousing, Non-Government	3.7	3.6	3.5	3.4	3.3	3.2	3.3	3.2	3.1	3.0	3.0
Potential Output	2.8	2.8	2.9	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9
Capital Stock	4.0	4.1	4.1	4.0	4.0	3.9	3.9	3.9	3.9	3.9	3.8
R&D Capital Stock	3.0	3.1	3.1	3.2	3.3	3.3	3.4	3.4	3.4	3.5	3.5
Full-Employment Labor Force	0.5	0.3	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.6	0.6
Multifactor Productivity	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Nonfarm Productivity - Output per Hour											
Full-Employment	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3
Actual	2.4	2.5	2.6	2.7	2.5	2.5	2.5	2.4	2.3	2.2	2.2
All Manufacturing	3.7	4.2	4.5	4.7	4.8	4.8	5.3	5.2	4.9	5.1	5.0
Durable Goods	5.0	5.5	5.8	5.8	5.7	5.7	5.9	5.9	5.6	5.8	5.7
Nondurable Goods	2.4	2.7	2.9	3.0	2.9	2.8	2.9	2.9	2.8	2.7	2.7

TABLE 2

## Population, Labor Force and Potential GDP—The Optimistic Projection

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Millions											
Total Population	381.1	384.8	388.4	392.1	395.7	399.4	403.1	406.8	410.5	414.2	417.9
Under 5	25.0	25.2	25.4	25.6	25.8	26.1	26.3	26.6	26.8	27.1	27.3
Ages 5 through 21	84.2	85.0	85.7	86.3	87.0	87.7	88.4	89.1	89.8	90.5	91.2
Ages 16 and Up	301.8	304.9	307.9	310.9	314.0	317.0	320.0	323.0	326.0	329.0	332.0
Males Ages 25 through 54	72.1	72.8	73.5	74.1	74.8	75.3	75.9	76.4	77.0	77.7	78.3
Ages 55 through 64	40.9	40.8	40.9	41.1	41.4	41.6	41.9	42.4	43.1	43.8	44.4
Ages 65 and Up	72.8	74.1	75.2	76.2	77.3	78.5	79.6	80.5	81.3	81.9	82.6
Ages 85 and Up	9.1	9.5	10.1	10.7	11.2	11.8	12.3	12.9	13.4	14.0	14.6
Percent Change											
Total Population	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Under 5	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Ages 5 through 21	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Ages 16 and Up	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9
Males Ages 25 through 54	0.9	1.0	0.9	0.9	0.8	0.7	0.7	0.8	0.8	0.8	0.8
Ages 55 through 64	-0.7	-0.2	0.2	0.5	0.6	0.6	0.8	1.2	1.5	1.6	1.5
Ages 65 and Up	2.1	1.7	1.5	1.4	1.4	1.6	1.4	1.1	0.9	0.8	0.8
Ages 85 and Up	3.6	4.1	6.7	6.0	5.1	5.0	4.4	4.4	4.3	4.2	4.3
Labor Force and Employment											
Labor Force, Millions	180.7	182.4	184.1	185.7	187.4	188.9	190.5	192.3	194.2	196.2	198.1
Under 65	166.7	168.1	169.7	171.3	172.9	174.3	175.8	177.5	179.4	181.3	183.2
Ages 65 and Up	14.0	14.3	14.4	14.4	14.5	14.6	14.7	14.8	14.9	14.9	14.9
Participation Rate, Percent	59.9	59.8	59.8	59.7	59.7	59.6	59.5	59.5	59.6	59.6	59.7
Under 65	72.8	72.8	72.9	73.0	73.1	73.1	73.1	73.2	73.3	73.4	73.4
Ages 65 and Up	19.3	19.2	19.1	18.9	18.7	18.6	18.5	18.4	18.3	18.2	18.0
Employment, Millions											
Household Survey	172.4	173.9	175.5	177.1	178.6	180.0	181.5	183.2	185.0	186.8	188.6
Establishment Survey	168.4	170.1	171.7	173.4	175.0	176.6	178.2	180.0	181.9	183.9	185.8
Percent Change, Annual Rate	0.9	1.0	1.0	1.0	0.9	0.9	0.9	1.0	1.1	1.1	1.1
Unemployment Rate, Percent	4.6	4.6	4.6	4.7	4.7	4.7	4.7	4.8	4.8	4.8	4.8
Average Weekly Hours	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4
Manufacturing Workweek	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1
Durables Workweek	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1
Nondurables Workweek	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.0
Manhours in Private Nonfarm Estab.											
Billions of Hours, SAAR	246.2	248.7	251.3	253.8	256.6	259.4	262.2	265.2	268.2	271.3	274.3
Percent Change, Annual Rate	1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.2	1.1
Vendor Performance Index	52.3	52.5	52.4	52.5	52.6	52.7	52.8	52.8	52.8	52.7	52.2
Potential GDP											
Billions of Chained 2000 Dollars	24673.2	25359.1	26075.1	26811.9	27568.2	28337.3	29130.0	29964.0	30840.2	31752.5	32687.1
Percent Change											
Potential GDP	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.9	3.0	2.9
Nonhousing, Non-Government	3.2	3.2	3.1	3.2	3.3	3.3	3.3	3.3	3.3	3.2	3.2
Potential Output	3.0	3.1	3.1	3.1	3.1	3.0	3.1	3.2	3.2	3.3	3.2
Capital Stock	3.8	3.9	3.9	3.9	3.9	4.0	4.0	4.0	4.1	4.1	4.1
R&D Capital Stock	3.6	3.6	3.7	3.7	3.7	3.8	3.8	3.9	3.9	3.9	4.0
Full-Employment Labor Force	0.7	0.9	0.9	0.8	0.8	0.7	0.7	0.8	0.9	0.9	0.8
Multifactor Productivity	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Nonfarm Productivity - Output per Hour											
Full-Employment	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Actual	2.4	2.2	2.2	2.3	2.4	2.4	2.4	2.3	2.2	2.2	2.2
All Manufacturing	4.9	4.4	4.4	4.7	4.9	5.1	4.9	4.8	4.7	4.6	4.5
Durable Goods	5.6	5.3	5.4	5.7	5.7	5.8	5.6	5.4	5.3	5.1	5.1
Nondurable Goods	2.7	2.7	2.7	2.8	2.9	3.0	3.0	3.0	3.0	3.0	3.0

TABLE 1  
Summary of the U.S. Economy—The Pessimistic Projection

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Composition of Real GDP, Percent Change										
Gross Domestic Product	-2.4	2.6	2.0	3.1	2.6	2.1	1.6	1.7	1.8	2.0
Final Sales of Domestic Product	-1.7	1.6	1.9	2.9	2.7	2.2	1.6	1.6	1.8	2.0
Total Consumption	-0.6	1.8	2.1	2.3	1.8	1.8	1.9	1.6	1.5	1.7
Durables	-4.0	4.0	5.9	6.4	3.3	3.1	5.8	3.8	1.4	1.8
Nondurables	-1.0	2.1	1.4	1.4	1.2	1.3	1.3	1.4	1.6	1.9
Services	0.1	1.4	1.7	1.9	1.7	1.8	1.5	1.4	1.5	1.7
Nonresidential Fixed Investment	-17.9	0.9	5.9	13.3	8.8	4.8	1.8	1.9	3.0	3.8
Equipment & Software	-16.9	9.2	11.2	10.5	7.9	4.4	1.5	2.8	4.3	5.2
Information Processing Equipment	-6.0	7.7	6.6	7.2	6.2	5.9	5.7	5.7	5.8	6.0
Computers & Peripherals	-5.9	19.2	10.6	18.9	19.6	17.4	18.2	18.3	18.8	19.0
Communications Equipment	-8.9	11.1	12.8	8.0	6.7	7.7	5.0	5.5	5.7	5.9
Industrial Equipment	-23.4	6.6	17.8	11.8	2.1	-1.5	-0.3	0.6	0.8	3.0
Transportation equipment	-48.7	49.2	25.5	25.4	21.8	3.9	-14.8	-7.5	2.9	6.6
Aircraft	-24.5	13.1	16.9	16.4	8.7	4.0	1.8	1.0	0.8	1.9
Other Equipment	-19.7	-0.9	11.0	8.9	8.0	6.9	6.2	4.6	4.1	4.0
Structures	-19.7	-15.2	-7.6	21.6	11.1	5.9	2.6	-0.3	0.1	0.6
Commercial & Health Care	-25.6	-21.6	-3.4	32.9	23.7	9.3	0.2	-2.4	-1.4	-0.3
Manufacturing	22.7	-31.1	-17.7	48.6	16.5	4.3	0.5	-4.6	-0.2	1.7
Power & Communication	-1.3	-12.4	-16.7	4.4	1.8	6.3	4.6	1.6	0.0	-0.7
Mining & Petroleum	-41.6	13.1	-6.4	8.1	-1.1	-0.4	5.6	3.2	0.5	-1.2
Other	-18.3	-21.4	3.4	17.3	4.3	5.3	5.7	3.6	3.2	3.7
Residential Fixed Investment	-20.4	3.7	11.8	14.0	5.7	0.2	-2.7	0.6	-1.5	0.0
Exports	-9.9	9.5	6.4	7.5	8.4	7.1	5.5	6.0	6.4	6.4
Imports	-14.2	8.3	5.7	6.3	4.7	3.7	3.8	4.1	3.7	4.2
Federal Government	5.2	3.8	-2.9	-3.7	-1.8	-0.5	0.2	0.6	0.7	0.7
State & Local Government	-0.1	-0.2	-0.9	-0.4	1.1	0.7	0.1	0.1	0.5	0.5
Billions of Dollars										
Real GDP	12988.7	13324.7	13592.8	14019.6	14379.3	14677.1	14909.4	15167.1	15439.9	15755.8
Nominal GDP	14258.7	14795.9	15353.3	16140.2	16953.7	17787.2	18588.8	19480.0	20453.0	21540.6
Prices & Wages, Percent Change, Annual Rate										
GDP Deflator	1.2	1.2	1.7	1.9	2.4	2.8	2.9	3.0	3.1	3.2
Consumer Prices	-0.3	2.3	2.1	2.3	2.6	2.9	3.1	3.2	3.2	3.3
Excl. Food & Energy	1.7	1.6	1.9	2.1	2.5	2.8	2.9	3.0	3.2	3.3
Producer Prices, Finished Goods	-2.4	3.6	2.2	2.1	2.4	2.7	3.0	2.8	2.6	2.6
Employment Cost Index - Total Comp.	1.5	1.9	1.9	2.2	3.2	3.7	3.9	4.1	4.1	4.2
Other Key Measures										
Oil - WTI (\$ per barrel)	61.77	76.82	84.62	90.09	93.99	98.71	103.49	108.27	111.12	113.72
Productivity (%change)	3.0	3.8	-0.4	0.2	0.3	0.9	1.2	1.6	1.6	1.7
Industrial Production (%change)	-9.7	1.4	3.5	3.8	2.9	1.9	1.5	1.8	1.9	2.3
Factory Operating Rate	66.9	70.7	73.4	76.5	77.1	76.8	76.0	76.0	76.1	76.4
Nonfarm Inven. Chg. (Bil. of 2000 \$)	-111.7	5.6	26.3	62.9	48.7	26.7	18.8	37.0	37.6	42.9
Consumer Sentiment Index	66.3	67.7	73.0	76.8	79.0	77.1	77.0	77.7	79.3	81.4
Light Vehicle Sales (Million units)	10.346	11.139	12.885	14.733	15.684	16.056	16.296	16.330	15.908	15.646
Housing Starts (Million units)	0.552	0.675	0.979	1.272	1.379	1.351	1.338	1.342	1.323	1.318
Existing House Sales (Million units)	4.573	4.896	4.288	4.439	4.598	4.513	4.441	4.400	4.316	4.281
Unemployment Rate (%)	9.3	10.6	10.0	8.9	8.0	7.5	7.3	7.0	6.8	6.4
Payroll Employment (%change)	-4.3	-1.3	1.4	2.7	2.4	1.5	0.8	0.6	0.6	0.7
Federal Surplus (Unified, FY, bil. \$)	-1417	-1379	-1128	-976	-818	-837	-908	-990	-1096	-1204
Current Account Balance (Bil. \$)	-432	-516	-607	-691	-661	-651	-633	-610	-538	-465
Financial Markets, NSA										
Federal Funds Rate (%)	0.16	1.49	3.69	5.19	5.43	6.78	7.13	7.38	7.50	7.50
3-Month Treasury Bill Rate (%)	0.15	1.48	3.88	5.07	5.36	6.61	6.85	7.10	7.24	7.26
10-Year Treasury Note Yield (%)	3.26	2.49	4.69	6.19	6.43	7.78	8.13	8.38	8.50	8.50
30-Year Fixed Mortgage Rate (%)	5.04	4.10	6.00	7.62	7.89	9.17	9.57	9.83	9.99	10.00
S&P 500 Stock Index	947	1127	1181	1252	1320	1395	1487	1575	1680	1765
(Percent change)	-22.5	19.0	4.8	6.0	5.5	5.7	6.6	5.9	6.6	5.1
Exchange Rate, Major Trading Partners	0.929	0.883	0.833	0.800	0.791	0.807	0.815	0.812	0.803	0.798
(% change)	4.5	-4.9	-5.7	-3.9	-1.2	2.1	1.0	-0.4	-1.0	-0.7
Incomes										
Personal Income (% change)	-1.4	3.6	4.0	5.1	5.8	6.1	5.5	5.6	5.9	6.1
Real Disposable Income (%change)	1.3	1.5	1.2	2.1	2.2	3.3	2.6	2.5	2.6	2.7
Saving Rate (%)	4.6	4.6	3.8	3.5	3.7	4.9	5.4	6.1	7.0	7.8
After-Tax Profits (Billions of \$)	1111	1304	1257	1270	1270	1170	1088	1075	1083	1155
(Percent change)	-5.1	17.4	-3.6	1.0	0.0	-7.9	-7.0	-1.2	0.8	6.7
Disposable Income (%change)	1.5	3.4	3.0	4.1	4.5	6.0	5.5	5.6	5.7	5.9

TABLE 1

## Summary of the U.S. Economy—The Pessimistic Projection

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Composition of Real GDP, Percent Change											
Gross Domestic Product	2.2	2.3	2.2	2.1	2.1	2.1	2.2	2.0	2.0	2.0	2.0
Final Sales of Domestic Product	2.2	2.3	2.2	2.2	2.1	2.1	2.2	2.0	2.0	2.0	2.0
Total Consumption	2.1	2.5	2.4	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0
Durables	3.3	5.1	5.1	4.9	4.7	4.3	4.5	4.1	4.5	4.5	4.3
Nondurables	2.2	2.6	2.6	2.4	2.3	2.2	2.1	2.1	2.1	2.2	2.0
Services	1.9	2.1	2.0	1.9	1.8	1.7	1.8	1.7	1.7	1.7	1.7
Nonresidential Fixed Investment	4.1	3.7	3.3	3.3	3.2	3.2	3.4	3.4	3.3	3.6	3.5
Equipment & Software	5.4	4.9	4.6	4.3	4.4	4.4	4.7	4.7	4.7	4.8	4.9
Information Processing Equipment	6.0	6.1	5.8	5.3	5.6	5.7	6.0	6.1	6.0	6.0	6.0
Computers & Peripherals	18.5	16.6	13.7	13.7	13.9	14.0	14.1	14.2	14.2	14.2	14.2
Communications Equipment	5.8	5.7	6.5	7.3	7.5	7.6	7.9	7.9	7.8	7.8	7.7
Industrial Equipment	3.6	3.3	3.4	3.3	3.0	2.6	2.6	3.1	3.4	3.4	3.4
Transportation equipment	7.5	4.4	2.8	2.9	3.2	3.2	3.8	3.2	2.9	3.8	3.8
Aircraft	2.3	3.0	3.4	3.9	4.0	4.5	4.6	4.0	3.8	3.7	3.9
Other Equipment	3.9	3.6	3.8	3.6	3.3	3.3	3.6	3.5	3.5	3.5	3.7
Structures	1.1	1.1	0.3	1.0	0.7	0.6	0.7	0.5	0.1	0.8	0.4
Commercial & Health Care	0.4	0.6	-0.5	0.3	0.2	-0.1	0.1	-0.9	-1.6	-0.1	-0.6
Manufacturing	1.4	1.2	0.5	0.3	0.0	0.2	0.5	0.9	0.7	0.8	0.7
Power & Communication	0.6	1.3	3.7	4.3	4.1	3.4	2.9	2.6	2.8	2.8	2.8
Mining & Petroleum	0.0	0.2	-0.6	-0.9	-1.4	-1.1	-0.3	1.6	0.0	0.1	0.1
Other	3.3	2.0	-0.3	1.1	0.6	0.9	0.7	0.6	0.3	1.1	0.3
Residential Fixed Investment	0.6	0.5	-0.8	-0.8	-0.7	-1.5	0.0	-0.8	-1.4	-1.6	-1.4
Exports	6.0	5.7	5.4	5.1	5.2	5.4	5.2	5.0	4.8	4.9	4.9
Imports	4.6	5.3	4.7	4.3	4.4	4.2	4.0	4.2	4.4	4.6	4.5
Federal Government	0.8	1.2	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
State & Local Government	0.6	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4
Billions of Dollars											
Real GDP	16104.1	16476.1	16836.5	17198.4	17563.6	17928.6	18318.8	18688.0	19054.3	19434.5	19822.8
Nominal GDP	22735.0	24016.6	25322.6	26666.4	28090.8	29592.3	31220.7	32912.5	34675.8	36536.1	38489.4
Prices & Wages, Percent Change, Annual Rate											
GDP Deflator	3.3	3.3	3.2	3.1	3.2	3.2	3.3	3.3	3.3	3.3	3.3
Consumer Prices	3.3	3.3	3.2	3.2	3.3	3.4	3.5	3.6	3.6	3.6	3.6
Excl. Food & Energy	3.3	3.4	3.3	3.2	3.3	3.4	3.4	3.5	3.5	3.5	3.5
Producer Prices, Finished Goods	2.7	2.6	2.6	2.5	2.7	2.8	2.9	3.0	3.0	3.0	3.0
Employment Cost Index - Total Comp.	4.3	4.3	4.1	4.1	4.2	4.2	4.4	4.4	4.3	4.3	4.3
Other Key Measures											
Oil - WTI (\$ per barrel)	114.53	114.3	114.5	115.5	118.2	122.3	126.8	131.8	137.2	143.6	150.3
Productivity (%change)	1.8	1.9	2.0	2.1	1.9	1.8	1.8	1.6	1.5	1.5	1.6
Industrial Production (%change)	2.4	2.2	1.7	1.3	1.1	1.1	1.4	1.1	1.0	1.0	0.9
Factory Operating Rate	76.6	76.6	76.4	76.0	75.8	75.5	75.1	74.8	74.5	74.3	74.0
Nonfarm Inven. Chg. (Bil. of 2000 \$)	43.4	42.5	40.7	38.8	40.3	39.1	39.2	39.3	39.7	42.4	41.9
Consumer Sentiment Index	83.6	85.7	86.5	87.4	87.5	87.8	87.5	86.1	86.2	86.0	85.5
Light Vehicle Sales (Million units)	15 744	16.1	16.2	16.3	16.3	16.4	16.5	16.6	16.7	16.8	16.9
Housing Starts (Million units)	1.320	1.3	1.3	1.2	1.2	1.2	1.2	1.1	1.1	1.0	1.0
Existing House Sales (Million units)	4.262	4.2	4.1	4.0	3.9	3.8	3.8	3.8	3.8	3.7	3.6
Unemployment Rate (%)	6.0	5.5	5.2	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.2
Payroll Employment (%change)	0.8	0.8	0.7	0.7	0.8	0.9	0.9	0.6	0.5	0.5	0.6
Federal Surplus (Unified, FY, bil. \$)	-1372	-1566	-1720	-1860	-2002	-2112	-2241	-2374	-2538	-2699	-2819
Current Account Balance (Bil. \$)	-420	-392	-335	-290	-262	-200	-128	-56	14	72	157
Financial Markets, NSA											
Federal Funds Rate (%)	7.69	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
3-Month Treasury Bill Rate (%)	7.44	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
10-Year Treasury Note Yield (%)	8.69	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
30-Year Fixed Mortgage Rate (%)	10.17	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
S&P 500 Stock Index	1801	1851	1963	2057	2151	2268	2393	2517	2651	2790	2919
(Percent change)	2.0	2.8	6.0	4.8	4.6	5.4	5.5	5.2	5.3	5.2	4.6
Exchange Rate, Major Trading Partners	0.792	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
(% change)	-0.8	-0.8	-0.6	-0.3	-0.8	-0.6	-0.6	-0.2	0.0	0.0	0.0
Incomes											
Personal Income (% change)	6.5	6.7	6.4	6.0	6.0	6.0	6.1	6.1	6.0	6.0	6.0
Real Disposable Income (%change)	3.2	3.4	2.9	2.7	2.3	2.3	2.4	2.2	2.3	2.2	2.1
Saving Rate (%)	8.8	9.6	10.0	10.4	10.5	10.7	11.0	11.3	11.6	11.8	11.9
After-Tax Profits (Billions of \$)	1228	1311	1378	1436	1499	1563	1637	1699	1767	1830	1896
(Percent change)	6.3	6.7	5.1	4.2	4.4	4.3	4.7	3.7	4.0	3.6	3.6
Disposable Income (%change)	6.4	6.7	6.1	5.8	5.5	5.6	5.8	5.6	5.8	5.6	5.5

TABLE 1  
Summary of the U.S. Economy—The Pessimistic Projection

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Composition of Real GDP, Percent Change											
Gross Domestic Product	2.2	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0
Final Sales of Domestic Product	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0
Total Consumption	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9
Durables	4.6	4.9	4.4	4.2	4.4	4.2	4.4	4.1	4.1	3.9	3.9
Nondurables	2.0	2.0	1.9	1.9	1.8	1.7	1.6	1.6	1.7	1.6	1.7
Services	1.9	1.9	1.8	1.8	1.8	1.7	1.8	1.7	1.8	1.8	1.7
Nonresidential Fixed Investment	3.8	3.8	3.7	3.7	3.8	3.8	3.9	4.0	4.0	4.0	3.9
Equipment & Software	5.1	5.1	4.9	4.9	5.1	5.0	5.2	5.2	5.2	5.2	5.1
Information Processing Equipment	6.1	6.2	6.2	6.2	6.3	6.3	6.4	6.4	6.4	6.5	6.4
Computers & Peripherals	14.4	14.5	14.3	14.3	14.4	14.4	14.4	14.4	14.4	14.5	14.6
Communications Equipment	7.9	7.7	7.6	7.7	7.9	7.9	7.9	7.8	7.8	7.8	7.4
Industrial Equipment	3.6	3.7	3.7	3.7	3.7	3.8	4.1	4.2	4.2	4.3	4.2
Transportation equipment	4.5	4.3	3.3	3.3	3.8	3.3	3.7	3.9	3.8	3.9	3.5
Aircraft	4.2	4.2	4.2	4.2	4.2	4.3	4.4	4.4	4.4	4.5	4.5
Other Equipment	3.9	3.8	3.8	3.8	4.0	4.0	4.0	4.1	4.0	3.9	3.9
Structures	0.8	0.9	1.1	0.8	1.0	0.9	1.0	1.3	1.3	1.2	1.1
Commercial & Health Care	-0.4	0.5	0.7	0.0	-0.1	-0.4	0.0	0.9	0.9	0.7	0.4
Manufacturing	0.8	0.7	0.9	1.1	1.4	1.5	0.9	0.7	0.7	0.7	0.8
Power & Communication	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.2	3.2	3.2	3.1
Mining & Petroleum	0.2	0.2	0.3	0.6	0.3	0.5	0.8	0.8	0.7	0.7	1.1
Other	1.2	0.4	0.5	0.3	0.9	0.7	1.0	1.0	0.6	0.9	0.6
Residential Fixed Investment	0.2	1.0	-0.5	-1.0	0.0	0.1	0.6	0.8	0.3	0.7	0.4
Exports	4.9	4.9	4.9	4.9	4.9	4.8	4.8	4.8	4.8	4.7	4.6
Imports	4.7	5.0	4.8	4.8	4.9	4.8	4.8	4.8	4.8	4.8	4.8
Federal Government	1.2	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.2
State & Local Government	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
Billions of Dollars											
Real GDP	20251.3	20677.9	21094.8	21524.1	21967.7	22402.6	22860.1	23326.2	23801.4	24285.7	24772.8
Nominal GDP	40636.2	42888.7	45259.8	47776.7	50464.7	53261.7	56232.2	59361.6	62662.9	66154.7	69838.4
Prices & Wages, Percent Change, Annual Rate											
GDP Deflator	3.3	3.4	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Consumer Prices	3.6	3.6	3.7	3.7	3.8	3.8	3.8	3.7	3.7	3.7	3.8
Excl. Food & Energy	3.5	3.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Producer Prices, Finished Goods	3.0	3.0	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2
Employment Cost Index - Total Comp.	4.4	4.4	4.5	4.4	4.5	4.4	4.4	4.4	4.3	4.3	4.4
Other Key Measures											
Oil - WTI (\$ per barrel)	157.4	165.3	174.0	182.7	191.9	201.7	212.4	223.3	234.6	246.4	259.7
Productivity (%change)	1.7	1.5	1.4	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.5
Industrial Production (%change)	1.0	1.0	0.9	1.0	1.0	1.1	1.2	1.3	1.3	1.3	1.2
Factory Operating Rate	73.7	73.5	73.5	73.8	74.2	74.7	74.9	75.2	75.5	75.8	76.1
Nonfarm Inven. Chg. (Bil. of 2000 \$)	46.2	49.2	48.0	50.6	53.5	52.6	56.0	57.9	59.8	60.9	61.4
Consumer Sentiment Index	85.2	86.0	85.6	85.3	85.0	84.6	84.8	85.0	85.1	85.0	84.7
Light Vehicle Sales (Million units)	17.1	17.2	17.2	17.3	17.3	17.3	17.4	17.5	17.6	17.7	17.7
Housing Starts (Million units)	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Existing House Sales (Million units)	3.6	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Unemployment Rate (%)	5.2	5.2	5.3	5.3	5.4	5.4	5.4	5.4	5.4	5.5	5.5
Payroll Employment (%change)	0.6	0.7	0.7	0.7	0.7	0.6	0.7	0.8	0.8	0.8	0.8
Federal Surplus (Unified, FY, bil. \$)	-2959	-3104	-3251	-3379	-3541	-3660	-3792	-3862	-3939	-3984	-4011
Current Account Balance (Bil. \$)	240	317	427	552	690	872	1054	1272	1524	1825	2397
Financial Markets, NSA											
Federal Funds Rate (%)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
3-Month Treasury Bill Rate (%)	7.5	7.5	7.5	7.5	7.6	7.6	7.6	7.6	7.6	7.6	7.6
10-Year Treasury Note Yield (%)	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.7
30-Year Fixed Mortgage Rate (%)	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
S&P 500 Stock Index	3049	3216	3386	3564	3753	3952	4157	4388	4625	4878	5107
(Percent change)	4.5	5.5	5.3	5.3	5.3	5.3	5.2	5.6	5.4	5.5	4.7
Exchange Rate, Major Trading Partners	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7
(% change)	0.1	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	0.0
Incomes											
Personal Income (% change)	6.1	6.0	6.0	6.0	6.0	6.0	6.0	5.9	5.9	5.9	5.9
Real Disposable Income (%change)	2.3	2.2	2.2	2.1	2.2	2.0	2.0	1.9	2.0	1.9	2.0
Saving Rate (%)	12.1	12.2	12.4	12.4	12.6	12.8	12.9	13.0	13.1	13.1	13.2
After-Tax Profits (Billions of \$)	1983	2089	2192	2316	2443	2588	2744	2913	3108	3330	3791
(Percent change)	4.6	5.3	4.9	5.6	5.5	5.9	6.0	6.2	6.7	7.1	13.8
Disposable Income (%change)	5.8	5.7	5.7	5.6	5.8	5.6	5.6	5.5	5.5	5.4	5.5

TABLE 2  
Population, Labor Force and Potential GDP—The Pessimistic Projection

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Millions										
Total Population	307.8	310.7	313.5	316.3	319.1	322.0	324.8	327.7	330.6	333.5
Under 5	21.2	21.3	21.5	21.7	21.9	22.0	22.2	22.4	22.5	22.6
Ages 5 through 21	70.5	70.8	71.0	71.1	71.2	71.4	71.8	72.2	72.7	73.3
Ages 16 and Up	242.2	244.7	247.0	249.3	251.6	253.8	256.1	258.3	260.7	263.1
Males Ages 25 through 54	64.6	64.7	64.8	64.9	65.0	65.2	65.3	65.5	65.6	65.8
Ages 55 through 64	35.0	36.4	37.5	38.2	39.0	39.7	40.6	41.3	41.9	42.4
Ages 65 and Up	39.7	40.5	41.4	42.8	44.2	45.6	47.0	48.5	50.0	51.5
Ages 85 and Up	5.9	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.7	6.8
Percent Change										
Total Population	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Under 5	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.6
Ages 5 through 21	0.5	0.4	0.3	0.1	0.2	0.3	0.4	0.6	0.7	0.8
Ages 16 and Up	1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Males Ages 25 through 54	0.4	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.2
Ages 55 through 64	3.5	3.8	3.2	1.8	2.0	2.0	2.1	1.8	1.4	1.1
Ages 65 and Up	2.0	1.9	2.2	3.4	3.3	3.1	3.2	3.0	3.1	3.1
Ages 85 and Up	2.8	2.6	2.1	1.9	1.7	1.4	1.5	1.1	0.8	0.6
Labor Force and Employment										
Labor Force, Millions	154.2	153.5	154.7	156.2	157.8	159.3	160.5	161.5	162.6	163.7
Under 65	147.7	146.7	147.7	149.1	150.4	151.6	152.3	153.0	153.7	154.4
Ages 65 and Up	6.5	6.8	7.0	7.1	7.4	7.8	8.1	8.5	8.9	9.2
Participation Rate, Percent	63.7	62.7	62.6	62.7	62.7	62.8	62.7	62.5	62.4	62.2
Under 65	73.0	71.8	71.8	72.2	72.5	72.8	72.9	72.9	72.9	73.0
Ages 65 and Up	16.4	16.8	16.8	16.7	16.7	17.0	17.3	17.6	17.7	17.9
Employment, Millions										
Household Survey	139.9	137.2	139.3	142.3	145.2	147.4	148.8	150.2	151.6	153.2
Establishment Survey	130.9	129.1	131.0	134.5	137.7	139.8	141.0	141.9	142.7	143.7
Percent Change, Annual Rate	-4.3	-1.3	1.4	2.7	2.4	1.5	0.8	0.6	0.6	0.7
Unemployment Rate, Percent	9.3	10.6	10.0	8.9	8.0	7.5	7.3	7.0	6.8	6.4
Average Weekly Hours										
Manufacturing Workweek	39.9	40.5	40.6	40.8	40.8	40.7	40.6	40.6	40.5	40.5
Durable Workweek	39.9	40.5	40.7	40.9	40.9	40.7	40.6	40.6	40.5	40.4
Nondurables Workweek	39.8	40.4	40.5	40.6	40.6	40.6	40.6	40.6	40.6	40.6
Manhours in Private Nonfarm Estab. Billions of Hours, SAAR										
Percent Change, Annual Rate	-5.6	-0.7	2.5	3.2	2.4	1.4	0.7	0.6	0.5	0.7
Vendor Performance Index	51.4	57.4	54.7	55.8	53.2	51.8	50.9	51.5	51.6	52.0
Potential GDP										
Billions of Chained 2000 Dollars	14374.1	14640.1	14908.1	15175.7	15462.9	15772.8	16083.1	16381.3	16678.6	16978.8
Percent Change										
Potential GDP	2.5	1.9	1.8	1.8	1.9	2.0	2.0	1.9	1.8	1.8
Nonhousing, Non-Government	-3.4	3.1	2.7	3.9	3.0	2.4	1.8	2.0	2.1	2.3
Potential Output	2.2	2.2	2.4	2.1	2.1	2.2	2.1	2.0	2.0	2.0
Capital Stock	0.1	-0.4	0.7	1.9	2.9	3.2	2.9	2.5	2.5	2.6
R&D Capital Stock	2.6	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4
Full-Employment Labor Force	0.4	1.2	2.0	1.1	0.6	0.6	0.6	0.6	0.6	0.5
Multifactor Productivity	1.6	1.2	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Nonfarm Productivity - Output per Hour										
Full-Employment	1.8	1.0	0.5	1.0	1.5	1.6	1.6	1.4	1.4	1.5
Actual	3.0	3.8	-0.4	0.2	0.3	0.9	1.2	1.6	1.6	1.7
All Manufacturing	1.4	3.2	2.5	1.4	1.6	2.1	2.3	2.4	2.1	2.0
Durable Goods	-2.1	6.5	3.5	2.9	2.5	3.1	3.4	3.7	3.6	3.5
Nondurable Goods	2.7	3.9	1.1	0.0	1.1	1.5	1.7	1.4	1.1	1.1

TABLE 2  
Population, Labor Force and Potential GDP—The Pessimistic Projection

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Millions											
Total Population	336.4	339.3	342.2	345.1	348.0	350.9	353.8	356.7	359.6	362.4	365.3
Under 5	22.8	22.9	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8
Ages 5 through 21	73.9	74.6	75.3	76.0	76.5	77.1	77.7	78.2	78.8	79.3	79.9
Ages 16 and Up	265.5	267.9	270.4	272.8	275.2	277.6	280.1	282.5	285.0	287.4	289.9
Males Ages 25 through 54	65.9	66.1	66.3	66.6	66.9	67.1	67.3	67.6	68.0	68.5	69.0
Ages 55 through 64	42.8	42.9	42.8	42.6	42.2	41.9	41.8	41.6	41.2	40.8	40.2
Ages 65 and Up	53.2	54.9	56.7	58.4	60.3	62.0	63.9	65.7	67.4	69.0	70.5
Ages 85 and Up	6.8	6.9	7.0	7.1	7.2	7.3	7.5	7.7	8.0	8.4	8.7
Percent Change											
Total Population	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Under 5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5
Ages 5 through 21	0.9	0.9	0.9	0.9	0.7	0.8	0.7	0.7	0.7	0.7	0.7
Ages 16 and Up	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Males Ages 25 through 54	0.2	0.2	0.4	0.4	0.4	0.4	0.2	0.4	0.6	0.7	0.8
Ages 55 through 64	0.9	0.4	-0.2	-0.7	-0.8	-0.6	-0.4	-0.4	-0.8	-1.1	-1.3
Ages 65 and Up	3.2	3.3	3.1	3.2	3.1	3.0	3.0	2.7	2.5	2.4	2.3
Ages 85 and Up	0.6	1.3	1.2	1.3	1.8	2.1	2.4	2.7	3.6	4.6	4.0
Labor Force and Employment											
Labor Force, Millions	164.7	165.6	166.6	167.4	168.2	169.0	169.7	170.5	171.3	172.2	173.2
Under 65	155.0	155.6	156.1	156.4	156.8	157.2	157.4	157.8	158.3	159.0	159.6
Ages 65 and Up	9.6	10.1	10.5	11.0	11.4	11.9	12.3	12.7	13.0	13.3	13.5
Participation Rate, Percent	62.0	61.8	61.6	61.4	61.1	60.9	60.6	60.3	60.1	59.9	59.7
Under 65	73.0	73.0	73.0	73.0	72.9	72.9	72.8	72.8	72.7	72.8	72.8
Ages 65 and Up	18.1	18.3	18.5	18.8	19.0	19.1	19.2	19.3	19.3	19.3	19.2
Employment, Millions											
Household Survey	154.8	156.6	157.9	158.8	159.7	160.5	161.1	161.8	162.6	163.4	164.2
Establishment Survey	144.9	146.0	147.0	148.1	149.3	150.5	151.9	152.7	153.6	154.4	155.3
Percent Change, Annual Rate	0.8	0.8	0.7	0.7	0.8	0.9	0.9	0.6	0.5	0.5	0.6
Unemployment Rate, Percent	6.0	5.5	5.2	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.2
Average Weekly Hours											
Manufacturing Workweek	40.4	40.4	40.4	40.4	40.5	40.5	40.6	40.6	40.6	40.6	40.6
Durable Workweek	40.3	40.2	40.2	40.3	40.4	40.4	40.4	40.4	40.4	40.5	40.5
Nondurables Workweek	40.6	40.6	40.6	40.7	40.8	40.8	40.8	40.8	40.8	40.8	40.8
Manhours in Private Nonfarm Estab.											
Billions of Hours, SAAR	205.1	206.7	208.3	210.2	212.1	214.1	216.3	218.5	220.6	222.9	225.3
Percent Change, Annual Rate	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.1
Vendor Performance Index	51.9	51.7	51.4	51.2	51.3	51.1	51.2	51.1	51.3	51.3	51.3
Potential GDP											
Billions of Chained 2000 Dollars	17285.4	17589.1	17890.9	18189.2	18491.9	18803.4	19124.9	19450.8	19788.6	20140.9	20509.2
Percent Change											
Potential GDP	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8
Nonhousing, Non-Government	2.5	2.6	2.5	2.5	2.4	2.4	2.5	2.3	2.2	2.3	2.3
Potential Output	2.0	1.9	1.9	1.8	1.8	1.9	1.8	1.9	1.9	2.0	2.0
Capital Stock	2.8	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
R&D Capital Stock	2.4	2.4	2.5	2.6	2.7	2.7	2.7	2.8	2.8	2.9	2.9
Full-Employment Labor Force	0.4	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.4	0.4	0.4
Multifactor Productivity	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8
Nonfarm Productivity - Output per Hour											
Full-Employment	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Actual	1.8	1.9	2.0	2.1	1.9	1.8	1.8	1.6	1.5	1.5	1.6
All Manufacturing	2.5	3.0	3.0	2.8	2.8	2.7	2.8	3.2	3.2	3.2	3.2
Durable Goods	3.9	4.5	4.6	4.5	4.6	4.7	4.9	4.9	4.7	4.8	4.8
Nondurable Goods	1.7	2.0	2.1	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.9



TABLE 2  
Population, Labor Force and Potential GDP—The Pessimistic Projection

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Millions											
Total Population	368.1	371.0	373.8	376.6	379.4	382.3	385.1	387.9	390.7	393.5	396.3
Under 5	23.9	24.1	24.2	24.3	24.5	24.7	24.8	25.0	25.2	25.4	25.6
Ages 5 through 21	80.4	80.9	81.4	81.9	82.4	82.8	83.3	83.8	84.2	84.7	85.2
Ages 16 and Up	292.4	294.8	297.2	299.6	302.0	304.4	306.8	309.1	311.4	313.7	316.0
Males Ages 25 through 54	69.5	70.0	70.5	71.0	71.5	71.9	72.3	72.7	73.1	73.6	74.0
Ages 55 through 64	39.9	39.7	39.7	39.8	39.9	40.0	40.3	40.7	41.2	41.8	42.3
Ages 65 and Up	72.0	73.1	74.1	75.1	76.1	77.2	78.2	79.0	79.6	80.1	80.6
Ages 85 and Up	9.0	9.4	10.0	10.6	11.1	11.7	12.2	12.7	13.3	13.8	14.4
Percent Change											
Total Population	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Under 5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Ages 5 through 21	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Ages 16 and Up	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7
Males Ages 25 through 54	0.7	0.8	0.7	0.7	0.6	0.5	0.5	0.6	0.6	0.6	0.6
Ages 55 through 64	-0.9	-0.4	0.0	0.2	0.3	0.3	0.6	1.0	1.3	1.4	1.3
Ages 65 and Up	2.1	1.6	1.4	1.3	1.3	1.5	1.3	1.0	0.7	0.6	0.7
Ages 85 and Up	3.5	4.1	6.7	5.9	5.1	5.0	4.4	4.3	4.2	4.1	4.3
Labor Force and Employment											
Labor Force, Millions	174.2	175.5	176.8	178.1	179.3	180.4	181.6	182.9	184.4	186.0	187.5
Under 65	160.4	161.5	162.7	163.9	165.1	166.1	167.2	168.5	170.0	171.5	173.0
Ages 65 and Up	13.8	14.0	14.1	14.1	14.2	14.3	14.4	14.4	14.5	14.5	14.4
Participation Rate, Percent	59.6	59.5	59.5	59.4	59.4	59.3	59.2	59.2	59.2	59.3	59.3
Under 65	72.8	72.8	72.9	73.0	73.1	73.1	73.2	73.2	73.3	73.4	73.5
Ages 65 and Up	19.2	19.2	19.0	18.8	18.6	18.5	18.4	18.3	18.2	18.1	17.9
Employment, Millions											
Household Survey	165.2	166.3	167.5	168.6	169.7	170.7	171.8	173.0	174.4	175.8	177.2
Establishment Survey	156.2	157.4	158.5	159.7	160.8	161.8	162.9	164.2	165.5	167.0	168.3
Percent Change, Annual Rate	0.6	0.7	0.7	0.7	0.7	0.6	0.7	0.8	0.8	0.8	0.8
Unemployment Rate, Percent	5.2	5.2	5.3	5.3	5.4	5.4	5.4	5.4	5.4	5.5	5.5
Average Weekly Hours	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4
Manufacturing Workweek	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6
Durable Workweek	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5
Nondurables Workweek	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.7	40.7	40.7
Manhours in Private Nonfarm Estab											
Billions of Hours, SAAR	227.7	230.0	232.2	234.3	236.5	238.7	240.8	242.9	245.2	247.5	249.7
Percent Change, Annual Rate	1.1	1.0	1.0	0.9	1.0	0.9	0.9	0.9	0.9	1.0	0.9
Vendor Performance Index	51.3	51.3	51.6	51.9	52.2	52.2	52.0	52.1	52.1	52.1	52.2
Potential GDP											
Billions of Chained 2000 Dollars	20894.9	21306.5	21734.6	22170.0	22612.5	23056.4	23512.2	23993.4	24500.5	25028.3	25563.8
Percent Change											
Potential GDP	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1
Nonhousing, Non-Government	2.4	2.4	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.2
Potential Output	2.1	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.3
Capital Stock	2.8	2.9	2.9	2.9	2.9	2.9	2.9	3.0	3.0	3.0	3.0
R&D Capital Stock	3.0	3.0	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.3	3.4
Full-Employment Labor Force	0.5	0.7	0.7	0.7	0.7	0.6	0.6	0.7	0.8	0.8	0.7
Multifactor Productivity	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Nonfarm Productivity - Output per Hour											
Full-Employment	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Actual	1.7	1.5	1.4	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.5
All Manufacturing	3.3	3.0	3.1	3.3	3.4	3.7	3.7	3.6	3.5	3.5	3.5
Durable Goods	4.8	4.5	4.6	4.7	4.8	4.9	4.7	4.6	4.3	4.1	4.1
Nondurable Goods	1.9	1.9	1.8	1.9	1.9	2.1	2.1	2.2	2.2	2.3	2.3

# Projection Tables

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TABLE 1  
Summary of the U.S. Economy

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Composition of Real GDP, Percent Change										
Gross Domestic Product	-2.4	3.0	2.8	3.7	3.2	2.7	2.4	2.4	2.4	2.6
Final Sales of Domestic Product	-1.7	1.9	2.6	3.6	3.3	2.8	2.4	2.3	2.5	2.6
Total Consumption	-0.6	2.4	2.7	2.7	2.2	2.4	2.7	2.3	2.1	2.3
Durables	-4.0	6.6	7.2	7.0	3.8	3.9	6.8	4.4	2.2	2.6
Nondurables	-1.0	2.5	1.9	1.8	1.5	1.7	1.8	1.8	2.0	2.2
Services	0.1	1.8	2.2	2.4	2.2	2.4	2.3	2.1	2.1	2.3
Nonresidential Fixed Investment	-17.9	1.5	7.2	13.7	10.3	5.6	2.6	2.6	3.6	4.2
Equipment & Software	-16.9	9.8	12.6	11.9	8.6	4.9	2.5	3.5	4.8	5.6
Information Processing Equipment	-6.0	8.3	7.5	8.7	7.3	6.7	6.6	6.5	6.5	6.6
Computers & Peripherals	-5.9	19.4	10.8	19.1	19.8	17.6	18.4	18.5	19.0	19.2
Communications Equipment	-8.9	10.7	12.5	11.8	8.6	8.1	6.1	6.4	6.2	6.1
Industrial Equipment	-23.4	6.8	18.0	12.0	2.3	-1.2	0.0	0.8	1.1	3.3
Transportation equipment	-48.7	52.2	32.7	28.7	21.1	3.9	-11.4	-5.3	3.3	6.4
Aircraft	-24.5	14.4	19.4	17.6	9.5	4.8	2.8	1.7	1.7	2.6
Other Equipment	-19.7	-0.8	11.2	9.2	8.2	7.2	6.5	4.8	4.3	4.3
Structures	-19.7	-14.6	-6.2	19.0	15.2	7.4	3.0	0.4	0.9	1.2
Commercial & Health Care	-25.6	-20.1	2.3	32.4	29.1	12.1	1.9	-0.6	0.2	0.9
Manufacturing	22.7	-29.5	-12.8	24.6	21.9	4.2	0.1	-4.4	0.5	2.3
Power & Communication	-1.3	-12.3	-15.9	5.4	2.7	6.9	5.2	1.8	0.2	-0.5
Mining & Petroleum	-41.6	11.8	-9.3	7.7	-0.9	-0.4	5.6	3.6	1.0	-0.6
Other	-18.3	-20.9	0.7	17.1	8.9	6.1	4.4	3.5	3.6	3.5
Residential Fixed Investment	-20.4	4.8	29.1	19.5	7.5	1.9	0.4	2.1	0.5	1.1
Exports	-9.9	9.7	6.3	7.8	8.8	7.6	6.3	6.7	7.2	7.2
Imports	-14.2	10.3	7.5	6.5	5.1	4.1	4.4	4.3	3.7	4.2
Federal Government	5.2	3.8	-2.9	-3.7	-1.8	-0.5	0.2	0.6	0.7	0.7
State & Local Government	-0.1	0.2	-0.3	0.3	1.6	1.1	0.7	0.6	0.9	1.0
Billions of Dollars										
Real GDP	12988.7	13374.7	13755.5	14267.7	14720.2	15111.9	15470.6	15840.1	16227.9	16658.0
Nominal GDP	14258.7	14843.4	15492.6	16316.3	17117.9	17891.5	18641.7	19418.1	20252.5	21166.9
Prices & Wages, Percent Change, Annual Rate										
GDP Deflator	1.2	1.1	1.5	1.5	1.7	1.8	1.8	1.7	1.8	1.8
Consumer Prices	-0.3	1.9	1.7	2.0	1.9	1.9	2.0	2.0	2.0	1.9
Excl. Food & Energy	1.7	1.4	1.6	1.8	1.8	1.9	1.8	1.9	1.9	1.9
Producer Prices, Finished Goods	-2.4	2.8	1.5	1.6	1.6	1.6	1.9	1.5	1.3	1.2
Employment Cost Index - Total Comp.	1.5	1.8	1.9	1.9	2.5	2.9	2.9	2.9	3.0	3.0
Other Key Measures										
Oil - WTI (\$ per barrel)	61.77	71.90	77.58	83.16	87.01	90.27	94.20	98.06	100.11	101.64
Productivity (%change)	3.0	3.5	0.5	0.6	0.8	1.4	1.8	2.0	2.0	2.1
Industrial Production (%change)	-9.7	4.3	3.9	4.5	3.8	2.8	2.5	2.7	2.8	3.2
Factory Operating Rate	66.9	71.5	74.6	77.1	78.1	78.1	77.8	78.0	78.4	79.1
Nonfarm Inven. Chg. (Bil. of 2000 \$)	-111.7	20.1	48.1	68.9	58.2	38.0	33.7	49.5	49.7	55.2
Consumer Sentiment Index	66.3	74.4	75.8	79.1	81.5	80.6	80.8	81.8	83.2	85.3
Light Vehicle Sales (Million units)	10.35	11.80	13.81	15.59	16.53	16.97	17.36	17.41	17.05	16.83
Housing Starts (Million units)	0.552	0.753	1.272	1.606	1.730	1.734	1.756	1.783	1.785	1.794
Exist. House Sales (Total, Million units)	5.164	5.403	5.462	6.136	6.453	6.472	6.547	6.591	6.586	6.595
Unemployment Rate (%)	9.3	9.9	9.3	8.3	7.5	7.0	6.8	6.6	6.3	6.0
Payroll Employment (%change)	-4.3	-0.7	1.5	2.8	2.4	1.5	1.0	0.8	0.8	0.9
Federal Surplus (Unified, FY, bil. \$)	-1417	-1375	-1082	-873	-656	-648	-720	-741	-793	-859
Current Account Balance (Bil. \$)	-432	-552	-626	-689	-681	-677	-677	-675	-628	-587
Financial Markets, NSA										
Federal Funds Rate (%)	0.16	0.24	1.70	3.34	3.55	4.59	4.75	4.75	4.75	4.75
3-Month Treasury Bill Rate (%)	0.15	0.43	2.08	3.39	3.62	4.56	4.60	4.60	4.60	4.60
10-Year Treasury Note Yield (%)	3.26	3.80	4.03	4.54	4.72	5.54	5.57	5.57	5.57	5.57
30-Year Fixed Mortgage Rate (%)	5.04	5.22	5.55	6.07	6.25	7.07	7.10	7.10	7.10	7.10
S&P 500 Stock Index	947	1150	1241	1323	1397	1470	1568	1668	1760	1830
(Percent change)	-22.5	21.5	7.9	6.6	5.5	5.3	6.6	6.4	5.5	4.0
Exchange Rate, Major Trading Partners (% change)	0.929	0.916	0.890	0.858	0.848	0.866	0.875	0.871	0.863	0.858
	4.5	-1.4	-2.9	-3.6	-1.1	2.1	1.0	-0.4	-0.9	-0.6
Incomes										
Personal Income (% change)	-1.4	3.9	4.2	5.2	5.3	5.4	4.9	4.7	4.8	5.0
Real Disposable Income (%change)	1.3	2.1	1.6	2.4	2.2	3.5	3.1	2.8	2.8	2.9
Saving Rate (%)	4.6	4.5	3.5	3.1	3.0	4.0	4.3	4.7	5.2	5.8
After-Tax Profits (Billions of \$)	1111	1277	1327	1385	1413	1365	1339	1337	1355	1426
(Percent change)	-5.1	15.0	3.9	4.4	2.0	-3.4	-2.0	-0.1	1.4	5.2
Disposable Income (%change)	1.5	3.7	3.1	4.1	3.9	5.3	5.0	4.7	4.7	4.9

TABLE 1  
Summary of the U.S. Economy

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Composition of Real GDP, Percent Change											
Gross Domestic Product	2.8	2.8	2.7	2.6	2.5	2.5	2.7	2.5	2.5	2.4	2.4
Final Sales of Domestic Product	2.8	2.9	2.7	2.6	2.5	2.5	2.6	2.5	2.5	2.4	2.4
Total Consumption	2.5	2.8	2.8	2.6	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Durables	3.8	5.3	5.3	5.1	4.7	4.5	4.9	4.7	4.8	4.9	4.6
Nondurables	2.4	2.8	2.8	2.7	2.5	2.4	2.4	2.5	2.5	2.6	2.5
Services	2.4	2.5	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Nonresidential Fixed Investment	4.5	4.2	3.7	3.7	3.6	3.6	3.9	4.0	3.9	3.9	3.8
Equipment & Software	5.8	5.5	5.1	4.8	4.8	4.9	5.2	5.3	5.2	5.2	5.2
Information Processing Equipment	6.6	6.7	6.4	5.9	6.1	6.2	6.4	6.5	6.5	6.4	6.4
Computers & Peripherals	18.7	16.8	13.9	13.9	14.1	14.2	14.3	14.4	14.4	14.4	14.4
Communications Equipment	6.0	6.1	6.7	7.2	7.5	7.5	7.8	7.8	7.7	7.7	7.6
Industrial Equipment	3.8	3.5	3.6	3.6	3.2	2.8	2.9	3.4	3.7	3.6	3.7
Transportation equipment	7.4	5.1	3.4	3.4	3.7	4.2	5.2	4.6	4.0	4.2	4.4
Aircraft	3.1	3.7	4.0	4.4	4.4	4.9	5.1	4.7	4.5	4.3	4.3
Other Equipment	4.2	3.9	4.1	3.8	3.6	3.6	3.8	3.7	3.8	3.8	3.9
Structures	1.5	1.4	0.7	1.3	0.6	0.5	0.8	1.1	0.8	0.8	0.5
Commercial & Health Care	1.3	1.4	0.3	1.1	0.3	-0.1	0.3	0.6	0.4	0.0	-0.3
Manufacturing	2.1	1.6	1.0	1.2	0.4	0.5	0.9	1.2	1.2	1.2	1.0
Power & Communication	0.8	1.4	3.7	4.3	4.0	3.3	2.9	2.6	2.8	2.8	2.8
Mining & Petroleum	0.2	0.4	-0.8	-1.2	-2.0	-1.8	-0.5	1.4	-0.3	-0.2	-0.1
Other	3.2	2.0	-0.2	1.2	0.4	1.0	0.7	0.6	0.4	1.1	0.3
Residential Fixed Investment	1.7	1.7	0.0	0.2	0.1	0.0	1.3	0.9	-0.3	-1.1	-0.7
Exports	7.0	6.6	6.3	6.0	6.0	6.1	5.9	5.8	5.5	5.5	5.5
Imports	4.5	5.1	4.6	4.3	4.2	4.1	4.1	4.4	4.5	4.6	4.6
Federal Government	0.8	1.2	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7
State & Local Government	1.0	0.9	0.9	0.9	1.0	1.0	1.0	1.0	0.9	0.9	0.9
Billions of Dollars											
Real GDP	17125.0	17611.8	18085.5	18557.8	19026.5	19507.9	20026.3	20536.0	21039.7	21549.0	22064.7
Nominal GDP	22142.2	23147.5	24149.7	25170.1	26210.3	27298.1	28476.7	29684.8	30929.7	32220.9	33562.6
Prices & Wages, Percent Change, Annual Rate											
GDP Deflator	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7
Consumer Prices	1.8	1.7	1.6	1.6	1.7	1.8	1.8	1.9	1.9	1.9	1.9
Excl. Food & Energy	1.9	1.8	1.7	1.7	1.7	1.8	1.8	1.9	1.9	1.9	1.9
Producer Prices, Finished Goods	1.1	0.8	0.7	0.7	0.8	0.9	1.0	1.0	1.0	1.1	1.1
Employment Cost Index - Total Comp	2.9	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9
Other Key Measures											
Oil - WTI (\$ per barrel)	100.81	98.92	97.00	96.00	95.00	97.00	99.00	101.00	103.00	106.00	109.00
Productivity (%change)	2.2	2.3	2.4	2.4	2.3	2.3	2.4	2.2	2.0	2.0	2.0
Industrial Production (%change)	3.4	3.2	2.8	2.4	2.3	2.3	2.7	2.4	2.2	2.3	2.1
Factory Operating Rate	79.6	80.0	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.2	80.1
Nonfarm Inven. Chg. (Bil. of 2000 \$)	56.6	56.7	54.8	53.4	54.2	54.1	57.3	59.6	58.7	60.5	61.4
Consumer Sentiment Index	87.7	89.6	90.6	91.2	91.4	91.3	91.4	91.2	91.1	90.9	90.3
Light Vehicle Sales (Million units)	16.99	17.37	17.53	17.64	17.74	17.93	18.24	18.51	18.80	19.12	19.38
Housing Starts (Million units)	1.815	1.818	1.788	1.769	1.746	1.726	1.733	1.724	1.690	1.644	1.612
Exist. House Sales (Total, Million units)	6.639	6.628	6.517	6.450	6.376	6.334	6.406	6.432	6.372	6.271	6.226
Unemployment Rate (%)	5.6	5.2	5.0	4.9	4.9	4.8	4.8	4.9	4.9	4.9	4.9
Payroll Employment (%change)	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Federal Surplus (Unified, FY, bil. \$)	-947	-1009	-1052	-1084	-1109	-1116	-1157	-1170	-1209	-1258	-1267
Current Account Balance (Bil. \$)	-547	-518	-470	-436	-404	-364	-325	-300	-277	-270	-254
Financial Markets, NSA											
Federal Funds Rate (%)	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75
3-Month Treasury Bill Rate (%)	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60
10-Year Treasury Note Yield (%)	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57
30-Year Fixed Mortgage Rate (%)	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10
S&P 500 Stock Index	1890	1958	2036	2125	2217	2312	2413	2517	2623	2732	2846
(Percent change)	3.3	3.6	4.0	4.4	4.3	4.3	4.4	4.3	4.2	4.2	4.2
Exchange Rate, Major Trading Partners	0.853	0.850	0.848	0.849	0.845	0.843	0.841	0.843	0.846	0.849	0.853
(% change)	-0.5	-0.4	-0.2	0.1	-0.4	-0.2	-0.2	0.2	0.4	0.4	0.4
Incomes											
Personal Income (% change)	5.2	5.2	4.9	4.6	4.5	4.5	4.6	4.6	4.6	4.6	4.6
Real Disposable Income (%change)	3.2	3.4	3.0	2.7	2.3	2.3	2.6	2.3	2.5	2.4	2.3
Saving Rate (%)	6.4	6.9	7.0	7.2	7.1	7.1	7.2	7.2	7.3	7.3	7.2
After-Tax Profits (Billions of \$)	1506	1577	1630	1670	1716	1773	1845	1900	1946	1985	2017
(Percent change)	5.6	4.7	3.4	2.4	2.8	3.3	4.1	3.0	2.4	2.0	1.6
Disposable Income (%change)	5.1	5.1	4.6	4.4	4.0	4.1	4.4	4.2	4.4	4.3	4.2

TABLE 1

## Summary of the U.S. Economy

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Composition of Real GDP, Percent Change											
Gross Domestic Product	2.5	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Final Sales of Domestic Product	2.5	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Total Consumption	2.4	2.5	2.4	2.4	2.4	2.4	2.5	2.4	2.4	2.4	2.4
Durables	4.8	5.0	4.8	4.7	5.0	5.0	5.0	4.8	4.7	4.6	4.6
Nondurables	2.4	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.4
Services	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Nonresidential Fixed Investment	4.0	4.0	3.9	4.0	4.2	4.2	4.3	4.4	4.3	4.3	4.3
Equipment & Software	5.4	5.4	5.3	5.4	5.5	5.5	5.6	5.6	5.6	5.6	5.5
Information Processing Equipment	6.4	6.5	6.5	6.5	6.5	6.5	6.6	6.6	6.6	6.6	6.5
Computers & Peripherals	14.6	14.7	14.5	14.5	14.6	14.6	14.6	14.6	14.6	14.7	14.8
Communications Equipment	7.7	7.6	7.4	7.5	7.6	7.6	7.7	7.6	7.6	7.6	7.3
Industrial Equipment	3.8	4.0	4.0	4.0	4.0	4.0	4.4	4.4	4.5	4.6	4.4
Transportation equipment	5.1	5.0	4.2	4.5	5.0	4.9	4.8	4.8	4.6	4.7	4.7
Aircraft	4.7	4.7	4.7	4.7	4.8	4.9	5.0	4.9	4.9	4.9	4.9
Other Equipment	4.1	4.0	4.0	4.1	4.2	4.3	4.3	4.3	4.2	4.1	4.2
Structures	0.7	0.4	0.6	0.7	0.8	1.0	1.1	1.3	1.1	1.1	1.1
Commercial & Health Care	-0.4	-0.8	-0.5	-0.2	-0.2	0.4	0.5	0.8	0.5	0.4	0.4
Manufacturing	0.9	1.0	1.1	1.0	1.2	1.2	1.3	1.2	1.3	1.3	1.1
Power & Communication	2.9	3.0	2.9	2.9	3.1	3.1	3.1	3.3	3.3	3.3	3.2
Mining & Petroleum	0.0	0.0	-0.2	0.1	-0.1	-0.1	0.1	0.1	0.0	0.0	0.4
Other	1.3	0.5	0.6	0.4	0.9	0.7	1.0	1.0	0.6	1.0	0.7
Residential Fixed Investment	0.7	0.6	-0.6	0.0	1.1	1.3	1.2	0.6	0.3	0.6	0.8
Exports	5.5	5.4	5.3	5.3	5.3	5.3	5.2	5.2	5.1	5.1	5.1
Imports	4.7	4.9	4.8	4.7	4.9	4.9	4.9	4.8	4.8	4.8	4.8
Federal Government	1.2	0.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.2
State & Local Government	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1
Billions of Dollars											
Real GDP	22621.2	23175.7	23729.6	24311.4	24923.1	25552.4	26201.8	26864.9	27536.4	28228.8	28941.7
Nominal GDP	35002.9	36484.2	38000.5	39600.7	41299.3	43080.0	44944.5	46886.4	48902.8	51018.9	53232.0
Prices & Wages, Percent Change, Annual Rate											
GDP Deflator	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8
Consumer Prices	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0
Excl. Food & Energy	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Producer Prices, Finished Goods	1.1	1.1	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	0.9
Employment Cost Index - Total Comp.	2.9	2.9	2.8	2.8	2.8	2.9	2.9	2.8	2.8	2.8	2.8
Other Key Measures											
Oil - WTI (\$ per barrel)	112.00	115.00	118.00	121.00	124.00	127.00	130.00	133.00	136.00	139.00	142.00
Productivity (%change)	2.1	1.9	1.9	2.0	2.1	2.1	2.1	2.0	1.9	2.0	2.0
Industrial Production (%change)	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Factory Operating Rate	80.1	80.1	80.1	80.1	80.1	80.1	80.2	80.1	80.2	80.3	80.2
Nonfarm Inven. Chg. (Bil. of 2000 \$)	65.8	68.2	68.1	70.6	75.0	77.2	80.1	81.7	83.9	87.1	90.7
Consumer Sentiment Index	89.9	89.7	89.7	89.4	89.4	89.2	89.2	89.1	89.1	89.0	88.8
Light Vehicle Sales (Million units)	19.73	20.02	20.27	20.52	20.81	21.12	21.49	21.86	22.16	22.55	22.89
Housing Starts (Million units)	1.609	1.596	1.563	1.549	1.552	1.554	1.553	1.539	1.523	1.512	1.504
Exist. House Sales (Total, Million units)	6.265	6.265	6.193	6.187	6.231	6.279	6.325	6.335	6.336	6.355	6.385
Unemployment Rate (%)	5.0	5.0	5.0	5.1	5.1	5.1	5.1	5.2	5.2	5.2	5.2
Payroll Employment (%change)	1.0	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9
Federal Surplus (Unified, FY, bil. \$)	-1281	-1315	-1350	-1344	-1364	-1380	-1384	-1370	-1342	-1294	-1240
Current Account Balance (Bil. \$)	-247	-243	-238	-231	-235	-241	-252	-255	-233	-186	-131
Financial Markets, NSA											
Federal Funds Rate (%)	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75
3-Month Treasury Bill Rate (%)	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60
10-Year Treasury Note Yield (%)	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57
30-Year Fixed Mortgage Rate (%)	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10
S&P 500 Stock Index	2968	3092	3219	3352	3494	3643	3801	3966	4139	4323	4506
(Percent change)	4.3	4.2	4.1	4.1	4.2	4.3	4.3	4.3	4.4	4.4	4.2
Exchange Rate, Major Trading Partners	0.857	0.860	0.863	0.865	0.867	0.868	0.870	0.873	0.876	0.879	0.882
(% change)	0.5	0.4	0.3	0.3	0.2	0.1	0.2	0.3	0.4	0.4	0.4
Incomes											
Personal Income (% change)	4.6	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.4	4.4
Real Disposable Income (%change)	2.4	2.4	2.3	2.2	2.4	2.4	2.4	2.3	2.3	2.2	2.2
Saving Rate (%)	7.2	7.1	7.0	6.9	6.8	6.8	6.7	6.6	6.4	6.3	6.1
After-Tax Profits (Billions of \$)	2066	2132	2186	2251	2320	2388	2457	2526	2611	2727	2858
(Percent change)	2.4	3.2	2.5	3.0	3.1	2.9	2.9	2.8	3.4	4.4	4.8
Disposable Income (%change)	4.3	4.3	4.2	4.1	4.3	4.3	4.3	4.3	4.2	4.2	4.2

TABLE 2  
Composition of Gross National Product

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Chained 2005 Dollars										
Gross Domestic Product	12988.7	13374.7	13755.5	14267.7	14720.2	15111.9	15470.6	15840.1	16227.9	16658.0
(Percent change)	-2.4	3.0	2.8	3.7	3.2	2.7	2.4	2.4	2.4	2.6
Personal Consumption Expenditures	9237.3	9459.6	9711.4	9978.4	10196.4	10439.2	10717.5	10962.3	11191.8	11446.7
Goods	3143.7	3262.4	3378.5	3495.3	3573.7	3658.7	3783.4	3884.7	3964.0	4056.4
Durable Goods	1100.5	1173.3	1257.6	1345.0	1396.2	1450.3	1549.4	1618.2	1653.7	1696.1
Motor Vehicles & Parts	316.8	338.9	381.8	416.0	417.6	429.0	471.2	486.5	472.3	458.9
Furnishings & Durable Hshld. Equip.	259.1	271.0	276.9	288.9	300.2	306.5	314.9	324.3	333.3	342.8
Recreational Goods & Vehicles	411.5	451.5	484.9	526.8	572.4	616.3	665.3	716.1	772.8	838.3
Other Durables	124.2	127.1	130.1	133.4	136.5	138.6	142.8	147.6	152.8	158.6
Nondurable Goods	2037.3	2087.9	2127.6	2166.4	2198.9	2235.8	2276.3	2318.0	2363.6	2416.3
Food & Beverages (Off-Premises)	697.1	722.4	745.5	762.2	773.3	783.7	793.9	802.6	810.9	819.8
Clothing & Footwear	330.1	339.9	346.0	353.3	359.6	370.5	382.5	395.1	408.6	423.7
Motor Veh. Fuels, Lubricants & Fluids	273.8	273.4	270.6	270.0	269.8	269.3	267.8	266.1	265.6	266.1
Fuel Oil & Other Fuels	18.4	17.6	17.5	17.6	17.7	17.8	17.9	17.7	17.5	17.4
Pharma & Other Medical Products	263.3	272.1	283.4	296.1	307.4	320.0	336.2	356.4	378.0	401.9
Tobacco	62.5	57.9	53.6	51.3	49.0	46.8	44.8	42.9	41.3	39.7
All other	396.1	412.2	421.3	428.4	436.8	445.6	454.1	460.3	466.8	474.3
Services	6090.5	6197.1	6335.2	6487.4	6627.3	6785.1	6942.2	7087.8	7237.9	7401.0
Household Cons. Expend. (Services)	5833.9	5933.2	6062.1	6203.2	6333.7	6484.1	6635.3	6775.7	6921.7	7081.0
Housing	1408.7	1417.5	1426.9	1442.8	1463.5	1486.7	1511.1	1537.8	1566.6	1595.2
Utilities	249.5	252.8	253.4	256.7	260.0	264.3	268.4	271.7	274.9	278.1
Health Care	1446.2	1468.8	1502.6	1551.2	1595.2	1641.8	1696.1	1755.1	1813.5	1875.5
Transportation Services	263.7	268.1	271.2	276.8	285.0	294.9	301.0	301.2	302.6	306.3
Recreation Services	345.4	351.9	360.8	369.1	378.0	388.7	395.9	402.1	409.3	418.7
Food Services	459.2	469.4	493.6	513.5	527.4	539.9	551.7	562.6	573.5	584.8
Accommodations	70.5	73.5	75.2	75.6	76.1	76.9	77.7	78.5	79.4	80.5
Financial Services	472.5	492.6	509.1	517.1	525.6	537.4	551.2	561.5	572.4	584.0
Insurance	286.4	290.2	298.8	306.8	313.9	319.7	324.8	329.5	334.1	339.5
Other Services	833.6	850.9	872.7	894.8	909.5	933.9	957.4	975.0	994.2	1016.5
Final Cons. Nonprofits Serving Hshlds.	256.9	264.5	274.0	285.5	295.4	302.9	308.6	313.7	317.8	321.3
Investment	1522.9	1702.1	1933.2	2240.7	2436.9	2526.0	2572.4	2650.9	2723.8	2820.7
Nonresidential Fixed	1289.2	1308.4	1402.8	1594.9	1759.8	1858.6	1907.4	1956.7	2027.4	2113.2
Equipment & Software	887.9	975.3	1097.7	1228.6	1333.9	1399.4	1434.1	1485.0	1556.5	1644.0
Information Processing	553.7	599.6	644.3	700.3	751.1	801.2	854.1	909.6	968.9	1033.1
Industrial	133.9	142.9	168.7	189.0	193.4	191.1	191.0	192.5	194.7	201.0
Light Vehicles	33.5	62.0	86.2	113.6	142.7	144.7	118.5	107.9	114.2	125.6
Aircraft	13.6	15.6	18.6	21.9	23.9	25.1	25.8	26.2	26.7	27.4
Other Transportation	17.7	22.2	28.4	36.5	42.8	46.8	45.2	44.1	44.0	44.9
Other Equipment	144.8	143.7	159.8	174.5	188.8	202.4	215.5	225.9	235.8	245.8
Structures	391.0	333.8	313.0	372.4	428.9	460.5	474.2	476.3	480.8	486.4
Commercial & Health Care	115.7	92.4	94.5	125.2	161.6	181.0	184.5	183.3	183.6	185.2
Manufacturing	62.1	43.7	38.1	47.5	58.0	60.4	60.5	57.8	58.1	59.4
Power & Communications	76.3	66.9	56.2	59.3	60.9	65.1	68.4	69.6	69.8	69.4
Power	60.6	53.0	40.6	39.2	39.7	43.3	46.4	47.2	46.7	45.6
Communications	16.2	14.3	15.9	20.2	21.4	21.9	22.3	22.7	23.3	24.0
Mining & Petroleum	65.8	73.6	66.7	71.9	71.2	70.9	74.9	77.6	78.4	77.9
Other	73.4	58.0	58.5	68.5	74.6	79.2	82.6	85.5	88.6	91.7
Residential Fixed	359.1	376.5	486.1	581.1	624.5	636.6	639.1	652.5	655.7	663.0
Structures	350.0	367.0	476.0	570.3	613.1	625.0	627.2	640.1	643.1	649.9
Equipment	9.2	9.7	10.0	10.5	11.0	11.3	11.7	12.1	12.6	13.0
Change in Inventories	-111.7	20.9	48.7	69.4	58.7	38.7	34.4	50.1	50.4	55.9
Nonfarm	-111.7	20.1	48.1	68.9	58.2	38.0	33.7	49.5	49.7	55.2
Manufacturing	-33.8	7.3	14.1	15.2	11.5	6.9	3.7	4.2	7.4	11.8
Wholesale	-46.0	16.8	21.5	20.5	18.2	16.0	15.4	15.2	15.7	18.1
Retail	-28.5	-5.8	7.7	23.9	19.5	7.0	7.3	22.7	19.6	18.2
Construction, Mining & Public Utilities	1.5	1.6	0.7	3.8	3.4	2.2	1.0	0.8	0.8	1.0
Farm	-0.4	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Exports	1468.6	1610.4	1711.7	1846.1	2008.6	2161.9	2299.0	2452.6	2629.6	2817.8
Goods	987.0	1117.7	1197.5	1301.9	1432.3	1556.2	1663.8	1786.0	1930.6	2086.9
Services	480.6	493.0	514.8	545.1	578.0	608.3	638.5	671.1	705.4	739.9
Imports	1822.4	2010.0	2161.4	2302.6	2420.1	2518.9	2628.5	2742.3	2844.8	2964.2
Goods	1479.1	1659.3	1801.1	1929.8	2032.2	2112.8	2206.7	2306.4	2394.7	2498.8
Services	342.9	351.1	361.4	374.5	389.9	408.1	424.1	438.6	453.0	468.8
Government Purchases	2566.4	2607.0	2571.7	2539.0	2546.7	2559.8	2572.2	2587.7	2608.9	2631.9
Federal	1026.7	1065.6	1034.4	996.4	978.6	974.1	975.9	981.4	988.1	995.2
Defense	695.1	717.1	694.2	658.8	641.9	636.1	635.8	637.6	640.1	643.1
Nondefense	331.5	348.5	340.3	337.9	337.1	338.5	340.7	344.3	348.6	352.7
State & Local	1542.8	1545.3	1540.6	1545.3	1570.3	1587.7	1598.2	1608.2	1622.7	1638.6

TABLE 2

## Composition of Gross National Product

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Chained 2005 Dollars											
Gross Domestic Product	17125.0	17611.8	18085.5	18557.8	19026.5	19507.9	20026.3	20536.0	21039.7	21549.0	22064.7
(Percent change)	2.8	2.8	2.7	2.6	2.5	2.5	2.7	2.5	2.5	2.4	2.4
Personal Consumption Expenditures	11735.4	12067.1	12403.5	12725.1	13036.6	13344.6	13668.5	13993.5	14332.1	14680.0	15025.5
Goods	4172.6	4321.5	4475.6	4627.2	4775.4	4920.9	5076.3	5235.2	5403.1	5578.6	5749.2
Durable Goods	1761.0	1854.7	1953.1	2051.8	2148.5	2244.3	2354.0	2464.8	2584.0	2709.4	2833.3
Motor Veh. & Parts	457.4	471.2	485.6	498.6	508.4	517.2	527.4	536.5	548.2	560.6	571.2
Furnishings & Durable Hshld. Equip.	354.7	369.5	383.2	397.2	411.9	426.0	444.9	465.1	484.6	504.1	524.0
Recreational Goods & Vehicles	913.7	999.5	1097.8	1201.0	1308.0	1420.2	1546.9	1679.2	1827.4	1989.1	2156.5
Other Durables	164.7	171.4	177.6	184.1	191.1	198.1	205.5	213.0	220.3	228.1	235.9
Nondurable Goods	2475.1	2544.3	2615.6	2685.1	2753.6	2820.9	2889.4	2960.8	3035.9	3114.7	3191.1
Food & Beverages (Off-Premises)	829.7	840.9	852.3	863.8	874.7	885.3	895.6	905.6	915.6	925.7	935.2
Clothing & Footwear	441.3	462.2	483.1	503.1	520.7	538.7	558.3	577.6	599.0	620.8	641.9
Motor Veh. Fuels, Lubricants & Fluids	268.0	270.9	274.2	277.5	280.8	283.6	287.0	289.9	293.0	295.5	297.6
Fuel Oil & Other Fuels	17.4	17.4	17.4	17.4	17.3	17.3	17.2	17.1	17.0	16.9	16.8
Pharma. & Other Medical Products	426.7	454.7	482.3	508.1	534.4	559.4	583.5	608.8	635.5	664.4	692.5
Tobacco	38.2	36.9	35.6	34.4	33.0	31.6	30.3	29.0	27.7	26.5	25.2
All other	482.1	490.8	501.4	513.4	526.3	540.1	555.6	573.8	592.2	611.8	631.5
Services	7576.2	7765.3	7955.1	8133.6	8305.9	8477.5	8656.4	8834.3	9018.3	9205.6	9394.7
Household Cons. Expenditures (Services)	7252.4	7436.8	7620.7	7792.7	7957.9	8122.3	8294.0	8465.1	8642.2	8821.7	9002.4
Housing	1624.1	1653.4	1683.0	1713.6	1745.1	1777.2	1809.4	1842.1	1875.4	1909.2	1943.5
Utilities	281.5	285.1	288.9	292.6	295.8	298.9	302.0	305.0	308.2	311.4	314.4
Health Care	1936.7	2001.1	2065.4	2127.8	2192.4	2258.2	2325.1	2393.0	2461.9	2533.0	2605.5
Transportation Services	312.4	320.2	327.2	333.4	338.8	344.0	349.9	356.0	362.4	368.8	375.2
Recreation Services	431.5	446.9	459.2	467.3	474.8	481.6	488.5	495.1	502.1	509.4	516.4
Food Services	597.4	611.2	624.7	638.1	650.9	663.4	677.1	690.3	703.9	717.8	731.4
Accommodations	81.6	82.8	84.2	85.6	86.8	87.9	89.1	90.4	91.7	93.0	94.3
Financial Services	595.6	607.9	621.0	634.5	645.9	657.3	669.9	682.6	696.2	709.4	722.5
Insurance	345.3	352.3	359.8	366.9	373.3	378.9	384.6	390.5	396.5	402.7	408.6
Other Services	1043.7	1072.2	1102.5	1127.2	1146.8	1165.8	1187.6	1207.5	1229.5	1250.6	1272.0
Final Cons. Nonprofits Serving Hshlds.	324.8	329.4	335.1	341.5	348.7	355.9	363.1	369.8	376.8	384.6	393.0
Investment	2926.5	3028.5	3109.3	3194.6	3280.2	3367.0	3457.7	3551.2	3649.8	3752.3	3859.3
Nonresidential Fixed	2208.2	2301.1	2386.9	2475.9	2563.8	2655.4	2758.0	2868.0	2979.1	3094.9	3213.5
Equipment & Software	1739.6	1834.4	1927.8	2020.1	2118.0	2222.1	2338.0	2460.8	2588.4	2722.9	2865.8
Information Processing	1101.1	1175.0	1249.7	1323.1	1403.7	1491.1	1586.9	1690.3	1799.4	1915.1	2037.6
Industrial	208.8	216.1	224.0	231.9	239.5	246.2	253.3	262.0	271.5	281.4	291.8
Light Vehicles	139.8	148.9	154.2	159.0	164.6	171.4	181.4	190.8	198.8	208.0	218.1
Aircraft	28.2	29.3	30.4	31.8	33.2	34.8	36.6	38.3	40.0	41.8	43.6
Other Transportation	46.0	47.3	48.5	50.2	52.1	54.0	56.0	57.9	59.8	61.7	63.8
Other Equipment	256.1	266.0	276.8	287.4	297.7	308.3	320.1	332.0	344.6	357.6	371.6
Structures	493.9	501.0	504.3	511.0	514.3	516.9	520.9	526.4	530.8	535.3	538.1
Commercial & Health Care	187.5	190.1	190.7	192.7	193.3	193.0	193.6	194.6	195.4	195.5	194.9
Manufacturing	60.6	61.6	62.2	63.0	63.3	63.6	64.2	65.0	65.8	66.5	67.2
Power & Communications	70.0	71.0	73.6	76.8	79.9	82.6	84.9	87.2	89.6	92.1	94.7
Power	45.4	45.6	47.5	49.9	52.3	54.1	55.6	57.0	58.5	60.1	61.8
Communications	24.8	25.6	26.4	27.1	27.9	28.7	29.5	30.5	31.4	32.3	33.3
Mining & Petroleum	78.0	78.4	77.8	76.9	75.3	74.0	73.6	74.6	74.4	74.3	74.2
Other	94.6	96.5	96.4	97.5	97.9	98.9	99.6	100.2	100.6	101.7	102.0
Residential Fixed	674.1	685.3	685.4	686.5	687.2	687.1	686.0	702.4	700.1	692.2	687.1
Structures	660.6	671.3	671.0	671.8	672.2	671.6	680.1	686.1	683.5	675.3	669.8
Equipment	13.6	14.2	14.9	15.5	16.1	16.7	17.4	18.2	19.0	19.8	20.7
Change in Inventories	57.3	57.4	55.4	54.0	54.8	54.7	57.8	60.1	59.2	61.0	62.0
Nonfarm	56.6	56.7	54.8	53.4	54.2	54.1	57.3	59.6	58.7	60.5	61.4
Manufacturing	15.1	15.7	12.9	10.0	9.4	10.0	11.4	11.8	10.6	10.1	10.3
Wholesale	19.9	19.4	19.5	19.3	19.9	19.9	20.9	22.7	23.5	24.7	25.1
Retail	14.4	14.2	14.7	15.9	16.4	16.2	17.0	16.6	15.9	16.7	17.1
Construction, Mining & Public Utilities	1.3	1.5	1.2	1.2	1.1	0.7	0.9	0.9	0.8	0.6	0.6
Farm	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Farm	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Exports	3014.7	3214.7	3416.2	3619.9	3836.0	4070.1	4312.2	4560.3	4812.3	5077.9	5357.6
Goods	2251.2	2417.7	2584.4	2752.2	2930.3	3124.3	3324.0	3527.7	3734.2	3951.7	4180.9
Services	775.6	812.5	850.9	890.5	932.8	978.0	1025.7	1075.5	1126.6	1180.6	1237.7
Imports	3097.2	3256.0	3405.6	3550.9	3701.2	3851.2	4008.3	4184.3	4371.9	4575.1	4783.9
Goods	2614.0	2752.7	2882.1	3007.2	3138.8	3269.1	3403.7	3557.1	3720.9	3900.0	4085.1
Services	487.0	508.0	528.8	549.6	569.4	589.9	613.0	636.8	662.0	688.2	714.4
Government Purchases	2656.2	2683.1	2702.8	2726.3	2750.3	2774.6	2799.4	2824.9	2849.7	2874.1	2897.6
Federal	1003.1	1014.8	1018.6	1026.3	1034.1	1041.9	1049.8	1057.7	1065.7	1073.5	1081.1
Defense	646.3	649.6	652.9	656.4	659.9	663.4	666.9	670.4	673.9	677.3	680.8
Nondefense	357.5	366.0	366.4	370.7	374.9	379.3	383.6	388.0	392.5	396.9	401.1
State & Local	1654.9	1670.1	1686.0	1701.6	1717.9	1734.3	1751.2	1768.7	1785.5	1802.0	1817.8

TABLE 2  
Composition of Gross National Product

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Chained 2005 Dollars											
Gross Domestic Product	22621.2	23175.7	23729.6	24311.4	24923.1	25552.4	26201.8	26864.9	27536.4	28228.8	28941.7
(Percent change)	2.5	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Personal Consumption Expenditures	15390.0	15767.8	16145.6	16530.9	16932.7	17345.1	17770.2	18202.9	18642.5	19092.7	19549.2
Goods	5927.0	6114.4	6299.9	6489.0	6688.6	6892.1	7101.2	7311.7	7526.0	7745.9	7973.0
Durable Goods	2968.9	3116.2	3265.8	3417.7	3588.4	3769.5	3959.7	4151.4	4345.4	4545.8	4754.1
Motor Vehicles & Parts	583.3	596.1	609.4	622.7	638.1	654.1	672.2	691.2	710.0	730.2	750.9
Furnishings & Durable Hshld. Equip.	548.2	575.1	600.3	626.4	658.8	694.4	732.5	771.3	810.4	852.5	897.5
Recreational Goods & Vehicles	2337.0	2538.4	2753.3	2976.4	3224.4	3492.7	3773.0	4056.5	4350.4	4646.4	4955.4
Other Durables	244.2	253.0	262.0	271.0	280.6	290.4	300.6	310.9	321.5	332.7	344.5
Nondurable Goods	3268.5	3348.8	3427.6	3508.9	3591.6	3674.0	3758.2	3843.7	3932.2	4023.3	4117.8
Food & Beverages (Off-Premises)	944.5	953.7	962.7	971.5	980.8	990.3	1000.0	1009.5	1019.2	1028.9	1038.7
Clothing & Footwear	665.0	688.9	713.1	737.9	765.1	793.8	823.4	853.6	884.7	916.8	950.0
Motor Veh. Fuels, Lubricants & Fluids	299.9	302.1	304.0	305.7	307.9	310.4	312.9	315.4	317.9	320.4	323.0
Fuel Oil & Other Fuels	16.7	16.5	16.4	16.3	16.2	16.1	16.0	15.9	15.8	15.7	15.7
Pharma. & Other Medical Products	720.1	749.3	777.7	807.5	836.0	863.0	890.7	919.1	948.5	978.8	1010.0
Tobacco	24.0	22.8	21.6	20.4	19.2	18.1	17.0	15.9	14.9	13.9	13.0
All other	652.0	673.0	694.0	715.5	738.5	762.8	787.1	811.0	836.4	862.4	890.2
Services	9596.0	9803.0	10011.5	10224.6	10445.6	10673.7	10909.6	11151.5	11397.2	11649.0	11901.9
Household Cons. Expend. (Services)	9194.0	9390.3	9587.7	9788.6	9996.4	10210.4	10431.1	10656.5	10884.1	11115.7	11347.4
Housing	1978.1	2013.0	2049.0	2085.3	2122.1	2159.7	2197.9	2236.7	2276.1	2316.2	2356.2
Utilities	317.5	320.5	323.7	326.8	330.0	333.4	336.8	340.1	343.4	346.7	349.9
Health Care	2680.8	2758.1	2836.1	2916.3	2998.2	3081.7	3167.4	3254.7	3343.5	3433.1	3522.5
Transportation Services	382.0	389.4	396.8	404.0	411.8	420.1	428.9	437.9	447.0	456.5	466.3
Recreation Services	524.5	534.7	544.4	553.8	563.2	572.5	581.1	589.5	597.6	605.3	613.5
Food Services	746.1	760.8	775.6	790.8	806.9	823.7	841.1	858.6	876.4	894.4	913.0
Accommodations	95.7	97.2	98.7	100.2	101.8	103.6	105.4	107.2	109.1	111.0	113.0
Financial Services	737.3	752.2	766.7	781.5	797.4	814.5	832.2	850.3	868.7	887.1	906.9
Insurance	414.4	420.6	426.8	432.7	438.9	445.5	452.1	458.8	465.4	471.9	478.5
Other Services	1296.6	1320.4	1344.2	1368.8	1394.8	1421.6	1451.2	1482.5	1513.4	1546.5	1577.3
Final Cons. Nonprofits Serving Hshld. s	402.8	413.5	424.7	437.0	450.3	464.5	479.7	496.3	514.4	534.8	556.0
Investment	4027.2	4156.5	4276.2	4410.7	4567.3	4731.4	4904.5	5080.2	5256.2	5443.9	5638.8
Nonresidential Fixed	3342.6	3474.7	3610.9	3755.3	3911.3	4076.6	4252.4	4438.8	4629.2	4829.1	5035.3
Equipment & Software	3021.2	3185.7	3354.9	3535.0	3729.7	3935.7	4155.9	4389.1	4633.0	4892.0	5162.6
Information Processing	2168.6	2308.8	2457.8	2616.4	2787.2	2969.6	3165.9	3375.6	3597.9	3835.7	4085.8
Industrial	302.9	314.9	327.4	340.4	354.0	368.3	384.5	401.5	419.4	438.6	458.1
Light Vehicles	231.0	244.5	255.3	267.5	282.6	297.7	313.1	329.2	345.1	362.9	381.5
Aircraft	45.6	47.7	50.0	52.3	54.8	57.6	60.4	63.4	66.5	69.7	73.2
Other Transportation	66.2	68.5	70.9	73.4	76.1	79.1	82.1	85.3	88.4	91.5	94.8
Other Equipment	386.9	402.5	418.7	435.8	454.1	473.5	493.7	515.1	536.9	559.1	582.5
Structures	541.9	544.1	547.2	551.0	555.6	561.4	567.8	575.4	581.9	588.5	595.0
Commercial & Health Care	194.1	192.5	191.6	191.2	190.9	191.7	192.6	194.2	195.2	195.9	196.7
Manufacturing	67.8	68.5	69.3	70.0	70.8	71.7	72.6	73.5	74.5	75.4	76.3
Power & Communications	97.5	100.4	103.4	106.4	109.7	113.1	116.6	120.4	124.4	128.4	132.5
Power	63.5	65.4	67.2	69.2	71.2	73.4	75.7	78.2	80.8	83.5	86.1
Communications	34.3	35.4	36.5	37.6	38.8	40.0	41.3	42.6	44.0	45.3	46.8
Mining & Petroleum	74.2	74.2	74.0	74.1	74.1	74.0	74.1	74.1	74.1	74.1	74.4
Other	103.3	103.8	104.4	104.8	105.8	106.6	107.6	108.7	109.4	110.5	111.2
Residential Fixed	692.0	696.0	691.9	692.0	699.7	708.5	716.9	721.5	723.8	728.1	733.7
Structures	674.1	677.7	673.2	672.8	679.9	688.1	695.8	699.9	701.6	705.3	710.2
Equipment	21.7	22.8	24.0	25.2	26.6	28.1	29.7	31.3	33.1	34.9	37.0
Change in Inventories	66.3	68.7	68.6	71.0	75.4	77.7	80.5	82.0	84.3	87.5	91.0
Nonfarm	65.8	68.2	68.1	70.6	75.0	77.2	80.1	81.7	83.9	87.1	90.7
Manufacturing	11.4	10.0	10.4	11.2	11.5	12.0	13.0	12.9	13.1	13.9	14.2
Wholesale	26.9	28.5	28.8	29.6	31.6	32.6	34.0	34.8	36.0	37.4	38.9
Retail	18.3	19.6	19.0	19.7	21.2	21.6	22.1	22.6	23.3	24.0	25.3
Construction, Mining & Public Utilities	0.7	0.7	0.6	0.6	0.8	1.0	0.8	0.9	0.8	0.8	1.0
Farm	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Exports	5650.6	5957.3	6274.7	6609.8	6961.7	7328.0	7710.8	8112.5	8530.3	8965.5	9419.6
Goods	4420.7	4671.6	4929.8	5202.3	5488.2	5785.2	6095.0	6419.7	6756.7	7105.5	7466.8
Services	1297.8	1361.0	1427.5	1497.8	1572.0	1649.7	1731.4	1817.4	1907.3	2002.3	2103.0
Imports	5009.3	5253.9	5505.5	5764.1	6044.7	6338.3	6647.5	6969.1	7303.8	7655.0	8022.4
Goods	4284.4	4501.8	4726.8	4957.8	5208.4	5470.5	5746.5	6033.5	6333.1	6647.9	6978.1
Services	743.0	773.4	803.7	835.3	869.6	905.7	943.9	983.7	1024.7	1067.4	1111.8
Government Purchases	2925.1	2944.6	2968.9	2994.1	3020.0	3046.8	3074.1	3102.1	3130.2	3159.7	3196.4
Federal	1093.7	1097.0	1105.0	1113.0	1121.2	1129.5	1137.7	1145.9	1154.1	1162.3	1176.1
Defense	684.2	687.5	690.9	694.2	697.6	700.9	704.2	707.6	710.9	714.1	717.3
Nondefense	410.2	410.2	414.8	419.5	424.3	429.1	434.0	438.9	443.8	448.6	459.1
State & Local	1832.9	1848.9	1865.2	1882.3	1899.9	1918.4	1937.4	1957.0	1976.8	1998.0	2020.9



TABLE 3  
Composition of Gross National Product

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Dollars										
Gross Domestic Product	14258.7	14843.4	15492.6	16316.3	17117.9	17891.5	18641.7	19418.1	20252.5	21166.9
(Percent change)	-1.3	4.1	4.4	5.3	4.9	4.5	4.2	4.2	4.3	4.5
Personal Consumption Expenditures	10092.6	10496.8	10941.3	11425.5	11867.2	12359.8	12919.2	13458.8	14000.1	14589.8
Goods	3257.6	3436.1	3593.3	3759.3	3877.9	4001.6	4169.7	4315.5	4436.2	4571.6
Durable Goods	1034.3	1090.1	1153.4	1221.4	1254.7	1287.8	1357.6	1399.5	1411.5	1427.5
Motor Vehicles & Parts	312.6	349.0	396.7	436.2	441.1	455.3	501.4	518.9	504.9	491.6
Furnishings & Durable Hshld. Equip.	253.2	256.8	259.4	269.3	278.4	282.5	288.2	294.6	300.5	307.0
Recreational Goods & Vehicles	327.6	337.6	345.3	357.8	371.3	381.7	392.8	403.0	414.2	427.7
Other Durables	140.9	146.7	152.0	158.1	163.8	168.3	175.2	183.1	191.8	201.3
Nondurable Goods	2223.3	2346.0	2439.8	2537.9	2623.2	2713.8	2812.1	2916.0	3024.7	3144.0
Food & Beverages (Off-Premises)	790.1	826.7	867.1	899.1	926.6	954.1	982.0	1009.9	1038.7	1068.4
Clothing & Footwear	325.7	334.8	340.4	347.2	352.8	362.7	373.5	385.0	397.5	411.4
Motor Veh. Fuels, Lubricants & Fluids	286.6	326.6	338.4	354.8	365.4	374.1	383.2	391.6	397.3	403.2
Fuel Oil & Other Fuels	20.8	22.1	21.5	22.6	23.7	24.8	25.8	26.2	26.4	26.7
Pharma. & Other Medical Products	293.5	312.9	340.0	371.1	401.4	434.4	473.9	521.5	574.4	634.1
Tobacco	90.6	93.0	91.1	91.9	92.6	93.3	94.3	95.5	97.0	98.5
All other	416.0	430.0	441.4	451.1	460.7	470.3	479.5	486.3	493.4	501.7
Services	6834.9	7060.7	7348.0	7666.3	7989.3	8358.2	8749.5	9143.3	9563.9	10018.3
Hshld. Cons. Expend. (Services)	6569.7	6785.9	7058.3	7359.6	7665.2	8017.0	8392.2	8769.7	9174.7	9613.4
Housing	1583.6	1598.4	1634.7	1687.2	1747.5	1811.8	1878.2	1948.9	2024.9	2103.7
Utilities	294.6	298.7	301.5	312.2	322.7	334.4	351.7	365.8	378.2	390.7
Health Care	1626.0	1693.4	1774.0	1871.9	1968.0	2073.1	2195.3	2333.6	2481.3	2641.1
Transportation Services	304.6	317.0	326.3	338.8	355.1	374.5	389.4	397.2	407.4	420.8
Recreation Services	382.6	395.6	412.4	428.5	446.7	469.0	488.0	506.6	527.5	552.0
Food Services	530.7	553.6	595.2	631.9	662.4	692.7	723.1	754.1	787.0	821.3
Accommodations	75.0	79.5	83.2	85.4	87.8	90.5	93.2	96.0	99.1	102.4
Financial Services	505.4	529.0	555.5	573.1	593.6	620.3	651.1	679.5	710.0	742.4
Insurance	323.0	336.4	353.3	370.1	388.3	407.2	425.7	444.2	463.6	484.8
Other Services	944.1	984.4	1022.2	1060.6	1093.3	1143.6	1196.5	1243.8	1295.9	1354.2
Final Cons. Nonprofits Serving Hshlds.	265.2	274.8	289.7	306.6	324.1	341.2	357.3	373.5	389.2	404.8
Investment	1622.9	1787.5	2044.9	2405.0	2660.0	2799.3	2887.3	3014.5	3140.6	3295.0
Nonresidential Fixed	1386.6	1382.9	1485.3	1706.2	1908.3	2038.5	2110.5	2184.9	2286.4	2404.4
Equipment & Software	906.0	989.0	1115.4	1254.6	1367.7	1434.6	1466.1	1514.6	1584.8	1669.2
Information Processing	519.9	556.4	592.1	637.5	677.6	714.5	750.9	788.7	828.7	870.3
Industrial	150.4	163.3	196.7	225.5	235.1	234.9	237.1	241.8	247.6	258.8
Light Vehicles	36.2	60.9	84.3	111.5	141.2	143.9	118.0	107.6	114.1	125.7
Aircraft	15.6	18.1	22.3	27.0	30.5	32.6	34.2	35.5	36.9	38.7
Other Transportation	20.7	27.0	35.2	46.5	55.7	61.8	60.4	59.8	60.7	62.7
Other Equipment	163.2	163.2	185.0	206.5	227.7	246.9	265.4	281.2	296.9	313.1
Structures	480.7	394.0	369.9	451.6	540.6	603.8	644.4	670.3	701.6	735.2
Commercial & Health Care	138.9	108.2	113.9	157.0	211.7	247.8	262.9	271.6	283.0	296.9
Manufacturing	76.5	53.7	49.0	63.9	81.6	88.9	92.7	92.2	96.4	102.5
Power & Communications	94.9	82.3	70.1	75.5	79.6	87.6	94.8	99.1	102.2	104.6
Power	74.8	64.4	50.1	49.6	51.6	58.0	63.8	66.6	67.9	68.2
Communications	20.0	17.9	20.0	25.9	28.0	29.6	31.0	32.5	34.3	36.4
Mining & Petroleum	87.4	85.1	69.6	73.2	74.3	76.1	81.9	86.8	90.1	91.6
Other	83.0	64.6	67.3	82.1	93.3	103.4	112.2	120.7	129.9	139.7
Residential Fixed	361.3	382.4	506.6	621.9	685.9	717.4	738.1	772.4	796.4	826.0
Structures	352.0	373.2	497.3	612.2	676.0	707.2	727.8	761.8	785.6	815.0
Equipment	9.2	9.2	9.3	9.6	10.0	10.1	10.3	10.6	10.8	11.0
Change in Inventories	-125.0	22.2	53.0	76.9	65.8	43.5	38.7	57.2	57.8	64.5
Nonfarm	-122.5	21.2	52.0	75.9	64.8	42.5	37.7	56.2	56.8	63.5
Manufacturing	-37.4	7.6	14.5	15.4	11.7	6.9	3.7	4.2	7.3	11.6
Wholesale	-51.6	19.3	25.4	24.8	22.4	20.1	19.6	19.6	20.5	24.0
Retail	-30.3	-7.1	7.4	25.8	21.3	7.2	7.5	25.7	22.1	20.4
Construction, Mining & Public Utilities	1.4	1.8	0.8	4.6	4.2	2.7	1.2	1.0	1.0	1.2
Farm	-2.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Exports	1560.1	1772.4	1925.1	2104.6	2317.0	2518.4	2698.9	2898.2	3127.9	3373.3
Goods	1035.1	1216.0	1333.4	1467.5	1629.2	1779.9	1907.9	2049.9	2217.8	2398.9
Services	524.9	556.4	591.7	637.1	687.8	738.5	791.1	848.3	910.0	974.4
Imports	1950.2	2244.0	2461.7	2683.7	2868.8	3015.6	3179.6	3359.7	3523.9	3705.8
Goods	1569.8	1838.3	2032.9	2227.8	2383.4	2498.2	2632.0	2782.3	2915.3	3063.5
Services	380.4	405.7	428.8	455.9	485.3	517.3	547.6	577.4	608.6	642.3
Government Purchases	2933.3	3030.7	3043.0	3064.9	3142.3	3229.6	3315.8	3406.3	3507.8	3614.5
Federal	1144.9	1214.3	1202.9	1184.3	1188.1	1207.7	1234.6	1266.4	1300.9	1336.9
Defense	779.1	823.8	814.1	789.7	785.6	794.3	809.5	827.4	846.8	867.3
Nondefense	365.8	390.6	388.8	394.6	402.5	413.4	425.1	439.0	454.1	469.6
State & Local	1788.4	1816.3	1840.1	1880.6	1954.2	2021.9	2081.1	2139.9	2206.9	2277.6

TABLE 3  
 Composition of Gross National Product

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Dollars											
Gross Domestic Product	22142.2	23147.5	24149.7	25170.1	26210.3	27298.1	28476.7	29684.8	30929.7	32220.9	33562.6
(Percent change)	4.6	4.5	4.3	4.2	4.1	4.2	4.3	4.2	4.2	4.2	4.2
Personal Consumption Expenditures	15227.3	15917.3	16621.2	17327.8	18045.3	18791.8	19591.0	20419.0	21295.9	22217.8	23166.4
Goods	4726.7	4912.1	5102.4	5294.6	5489.4	5695.5	5920.0	6152.2	6399.8	6664.1	6928.2
Durable Goods	1460.3	1513.5	1566.6	1616.9	1664.0	1709.1	1763.3	1816.2	1872.8	1931.5	1987.0
Motor Vehicles & Parts	490.7	506.1	521.6	534.9	545.0	554.4	565.7	576.2	589.5	603.9	616.5
Furnishings & Durable Hshld. Equip.	315.2	325.5	334.2	342.7	351.8	360.2	372.8	386.1	398.5	410.5	422.6
Recreational Goods & Vehicles	443.2	460.3	479.4	497.3	513.7	529.2	546.8	562.9	580.6	598.9	615.3
Other Durables	211.2	221.5	231.5	241.9	253.4	265.3	278.0	291.0	304.2	318.1	332.6
Nondurable Goods	3266.4	3398.7	3535.7	3677.6	3825.4	3986.5	4156.7	4335.9	4527.0	4732.6	4941.2
Food & Beverages (Off-Premises)	1098.7	1129.2	1159.7	1191.0	1222.4	1254.2	1287.1	1320.1	1354.0	1388.7	1423.2
Clothing & Footwear	427.3	445.7	463.6	480.9	496.2	512.2	530.2	547.7	567.3	587.3	606.7
Motor Veh. Fuels, Lubricants & Fluids	405.1	405.5	407.2	410.9	415.7	428.1	441.6	454.5	469.0	485.3	501.0
Fuel Oil & Other Fuels	26.8	26.8	26.9	27.1	27.2	27.5	27.9	28.2	28.6	29.0	29.5
Pharma. & Other Medical Products	698.5	771.1	846.3	922.5	1004.5	1089.5	1177.6	1272.9	1375.6	1488.9	1606.7
Tobacco	100.0	101.8	103.4	104.9	105.9	107.0	108.0	108.8	109.5	110.1	110.6
All other	509.9	518.5	528.6	540.3	553.4	568.0	584.4	603.8	623.0	643.3	663.5
Services	10500.7	11005.2	11518.8	12033.2	12555.9	13096.2	13671.0	14266.8	14896.1	15553.8	16238.2
Household Cons. Expend. (Services)	10079.8	10566.9	11061.1	11554.4	12054.2	12570.7	13120.7	13691.3	14294.1	14922.9	15576.5
Housing	2184.6	2265.7	2347.5	2432.3	2519.9	2610.7	2704.0	2801.3	2902.3	3007.0	3115.1
Utilities	405.0	419.3	433.4	447.2	461.2	474.6	489.9	506.1	522.6	540.2	557.6
Health Care	2803.6	2972.4	3145.2	3322.1	3509.5	3705.9	3912.5	4129.5	4356.4	4595.6	4847.2
Transportation Services	437.5	456.4	474.3	491.3	507.7	524.6	543.1	562.7	583.4	605.0	627.0
Recreation Services	581.4	614.6	644.2	668.8	693.3	717.9	743.6	769.8	798.0	827.5	857.8
Food Services	857.9	895.8	933.4	971.7	1010.2	1049.9	1093.1	1136.6	1182.8	1230.9	1280.4
Accommodations	105.8	109.5	113.4	117.4	121.2	124.9	128.9	133.0	137.4	142.0	146.6
Financial Services	775.5	810.0	846.6	885.2	922.2	960.8	1002.5	1046.1	1092.8	1140.6	1189.8
Insurance	507.5	532.0	558.2	585.1	612.1	639.3	668.4	699.3	732.1	766.9	803.1
Other Services	1421.1	1491.2	1564.9	1633.4	1697.0	1762.1	1834.6	1907.0	1986.4	2067.2	2151.9
Final Cons. Nonprofits Serving Hshlds.	420.8	438.3	457.7	478.9	501.7	525.5	550.4	575.5	602.1	630.8	661.7
Investment	3459.5	3617.1	3746.2	3878.5	4013.3	4151.9	4322.8	4499.0	4660.7	4824.2	4995.4
Nonresidential Fixed	2532.2	2654.9	2766.3	2878.9	2991.5	3109.3	3241.3	3382.2	3524.4	3673.4	3826.3
Equipment & Software	1760.3	1847.3	1928.8	2006.2	2088.6	2175.9	2273.8	2375.8	2479.2	2587.5	2701.7
Information Processing	913.4	959.2	1002.7	1042.9	1087.6	1135.5	1188.2	1243.9	1301.0	1360.3	1421.9
Industrial	271.6	283.6	295.8	307.9	319.5	330.2	341.5	354.5	368.7	383.4	398.9
Light Vehicles	139.9	148.6	153.3	157.3	162.0	168.1	177.4	186.1	193.5	202.0	211.5
Aircraft	40.6	42.9	45.4	48.0	50.9	54.1	57.7	61.3	64.8	68.4	72.3
Other Transportation	65.2	67.8	70.2	73.3	76.6	80.2	83.7	87.2	90.5	94.0	97.8
Other Equipment	329.5	345.1	361.3	376.8	392.0	407.8	425.3	442.7	460.7	479.3	499.3
Structures	771.9	807.6	837.5	872.7	902.9	933.4	967.5	1006.4	1045.2	1085.9	1124.6
Commercial & Health Care	312.1	327.8	340.2	355.2	367.8	379.4	393.1	408.5	424.1	438.6	452.2
Manufacturing	108.7	114.5	119.6	124.9	129.3	134.1	139.5	145.8	152.3	159.2	166.0
Power & Communications	108.4	112.7	119.5	127.4	135.4	143.1	150.6	158.1	166.4	175.2	184.6
Power	69.8	71.8	76.4	82.1	87.9	93.1	97.8	102.5	107.7	113.3	119.3
Communications	38.6	40.9	43.1	45.3	47.5	50.0	52.7	55.6	58.7	61.9	65.3
Mining & Petroleum	93.1	94.7	95.1	95.0	93.9	93.0	93.3	95.4	96.5	97.7	98.9
Other	149.6	158.0	163.0	170.3	176.4	183.8	191.0	198.5	205.9	215.1	223.0
Residential Fixed	860.8	895.4	915.1	936.3	957.3	978.0	1012.8	1045.1	1065.2	1077.2	1093.9
Structures	849.5	883.7	903.1	923.9	944.8	965.2	999.7	1031.6	1051.4	1063.0	1079.4
Equipment	11.4	11.7	12.0	12.3	12.6	12.8	13.1	13.5	13.8	14.2	14.5
Change in Inventories	66.5	66.8	64.8	63.4	64.5	64.6	68.7	71.8	71.0	73.6	75.1
Nonfarm	65.5	65.8	63.8	62.3	63.4	63.6	67.6	70.7	70.0	72.5	74.0
Manufacturing	14.7	15.3	12.4	9.6	9.0	9.5	10.8	11.2	9.9	9.4	9.5
Wholesale	26.7	26.3	26.6	26.6	27.5	27.8	29.4	32.3	33.7	35.9	36.8
Retail	15.8	15.6	16.4	17.9	18.7	18.5	19.3	19.0	18.2	19.3	19.8
Construction, Mining & Public Utilities	1.8	2.0	1.7	1.6	1.5	0.9	1.2	1.3	1.1	0.8	0.8
Farm	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1
Exports	3627.3	3880.0	4130.5	4382.0	4649.0	4941.3	5247.1	5563.1	5887.3	6232.6	6599.6
Goods	2585.9	2768.7	2945.9	3120.3	3304.1	3506.2	3714.5	3926.3	4140.6	4367.6	4607.4
Services	1041.5	1111.2	1184.6	1261.6	1344.8	1435.2	1532.6	1636.8	1746.7	1864.9	1992.2
Imports	3896.1	4103.7	4287.7	4466.6	4658.2	4865.2	5085.4	5326.5	5577.4	5854.2	6139.8
Goods	3216.1	3381.9	3524.1	3660.5	3809.2	3970.9	4140.1	4327.8	4521.8	4738.6	4962.1
Services	680.0	721.8	763.6	806.2	849.0	894.4	945.3	998.7	1055.6	1115.6	1177.7
Government Purchases	3724.1	3836.9	3939.5	4048.5	4161.0	4278.3	4401.2	4530.2	4663.3	4800.6	4941.1
Federal	1374.1	1415.9	1446.6	1483.3	1521.1	1560.8	1602.2	1645.2	1690.1	1736.4	1784.3
Defense	887.9	908.0	928.1	948.7	969.9	992.1	1015.4	1039.6	1064.7	1090.8	1117.9
Nondefense	486.2	507.9	518.5	534.6	551.3	568.6	586.7	605.7	625.4	645.6	666.4
State & Local	2350.0	2421.0	2492.9	2565.2	2639.8	2717.5	2799.1	2884.9	2973.2	3064.1	3156.7

TABLE 3

**Composition of Gross National Product**

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
<i>Billions of Dollars</i>											
Gross Domestic Product	35002.9	36484.2	38000.5	39600.7	41299.3	43080.0	44944.5	46886.4	48902.8	51018.9	53232.0
(Percent change)	4.3	4.2	4.2	4.2	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Personal Consumption Expenditures	24172.7	25232.3	26322.0	27458.2	28659.9	29919.4	31241.0	32618.8	34054.1	35556.7	37119.4
Goods	7206.9	7504.0	7804.1	8115.2	8447.7	8790.8	9149.0	9518.7	9902.8	10304.4	10726.2
Durable Goods	2048.4	2115.7	2182.0	2247.2	2322.2	2401.0	2482.9	2563.1	2642.1	2722.6	2805.4
Motor Vehicles & Parts	630.9	646.5	662.7	679.1	697.9	717.7	739.9	763.3	786.7	812.1	838.0
Furnishings & Durable Hshld. Equip.	437.9	455.1	470.5	486.3	506.7	529.0	552.7	576.5	600.1	625.2	652.0
Recreational Goods & Vehicles	631.6	649.8	667.4	683.0	700.2	717.5	733.0	745.1	755.1	761.8	766.9
Other Durables	347.9	364.3	381.3	398.8	417.4	436.8	457.2	478.1	500.2	523.5	548.5
Nondurable Goods	5158.5	5388.3	5622.1	5868.1	6125.5	6389.8	6666.2	6955.6	7260.6	7581.8	7920.8
Food & Beverages (Off-Premises)	1458.2	1494.0	1530.1	1566.4	1603.9	1642.3	1681.8	1722.0	1762.8	1804.5	1847.0
Clothing & Footwear	628.1	650.2	672.5	695.3	720.2	746.3	773.2	800.7	828.9	858.0	888.1
Motor Veh. Fuels, Lubricants & Fluids	517.2	533.4	548.2	562.7	579.5	595.6	611.8	628.5	645.4	662.9	680.9
Fuel Oil & Other Fuels	29.9	30.4	30.9	31.3	31.8	32.2	32.7	33.2	33.7	34.2	34.6
Pharma. & Other Medical Products	1729.6	1863.3	2002.4	2152.9	2308.1	2467.8	2637.9	2820.1	3015.1	3223.5	3446.2
Tobacco	110.8	110.8	110.4	109.9	109.1	108.1	106.9	105.6	104.0	102.2	100.3
All other	684.6	706.2	727.6	749.5	772.9	797.5	821.8	845.6	870.7	896.4	923.6
Services	16965.8	17728.2	18517.8	19343.0	20212.3	21128.5	22092.0	23100.1	24151.4	25252.3	26393.2
Household Cons. Expend. (Services)	16269.8	16995.5	17746.2	18529.1	19352.7	20219.7	21130.1	22080.6	23069.0	24100.5	25167.1
Housing	3225.9	3339.7	3458.3	3580.1	3705.6	3836.0	3971.3	4110.9	4255.8	4405.8	4559.1
Utilities	575.2	593.0	609.7	626.9	644.6	663.8	683.5	703.4	724.4	745.9	768.0
Health Care	5113.4	5394.0	5687.3	5997.9	6324.9	6668.9	7030.6	7409.6	7807.6	8223.5	8654.7
Transportation Services	650.4	675.4	700.9	726.6	754.0	783.1	813.6	845.2	877.9	911.9	947.2
Recreation Services	890.9	928.5	966.4	1005.0	1044.7	1085.7	1126.4	1168.1	1210.3	1253.0	1298.0
Food Services	1333.3	1388.2	1444.8	1503.5	1565.8	1631.2	1699.4	1770.0	1843.2	1919.2	1998.2
Accommodations	151.4	156.5	161.8	167.1	172.9	179.0	185.4	192.1	199.0	206.1	213.6
Financial Services	1243.7	1299.8	1356.9	1416.4	1479.9	1547.5	1618.9	1693.1	1770.2	1850.0	1935.5
Insurance	840.8	880.9	922.8	966.1	1012.3	1061.9	1114.2	1168.9	1226.0	1285.6	1348.4
Other Services	2245.0	2339.6	2437.3	2539.5	2648.0	2762.5	2886.8	3019.2	3154.7	3299.4	3444.3
Final Cons. Nonprofits Serving Hshlds.	696.0	732.7	771.6	813.9	859.6	908.9	961.9	1019.6	1082.3	1151.9	1226.2
Investment	5200.1	5408.0	5605.1	5822.2	6071.4	6333.5	6609.6	6891.3	7176.8	7481.7	7798.3
Nonresidential Fixed	3992.2	4163.7	4340.7	4527.1	4728.9	4942.9	5169.7	5409.6	5655.9	5915.6	6182.9
Equipment & Software	2825.5	2956.2	3089.1	3229.0	3379.9	3538.5	3706.0	3881.2	4063.0	4255.2	4453.7
Information Processing	1486.8	1555.8	1627.8	1702.8	1782.9	1867.6	1956.8	2050.0	2147.8	2251.4	2358.3
Industrial	415.3	433.1	451.5	470.7	490.7	511.7	535.1	559.7	585.7	613.4	641.4
Light Vehicles	223.7	236.5	246.7	258.3	272.6	287.1	301.7	316.9	332.0	348.9	366.4
Aircraft	76.6	81.1	86.0	91.1	96.6	102.5	108.8	115.4	122.3	129.7	137.5
Other Transportation	102.1	106.4	110.6	115.2	120.2	125.5	130.9	136.6	142.3	147.9	153.9
Other Equipment	521.1	543.5	566.6	590.9	616.9	644.2	672.7	702.5	732.9	763.8	796.2
Structures	1166.7	1207.5	1251.5	1298.1	1349.0	1404.3	1463.7	1528.4	1592.9	1660.3	1729.2
Commercial & Health Care	465.8	477.8	491.9	507.6	524.2	544.4	565.8	590.2	613.4	636.7	661.0
Manufacturing	173.0	180.6	188.7	196.9	206.0	215.4	225.4	235.8	246.9	258.4	270.0
Power & Communications	194.6	205.3	216.5	228.2	240.8	254.2	268.3	283.7	300.0	317.1	334.8
Power	125.6	132.4	139.5	146.9	155.0	163.5	172.5	182.4	193.0	204.1	215.5
Communications	69.0	72.9	77.0	81.3	85.9	90.7	95.9	101.3	106.9	113.0	119.3
Mining & Petroleum	100.1	101.4	102.6	104.1	105.4	106.7	108.2	109.7	111.1	112.6	114.5
Other	233.3	242.3	251.8	261.3	272.5	283.7	296.0	309.1	321.5	335.5	349.0
Residential Fixed	1127.0	1160.1	1179.9	1207.1	1248.7	1293.3	1338.5	1377.8	1413.5	1454.2	1498.3
Structures	1112.0	1144.6	1164.1	1190.8	1231.7	1275.8	1320.3	1359.1	1394.2	1434.2	1477.7
Equipment	15.0	15.4	15.9	16.4	16.9	17.5	18.1	18.7	19.3	19.9	20.6
Change in Inventories	80.8	84.2	84.5	87.9	93.9	97.3	101.4	104.0	107.4	112.0	117.1
Nonfarm	79.8	83.1	83.4	86.9	92.8	96.2	100.3	102.9	106.3	110.9	115.9
Manufacturing	10.5	9.2	9.6	10.2	10.5	10.9	11.6	11.5	11.7	12.2	12.4
Wholesale	39.8	42.5	43.4	45.0	48.5	50.6	53.2	55.0	57.4	60.3	63.2
Retail	21.3	23.0	22.3	23.3	25.2	25.7	26.6	27.2	28.2	29.2	30.8
Construction, Mining & Public Utilities	0.9	1.1	0.8	0.9	1.2	1.5	1.3	1.4	1.2	1.3	1.5
Farm	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Exports	6986.0	7394.1	7818.0	8266.8	8742.3	9239.7	9763.7	10317.0	10898.2	11509.1	12150.2
Goods	4857.6	5120.0	5388.1	5669.9	5965.9	6271.5	6590.5	6924.2	7271.0	7629.8	7999.8
Services	2128.3	2274.1	2429.8	2596.9	2776.4	2968.2	3173.1	3392.8	3627.2	3879.3	4150.4
Imports	6448.6	6785.4	7134.9	7496.9	7891.1	8302.4	8739.5	9196.9	9674.6	10177.2	10705.5
Goods	5202.9	5466.7	5741.2	6023.7	6330.9	6648.9	6986.6	7338.6	7705.6	8091.2	8496.1
Services	1245.8	1318.7	1393.7	1473.2	1560.3	1653.6	1753.0	1858.4	1969.0	2086.0	2209.4
Government Purchases	5092.8	5235.2	5390.3	5550.5	5716.7	5889.8	6069.8	6256.3	6448.3	6648.6	6869.7
Federal	1842.1	1886.1	1939.3	1994.2	2051.1	2109.8	2170.4	2233.0	2297.4	2363.9	2444.3
Defense	1145.8	1174.6	1204.2	1234.6	1265.9	1298.1	1331.3	1365.6	1400.9	1437.2	1474.5
Nondefense	696.3	711.4	735.1	759.6	785.1	811.7	839.1	867.4	896.6	926.7	969.8
State & Local	3250.7	3349.2	3451.0	3556.3	3665.6	3780.1	3899.4	4023.3	4150.8	4284.7	4425.4

TABLE 4  
Contributions to Real GDP Growth

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Percent Change										
GDP	-2.43	2.97	2.85	3.72	3.17	2.66	2.37	2.39	2.45	2.65
Percentage Points, Annual Rate										
Consumption	-0.42	1.71	1.88	1.94	1.53	1.65	1.84	1.58	1.45	1.58
Goods	-0.46	0.87	0.82	0.80	0.51	0.54	0.76	0.60	0.45	0.51
Durables	-0.30	0.47	0.52	0.51	0.28	0.28	0.48	0.32	0.16	0.18
Nondurables	-0.16	0.39	0.30	0.29	0.23	0.26	0.27	0.28	0.30	0.33
Services	0.04	0.84	1.06	1.14	1.02	1.11	1.08	0.99	1.00	1.07
Gross Private Domestic Investment	-3.45	1.32	1.63	2.10	1.29	0.57	0.29	0.47	0.43	0.55
Fixed Investment	-2.74	0.27	1.42	1.95	1.37	0.70	0.31	0.37	0.43	0.52
Nonresidential	-2.08	0.14	0.67	1.31	1.08	0.62	0.30	0.29	0.41	0.48
Structures	-0.83	-0.48	-0.16	0.46	0.42	0.24	0.10	0.02	0.03	0.04
Equipment & Software	-1.25	0.62	0.83	0.85	0.66	0.39	0.20	0.28	0.37	0.43
Information Equipment	-0.21	0.30	0.28	0.33	0.28	0.26	0.26	0.26	0.26	0.27
Residential	-0.66	0.12	0.75	0.64	0.29	0.08	0.02	0.08	0.02	0.04
Change in Private Inventories	-0.71	1.07	0.20	0.14	-0.09	-0.14	-0.03	0.09	-0.01	0.02
<b>Net Exports</b>										
Exports	-1.18	1.07	0.75	0.97	1.13	1.03	0.89	0.96	1.07	1.10
Goods	-1.02	0.97	0.59	0.75	0.90	0.82	0.68	0.75	0.85	0.88
Services										
Imports	2.24	-1.43	-1.14	-1.04	-0.84	-0.68	-0.73	-0.74	-0.64	-0.73
Goods	2.15	-1.36	-1.06	-0.94	-0.72	-0.55	-0.62	-0.64	-0.55	-0.62
Services	0.10	-0.06	-0.08	-0.10	-0.12	-0.13	-0.11	-0.10	-0.10	-0.10
Government	0.37	0.33	-0.28	-0.25	0.06	0.09	0.09	0.11	0.14	0.15
Federal	0.39	0.31	-0.24	-0.29	-0.13	-0.03	0.01	0.04	0.04	0.05
State & Local	-0.02	0.02	-0.04	0.04	0.19	0.13	0.08	0.07	0.10	0.11

TABLE 4  
Contributions to Real GDP Growth

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Percent Change											
GDP	2.80	2.84	2.69	2.61	2.53	2.53	2.66	2.54	2.45	2.42	2.39
Percentage Points, Annual Rate											
Consumption	1.74	1.94	1.92	1.78	1.69	1.63	1.67	1.64	1.67	1.67	1.62
Goods	0.61	0.76	0.75	0.71	0.67	0.64	0.66	0.65	0.66	0.67	0.63
Durables	0.25	0.35	0.34	0.32	0.30	0.28	0.30	0.29	0.29	0.29	0.27
Nondurables	0.36	0.41	0.41	0.39	0.37	0.36	0.36	0.36	0.37	0.38	0.36
Services	1.12	1.19	1.17	1.07	1.02	0.99	1.02	0.99	1.00	1.00	0.99
Gross Private Domestic Investment	0.58	0.54	0.42	0.42	0.41	0.40	0.50	0.49	0.42	0.41	0.41
Fixed Investment	0.57	0.54	0.43	0.43	0.41	0.40	0.48	0.48	0.43	0.40	0.41
Nonresidential	0.51	0.48	0.42	0.42	0.40	0.41	0.44	0.45	0.44	0.44	0.43
Structures	0.05	0.05	0.02	0.05	0.02	0.02	0.03	0.04	0.03	0.03	0.02
Equipment & Software	0.45	0.43	0.40	0.38	0.38	0.39	0.41	0.41	0.41	0.41	0.42
Information Equipment	0.27	0.27	0.26	0.24	0.25	0.25	0.26	0.27	0.27	0.27	0.27
Residential	0.07	0.06	0.00	0.01	0.00	0.00	0.05	0.03	-0.01	-0.04	-0.02
Change in Private Inventories	0.00	-0.01	-0.02	-0.01	0.00	-0.01	0.01	0.00	-0.01	0.00	0.00
Net Exports	0.33	0.18	0.24	0.26	0.29	0.36	0.35	0.27	0.23	0.21	0.23
Exports	1.11	1.08	1.04	1.01	1.03	1.07	1.07	1.05	1.03	1.04	1.06
Goods	0.88	0.86	0.82	0.78	0.79	0.83	0.81	0.79	0.77	0.77	0.78
Services	0.22	0.22	0.23	0.23	0.24	0.25	0.26	0.26	0.26	0.27	0.28
Imports	-0.78	-0.90	-0.81	-0.75	-0.75	-0.72	-0.72	-0.78	-0.80	-0.83	-0.82
Goods	-0.66	-0.76	-0.68	-0.63	-0.63	-0.60	-0.59	-0.65	-0.67	-0.70	-0.69
Services	-0.12	-0.13	-0.13	-0.12	-0.12	-0.12	-0.13	-0.13	-0.13	-0.13	-0.13
Government	0.16	0.17	0.12	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.12
Federal	0.05	0.07	0.02	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04
State & Local	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.08

TABLE 4  
Contributions to Real GDP Growth

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Percent Change											
GDP	2.52	2.45	2.39	2.45	2.52	2.52	2.54	2.53	2.50	2.51	2.53
Percentage Points, Annual Rate											
Consumption	1.68	1.70	1.66	1.65	1.69	1.69	1.70	1.69	1.68	1.68	1.67
Goods	0.64	0.65	0.62	0.61	0.63	0.62	0.62	0.60	0.59	0.59	0.59
Durables	0.28	0.29	0.27	0.26	0.28	0.28	0.28	0.26	0.25	0.25	0.24
Nondurables	0.36	0.36	0.35	0.35	0.35	0.34	0.34	0.34	0.34	0.34	0.35
Services											
Gross Private Domestic Investment	0.49	0.47	0.42	0.46	0.52	0.53	0.54	0.52	0.51	0.52	0.52
Fixed Investment	0.48	0.47	0.43	0.45	0.51	0.52	0.53	0.52	0.50	0.51	0.51
Nonresidential	0.45	0.45	0.44	0.45	0.47	0.48	0.49	0.50	0.49	0.50	0.49
Structures	0.02	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.04
Equipment & Software	0.43	0.43	0.43	0.43	0.44	0.45	0.45	0.46	0.45	0.46	0.46
Information Equipment	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.29	0.28
Residential	0.02	0.02	-0.02	0.00	0.03	0.04	0.04	0.02	0.01	0.02	0.02
Change in Private Inventories	0.01	0.00	-0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Net Exports	0.21	0.18	0.19	0.22	0.19	0.18	0.18	0.19	0.19	0.19	0.18
Exports	1.07	1.08	1.07	1.09	1.10	1.11	1.11	1.12	1.13	1.13	1.14
Goods	0.78	0.78	0.77	0.78	0.78	0.77	0.77	0.77	0.77	0.76	0.75
Services	0.29	0.30	0.30	0.32	0.33	0.33	0.34	0.35	0.36	0.37	0.38
Imports	-0.86	-0.89	-0.88	-0.88	-0.92	-0.92	-0.93	-0.93	-0.94	-0.94	-0.95
Goods	-0.72	-0.75	-0.74	-0.73	-0.76	-0.76	-0.77	-0.77	-0.77	-0.78	-0.78
Services	-0.14	-0.15	-0.14	-0.14	-0.15	-0.16	-0.16	-0.16	-0.17	-0.17	-0.17
Government	0.14	0.10	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.15
Federal	0.06	0.02	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.06
State & Local	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.10

TABLE 5  
GDP, GNP and National Income and Its Distribution

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Dollars, SAAR										
Gross Domestic Product	14258.7	14843.4	15492.6	16316.3	17117.9	17891.5	18641.7	19418.1	20252.5	21166.9
Plus: Inc. rcpts. from rest of the world	578.4	604.2	794.9	1045.1	1161.6	1365.0	1513.6	1655.8	1811.3	1977.8
Less: Income pmts. to rest of the world	476.3	537.0	731.2	994.8	1122.9	1369.2	1525.3	1674.8	1838.1	2016.0
Equals: Gross National Product	14360.8	14910.6	15556.3	16366.6	17156.6	17887.4	18630.0	19399.1	20225.7	21128.8
Less: Consumption of Fixed Capital	1863.7	1882.2	1943.7	2026.9	2124.3	2219.6	2313.2	2410.0	2515.7	2627.6
Equals: Net National Product	12497.1	13028.4	13612.6	14339.8	15032.3	15667.8	16316.8	16989.1	17710.1	18501.2
Less: Statistical Discrepancy	168.4	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2
Equals: National Income	12328.7	12865.2	13449.4	14176.6	14869.1	15504.6	16153.6	16825.9	17546.9	18338.0
Composition of National Income										
Compensation of Employees	7841.3	8069.6	8413.4	8850.6	9316.9	9760.2	10171.4	10583.0	11016.4	11481.5
Nonfarm Proprietors	1012.4	1068.0	1136.8	1201.0	1265.2	1333.8	1387.8	1452.2	1525.2	1612.9
Farm Proprietors	29.9	41.6	40.2	42.8	43.1	43.1	40.9	39.0	38.5	37.9
Rental Income	268.3	310.7	304.0	258.3	200.4	170.9	156.4	146.3	143.3	140.8
Net Interest	786.3	803.2	821.6	915.0	1025.1	1153.4	1300.5	1440.3	1573.5	1662.9
Economic Profits	1300.3	1463.9	1576.9	1690.0	1749.8	1722.7	1720.5	1737.8	1775.9	1877.4
Taxes on Production & Imports	1023.9	1052.9	1095.6	1146.6	1186.8	1227.4	1273.4	1317.2	1357.6	1401.8
Business Current Transfer Payments (Net)	134.1	118.7	117.4	122.0	129.7	139.3	147.9	154.0	159.6	165.4
Surplus less Subsidies of Gov't. Firms	-67.8	-63.3	-56.4	-49.7	-47.9	-46.2	-45.1	-43.9	-43.3	-42.5
Income Shares, Percent of National Income										
Compensation of Employees	63.6	62.7	62.6	62.4	62.7	63.0	63.0	62.9	62.8	62.6
Nonfarm Proprietors	8.2	8.3	8.5	8.5	8.5	8.6	8.6	8.6	8.7	8.8
Farm Proprietors	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Rental Income	2.2	2.4	2.3	1.8	1.3	1.1	1.0	0.9	0.8	0.8
Net Interest	6.4	6.2	6.1	6.5	6.9	7.4	8.0	8.6	9.0	9.1
Economic Profits	10.5	11.4	11.7	11.9	11.8	11.1	10.7	10.3	10.1	10.2
Taxes on Production & Imports	8.3	8.2	8.1	8.1	8.0	7.9	7.9	7.8	7.7	7.6
Business Current Transfer Payments (Net)	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Surplus less Subsidies of Gov't. Enterprises	-0.5	-0.5	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2
Corporate Profits										
Economic Profits	1300.3	1463.9	1576.9	1690.0	1749.8	1722.7	1720.5	1737.8	1775.9	1877.4
Four-Quarter Percent Change	-89.2	186.4	381.0	63.7	6.9	26.3	0.8	0.0	0.0	0.0
Less:										
Capital Consumption Adjustment	-127.7	-158.0	-213.5	-160.5	-151.9	-128.9	-107.9	-87.9	-75.0	-68.7
Inventory Valuation Adjustment	9.2	1.7	-17.4	-11.8	-13.1	-10.5	-5.5	-5.5	-5.3	-6.9
Equals: Before-Tax Book Profits	1418.8	1620.2	1807.8	1862.3	1914.8	1862.1	1833.8	1831.3	1856.3	1953.0
Four-Quarter Percent Change	10.0	19.6	-15.4	22.1	-1.9	-7.5	2.0	4.2	4.5	10.2
Less: Corporate Income Taxes	308.0	343.3	480.7	476.9	501.7	496.6	495.2	494.5	501.0	526.6
Federal	226.2	257.5	385.1	378.1	400.4	396.3	396.0	395.2	400.2	420.7
State & Local	57.0	62.3	70.7	72.2	73.3	71.2	68.8	67.7	67.9	71.5
Rest of World	24.8	23.4	24.8	26.6	28.0	29.2	30.4	31.6	32.9	34.4
Equals: After-Tax Profits	1110.8	1277.0	1327.2	1385.4	1413.1	1365.5	1338.6	1336.8	1355.3	1426.3
Less: Dividends	576.1	622.7	675.1	698.7	743.3	759.1	748.6	746.8	756.2	779.2
Equals: Retained Earnings	534.7	654.2	652.1	686.7	669.8	606.4	590.0	590.0	599.1	647.2
Profits Addenda:										
Economic Profits (Bil. \$)	1300.3	1463.9	1576.9	1690.0	1749.8	1722.7	1720.5	1737.8	1775.9	1877.4
Domestic Corporate	944.3	1142.3	1246.8	1347.2	1394.8	1374.5	1350.1	1346.5	1363.6	1445.9
Rest-of-World	310.5	283.3	298.8	308.5	320.4	308.5	325.3	343.3	361.9	378.6
Federal Reserve	45.6	38.3	31.3	34.2	34.6	39.8	45.0	48.0	50.5	52.8
Real After-Tax Profits (Bil. \$)	1026.1	1180.1	1215.1	1252.2	1256.4	1194.1	1154.3	1136.7	1135.7	1180.1
Dividend Payout Ratio	51.9	48.8	50.9	50.4	52.6	55.6	55.9	55.9	55.8	54.6
Book-Value of Depreciation	913.8	887.4	865.2	968.7	1037.8	1117.2	1193.4	1271.1	1347.7	1422.2
Less: Economic Depreciation	1041.5	1045.4	1078.7	1129.2	1189.7	1246.1	1301.3	1359.0	1422.7	1490.9
Equals: Capital Consumption Adjustment	-127.7	-158.0	-213.5	-160.5	-151.9	-128.9	-107.9	-87.9	-75.0	-68.7
After-Tax Book Profits	1110.8	1277.0	1327.2	1385.4	1413.1	1365.5	1338.6	1336.8	1355.3	1426.3
Plus: Book Value of Depreciation	913.8	887.4	865.2	968.7	1037.8	1117.2	1193.4	1271.1	1347.7	1422.2
Plus: Inventory Valuation Adjustment	9.2	1.7	-17.4	-11.8	-13.1	-10.5	-5.5	-5.5	-5.3	-6.9
Less: Dividends	576.1	622.7	675.1	698.7	743.3	759.1	748.6	746.8	756.2	779.2
Less: Capital Transfers (Net)	-124.0	-22.2	-8.7	-3.3	6.0	4.0	2.0	0.0	0.0	0.0
Equals: Net Cash Flow	1581.6	1565.4	1508.6	1646.9	1688.5	1709.2	1775.9	1855.5	1941.5	2062.5

TABLE 5  
GDP, GNP and National Income and Its Distribution

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Dollars, SAAR											
Gross Domestic Product	22142.2	23147.5	24149.7	25170.1	26210.3	27298.1	28476.7	29684.8	30929.7	32220.9	33562.6
Plus: Inc. rcpts. from rest of the world	2160.5	2365.2	2586.3	2809.7	3049.4	3310.8	3600.3	3914.7	4258.1	4627.7	5029.7
Less: Income pmts. to rest of the world	2210.3	2418.0	2643.6	2889.2	3156.4	3444.8	3761.9	4106.4	4479.1	4886.9	5330.7
Equals: Gross National Product	22092.4	23094.7	24092.5	25090.7	26103.3	27164.1	28315.1	29493.1	30708.7	31961.6	33261.7
Less: Consumption of Fixed Capital	2745.7	2866.4	2986.9	3107.6	3233.0	3363.9	3502.6	3647.8	3798.6	3955.9	4119.9
Equals: Net National Product	19346.7	20228.3	21105.5	21983.1	22870.4	23800.2	24812.5	25845.3	26910.1	28005.7	29141.8
Less: Statistical Discrepancy	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2
Equals: National Income	19183.5	20065.1	20942.3	21819.9	22707.2	23637.0	24649.3	25682.1	26746.9	27842.5	28978.6
Composition of National Income											
Compensation of Employees	11971.0	12480.7	13011.5	13569.7	14143.7	14746.2	15388.7	16065.8	16777.3	17521.0	18303.7
Nonfarm Proprietors	1708.1	1808.5	1913.0	2015.2	2112.7	2207.1	2309.2	2412.1	2519.3	2630.5	2744.4
Farm Proprietors	37.3	37.5	37.9	38.3	38.9	38.8	38.2	38.0	38.1	37.8	37.6
Rental Income	135.1	130.8	129.5	129.2	127.9	126.9	127.0	127.2	127.6	129.2	131.9
Net Interest	1758.5	1866.9	1924.4	1961.8	2016.3	2093.9	2175.2	2262.8	2355.5	2448.7	2546.1
Economic Profits	1992.4	2098.6	2220.9	2339.3	2440.2	2531.9	2646.9	2738.0	2815.7	2882.4	2941.0
Taxes on Production & Imports	1450.6	1503.3	1557.0	1609.0	1661.4	1717.3	1780.3	1845.6	1911.9	1982.3	2054.5
Business Current Transfer Payments (Net)	171.8	179.0	186.1	192.5	198.8	205.0	211.2	217.4	223.7	230.0	236.2
Surplus less Subsidies of Gov't. Firms	-41.3	-40.1	-38.0	-35.3	-32.7	-30.0	-27.4	-24.7	-22.1	-19.4	-16.8
Income Shares, Percent of National Income											
Compensation of Employees	62.4	62.2	62.1	62.2	62.3	62.4	62.4	62.6	62.7	62.9	63.2
Nonfarm Proprietors	8.9	9.0	9.1	9.2	9.3	9.3	9.4	9.4	9.4	9.4	9.5
Farm Proprietors	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Rental Income	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5
Net Interest	9.2	9.3	9.2	9.0	8.9	8.9	8.8	8.8	8.8	8.8	8.8
Economic Profits	10.4	10.5	10.6	10.7	10.7	10.7	10.7	10.7	10.5	10.4	10.1
Taxes on Production & Imports	7.6	7.5	7.4	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.1
Business Current Transfer Payments (Net)	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
Surplus less Subsidies of Gov't. Enterprises	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Corporate Profits											
Economic Profits	1992.4	2098.6	2220.9	2339.3	2440.2	2531.9	2646.9	2738.0	2815.7	2882.4	2941.0
Four-Quarter Percent Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less:											
Capital Consumption Adjustment	-64.6	-59.9	-55.1	-50.4	-45.4	-40.2	-34.7	-29.0	-23.0	-16.7	-10.1
Inventory Valuation Adjustment	-5.4	-1.3	-1.4	0.1	-1.2	-3.4	-4.4	-4.4	-4.0	-5.5	-5.2
Equals: Before-Tax Book Profits	2062.3	2159.8	2277.4	2389.5	2486.8	2575.5	2686.0	2771.4	2842.7	2904.6	2956.3
Four-Quarter Percent Change	7.5	5.1	0.8	2.8	4.9	5.1	5.6	2.8	1.4	0.2	-0.2
Less: Corporate Income Taxes	556.6	583.2	647.6	719.9	771.2	802.7	841.1	871.7	897.1	919.9	939.3
Federal	444.8	466.6	525.2	591.0	636.7	662.8	695.0	720.4	741.3	760.0	775.8
State & Local	75.7	78.9	83.2	88.2	92.4	96.3	101.0	104.7	107.7	110.4	112.5
Rest of World	36.1	37.7	39.1	40.6	42.1	43.6	45.1	46.5	48.0	49.5	51.0
Equals: After-Tax Profits	1505.7	1576.6	1629.8	1669.6	1715.7	1772.9	1844.9	1899.7	1945.6	1984.7	2017.0
Less: Dividends	821.6	870.1	922.5	950.7	967.6	991.7	1027.2	1066.3	1107.0	1148.9	1189.7
Equals: Retained Earnings	684.2	706.5	707.3	718.9	748.0	781.1	817.7	833.4	838.6	835.7	827.3
Profits Addenda:											
Economic Profits (Bil. \$)	1992.4	2098.6	2220.9	2339.3	2440.2	2531.9	2646.9	2738.0	2815.7	2882.4	2941.0
Domestic Corporate	1540.7	1618.6	1714.7	1827.0	1919.1	2004.4	2110.7	2195.2	2265.5	2326.5	2379.3
Rest-of-World	396.3	421.8	445.2	448.9	455.4	459.5	465.8	469.8	474.5	477.4	480.4
Federal Reserve	55.4	58.2	61.0	63.5	65.7	67.9	70.4	73.0	75.6	78.5	81.3
Real After-Tax Profits (Bil. \$)	1229.8	1272.0	1298.7	1316.5	1340.2	1371.4	1412.5	1437.5	1453.8	1463.3	1466.4
Dividend Payout Ratio	54.6	55.2	56.6	56.9	56.4	55.9	55.7	56.1	56.9	57.9	59.0
Book-Value of Depreciation	1500.0	1581.0	1663.1	1745.0	1830.3	1919.5	2014.4	2113.9	2217.1	2325.6	2439.2
Less: Economic Depreciation	1564.6	1640.9	1718.2	1795.4	1875.7	1959.7	2049.1	2142.8	2240.1	2342.2	2449.2
Equals: Capital Consumption Adjustment	-64.6	-59.9	-55.1	-50.4	-45.4	-40.2	-34.7	-29.0	-23.0	-16.7	-10.1
After-Tax Book Profits	1505.7	1576.6	1629.8	1669.6	1715.7	1772.9	1844.9	1899.7	1945.6	1984.7	2017.0
Plus: Book Value of Depreciation	1500.0	1581.0	1663.1	1745.0	1830.3	1919.5	2014.4	2113.9	2217.1	2325.6	2439.2
Plus: Inventory Valuation Adjustment	-5.4	-1.3	-1.4	0.1	-1.2	-3.4	-4.4	-4.4	-4.0	-5.5	-5.2
Less: Dividends	821.6	870.1	922.5	950.7	967.6	991.7	1027.2	1066.3	1107.0	1148.9	1189.7
Less: Capital Transfers (Net)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Equals: Net Cash Flow	2178.8	2286.2	2368.9	2464.1	2577.1	2697.2	2827.6	2942.8	3051.7	3155.8	3261.2



TABLE 5  
GDP, GNP and National Income and Its Distribution

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Dollars, SAAR											
Gross Domestic Product	35002.9	36484.2	38000.5	39600.7	41299.3	43080.0	44944.5	46886.4	48902.8	51018.9	53232.0
Plus: Inc. rcpts. from rest of the world	5474.5	5976.5	6532.0	7137.4	7807.8	8545.7	9359.3	10262.7	11282.9	12441.9	13728.4
Less: Income pmts. to rest of the world	5820.5	6363.5	6958.6	7613.0	8336.6	9131.5	10006.8	10970.1	12032.5	13211.3	14514.1
Equals: Gross National Product	34656.9	36097.2	37573.8	39125.0	40770.5	42494.2	44297.0	46179.0	48153.2	50249.5	52446.4
Less: Consumption of Fixed Capital	4291.6	4472.2	4660.1	4854.9	5059.7	5274.3	5498.4	5732.4	5976.5	6231.6	6495.9
Equals: Net National Product	30365.4	31625.0	32913.6	34270.1	35710.8	37219.8	38798.6	40446.7	42176.7	44017.9	45950.5
Less: Statistical Discrepancy	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2
Equals: National Income	30202.2	31461.8	32750.4	34106.9	35547.6	37056.6	38635.4	40283.5	42013.5	43854.7	45787.3
Composition of National Income											
Compensation of Employees	19124.2	19937.3	20785.6	21659.5	22582.0	23548.8	24556.3	25605.1	26692.1	27823.9	29010.3
Nonfarm Proprietors	2863.4	2984.7	3108.7	3238.5	3377.3	3523.2	3675.8	3834.0	3997.7	4169.4	4351.1
Farm Proprietors	37.1	37.2	37.5	37.3	37.1	36.8	36.1	35.6	35.3	34.8	34.4
Rental Income	135.3	139.2	144.4	150.3	157.2	164.9	173.4	182.7	193.1	204.4	215.9
Net Interest	2655.3	2772.4	2896.0	3030.4	3177.7	3338.7	3513.5	3702.0	3902.9	4114.8	4331.2
Economic Profits	3024.8	3136.6	3232.4	3346.8	3470.5	3594.0	3720.1	3849.8	3999.8	4191.3	4400.0
Taxes on Production & Imports	2133.6	2216.7	2299.2	2388.1	2480.4	2575.4	2675.6	2779.8	2888.2	3001.7	3119.6
Business Current Transfer Payments (Net)	242.6	249.1	255.6	262.1	268.9	275.8	282.9	290.1	297.5	305.0	312.6
Surplus less Subsidies of Gov't. Firms	-14.1	-11.5	-8.9	-6.2	-3.6	-0.9	1.7	4.3	7.0	9.6	12.2
Income Shares, Percent of National Income											
Compensation of Employees	63.3	63.4	63.5	63.5	63.5	63.5	63.6	63.6	63.5	63.4	63.4
Nonfarm Proprietors	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Farm Proprietors	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Rental Income	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5
Net Interest	8.8	8.8	8.8	8.9	8.9	9.0	9.1	9.2	9.3	9.4	9.5
Economic Profits	10.0	10.0	9.9	9.8	9.8	9.7	9.6	9.6	9.5	9.6	9.6
Taxes on Production & Imports	7.1	7.0	7.0	7.0	7.0	7.0	6.9	6.9	6.9	6.8	6.8
Business Current Transfer Payments (Net)	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7
Surplus less Subsidies of Gov't. Enterprises	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Corporate Profits											
Economic Profits	3024.8	3136.6	3232.4	3346.8	3470.5	3594.0	3720.1	3849.8	3999.8	4191.3	4400.0
Four-Quarter Percent Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less:											
Capital Consumption Adjustment	-3.1	4.2	11.9	19.9	28.4	37.3	46.7	56.5	66.9	77.7	89.1
Inventory Valuation Adjustment	-5.6	-6.3	-5.6	-6.2	-6.5	-6.4	-7.6	-6.4	-6.0	-4.8	-2.1
Equals: Before-Tax Book Profits	3033.5	3138.6	3226.0	3333.1	3448.6	3563.1	3681.0	3799.7	3939.0	4118.3	4313.0
Four-Quarter Percent Change	1.6	3.7	1.7	2.4	2.0	1.4	0.9	0.9	2.1	5.1	5.4
Less: Corporate Income Taxes	967.9	1006.6	1040.2	1081.7	1128.3	1174.6	1223.9	1273.6	1327.6	1391.1	1455.2
Federal	799.6	832.0	860.1	894.9	934.2	973.3	1015.0	1057.0	1102.7	1156.6	1211.1
State & Local	115.9	120.7	124.7	129.9	135.7	141.5	147.7	153.9	160.7	168.7	176.9
Rest of World	52.4	53.9	55.4	56.9	58.4	59.8	61.3	62.8	64.3	65.7	67.2
Equals: After-Tax Profits	2065.5	2132.1	2185.8	2251.4	2320.3	2388.4	2457.1	2526.0	2611.3	2727.2	2857.8
Less: Dividends	1231.5	1274.2	1321.5	1373.9	1433.0	1497.8	1566.1	1637.5	1713.5	1792.5	1882.9
Equals: Retained Earnings	834.0	857.8	864.3	877.5	887.3	890.6	891.0	888.5	897.8	934.7	974.9
Profits Addenda:											
Economic Profits (Bil. \$)	3024.8	3136.6	3232.4	3346.8	3470.5	3594.0	3720.1	3849.8	3999.8	4191.3	4400.0
Domestic Corporate	2458.1	2565.8	2660.5	2777.2	2909.4	3041.3	3180.7	3323.6	3479.0	3663.0	3850.6
Rest-of-World	482.3	483.2	481.0	475.4	463.3	451.2	434.1	416.7	407.2	410.3	427.1
Federal Reserve	84.4	87.6	90.9	94.2	97.8	101.5	105.4	109.4	113.6	117.9	122.3
Real After-Tax Profits (Bil. \$)	1482.4	1512.2	1529.6	1555.1	1580.5	1602.9	1623.7	1642.9	1672.9	1725.5	1785.5
Dividend Payout Ratio	59.6	59.8	60.5	61.0	61.8	62.7	63.7	64.8	65.6	65.7	65.9
Book-Value of Depreciation	2559.0	2685.6	2817.8	2955.9	3101.9	3255.8	3417.1	3586.4	3764.3	3951.5	4146.8
Less: Economic Depreciation	2562.1	2681.4	2805.9	2935.9	3073.5	3218.4	3370.4	3529.9	3697.4	3873.8	4057.8
Equals: Capital Consumption Adjustment	-3.1	4.2	11.9	19.9	28.4	37.3	46.7	56.5	66.9	77.7	89.1
After-Tax Book Profits	2065.5	2132.1	2185.8	2251.4	2320.3	2388.4	2457.1	2526.0	2611.3	2727.2	2857.8
Plus: Book Value of Depreciation	2559.0	2685.6	2817.8	2955.9	3101.9	3255.8	3417.1	3586.4	3764.3	3951.5	4146.8
Plus: Inventory Valuation Adjustment	-5.6	-6.3	-5.6	-6.2	-6.5	-6.4	-7.6	-6.4	-6.0	-4.8	-2.1
Less: Dividends	1231.5	1274.2	1321.5	1373.9	1433.0	1497.8	1566.1	1637.5	1713.5	1792.5	1882.9
Less: Capital Transfers (Net)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Equals: Net Cash Flow	3387.4	3537.2	3676.6	3827.2	3982.7	4140.0	4300.4	4468.5	4656.0	4881.5	5119.7

TABLE 6  
Real Consumer Spending

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<i>Billions of Chained 2005 Dollars</i>										
Personal Consumption Expenditures	9237.3	9459.6	9711.4	9978.4	10196.4	10439.2	10717.5	10962.3	11191.8	11446.7
Consumption Excl. Food and Energy	8069.3	8264.4	8496.1	8745.2	8950.5	9181.3	9449.8	9687.4	9908.6	10153.4
Consumption Excl. New Motor Veh.	9062.8	9263.4	9481.6	9728.5	9951.4	10185.4	10426.3	10658.8	10898.4	11164.1
Durable Goods	1100.5	1173.3	1257.6	1345.0	1396.2	1450.3	1549.4	1618.2	1653.7	1696.1
Motor Vehicles & Parts	316.8	338.9	381.8	416.0	417.6	429.0	471.2	486.5	472.3	458.9
New Motor Vehicles	166.1	189.4	226.0	247.6	241.4	250.5	292.6	305.7	292.5	277.9
New Autos	70.9	80.2	95.6	104.5	103.7	108.7	124.4	129.6	124.8	121.1
New Light Trucks	95.2	109.5	130.8	143.6	138.0	142.0	168.6	176.5	168.1	157.0
Net Purchases of Used Motor Veh.	106.9	106.2	113.4	126.7	134.6	137.9	139.5	142.4	141.5	142.5
Net Purchases of Used Autos	47.2	45.8	48.6	59.5	69.0	72.8	71.6	72.8	72.9	74.7
Net Purchases of Used Trucks	59.7	60.4	64.7	67.4	66.1	65.7	68.5	70.1	69.1	68.5
Motor Vehicle Parts & Accessories	43.3	43.0	43.0	42.9	42.7	42.0	41.5	41.0	40.6	40.4
Furnishings & Durable Hshld. Equip.	259.1	271.0	276.9	288.9	300.2	306.5	314.9	324.3	333.3	342.8
Recreational Goods and Vehicles	411.5	451.5	484.9	526.8	572.4	616.3	665.3	716.1	772.8	838.3
Information Processing Equipment	101.3	117.7	135.9	160.2	188.6	220.7	256.3	296.9	345.2	402.9
Computers & Peripheral Equipment	80.0	95.5	113.1	136.8	165.1	198.0	235.9	280.4	334.6	400.8
Computer Software & Accessories	20.6	22.5	24.3	26.9	29.7	32.8	35.7	38.8	42.2	46.2
Calculators, Typewriters & Other	2.1	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6
Other Recreational Goods & Vehicles	313.4	338.9	357.4	379.8	403.6	424.3	448.3	472.0	497.8	527.7
Other Durable Goods	124.2	127.1	130.1	133.4	136.5	138.6	142.8	147.6	152.8	158.6
Therapeutic Appliances & Equipment	41.9	43.3	45.1	47.7	50.0	51.6	53.6	55.7	57.9	60.2
All Other	82.6	84.1	85.4	86.3	87.2	87.7	90.0	92.7	95.8	99.3
Nondurable Goods	2037.3	2087.9	2127.6	2166.4	2198.9	2235.8	2276.3	2318.0	2363.6	2416.3
Food & Beverages (Off-Premises)	697.1	722.4	745.5	762.2	773.3	783.7	793.9	802.6	810.9	819.8
Clothing & Footwear	330.1	339.9	346.0	353.3	359.6	370.5	382.5	395.1	408.6	423.7
Gasoline & Other Energy Goods	292.7	291.4	288.5	287.9	287.8	287.4	286.0	284.1	283.4	283.8
Motor Veh. Fuels, Lubricants & Fluids	273.8	273.4	270.6	270.0	269.8	269.3	267.8	266.1	265.6	266.1
Fuel Oil & Other Fuels	18.4	17.6	17.5	17.6	17.7	17.8	17.9	17.7	17.5	17.4
Other Nondurable Goods	720.7	738.1	751.9	768.1	784.0	801.6	823.3	847.8	874.6	905.1
Pharma. & Other Medical Products	263.3	272.1	283.4	296.1	307.4	320.0	336.2	356.4	378.0	401.9
Tobacco	62.5	57.9	53.6	51.3	49.0	46.8	44.8	42.9	41.3	39.7
All Other	396.1	412.2	421.3	428.4	436.8	445.6	454.1	460.3	466.8	474.3
Services	6090.5	6197.1	6335.2	6487.4	6627.3	6785.1	6942.2	7087.8	7237.9	7401.0
Household Cons. Expend. (Services)	5833.9	5933.2	6062.1	6203.2	6333.7	6484.1	6635.3	6775.7	6921.7	7081.0
Housing & Utilities	1657.6	1669.7	1679.6	1698.8	1722.9	1750.4	1778.7	1808.7	1840.5	1872.3
Housing	1408.7	1417.5	1426.9	1442.8	1463.5	1486.7	1511.1	1537.8	1566.6	1595.2
Utilities	249.5	252.8	253.4	256.7	260.0	264.3	268.4	271.7	274.9	278.1
Water Supply & Sanitation	65.9	65.7	65.4	65.5	65.9	66.4	67.0	67.5	68.0	68.4
Electricity	125.5	127.7	127.8	129.9	131.6	134.0	136.4	138.8	141.1	143.6
Natural Gas	58.4	59.9	61.0	62.5	64.0	65.6	66.9	67.2	67.4	67.7
Health Care	1446.2	1468.8	1502.6	1551.2	1595.2	1641.8	1696.1	1755.1	1813.5	1875.5
Transportation Services	263.7	268.1	271.2	276.8	285.0	294.9	301.0	301.2	302.6	306.3
Motor Vehicle Services	192.5	195.4	198.1	203.0	210.2	218.7	223.5	222.6	223.4	226.5
Motor Vehicle Leasing	30.6	31.6	31.6	33.0	37.5	42.5	43.5	39.0	36.3	36.6
Other	161.9	163.9	166.5	170.1	173.3	177.4	181.2	184.0	186.8	189.6
Public Transportation	71.3	72.8	73.3	73.9	74.9	76.2	77.5	78.6	79.3	79.9
Local (Taxi & Intracity Mass Trans.)	18.8	19.2	20.0	20.4	20.7	21.1	21.4	21.8	22.1	22.4
Other	52.7	53.7	53.4	53.7	54.4	55.3	56.3	57.0	57.4	57.6
Recreation Services	345.4	351.9	360.8	369.1	378.0	388.7	395.9	402.1	409.3	418.7
Food Services & Accommodations	529.8	542.8	569.0	589.5	604.0	617.4	630.0	641.8	653.7	666.0
Food Services	459.2	469.4	493.6	513.5	527.4	539.9	551.7	562.6	573.5	584.8
Accommodations	70.5	73.5	75.2	75.6	76.1	76.9	77.7	78.5	79.4	80.5
Financial Services & Insurance	758.7	782.3	807.3	823.5	839.2	856.7	875.4	890.3	905.6	922.5
Financial Services	472.5	492.6	509.1	517.1	525.6	537.4	551.2	561.5	572.4	584.0
Fin. Serv. Furnished w/o Payment	251.6	262.7	269.0	276.0	284.0	292.4	300.7	308.1	316.2	324.4
Fin. Service Fees & Commissions	220.8	229.7	240.0	241.1	241.5	245.0	250.5	253.4	256.3	259.7
Insurance	286.4	290.2	298.8	306.8	313.9	319.7	324.8	329.5	334.1	339.5
Other Services	833.6	850.9	872.7	894.8	909.5	933.9	957.4	975.0	994.2	1016.5
Telecommunication Services	161.8	166.8	170.3	172.4	172.8	176.0	178.4	181.1	184.7	188.9
All Other	671.9	684.4	702.6	722.3	736.1	757.0	777.5	792.3	809.9	825.9
Final Cons. Nonprofits Serving Hshlds.	256.9	264.5	274.0	285.5	295.4	302.9	308.6	313.7	317.8	321.3
Addenda:										
Personal Consumption Expenditures	9237.3	9459.6	9711.4	9978.4	10196.4	10439.2	10717.5	10962.3	11191.8	11446.7
Per Capita (Thousands of 2005 dollars)	30.0	30.4	30.9	31.5	31.9	32.3	32.9	33.3	33.7	34.1
Health Consumption	1751.7	1784.3	1831.2	1895.2	1952.8	2013.9	2086.7	2168.7	2251.7	2341.1
Per Capita (Thousands of 2005 dollars)	6.1	6.1	6.2	6.4	6.6	6.9	7.1	7.3	7.6	7.8
Energy Consumption	474.5	476.6	474.5	477.0	479.8	482.8	484.6	485.3	487.0	490.1
Per Capita (Thousands of 2005 dollars)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

TABLE 6

## Real Consumer Spending

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Chained 2005 Dollars											
Personal Consumption Expenditures	11735.4	12067.1	12403.5	12725.1	13036.6	13344.6	13668.5	13993.5	14332.1	14680.0	15025.5
Consumption Excl. Food and Energy	10429.1	10745.4	11065.2	11370.1	11665.9	11958.9	12267.5	12578.2	12902.2	13236.0	13568.7
Consumption Excl. New Motor Veh.	11455.0	11778.0	12104.8	12417.6	12722.6	13025.3	13344.0	13664.7	13997.3	14339.1	14679.9
Durable Goods	1761.0	1854.7	1953.1	2051.8	2148.5	2244.3	2354.0	2464.8	2584.0	2709.4	2833.3
Motor Vehicles & Parts	457.4	471.2	485.6	498.6	508.4	517.2	527.4	536.5	548.2	560.6	571.2
New Motor Vehicles	273.3	282.2	292.0	300.9	306.9	311.3	315.3	318.0	322.9	327.6	330.5
New Autos	120.0	123.0	124.9	125.6	125.3	124.4	123.3	121.7	120.7	119.6	117.9
New Light Trucks	153.5	159.4	167.5	175.9	182.4	187.9	193.2	197.8	203.9	210.0	214.9
Net Purchases of Used Motor Veh.	145.4	150.5	155.4	159.8	164.0	168.6	174.8	181.1	187.6	194.9	202.1
Net Purchases of Used Autos	78.0	82.0	85.8	89.6	93.4	97.5	103.1	108.4	113.8	119.7	125.6
Net Purchases of Used Trucks	68.2	69.2	70.4	71.1	71.6	72.0	72.8	73.7	75.0	76.4	77.8
Motor Vehicle Parts & Accessories	40.4	40.4	40.1	39.8	39.3	38.9	38.7	38.4	38.3	38.2	38.1
Furnishings & Durable Hshld. Equip.	354.7	369.5	383.2	397.2	411.9	426.0	444.9	465.1	484.6	504.1	524.0
Recreational Goods and Vehicles	913.7	999.5	1097.8	1201.0	1308.0	1420.2	1546.9	1679.2	1827.4	1989.1	2156.5
Information Processing Equipment	471.7	552.6	643.4	745.1	858.5	987.9	1137.8	1307.5	1505.8	1732.5	1988.0
Computers & Peripheral Equipment	481.4	578.9	691.8	822.2	972.2	1148.0	1356.9	1600.2	1891.2	2233.0	2629.5
Computer Software & Accessories	50.7	55.7	60.8	66.0	71.3	76.9	83.0	89.4	96.5	104.1	111.9
Calculators, Typewriters & Other	6.3	7.1	7.9	8.8	9.7	10.8	11.9	13.1	14.5	16.0	17.6
Other Recreational Goods & Vehicles	562.1	601.3	647.7	695.3	743.1	791.2	845.7	900.5	961.2	1026.5	1091.5
Other Durable Goods	164.7	171.4	177.6	184.1	191.1	198.1	205.5	213.0	220.3	228.1	235.9
Therapeutic Appliances & Equipment	62.5	65.0	67.4	69.8	72.3	74.9	77.6	80.3	83.0	85.8	88.6
All Other	103.1	107.3	111.2	115.3	119.8	124.3	129.1	133.9	138.7	143.7	148.8
Nondurable Goods	2475.1	2544.3	2615.6	2685.1	2753.6	2820.9	2889.4	2960.8	3035.9	3114.7	3191.1
Food & Beverages (Off-Premises)	829.7	840.9	852.3	863.8	874.7	885.3	895.6	905.6	915.6	925.7	935.2
Clothing & Footwear	441.3	462.2	483.1	503.1	520.7	538.7	558.3	577.6	599.0	620.8	641.9
Gasoline & Other Energy Goods	285.7	288.6	292.0	295.3	298.5	301.2	304.5	307.3	310.3	312.7	314.7
Motor Veh. Fuels, Lubricants & Fluids	268.0	270.9	274.2	277.5	280.8	283.6	287.0	289.9	293.0	295.5	297.6
Fuel Oil & Other Fuels	17.4	17.4	17.4	17.4	17.3	17.3	17.2	17.1	17.0	16.9	16.8
Other Nondurable Goods	937.2	974.3	1012.5	1049.7	1087.9	1125.4	1162.8	1203.6	1246.2	1292.4	1337.7
Pharma. & Other Medical Products	426.7	454.7	482.3	508.1	534.4	559.4	583.5	608.8	635.5	664.4	692.5
Tobacco	38.2	36.9	35.6	34.4	33.0	31.6	30.3	29.0	27.7	26.5	25.2
All Other	482.1	490.8	501.4	513.4	526.3	540.1	555.6	573.8	592.2	611.8	631.5
Services	7576.2	7765.3	7955.1	8133.6	8305.9	8477.5	8656.4	8834.3	9018.3	9205.6	9394.7
Household Cons. Expend. (Services)	7252.4	7436.8	7620.7	7792.7	7957.9	8122.3	8294.0	8465.1	8642.2	8821.7	9002.4
Housing & Utilities	1904.5	1937.3	1970.6	2004.7	2039.3	2074.3	2109.4	2144.9	2181.2	2217.8	2254.9
Housing	1624.1	1653.4	1683.0	1713.6	1745.1	1777.2	1809.4	1842.1	1875.4	1909.2	1943.5
Utilities	281.5	285.1	288.9	292.6	295.8	298.9	302.0	305.0	308.2	311.4	314.4
Water Supply & Sanitation	68.9	69.3	69.7	70.1	70.5	70.8	71.2	71.6	71.9	72.3	72.6
Electricity	146.3	149.2	152.2	155.1	157.6	160.0	162.4	164.8	167.4	169.9	172.3
Natural Gas	67.9	68.1	68.4	68.9	69.2	69.5	69.9	70.2	70.5	70.8	71.0
Health Care	1936.7	2001.1	2065.4	2127.8	2192.4	2258.2	2325.1	2393.0	2461.9	2533.0	2605.5
Transportation Services	312.4	320.2	327.2	333.4	338.8	344.0	349.9	356.0	362.4	368.8	375.2
Motor Vehicle Services	231.8	238.4	243.8	248.1	251.6	254.8	258.4	262.2	266.1	269.9	273.4
Motor Vehicle Leasing	39.7	44.6	48.4	50.8	52.8	54.7	57.4	60.7	64.0	67.4	71.0
Other	192.4	195.2	197.7	200.1	202.2	203.9	205.7	207.3	209.0	210.6	211.9
Public Transportation	80.6	81.7	83.3	85.2	87.2	89.3	91.7	94.2	96.9	99.9	103.0
Local (Taxi & Intracity Mass Trans.)	22.9	23.3	23.8	24.2	24.5	24.9	25.3	25.7	26.2	26.6	27.0
Other	57.8	58.5	59.6	61.1	62.8	64.6	66.7	68.9	71.3	73.9	76.7
Recreation Services	431.5	446.9	459.2	467.3	474.8	481.6	488.5	495.1	502.1	509.4	516.4
Food Services & Accommodations	679.8	694.9	709.8	724.7	738.8	752.5	767.5	782.0	797.0	812.3	827.3
Food Services	597.4	611.2	624.7	638.1	650.9	663.4	677.1	690.3	703.9	717.8	731.4
Accommodations	81.6	82.8	84.2	85.6	86.8	87.9	89.1	90.4	91.7	93.0	94.3
Financial Services & Insurance	939.8	959.0	979.7	1000.2	1017.9	1034.8	1053.0	1071.4	1090.7	1109.9	1128.7
Financial Services	595.6	607.9	621.0	634.5	645.9	657.3	669.9	682.6	696.2	709.4	722.5
Fin. Serv. Furnished w/o Payment	332.3	339.8	346.7	353.5	359.9	366.6	373.7	381.3	389.0	396.8	404.5
Fin. Service Fees & Commissions	263.5	268.3	274.5	281.1	286.1	290.9	296.3	301.5	307.4	312.9	318.2
Insurance	345.3	352.3	359.8	366.9	373.3	378.9	384.6	390.5	396.5	402.7	408.6
Other Services	1043.7	1072.2	1102.5	1127.2	1146.8	1165.8	1187.6	1207.5	1229.5	1250.6	1272.0
Telecommunication Services	193.8	198.7	204.2	210.0	215.8	221.9	228.0	234.5	241.0	247.8	254.7
All Other	848.2	871.6	896.3	915.7	930.5	944.6	961.3	976.2	992.9	1008.8	1024.9
Final Cons. Nonprofits Serving Hshlds.	324.8	329.4	335.1	341.5	348.7	355.9	363.1	369.8	376.8	384.6	393.0
Addenda:											
Personal Consumption Expenditures	11735.4	12067.1	12403.5	12725.1	13036.6	13344.6	13668.5	13993.5	14332.1	14680.0	15025.5
Per Capita (Thousands of 2005 dollars)	34.6	35.3	35.9	36.5	37.1	37.6	38.2	38.7	39.3	39.9	40.5
Health Consumption	2430.7	2527.3	2623.4	2715.7	2810.9	2906.0	3001.1	3098.8	3199.1	3304.3	3410.1
Per Capita (Thousands of 2005 dollars)	8.1	8.4	8.7	8.9	9.2	9.5	9.8	10.1	10.4	10.8	11.1
Energy Consumption	494.9	501.1	507.8	514.5	520.6	526.1	532.3	537.8	543.7	549.0	553.7
Per Capita (Thousands of 2005 dollars)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

TABLE 6  
Real Consumer Spending

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Chained 2005 Dollars											
Personal Consumption Expenditures	15390.0	15767.8	16145.6	16530.9	16932.7	17345.1	17770.2	18202.9	18642.5	19092.7	19549.2
Consumption Excl. Food and Energy	13920.3	14285.4	14650.9	15024.3	15413.0	15811.7	16222.8	16641.4	17066.9	17503.0	17945.0
Consumption Excl. New Motor Vehicles	15039.3	15411.9	15783.7	16163.4	16558.9	16964.8	17383.0	17808.7	18241.2	18684.2	19133.5
Durable Goods	2968.9	3116.2	3265.8	3417.7	3588.4	3769.5	3959.7	4151.4	4345.4	4545.8	4754.1
Motor Vehicles & Parts	583.3	596.1	609.4	622.7	638.1	654.1	672.2	691.2	710.0	730.2	750.9
New Motor Vehicles	333.4	336.2	340.2	343.5	347.5	351.5	356.1	360.3	364.9	369.1	373.0
New Autos	116.1	114.3	112.7	110.9	109.2	107.5	105.8	104.0	102.2	100.3	98.2
New Light Trucks	219.8	224.7	230.6	235.9	241.9	248.0	254.6	261.0	267.7	274.2	280.6
Net Purchases of Used Motor Veh.	210.6	219.7	228.1	237.1	247.2	257.8	269.6	282.3	294.6	308.3	322.4
Net Purchases of Used Autos	132.5	139.7	146.2	153.2	161.1	169.4	178.4	188.2	197.6	208.1	219.0
Net Purchases of Used Trucks	79.4	81.3	83.2	85.3	87.6	90.0	92.7	95.7	98.7	101.9	105.2
Motor Vehicle Parts & Accessories	38.1	38.1	38.1	38.2	38.5	38.8	39.2	39.6	40.0	40.5	41.1
Furnishings & Durable Hshld. Equip.	548.2	575.1	600.3	626.4	658.8	694.4	732.5	771.3	810.4	852.5	897.5
Recreational Goods and Vehicles	2337.0	2538.4	2753.3	2976.4	3224.4	3492.7	3773.0	4056.5	4350.4	4646.4	4955.4
Information Processing Equipment	2284.6	2625.7	3016.4	3461.7	3980.2	4577.8	5267.4	6057.5	6963.6	8000.8	9195.3
Computers & Peripheral Equipment	3101.0	3657.6	4311.9	5078.3	5992.0	7072.4	8351.2	9855.9	11627.3	13709.5	16171.0
Computer Software & Accessories	120.6	129.9	139.9	150.5	162.2	174.8	188.6	203.3	219.0	235.9	254.2
Calculators, Typewriters & Other	19.4	21.4	23.6	26.0	28.7	31.7	35.0	38.6	42.6	47.0	51.6
Other Recreational Goods & Vehicles	1159.0	1234.4	1312.1	1388.7	1472.8	1561.0	1647.6	1727.2	1803.6	1871.4	1935.5
Other Durable Goods	244.2	253.0	262.0	271.0	280.6	290.4	300.6	310.9	321.5	332.7	344.5
Therapeutic Appliances & Equipment	91.5	94.5	97.6	100.7	103.9	107.1	110.5	113.9	117.3	120.9	124.4
All Other	154.2	160.2	166.2	172.2	178.8	185.6	192.8	199.9	207.4	215.4	224.4
Nondurable Goods	3268.5	3348.8	3427.6	3508.9	3591.6	3674.0	3758.2	3843.7	3932.2	4023.3	4117.8
Food & Beverages (Off-Premises)	944.5	953.7	962.7	971.5	980.8	990.3	1000.0	1009.5	1019.2	1028.9	1038.7
Clothing & Footwear	665.0	688.9	713.1	737.9	765.1	793.8	823.4	853.6	884.7	916.8	950.0
Gasoline & Other Energy Goods	316.8	318.9	320.7	322.3	324.4	326.7	329.2	331.6	334.0	336.4	338.8
Motor Veh. Fuels, Lubricants & Fluids	299.9	302.1	304.0	305.7	307.9	310.4	312.9	315.4	317.9	320.4	323.0
Fuel Oil & Other Fuels	16.7	16.5	16.4	16.3	16.2	16.1	16.0	15.9	15.8	15.7	15.7
Other Nondurable Goods	1382.7	1430.1	1476.2	1524.6	1572.0	1618.2	1665.1	1712.9	1762.7	1814.2	1867.8
Pharma. & Other Medical Products	720.1	749.3	777.7	807.5	836.0	863.0	890.7	919.1	948.5	978.8	1010.0
Tobacco	24.0	22.8	21.6	20.4	19.2	18.1	17.0	15.9	14.9	13.9	13.0
All Other	652.0	673.0	694.0	715.5	738.5	762.8	787.1	811.0	836.4	862.4	890.2
Services	9596.0	9803.0	10011.5	10224.6	10445.6	10673.7	10909.6	11151.5	11397.2	11649.0	11901.9
Household Cons. Expend. (Services)	9194.0	9390.3	9587.7	9788.6	9996.4	10210.4	10431.1	10656.5	10884.1	11115.7	11347.4
Housing & Utilities	2292.3	2330.0	2368.9	2407.9	2447.6	2488.2	2529.5	2571.2	2613.6	2656.5	2699.4
Housing	1978.1	2013.0	2049.0	2085.3	2122.1	2159.7	2197.9	2236.7	2276.1	2316.2	2356.2
Utilities	317.5	320.5	323.7	326.8	330.0	333.4	336.8	340.1	343.4	346.7	349.9
Water Supply & Sanitation	73.0	73.4	73.7	74.1	74.5	74.9	75.2	75.6	76.0	76.4	76.8
Electricity	174.8	177.4	179.9	182.4	184.9	187.6	190.3	192.9	195.6	198.2	200.8
Natural Gas	71.2	71.5	71.8	72.1	72.6	73.0	73.5	73.9	74.3	74.7	75.0
Health Care	2680.8	2758.1	2836.1	2916.3	2998.2	3081.7	3167.4	3254.7	3343.5	3433.1	3523.5
Transportation Services	382.0	389.4	396.8	404.0	411.8	420.1	428.9	437.9	447.0	456.5	466.3
Motor Vehicle Services	277.4	281.7	285.8	289.7	293.9	298.5	303.3	308.2	313.1	318.1	323.2
Motor Vehicle Leasing	75.3	80.3	85.4	90.3	95.7	101.8	108.1	114.8	121.5	128.7	136.4
Other	213.3	214.7	216.0	217.2	218.5	219.9	221.5	223.0	224.6	226.1	227.7
Public Transportation	106.3	109.7	113.4	117.3	121.4	125.8	130.5	135.5	140.7	146.2	151.9
Local (Taxi & Intracity Mass Trans.)	27.5	28.0	28.5	29.0	29.6	30.2	30.8	31.5	32.1	32.8	33.5
Other	79.7	82.9	86.3	89.9	93.7	97.8	102.2	106.8	111.8	117.0	122.5
Recreation Services	524.5	534.7	544.4	553.8	563.2	572.5	581.1	589.5	597.6	605.3	613.5
Food Services & Accommodations	843.4	859.7	876.1	892.8	910.7	929.3	948.6	968.0	987.8	1007.8	1028.5
Food Services	746.1	760.8	775.6	790.8	806.9	823.7	841.1	858.6	876.4	894.4	913.0
Accommodations	95.7	97.2	98.7	100.2	101.8	103.6	105.4	107.2	109.1	111.0	113.0
Financial Services & Insurance	1149.1	1169.8	1190.2	1210.5	1232.2	1255.3	1279.2	1303.3	1327.6	1351.9	1377.5
Financial Services	737.3	752.2	766.7	781.5	797.4	814.5	832.2	850.3	868.7	887.1	906.9
Fin. Serv. Furnished w/o Payment	413.0	421.8	430.4	439.1	448.4	458.2	468.5	479.0	489.6	500.3	512.3
Fin. Service Fees & Commissions	324.6	330.7	336.6	342.7	349.4	356.6	364.1	371.7	379.5	387.2	395.1
Insurance	414.4	420.6	426.8	432.7	438.9	445.5	452.1	458.8	465.4	471.9	478.5
Other Services	1296.6	1320.4	1344.2	1368.8	1394.8	1421.6	1451.2	1482.5	1513.4	1545.5	1577.3
Telecommunication Services	261.8	269.2	276.8	284.5	292.6	300.8	309.3	318.0	326.9	336.0	345.4
All Other	1043.8	1062.0	1080.2	1099.1	1119.1	1139.7	1162.7	1187.2	1211.3	1237.3	1261.2
Final Cons. Nonprofits Serving Hshlds.	402.8	413.5	424.7	437.0	450.3	464.5	479.7	496.3	514.4	534.8	556.0
<b>Addenda:</b>											
Personal Consumption Expenditures	15390.0	15767.8	16145.6	16530.9	16932.7	17345.1	17770.2	18202.9	18642.5	19092.7	19549.2
Per Capita (Thousands of 2005 dollars)	41.1	41.8	42.4	43.1	43.8	44.5	45.2	45.9	46.6	47.4	48.1
Health Consumption	3518.1	3630.0	3741.8	3857.5	3973.3	4089.0	4207.6	4328.8	4452.6	4578.5	4705.5
Per Capita (Thousands of 2005 dollars)	11.5	11.9	12.2	12.7	13.1	13.5	14.0	14.5	15.0	15.5	16.0
Energy Consumption	558.7	563.5	568.2	572.6	577.7	583.1	588.7	594.2	599.6	605.0	610.5
Per Capita (Thousands of 2005 dollars)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

TABLE 7

## Real Consumer Spending Growth

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Percent Change										
Personal Consumption Expenditures	-0.6	2.4	2.7	2.7	2.2	2.4	2.7	2.3	2.1	2.3
Consumption Excluding Food and Energy	-0.7	2.4	2.8	2.9	2.3	2.6	2.9	2.5	2.3	2.5
Consumption Excluding New Motor Vehicles	-0.4	2.2	2.4	2.6	2.3	2.4	2.4	2.2	2.2	2.4
Durable Goods	-4.0	6.6	7.2	7.0	3.8	3.9	6.8	4.4	2.2	2.6
Motor Vehicles & Parts	-8.8	7.0	12.6	9.0	0.4	2.7	9.8	3.2	-2.9	-2.8
New Motor Vehicles	-12.8	14.1	19.3	9.6	-2.5	3.8	16.8	4.5	-4.3	-5.0
New Autos	-16.9	13.2	19.1	9.3	-0.7	4.8	14.5	4.2	-3.7	-3.0
New Light Trucks	-9.2	15.0	19.4	9.8	-3.9	2.9	18.7	4.7	-4.8	-6.6
Net Purchases of Used Motor Vehicles	-2.9	-0.7	6.8	11.7	6.3	2.5	1.1	2.1	-0.6	0.8
Net Purchases of Used Autos	-3.5	-3.0	6.1	22.5	16.0	5.6	-1.7	1.7	0.2	2.4
Net Purchases of Used Trucks	-2.4	1.1	7.2	4.0	-1.9	-0.6	4.2	2.4	-1.5	-0.9
Motor Vehicle Parts & Accessories	-6.5	-0.7	0.1	-0.2	-0.6	-1.7	-1.3	-1.2	-0.9	-0.4
Furnishings & Durable Household Equip.	-6.0	4.6	2.2	4.3	3.9	2.1	2.7	3.0	2.8	2.9
Recreational Goods and Vehicles	2.1	9.7	7.4	8.6	8.7	7.7	8.0	7.6	7.9	8.5
Information Processing Equipment	9.4	16.2	15.4	17.9	17.7	17.0	16.1	15.8	16.3	16.7
Computers & Peripheral Equipment	13.5	19.4	18.4	21.0	20.7	19.9	19.1	18.8	19.3	19.8
Computer Software & Accessories	0.2	9.0	8.2	10.5	10.6	10.2	9.0	8.6	9.0	9.4
Calculators, Typewriters & Other	-0.4	6.8	10.8	13.5	13.2	12.6	11.7	11.4	11.7	12.1
Other Recreational Goods & Vehicles	0.4	8.1	5.4	6.3	6.3	5.1	5.7	5.3	5.5	6.0
Other Durable Goods	-3.0	2.3	2.4	2.6	2.3	1.6	3.0	3.3	3.5	3.8
Therapeutic Appliances & Equipment	-1.4	3.4	4.2	5.7	4.8	3.3	3.7	4.0	3.9	4.0
All Other	-3.7	1.8	1.5	1.1	1.1	0.6	2.6	3.0	3.3	3.7
Nondurable Goods	-1.0	2.5	1.9	1.8	1.5	1.7	1.8	1.8	2.0	2.2
Food & Beverages (Off-Premises)	-0.5	3.6	3.2	2.2	1.5	1.3	1.3	1.1	1.0	1.1
Clothing & Footwear	-4.3	3.0	1.8	2.1	1.8	3.0	3.3	3.3	3.4	3.7
Gasoline & Other Energy Goods	1.8	-0.4	-1.0	-0.2	0.0	-0.2	-0.5	-0.7	-0.2	0.1
Motor Vehicle Fuels, Lubricants & Fluids	0.8	-0.2	-1.0	-0.3	-0.1	-0.2	-0.5	-0.6	-0.2	0.2
Fuel Oil & Other Fuels	15.1	-4.3	-1.1	0.7	0.5	0.6	0.5	-0.9	-1.0	-0.6
Other Nondurable Goods	-1.1	2.4	1.9	2.2	2.1	2.3	2.7	3.0	3.2	3.5
Pharma. & Other Medical Products	1.7	3.3	4.2	4.5	3.8	4.1	5.1	6.0	6.1	6.3
Tobacco	-5.1	-7.4	-7.4	-4.4	-4.5	-4.5	-4.3	-4.1	-3.9	-3.9
All Other	-2.1	4.1	2.2	1.7	2.0	2.0	1.9	1.4	1.4	1.6
Services	0.1	1.8	2.2	2.4	2.2	2.4	2.3	2.1	2.1	2.3
Household Cons. Expenditures (Services)	0.3	1.7	2.2	2.3	2.1	2.4	2.3	2.1	2.2	2.3
Housing & Utilities	0.6	0.7	0.6	1.1	1.4	1.6	1.6	1.7	1.8	1.7
Housing	0.8	0.6	0.7	1.1	1.4	1.6	1.6	1.8	1.9	1.8
Utilities	-0.4	1.3	0.2	1.3	1.3	1.7	1.5	1.2	1.2	1.2
Water Supply & Sanitation	-0.2	-0.2	-0.5	0.1	0.6	0.9	0.8	0.8	0.8	0.7
Electricity	-1.0	1.8	0.1	1.6	1.3	1.8	1.8	1.8	1.7	1.7
Natural Gas	1.1	2.5	2.0	2.4	2.4	2.6	1.8	0.5	0.3	0.4
Health Care	2.1	1.6	2.3	3.2	2.8	2.9	3.3	3.5	3.3	3.4
Transportation Services	-3.7	1.6	1.2	2.1	3.0	3.5	2.1	0.1	0.5	1.2
Motor Vehicle Services	-3.4	1.5	1.4	2.5	3.5	4.1	2.2	-0.4	0.3	1.4
Motor Vehicle Leasing	-15.6	3.2	-0.1	4.5	13.6	13.5	2.3	-10.4	-6.9	0.8
Other	-0.9	1.3	1.6	2.1	1.9	2.4	2.1	1.6	1.5	1.5
Public Transportation	-4.2	2.0	0.7	0.9	1.3	1.8	1.7	1.4	0.9	0.7
Local (Taxi & Intracity Mass Trans.)	-0.9	2.4	4.0	1.9	1.3	2.0	1.7	1.5	1.5	1.6
Other	-5.3	1.8	-0.5	0.5	1.3	1.7	1.7	1.3	0.7	0.3
Recreation Services	-1.3	1.9	2.5	2.3	2.4	2.8	1.8	1.6	1.8	2.3
Food Services & Accommodations	-2.9	2.5	4.8	3.6	2.5	2.2	2.1	1.9	1.8	1.9
Food Services	-2.3	2.2	5.2	4.0	2.7	2.4	2.2	2.0	1.9	2.0
Accommodations	-6.2	4.2	2.4	0.5	0.7	1.0	1.1	1.0	1.2	1.3
Financial Services & Insurance	-0.1	3.1	3.2	2.0	1.9	2.1	2.2	1.7	1.7	1.9
Financial Services	-0.3	4.2	3.4	1.6	1.6	2.3	2.6	1.9	1.9	2.0
Fin. Services Furnished w/o Payment	2.1	4.4	2.4	2.6	2.9	3.0	2.8	2.5	2.6	2.6
Fin. Service Fees & Commissions	-2.9	4.0	4.5	0.4	0.2	1.4	2.3	1.1	1.1	1.3
Insurance	0.1	1.3	3.0	2.7	2.3	1.8	1.6	1.5	1.4	1.6
Other Services	1.0	2.1	2.6	2.5	1.6	2.7	2.5	1.8	2.0	2.2
Telecommunication Services	0.3	3.1	2.1	1.2	0.3	1.9	1.3	1.5	2.0	2.3
All Other	1.1	1.9	2.7	2.8	1.9	2.8	2.7	1.9	2.0	2.2
Final Cons. Nonprofits Serving Households	-3.7	2.9	3.6	4.2	3.5	2.5	1.9	1.7	1.3	1.1
Addenda:										
Per Capita Consumption	-1.5	1.4	1.7	1.8	1.2	1.4	1.7	1.3	1.1	1.3
Health Consumption	2.0	1.9	2.6	3.5	3.0	3.1	3.6	3.9	3.8	4.0
Per Capita	-0.1	0.0	2.3	3.3	3.8	3.5	3.2	3.2	3.4	3.5
Energy Consumption	0.6	0.4	-0.4	0.5	0.6	0.6	0.4	0.1	0.4	0.6
Per Capita	-0.4	-0.5	-1.4	-0.4	-0.4	-0.3	-0.6	-0.8	-0.6	-0.3

TABLE 7  
Real Consumer Spending Growth

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Percent Change											
Personal Consumption Expenditures	2.5	2.8	2.8	2.6	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Consumption Excluding Food and Energy	2.7	3.0	3.0	2.8	2.6	2.5	2.6	2.5	2.6	2.6	2.5
Consumption Excluding New Motor Vehicles	2.6	2.8	2.8	2.6	2.5	2.4	2.4	2.4	2.4	2.4	2.4
Durable Goods	3.8	5.3	5.3	5.1	4.7	4.5	4.9	4.7	4.8	4.9	4.6
Motor Vehicles & Parts	-0.3	3.0	3.1	2.7	2.0	1.7	2.0	1.7	2.2	2.3	1.9
New Motor Vehicles	-1.6	3.2	3.5	3.1	2.0	1.4	1.3	0.9	1.5	1.5	0.9
New Autos	-1.0	2.5	1.5	0.6	-0.2	-0.7	-0.9	-1.3	-0.8	-0.9	-1.4
New Light Trucks	-2.2	3.9	5.1	5.0	3.7	3.0	2.8	2.3	3.1	3.0	2.3
Net Purchases of Used Motor Vehicles	2.0	3.5	3.3	2.9	2.6	2.8	3.7	3.6	3.6	3.9	3.7
Net Purchases of Used Autos	4.4	5.1	4.7	4.3	4.2	4.5	5.7	5.2	4.9	5.2	4.9
Net Purchases of Used Trucks	-0.4	1.6	1.6	1.1	0.7	0.6	1.0	1.3	1.6	1.9	1.8
Motor Vehicle Parts & Accessories	-0.2	0.0	-0.6	-0.9	-1.0	-1.1	-0.7	-0.6	-0.3	-0.3	-0.3
Furnishings & Durable Household Equip	3.5	4.2	3.7	3.7	3.7	3.4	4.4	4.5	4.2	4.0	3.9
Recreational Goods and Vehicles	9.0	9.4	9.8	9.4	8.9	8.6	8.9	8.6	8.8	8.8	8.4
Information Processing Equipment	17.1	17.2	16.4	15.8	15.2	15.1	15.2	14.9	15.2	15.1	14.7
Computers & Peripheral Equipment	20.1	20.2	19.5	18.8	18.3	18.1	18.2	17.9	18.2	18.1	17.8
Computer Software & Accessories	9.8	9.8	9.1	8.5	8.0	7.9	8.0	7.7	8.0	7.9	7.6
Calculators, Typewriters & Other	12.4	12.3	11.8	11.1	10.6	10.4	10.5	10.2	10.5	10.4	10.1
Other Recreational Goods & Vehicles	6.5	7.0	7.7	7.3	6.9	6.5	6.9	6.5	6.7	6.8	6.3
Other Durable Goods	3.9	4.0	3.7	3.7	3.8	3.7	3.7	3.6	3.5	3.5	3.4
Therapeutic Appliances & Equipment	3.8	3.9	3.8	3.6	3.7	3.6	3.5	3.4	3.4	3.4	3.3
All Other	3.9	4.1	3.6	3.7	3.9	3.7	3.9	3.7	3.5	3.6	3.6
Nondurable Goods	2.4	2.8	2.8	2.7	2.5	2.4	2.4	2.5	2.5	2.6	2.5
Food & Beverages (Off-Premises)	1.2	1.3	1.4	1.3	1.3	1.2	1.2	1.1	1.1	1.1	1.0
Clothing & Footwear	4.1	4.7	4.5	4.2	3.5	3.5	3.6	3.4	3.7	3.6	3.4
Gasoline & Other Energy Goods	0.7	1.0	1.2	1.1	1.1	0.9	1.1	0.9	1.0	0.8	0.6
Motor Vehicle Fuels, Lubricants & Fluids	0.7	1.1	1.2	1.2	1.2	1.0	1.2	1.0	1.1	0.9	0.7
Fuel Oil & Other Fuels	-0.2	0.0	0.1	-0.1	-0.3	-0.4	-0.5	-0.6	-0.5	-0.6	-0.7
Other Nondurable Goods	3.5	4.0	3.9	3.7	3.6	3.5	3.3	3.5	3.5	3.7	3.5
Pharma. & Other Medical Products	6.2	6.6	6.1	5.4	5.2	4.7	4.3	4.3	4.4	4.5	4.2
Tobacco	-3.8	-3.4	-3.4	-3.6	-4.0	-4.1	-4.2	-4.3	-4.4	-4.5	-4.7
All Other	1.6	1.8	2.2	2.4	2.5	2.6	2.9	3.3	3.2	3.3	3.2
Services	2.4	2.5	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Household Cons. Expenditures (Services)	2.4	2.5	2.5	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.0
Housing & Utilities	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Housing	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Utilities	1.2	1.3	1.3	1.3	1.1	1.0	1.0	1.0	1.0	1.0	1.0
Water Supply & Sanitation	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Electricity	1.9	2.0	2.0	1.9	1.6	1.5	1.5	1.5	1.6	1.5	1.4
Natural Gas	0.3	0.3	0.5	0.6	0.5	0.4	0.5	0.4	0.4	0.4	0.3
Health Care	3.3	3.3	3.2	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9
Transportation Services	2.0	2.5	2.2	1.9	1.6	1.5	1.7	1.8	1.8	1.8	1.7
Motor Vehicle Services	2.3	2.9	2.3	1.8	1.4	1.3	1.4	1.5	1.5	1.4	1.3
Motor Vehicle Leasing	8.5	12.4	8.5	5.1	3.8	3.7	4.8	5.7	5.6	5.3	5.3
Other	1.5	1.5	1.3	1.2	1.0	0.9	0.9	0.8	0.8	0.8	0.6
Public Transportation	0.8	1.5	1.9	2.2	2.3	2.5	2.7	2.8	2.9	3.0	3.1
Local (Taxi & Intracity Mass Trans.)	1.9	2.1	1.9	1.7	1.4	1.5	1.7	1.6	1.7	1.7	1.6
Other	0.4	1.2	1.9	2.5	2.8	3.0	3.2	3.3	3.5	3.7	3.8
Recreation Services	3.1	3.6	2.8	1.8	1.6	1.4	1.4	1.3	1.4	1.4	1.4
Food Services & Accommodations	2.1	2.2	2.1	2.1	1.9	1.9	2.0	1.9	1.9	1.9	1.8
Food Services	2.2	2.3	2.2	2.1	2.0	1.9	2.1	1.9	2.0	2.0	1.9
Accommodations	1.4	1.5	1.7	1.6	1.4	1.3	1.4	1.4	1.4	1.5	1.4
Financial Services & Insurance	1.9	2.0	2.2	2.1	1.8	1.7	1.8	1.7	1.8	1.8	1.7
Financial Services	2.0	2.1	2.2	2.2	1.8	1.8	1.9	1.9	2.0	1.9	1.8
Fin. Services Furnished w/o Payment	2.4	2.3	2.1	2.0	1.8	1.9	2.0	2.0	2.0	2.0	2.0
Fin. Service Fees & Commissions	1.5	1.8	2.3	2.4	1.8	1.7	1.9	1.7	2.0	1.8	1.7
Insurance	1.7	2.0	2.1	2.0	1.7	1.5	1.5	1.5	1.5	1.6	1.5
Other Services	2.7	2.7	2.8	2.2	1.7	1.7	1.9	1.7	1.8	1.7	1.7
Telecommunication Services	2.5	2.5	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
All Other	2.7	2.8	2.8	2.2	1.6	1.5	1.8	1.5	1.7	1.6	1.6
Final Cons. Nonprofits Serving Hshlds.	1.1	1.4	1.7	1.9	2.1	2.1	2.0	1.9	1.9	2.1	2.2
Addenda:											
Per Capita Consumption	1.6	1.9	1.8	1.6	1.5	1.4	1.5	1.5	1.5	1.5	1.5
Health Consumption	3.8	4.0	3.8	3.5	3.5	3.4	3.3	3.3	3.2	3.3	3.2
Per Capita	3.5	3.4	3.2	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2
Energy Consumption	1.0	1.2	1.4	1.3	1.2	1.1	1.2	1.0	1.1	1.0	0.8
Per Capita	0.0	0.3	0.4	0.4	0.3	0.1	0.3	0.1	0.2	0.1	0.0

TABLE 7

## Real Consumer Spending Growth

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Percent Change											
Personal Consumption Expenditures	2.4	2.5	2.4	2.4	2.4	2.4	2.5	2.4	2.4	2.4	2.4
Consumption Excluding Food and Energy	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.5
Consumption Excluding New Motor Vehicles	2.4	2.5	2.4	2.4	2.4	2.5	2.5	2.4	2.4	2.4	2.4
Durable Goods	4.8	5.0	4.8	4.7	5.0	5.0	5.0	4.8	4.7	4.6	4.6
Motor Vehicles & Parts	2.1	2.2	2.2	2.2	2.5	2.5	2.8	2.8	2.7	2.9	2.8
New Motor Vehicles	0.9	0.9	1.2	1.0	1.2	1.1	1.3	1.2	1.3	1.2	1.1
New Autos	-1.5	-1.6	-1.4	-1.6	-1.5	-1.6	-1.5	-1.7	-1.7	-1.9	-2.0
New Light Trucks	2.3	2.3	2.6	2.3	2.5	2.5	2.7	2.5	2.6	2.4	2.3
Net Purchases of Used Motor Vehicles	4.2	4.3	3.8	4.0	4.2	4.3	4.6	4.7	4.3	4.7	4.6
Net Purchases of Used Autos	5.5	5.5	4.7	4.8	5.2	5.1	5.4	5.5	5.0	5.4	5.2
Net Purchases of Used Trucks	2.1	2.3	2.4	2.5	2.6	2.7	3.0	3.2	3.1	3.2	3.3
Motor Vehicle Parts & Accessories	-0.1	0.0	0.2	0.2	0.6	0.8	1.0	1.0	1.2	1.3	1.4
Furnishings & Durable Household Equip.	4.6	4.9	4.4	4.3	5.2	5.4	5.5	5.3	5.1	5.2	5.3
Recreational Goods and Vehicles	8.4	8.6	8.5	8.1	8.3	8.3	8.0	7.5	7.2	6.8	6.7
Information Processing Equipment	14.9	14.9	14.9	14.8	15.0	15.0	15.1	15.0	15.0	14.9	14.9
Computers & Peripheral Equipment	17.9	17.9	17.9	17.8	18.0	18.0	18.1	18.0	18.0	17.9	18.0
Computer Software & Accessories	7.7	7.7	7.7	7.6	7.8	7.8	7.9	7.8	7.8	7.7	7.7
Calculators, Typewriters & Other	10.3	10.3	10.3	10.2	10.4	10.4	10.4	10.3	10.3	10.3	9.9
Other Recreational Goods & Vehicles	6.2	6.5	6.3	5.8	6.0	6.0	5.5	4.8	4.4	3.8	3.4
Other Durable Goods	3.5	3.6	3.5	3.5	3.5	3.5	3.5	3.4	3.4	3.5	3.6
Therapeutic Appliances & Equipment	3.3	3.3	3.2	3.2	3.2	3.1	3.1	3.1	3.0	3.0	2.9
All Other	3.7	3.8	3.8	3.6	3.8	3.8	3.8	3.7	3.8	3.9	4.1
Nondurable Goods	2.4	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.4
Food & Beverages (Off-Premises)	1.0	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	0.9
Clothing & Footwear	3.6	3.6	3.5	3.5	3.7	3.7	3.7	3.7	3.6	3.6	3.6
Gasoline & Other Energy Goods	0.7	0.6	0.6	0.5	0.6	0.7	0.8	0.7	0.7	0.7	0.7
Motor Vehicle Fuels, Lubricants & Fluids	0.8	0.7	0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8
Fuel Oil & Other Fuels	-0.7	-0.7	-0.7	-0.7	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
Other Nondurable Goods	3.4	3.4	3.2	3.3	3.1	2.9	2.9	2.9	2.9	2.9	3.0
Pharma. & Other Medical Products	4.0	4.1	3.8	3.8	3.5	3.2	3.2	3.2	3.2	3.2	3.2
Tobacco	-4.9	-5.1	-5.3	-5.5	-5.7	-5.9	-6.0	-6.2	-6.4	-6.6	-6.7
All Other	3.2	3.2	3.1	3.1	3.2	3.3	3.2	3.0	3.1	3.1	3.2
Services	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Household Cons. Expenditures (Services)	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1
Housing & Utilities	1.7	1.6	1.7	1.6	1.7	1.7	1.7	1.7	1.6	1.6	1.6
Housing	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7
Utilities	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9
Water Supply & Sanitation	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Electricity	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3
Natural Gas	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.4
Health Care	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.6
Transportation Services	1.8	1.9	1.9	1.8	1.9	2.0	2.1	2.1	2.1	2.1	2.1
Motor Vehicle Services	1.4	1.5	1.5	1.4	1.5	1.6	1.6	1.6	1.6	1.6	1.6
Motor Vehicle Leasing	6.0	6.7	6.3	5.8	6.0	6.3	6.3	6.1	5.9	5.9	6.0
Other	0.7	0.6	0.6	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7
Public Transportation	3.2	3.3	3.4	3.4	3.5	3.6	3.7	3.8	3.9	3.9	4.0
Local (Taxi & Intracity Mass Trans.)	1.8	1.8	1.8	1.8	2.0	2.0	2.1	2.1	2.1	2.1	2.2
Other	3.9	4.0	4.1	4.2	4.2	4.4	4.5	4.6	4.6	4.7	4.7
Recreation Services	1.6	1.9	1.8	1.7	1.7	1.7	1.5	1.4	1.4	1.3	1.4
Food Services & Accommodations	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.0
Food Services	2.0	2.0	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1
Accommodations	1.5	1.6	1.6	1.5	1.6	1.7	1.7	1.8	1.7	1.8	1.8
Financial Services & Insurance	1.8	1.8	1.7	1.7	1.8	1.9	1.9	1.9	1.9	1.8	1.9
Financial Services	2.1	2.0	1.9	1.9	2.0	2.1	2.2	2.2	2.2	2.1	2.2
Fin. Services Furnished w/o Payment	2.1	2.1	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.2	2.4
Fin. Service Fees & Commissions	2.0	1.9	1.8	1.8	1.9	2.1	2.1	2.1	2.1	2.0	2.0
Insurance	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.4	1.4	1.4
Other Services	1.9	1.8	1.8	1.8	1.9	1.9	2.1	2.2	2.1	2.2	2.0
Telecommunication Services	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
All Other	1.8	1.7	1.7	1.7	1.8	1.8	2.0	2.1	2.0	2.1	1.9
Final Cons. Nonprofits Serving Hshlds.	2.5	2.6	2.7	2.9	3.0	3.2	3.3	3.5	3.7	4.0	4.0
Addenda:											
Per Capita Consumption	1.5	1.6	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Health Consumption	3.2	3.2	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.8	2.8
Per Capita	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Energy Consumption	0.9	0.9	0.8	0.8	0.9	0.9	1.0	0.9	0.9	0.9	0.9
Per Capita	0.0	0.0	0.0	-0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1

TABLE 8  
Nominal Consumer Spending

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Dollars										
Personal Consumption Expenditures	10092.6	10496.8	10941.3	11425.5	11867.2	12359.8	12919.2	13458.8	14000.1	14589.8
Consumption Excl. Food and Energy	8782.2	9108.2	9499.7	9926.5	10321.8	10769.0	11276.9	11769.7	12268.0	12813.6
Consumption Excl. New Motor Vehicles	9930.0	10305.9	10712.4	11172.1	11617.7	12099.4	12614.4	13139.7	13694.4	14299.3
Durable Goods	1034.3	1090.1	1153.4	1221.4	1254.7	1287.8	1357.6	1399.5	1411.5	1427.5
Motor Vehicles & Parts	312.6	349.0	396.7	436.2	441.1	455.3	501.4	518.9	504.9	491.6
New Motor Vehicles	162.6	190.9	228.9	253.5	249.5	260.4	304.9	319.1	305.7	290.6
New Autos	71.7	83.1	99.5	110.0	110.3	116.4	133.7	139.7	134.8	130.9
New Light Trucks	90.9	107.8	129.5	143.5	139.2	144.0	171.2	179.5	171.0	159.7
Net Purchases of Used Motor Veh.	99.1	107.2	117.0	132.5	142.0	146.6	149.3	153.6	153.9	156.4
Net Purchases of Used Autos	42.5	44.7	48.6	60.5	70.8	75.4	74.8	76.8	77.7	80.3
Net Purchases of Used Trucks	56.5	62.5	68.4	72.0	71.2	71.2	74.6	76.9	76.3	76.1
Motor Vehicle Parts & Accessories	50.9	51.0	50.7	50.3	49.6	48.3	47.2	46.2	45.3	44.7
Furnishings & Durable Hshld. Equip.	253.2	256.8	259.4	269.3	278.4	282.5	288.2	294.6	300.5	307.0
Recreational Goods and Vehicles	327.6	337.6	345.3	357.8	371.3	381.7	392.8	403.0	414.2	427.7
Information Processing Equipment	65.2	69.0	72.0	76.6	81.4	86.0	90.1	94.0	98.3	103.1
Computers & Peripheral Equipment	46.0	48.8	50.9	54.3	57.6	60.9	63.7	66.5	69.6	73.0
Computer Software & Accessories	17.5	18.5	19.3	20.5	21.8	23.0	24.1	25.2	26.3	27.6
Calculators, Typewriters & Other	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5
Other Recreational Goods & Vehicles	262.5	268.6	273.3	281.2	289.9	295.7	302.7	308.9	315.9	324.5
Other Durable Goods	140.9	146.7	152.0	158.1	163.8	168.3	175.2	183.1	191.8	201.3
Therapeutic Appliances & Equip.	44.4	46.3	49.3	53.3	57.1	60.2	63.8	67.7	71.9	76.4
All Other	96.5	100.4	102.8	104.8	106.7	108.0	111.5	115.4	119.9	124.9
Nondurable Goods	2223.3	2346.0	2439.8	2537.9	2623.2	2713.8	2812.1	2916.0	3024.7	3144.0
Food & Beverages (Off-Premises)	790.1	826.7	867.1	899.1	926.6	954.1	982.0	1009.9	1038.7	1068.4
Clothing & Footwear	325.7	334.8	340.4	347.2	352.8	362.7	373.5	385.0	397.5	411.4
Gasoline & Other Energy Goods	307.4	348.6	359.9	377.4	389.1	398.9	408.9	417.8	423.7	429.9
Motor Veh. Fuels, Lubricants & Fluids	286.6	326.6	338.4	354.8	365.4	374.1	383.2	391.6	397.3	403.2
Fuel Oil & Other Fuels	20.8	22.1	21.5	22.6	23.7	24.8	25.8	26.2	26.4	26.7
Other Nondurable Goods	800.1	835.9	872.4	914.1	954.7	998.1	1047.7	1103.3	1164.8	1234.4
Pharma. & Other Medical Products	293.5	312.9	340.0	371.1	401.4	434.4	473.9	521.5	574.4	634.1
Tobacco	90.6	93.0	91.1	91.9	92.6	93.3	94.3	95.5	97.0	98.5
All Other	416.0	430.0	441.4	451.1	460.7	470.3	479.5	486.3	493.4	501.7
Services	6834.9	7060.7	7348.0	7666.3	7989.3	8358.2	8749.5	9143.3	9563.9	10018.3
Household Cons. Expend. (Services)	6569.7	6785.9	7058.3	7359.6	7665.2	8017.0	8392.2	8769.7	9174.7	9613.4
Housing & Utilities	1878.3	1897.0	1936.3	1999.5	2070.2	2146.2	2230.0	2314.7	2403.1	2494.4
Housing	1583.6	1598.4	1634.7	1687.2	1747.5	1811.8	1878.2	1948.9	2024.9	2103.7
Utilities	294.6	298.7	301.5	312.2	322.7	334.4	351.7	365.8	378.2	390.7
Water Supply & Sanitation	81.7	85.4	86.9	89.7	93.0	96.6	100.4	104.3	108.5	112.7
Electricity	160.3	162.6	161.5	168.1	173.6	178.8	185.7	192.3	199.1	206.0
Natural Gas	52.7	50.6	53.1	54.5	56.0	59.0	65.7	69.1	70.6	71.9
Health Care	1626.0	1693.4	1774.0	1871.9	1968.0	2073.1	2195.3	2333.6	2481.3	2641.1
Transportation Services	304.6	317.0	326.3	338.8	355.1	374.5	389.4	397.2	407.4	420.8
Motor Vehicle Services	225.0	230.8	238.9	249.9	264.4	281.4	293.8	299.3	307.5	319.1
Motor Vehicle Leasing	33.8	33.8	33.9	35.9	41.0	46.7	47.8	42.7	39.6	39.8
Other	191.2	197.0	204.9	214.0	223.4	234.6	246.0	256.7	267.9	279.4
Public Transportation	79.5	86.2	87.4	88.8	90.7	93.1	95.6	97.8	99.8	101.6
Local (Taxi & Intracity Mass Trans.)	21.6	22.8	24.1	25.0	25.9	27.0	28.0	29.1	30.2	31.4
Other	58.0	63.4	63.3	63.8	64.8	66.2	67.6	68.8	69.6	70.3
Recreation Services	382.6	395.6	412.4	428.5	446.7	469.0	488.0	506.6	527.5	552.0
Food Services & Accommodations	605.7	633.1	678.4	717.3	750.2	783.1	816.3	850.2	886.0	923.7
Food Services	530.7	553.6	595.2	631.9	662.4	692.7	723.1	754.1	787.0	821.3
Accommodations	75.0	79.5	83.2	85.4	87.8	90.5	93.2	96.0	99.1	102.4
Financial Services & Insurance	828.5	865.4	908.8	943.1	981.8	1027.5	1076.8	1123.7	1173.6	1227.2
Financial Services	505.4	529.0	555.5	573.1	593.6	620.3	651.1	679.5	710.0	742.4
Fin. Serv. Furnished w/o Payment	272.7	285.3	294.7	305.5	319.6	335.8	352.4	369.1	387.2	406.4
Fin. Service Fees & Commissions	232.7	243.8	260.8	267.5	273.9	284.6	298.7	310.4	322.7	336.0
Insurance	323.0	336.4	353.3	370.1	388.3	407.2	425.7	444.2	463.6	484.8
Other Services	944.1	984.4	1022.2	1060.6	1093.3	1143.6	1196.5	1243.8	1295.9	1354.2
Telecommunication Services	171.0	175.2	176.4	175.9	173.3	173.7	173.4	173.3	174.3	175.9
All Other	773.1	809.2	845.8	884.6	920.0	969.9	1023.1	1070.5	1121.5	1178.3
Final Cons. Nonprofits Serving Hshlds.	265.2	274.8	289.7	306.6	324.1	341.2	357.3	373.5	389.2	404.8
Addenda:										
Health Consumption	1963.9	2052.5	2163.2	2296.3	2426.5	2567.7	2732.9	2922.8	3127.5	3351.6
Energy Consumption	520.4	561.9	574.5	600.0	618.8	636.6	660.3	679.2	693.4	707.8
Retail & Food Service Sales	4137.4	4336.8	4601.2	4862.0	5059.4	5260.9	5509.6	5743.6	5954.9	6187.2



TABLE 8

## Nominal Consumer Spending

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Dollars											
Personal Consumption Expenditures	15227.3	15917.3	16621.2	17327.8	18045.3	18791.8	19591.0	20419.0	21295.9	22217.8	23166.4
Consumption Excl. Food and Energy	13408.9	14058.0	14719.8	15381.9	16053.3	16746.4	17488.4	18259.0	19075.8	19934.2	20820.4
Consumption Excl. New Motor Vehicles	14941.5	15622.4	16316.7	17015.1	17727.5	18470.3	19266.1	20091.6	20963.9	21881.4	22827.3
Durable Goods	1460.3	1513.5	1566.6	1616.9	1664.0	1709.1	1763.3	1816.2	1872.8	1931.5	1987.0
Motor Vehicles & Parts	490.7	506.1	521.6	534.9	545.0	554.4	565.7	576.2	589.5	603.9	616.5
New Motor Vehicles	285.8	294.9	304.4	312.7	317.8	321.5	324.9	327.3	331.9	336.4	339.1
New Autos	129.8	133.1	135.0	135.5	134.8	133.6	132.3	130.5	129.4	128.2	126.4
New Light Trucks	156.0	161.8	169.5	177.2	183.0	187.9	192.7	196.8	202.5	208.2	212.7
Net Purchases of Used Motor Veh.	160.8	167.7	174.5	180.7	186.7	193.3	201.9	210.8	220.0	230.5	240.9
Net Purchases of Used Autos	84.6	89.8	94.8	99.7	104.8	110.4	117.7	124.9	132.2	140.4	148.6
Net Purchases of Used Trucks	76.2	78.0	79.7	80.9	81.9	82.9	84.2	85.9	87.8	90.1	92.3
Motor Vehicle Parts & Accessories	44.1	43.5	42.6	41.6	40.6	39.6	38.8	38.1	37.5	37.0	36.4
Furnishings & Durable Hshld. Equip.	315.2	325.5	334.2	342.7	351.8	360.2	372.8	386.1	398.5	410.5	422.6
Recreational Goods and Vehicles	443.2	460.3	479.4	497.3	513.7	529.2	546.8	562.9	580.6	598.9	615.3
Information Processing Equipment	108.5	114.3	119.7	124.6	129.1	133.5	138.2	142.8	147.8	152.9	157.7
Computers & Peripheral Equipment	76.8	80.9	84.7	88.2	91.3	94.5	97.8	101.1	104.6	108.2	111.6
Computer Software & Accessories	29.0	30.6	32.0	33.3	34.5	35.7	37.0	38.2	39.6	40.9	42.2
Calculators, Typewriters & Other	2.7	2.8	2.9	3.1	3.2	3.3	3.4	3.5	3.6	3.8	3.9
Other Recreational Goods & Vehicles	334.7	346.0	359.8	372.7	384.7	395.7	408.6	420.1	432.8	446.0	457.6
Other Durable Goods	211.2	221.5	231.5	241.9	253.4	265.3	278.0	291.0	304.2	318.1	332.6
Therapeutic Appliances & Equipment	80.9	85.7	90.5	95.5	101.0	106.9	113.2	119.8	126.6	133.9	141.4
All Other	130.3	135.9	141.0	146.5	152.4	158.3	164.8	171.2	177.6	184.3	191.1
Nondurable Goods	3266.4	3398.7	3535.7	3677.6	3825.4	3986.5	4156.7	4335.9	4527.0	4732.6	4941.2
Food & Beverages (Off-Premises)	1098.7	1129.2	1159.7	1191.0	1222.4	1254.2	1287.1	1320.1	1354.0	1388.7	1423.2
Clothing & Footwear	427.3	445.7	463.6	480.9	496.2	512.2	530.2	547.7	567.3	587.3	606.7
Gasoline & Other Energy Goods	431.9	432.4	434.1	438.0	442.9	445.7	449.5	453.2	456.9	460.6	464.3
Motor Veh. Fuels, Lubricants & Fluids	405.1	405.5	407.2	410.9	415.7	421.1	427.1	433.6	440.6	448.1	456.1
Fuel Oil & Other Fuels	26.8	26.8	26.9	27.1	27.2	27.5	27.9	28.2	28.6	29.0	29.5
Other Nondurable Goods	1308.5	1391.4	1478.3	1567.7	1663.9	1764.4	1870.0	1985.5	2108.2	2242.3	2380.8
Pharma. & Other Medical Products	698.5	771.1	846.3	922.5	1004.5	1089.5	1177.6	1272.9	1375.6	1488.9	1606.7
Tobacco	100.0	101.8	103.4	104.9	105.9	107.0	108.0	108.8	109.5	110.1	110.6
All Other	509.9	518.5	528.6	540.3	553.4	568.0	584.4	603.8	623.0	643.3	663.5
Services	10500.7	11005.2	11518.8	12033.2	12555.9	13096.2	13671.0	14266.8	14896.1	15553.8	16238.2
Household Cons. Expend. (Services)	10079.8	10566.9	11061.1	11554.4	12054.2	12570.7	13120.7	13691.3	14294.1	14922.9	15576.5
Housing & Utilities	2589.6	2684.9	2780.9	2879.5	2981.1	3085.3	3193.9	3307.4	3424.9	3547.2	3672.7
Housing	2184.6	2265.7	2347.5	2432.3	2519.9	2610.7	2704.0	2801.3	2902.3	3007.0	3115.1
Utilities	405.0	419.3	433.4	447.2	461.2	474.6	489.9	506.1	522.6	540.2	557.6
Water Supply & Sanitation	117.1	121.5	125.9	130.2	134.6	139.1	143.9	148.8	154.1	159.5	165.2
Electricity	213.7	221.9	230.0	237.5	244.9	252.0	259.9	268.3	276.9	286.2	295.6
Natural Gas	74.2	75.8	77.5	79.5	81.8	83.5	86.2	89.0	91.6	94.4	96.8
Health Care	2803.6	2972.4	3145.2	3321.2	3509.5	3705.9	3912.5	4129.5	4356.4	4595.6	4847.2
Transportation Services	437.5	456.4	474.3	491.3	507.7	524.6	543.1	562.7	583.4	605.0	627.0
Motor Vehicle Services	333.9	350.5	365.6	379.5	392.6	405.9	420.5	436.0	452.2	469.0	486.0
Motor Vehicle Leasing	42.9	48.0	51.8	54.0	55.6	57.2	59.6	62.7	65.8	68.9	72.2
Other	291.0	302.5	313.9	325.5	337.0	348.7	360.9	373.3	386.4	400.0	413.7
Public Transportation	103.5	105.9	108.7	111.8	115.1	118.7	122.6	126.7	131.2	136.0	141.0
Local (Taxi & Intracity Mass Trans.)	32.7	34.0	35.3	36.6	37.8	39.0	40.3	41.6	43.0	44.4	45.8
Other	70.8	71.9	73.3	75.2	77.3	79.7	82.3	85.1	88.2	91.6	95.2
Recreation Services	581.4	614.6	644.2	668.8	693.3	717.9	743.6	769.8	798.0	827.5	857.8
Food Services & Accommodations	963.7	1005.3	1046.7	1089.1	1131.4	1174.9	1222.0	1269.6	1320.2	1372.9	1427.0
Food Services	857.9	895.8	933.4	971.7	1010.2	1049.9	1093.1	1136.6	1182.8	1230.9	1280.4
Accommodations	105.8	109.5	113.4	117.4	121.2	124.9	128.9	133.0	137.4	142.0	146.6
Financial Services & Insurance	1283.0	1342.0	1404.9	1470.3	1534.3	1600.1	1670.9	1745.3	1824.8	1907.5	1992.9
Financial Services	775.5	810.0	846.6	885.2	922.2	960.8	1002.5	1046.1	1092.8	1140.6	1189.8
Fin. Serv. Furnished w/o Payment	425.8	445.2	464.7	484.9	505.1	526.6	549.5	574.0	599.4	625.8	653.1
Fin. Serv. Fees & Commissions	349.8	364.8	381.9	400.3	417.0	434.2	453.0	472.1	493.4	514.8	536.8
Insurance	507.5	532.0	558.2	585.1	612.1	639.3	668.4	699.3	732.1	766.9	803.1
Other Services	1421.1	1491.2	1564.9	1633.4	1697.0	1762.1	1834.6	1907.0	1986.4	2067.2	2151.9
Telecommunication Services	177.8	179.3	181.0	182.7	184.4	186.2	188.1	190.1	192.2	194.4	196.6
All Other	1243.3	1311.9	1384.0	1450.7	1512.6	1575.9	1646.5	1716.9	1794.2	1872.8	1955.3
Final Cons. Nonprofits Serving Hshlds.	420.8	438.3	457.7	478.9	501.7	525.5	550.4	575.5	602.1	630.8	661.7
Addenda:											
Health Consumption	3583.1	3829.2	4081.9	4340.1	4615.0	4902.3	5203.4	5522.2	5858.6	6218.4	6595.3
Energy Consumption	719.7	730.1	741.6	755.0	769.5	791.1	815.5	839.9	866.1	894.9	922.8
Retail & Food Service Sales	6447.1	6744.3	7047.1	7357.3	7674.8	8009.7	8375.7	8755.0	9156.0	9580.5	10013.5

TABLE 8  
Nominal Consumer Spending

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Dollars											
Personal Consumption Expenditures	24172.7	25232.3	26322.0	27458.2	28659.9	29919.4	31241.0	32618.8	34054.1	35556.7	37119.4
Consumption Excl. Food and Energy	21763.3	22758.9	23787.0	24861.4	25997.6	27190.0	28443.1	29751.3	31115.1	32544.6	34032.6
Consumption Excl. New Motor Vehicles	23830.9	24887.6	25973.3	27106.4	28304.2	29559.7	30876.8	32250.3	33681.2	35179.6	36738.5
Durable Goods	2048.4	2115.7	2182.0	2247.2	2322.2	2401.0	2482.9	2563.1	2642.1	2722.6	2805.4
Motor Vehicles & Parts	630.9	646.5	662.7	679.1	697.9	717.7	739.9	763.3	786.7	812.1	838.0
New Motor Vehicles	341.8	344.7	348.6	351.8	355.8	359.7	364.3	368.5	373.0	377.1	380.9
New Autos	124.6	122.7	121.2	119.3	117.6	115.8	114.1	112.3	110.5	108.5	106.4
New Light Trucks	217.2	221.9	227.5	232.5	238.2	243.9	250.1	256.2	262.5	268.6	274.6
Net Purchases of Used Motor Veh.	253.1	266.2	278.8	292.4	307.4	323.4	341.1	360.4	379.3	400.5	422.5
Net Purchases of Used Autos	158.2	168.5	178.1	188.4	200.0	212.3	225.9	240.6	255.0	271.2	288.1
Net Purchases of Used Trucks	94.9	97.7	100.8	104.0	107.4	111.1	115.3	119.8	124.3	129.3	134.4
Motor Vehicle Parts & Accessories	36.0	35.6	35.3	34.9	34.7	34.6	34.5	34.5	34.4	34.5	34.5
Furnishings & Durable Hshld. Equip.	437.9	455.1	470.5	486.3	506.7	529.0	552.7	576.5	600.1	625.2	652.0
Recreational Goods and Vehicles	631.6	649.8	667.4	683.0	700.2	717.5	733.0	745.1	755.1	761.8	766.9
Information Processing Equipment	162.9	168.4	173.9	179.4	185.4	191.7	198.3	205.0	211.9	218.8	226.1
Computers & Peripheral Equipment	115.3	119.2	123.1	127.0	131.2	135.7	140.3	145.1	149.9	154.9	160.0
Computer Software & Accessories	43.6	45.1	46.5	48.0	49.6	51.3	53.1	54.9	56.7	58.6	60.5
Calculators, Typewriters & Other	4.0	4.1	4.3	4.4	4.6	4.7	4.9	5.0	5.2	5.4	5.6
Other Recreational Goods & Vehicles	468.7	481.5	493.5	503.6	514.8	525.8	534.7	540.1	543.3	543.0	540.8
Other Durable Goods	347.9	364.3	381.3	398.8	417.4	436.8	457.2	478.1	500.2	523.5	548.5
Therapeutic Appliances & Equipment	149.4	157.9	166.7	176.0	185.8	195.9	206.7	217.9	229.7	242.1	254.9
All Other	198.5	206.5	214.6	222.8	231.6	240.9	250.6	260.2	270.5	281.4	293.6
Nondurable Goods	5158.5	5388.3	5622.1	5868.1	6125.5	6389.8	6666.2	6955.6	7260.6	7581.8	7920.8
Food & Beverages (Off-Premises)	1458.2	1494.0	1530.1	1566.4	1603.9	1642.3	1681.8	1722.0	1762.8	1804.5	1847.0
Clothing & Footwear	628.1	650.2	672.5	695.3	720.2	746.3	773.2	800.7	828.9	858.0	888.1
Gasoline & Other Energy Goods	547.2	563.8	579.0	594.0	611.3	627.8	644.5	661.7	679.1	697.1	715.5
Motor Veh. Fuels, Lubricants & Fluids	517.2	533.4	548.2	562.7	579.5	595.6	611.8	628.5	645.4	662.9	680.9
Fuel Oil & Other Fuels	29.9	30.4	30.9	31.3	31.8	32.2	32.7	33.2	33.7	34.2	34.6
Other Nondurable Goods	2525.0	2680.3	2840.5	3012.3	3190.1	3373.4	3566.6	3771.2	3989.8	4222.1	4470.2
Pharma. & Other Medical Products	1729.6	1863.3	2002.4	2152.9	2308.1	2467.8	2637.9	2820.1	3015.1	3223.5	3446.2
Tobacco	110.8	110.8	110.4	109.9	109.1	108.1	106.9	105.6	104.0	102.2	100.3
All Other	684.6	706.2	727.6	749.5	772.9	797.5	821.8	845.6	870.7	896.4	923.6
Services	16965.8	17728.2	18517.8	19343.0	20212.3	21128.5	22092.0	23100.1	24151.4	25252.3	26393.2
Household Cons. Expend. (Services)	16269.8	16995.5	17746.2	18529.1	19352.7	20219.7	21130.1	22080.6	23069.0	24100.5	25167.1
Housing & Utilities	3801.1	3932.7	4068.0	4207.0	4350.2	4499.8	4654.8	4814.3	4980.2	5151.7	5327.2
Housing	3225.9	3339.7	3458.3	3580.1	3705.6	3836.0	3971.3	4110.9	4255.8	4405.8	4559.1
Utilities	575.2	593.0	609.7	626.9	644.6	663.8	683.5	703.4	724.4	745.9	768.0
Water Supply & Sanitation	171.2	177.4	183.9	190.6	197.4	204.5	211.9	219.5	227.3	235.4	243.8
Electricity	305.2	314.7	323.8	332.9	342.4	352.3	362.4	372.5	383.0	393.5	404.5
Natural Gas	98.8	100.8	102.0	103.5	104.7	106.9	109.2	111.4	114.2	117.0	119.7
Health Care	5113.4	5394.0	5687.3	5997.9	6324.9	6668.9	7030.6	7409.6	7807.6	8223.5	8654.7
Transportation Services	650.4	675.4	700.9	726.6	754.0	783.1	813.6	845.2	877.9	911.9	947.2
Motor Vehicle Services	504.1	523.6	543.3	563.0	584.0	606.3	629.7	653.9	678.8	704.7	731.5
Motor Vehicle Leasing	76.2	80.9	85.7	90.2	95.2	100.8	106.6	112.7	118.8	125.3	132.1
Other	427.9	442.7	457.6	472.8	488.8	505.5	523.1	541.3	560.0	579.4	599.4
Public Transportation	146.3	151.8	157.6	163.6	170.0	176.8	183.9	191.3	199.1	207.2	215.7
Local (Taxi & Intracity Mass Trans.)	47.3	48.7	50.2	51.7	53.3	54.9	56.5	58.1	59.7	61.4	63.1
Other	99.0	103.1	107.4	111.9	116.8	121.9	127.4	133.2	139.4	145.8	152.6
Recreation Services	890.9	928.5	966.4	1005.0	1044.7	1085.7	1126.4	1168.1	1210.3	1253.0	1298.0
Food Services & Accommodations	1484.6	1544.7	1606.5	1670.6	1738.7	1810.2	1884.8	1962.1	2042.2	2125.4	2211.9
Food Services	1333.3	1388.2	1444.8	1503.5	1565.8	1631.2	1699.4	1770.0	1843.2	1919.2	1998.2
Accommodations	151.4	156.5	161.8	167.1	172.9	179.0	185.4	192.1	199.0	206.1	213.6
Financial Services & Insurance	2084.5	2180.7	2279.7	2382.5	2492.2	2609.4	2733.1	2862.0	2996.1	3135.6	3283.9
Financial Services	1243.7	1299.8	1356.9	1416.4	1479.9	1547.5	1618.9	1693.1	1770.2	1850.0	1935.5
Fin. Serv. Furnished w/o Payment	682.5	713.5	745.4	778.5	813.9	851.5	891.4	932.9	975.9	1020.9	1070.2
Fin. Service Fees & Commissions	561.2	586.3	611.5	637.8	666.0	696.1	727.6	760.2	794.2	829.1	865.3
Insurance	840.8	880.9	922.8	966.1	1012.3	1061.9	1114.2	1168.9	1226.0	1285.6	1348.4
Other Services	2245.0	2339.6	2437.3	2539.5	2648.0	2762.5	2886.8	3019.2	3154.7	3294.4	3444.3
Telecommunication Services	198.9	201.3	203.8	206.1	208.5	210.9	213.3	215.7	218.1	220.5	222.9
All Other	2046.0	2138.3	2233.5	2333.4	2439.5	2551.6	2673.5	2803.4	2936.5	3078.9	3221.4
Final Cons. Nonprofits Serving Hshlds.	696.0	732.7	771.6	813.9	859.6	908.9	961.9	1019.6	1082.3	1151.9	1226.2
Addenda:											
Health Consumption	6992.4	7415.2	7856.4	8326.8	8818.9	9332.6	9875.2	10447.7	11052.3	11689.1	12355.9
Energy Consumption	951.2	979.4	1004.9	1030.4	1058.4	1087.0	1116.2	1145.6	1176.2	1207.6	1239.8
Retail & Food Service Sales	10476.3	10968.1	11468.3	11992.1	12555.1	13142.6	13758.5	14397.0	15063.0	15763.1	16501.1

TABLE 9  
Nominal Consumer Spending

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Percent Change										
Personal Consumption Expenditures	-0.4	4.0	4.2	4.4	3.9	4.2	4.5	4.2	4.0	4.2
Consumption Excluding Food and Energy	0.8	3.7	4.3	4.5	4.0	4.3	4.7	4.4	4.2	4.4
Consumption Excluding New Motor Vehicles	-0.2	3.8	3.9	4.3	4.0	4.1	4.3	4.2	4.2	4.4
Durable Goods	-5.6	5.4	5.8	5.9	2.7	2.6	5.4	3.1	0.9	1.1
Motor Vehicles & Parts	-8.7	11.7	13.6	10.0	1.1	3.2	10.1	3.5	-2.7	-2.6
New Motor Vehicles	-11.9	17.4	19.9	10.7	-1.6	4.4	17.1	4.7	-4.2	-5.0
New Autos	-16.1	15.8	19.8	10.5	0.3	5.5	14.9	4.5	-3.5	-2.8
New Light Trucks	-8.2	18.6	20.1	10.8	-3.0	3.4	18.9	4.9	-4.7	-6.6
Net Purchases of Used Motor Vehicles	-6.0	8.2	9.2	13.2	7.2	3.2	1.9	2.9	0.2	1.6
Net Purchases of Used Autos	-8.8	5.1	8.8	24.4	17.1	6.5	-0.9	2.7	1.2	3.4
Net Purchases of Used Trucks	-3.7	10.5	9.4	5.3	-1.2	0.0	4.8	3.1	-0.8	-0.2
Motor Vehicle Parts & Accessories	-2.9	0.1	-0.5	-0.9	-1.3	-2.6	-2.3	-2.2	-1.8	-1.5
Furnishings & Durable Household Equip.	-6.3	1.4	1.0	3.8	3.4	1.5	2.0	2.2	2.0	2.1
Recreational Goods and Vehicles	-3.6	3.0	2.3	3.6	3.8	2.8	2.9	2.6	2.8	3.2
Information Processing Equipment	-1.7	5.9	4.3	6.5	6.2	5.7	4.7	4.4	4.6	4.9
Computers & Peripheral Equipment	-1.7	6.1	4.3	6.5	6.2	5.7	4.7	4.4	4.6	4.9
Computer Software & Accessories	-1.2	5.5	4.3	6.5	6.2	5.7	4.7	4.4	4.6	4.9
Calculators, Typewriters & Other	-4.9	4.3	4.3	6.5	6.2	5.7	4.7	4.4	4.6	4.9
Other Recreational Goods & Vehicles	-4.1	2.3	1.8	2.9	3.1	2.0	2.4	2.1	2.3	2.7
Other Durable Goods	-1.3	4.1	3.7	4.0	3.6	2.8	4.1	4.5	4.7	4.9
Therapeutic Appliances & Equipment	-0.3	4.2	6.5	8.1	7.1	5.5	5.9	6.2	6.2	6.2
All Other	-1.8	4.0	2.3	2.0	1.8	1.3	3.2	3.5	3.9	4.2
Nondurable Goods	-3.7	5.5	4.0	4.0	3.4	3.5	3.6	3.7	3.7	3.9
Food & Beverages (Off-Premises)	0.7	4.6	4.9	3.7	3.1	3.0	2.9	2.8	2.9	2.9
Clothing & Footwear	-3.5	2.8	1.7	2.0	1.6	2.8	3.0	3.1	3.2	3.5
Gasoline & Other Energy Goods	-25.6	13.4	3.2	4.9	3.1	2.5	2.5	2.2	1.4	1.5
Motor Vehicle Fuels, Lubricants & Fluids	-25.8	14.0	3.6	4.8	3.0	2.4	2.4	2.2	1.4	1.5
Fuel Oil & Other Fuels	-21.7	5.9	-2.6	5.3	4.7	4.6	3.9	1.7	0.8	1.1
Other Nondurable Goods	3.5	4.5	4.4	4.8	4.4	4.5	5.0	5.3	5.6	6.0
Pharma. & Other Medical Products	5.0	6.6	8.7	9.2	8.2	8.2	9.1	10.0	10.1	10.4
Tobacco	17.5	2.6	-2.1	0.9	0.7	0.8	1.0	1.3	1.6	1.5
All Other	-0.1	3.4	2.7	2.2	2.1	2.1	1.9	1.4	1.5	1.7
Services	1.6	3.3	4.1	4.3	4.2	4.6	4.7	4.5	4.6	4.8
Household Cons. Expenditures (Services)	1.9	3.3	4.0	4.3	4.2	4.6	4.7	4.5	4.6	4.8
Housing & Utilities	1.9	1.0	2.1	3.3	3.5	3.7	3.9	3.8	3.8	3.8
Housing	2.6	0.9	2.3	3.2	3.6	3.7	3.7	3.8	3.9	3.9
Utilities	-2.0	1.4	1.0	3.5	3.3	3.6	5.2	4.0	3.4	3.3
Water Supply & Sanitation	6.0	4.5	1.8	3.2	3.7	3.9	3.9	3.9	4.0	3.9
Electricity	2.1	1.5	-0.7	4.1	3.3	3.0	3.9	3.6	3.5	3.5
Natural Gas	-20.8	-3.8	4.8	2.6	2.8	5.3	11.4	5.2	2.1	1.9
Health Care	4.6	4.1	4.8	5.5	5.1	5.3	5.9	6.3	6.3	6.4
Transportation Services	-1.0	4.1	2.9	3.8	4.8	5.5	4.0	2.0	2.6	3.3
Motor Vehicle Services	1.6	2.6	3.5	4.6	5.8	6.4	4.4	1.9	2.7	3.8
Motor Vehicle Leasing	-8.9	-0.1	0.4	5.8	14.2	13.9	2.2	-10.7	-7.2	0.4
Other	3.7	3.0	4.0	4.5	4.4	5.1	4.8	4.3	4.4	4.3
Public Transportation	-7.8	8.3	1.5	1.6	2.1	2.7	2.6	2.4	2.0	1.8
Local (Taxi & Intracity Mass Trans.)	3.8	5.6	5.7	3.8	3.4	4.2	3.9	3.8	3.9	4.0
Other	-11.4	9.4	0.0	0.7	1.6	2.1	2.1	1.8	1.3	0.9
Recreation Services	-0.1	3.4	4.2	3.9	4.3	5.0	4.0	3.8	4.1	4.7
Food Services & Accommodations	-0.5	4.5	7.1	5.7	4.6	4.4	4.2	4.1	4.2	4.3
Food Services	1.1	4.3	7.5	6.2	4.8	4.6	4.4	4.3	4.4	4.4
Accommodations	-10.2	6.1	4.7	2.6	2.8	3.0	3.1	3.0	3.2	3.3
Financial Services & Insurance	-0.9	4.5	5.0	3.8	4.1	4.7	4.8	4.4	4.4	4.6
Financial Services	-3.0	4.7	5.0	3.2	3.6	4.5	5.0	4.4	4.5	4.6
Fin. Services Furnished w/o Payment	0.5	4.6	3.3	3.7	4.6	5.0	5.0	4.7	4.9	5.0
Fin. Service Fees & Commissions	-6.7	4.7	7.0	2.6	2.4	3.9	5.0	3.9	4.0	4.1
Insurance	2.7	4.1	5.0	4.7	4.9	4.9	4.5	4.4	4.4	4.6
Other Services	3.2	4.3	3.8	3.8	3.1	4.6	4.6	4.0	4.2	4.5
Telecommunication Services	1.8	2.5	0.7	-0.3	-1.5	0.2	-0.2	0.0	0.6	0.9
All Other	3.5	4.7	4.5	4.6	4.0	5.4	5.5	4.6	4.8	5.1
Final Cons. Nonprofits Serving Households	-4.8	3.6	5.4	5.8	5.7	5.3	4.7	4.5	4.2	4.0
Addenda:										
Health Consumption	4.6	4.5	5.4	6.2	5.7	5.8	6.4	6.9	7.0	7.2
Energy Consumption	-18.3	8.0	2.2	4.4	3.1	2.9	3.7	2.9	2.1	2.1
Retail & Food Service Sales (SAAR)	-6.0	4.8	6.1	5.7	4.1	4.0	4.7	4.2	3.7	3.9

TABLE 9  
Nominal Consumer Spending

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Percent Change											
Personal Consumption Expenditures	4.4	4.5	4.4	4.3	4.1	4.1	4.3	4.2	4.3	4.3	4.3
Consumption Excluding Food and Energy	4.6	4.8	4.7	4.5	4.4	4.3	4.4	4.4	4.5	4.5	4.4
Consumption Excluding New Motor Vehicles	4.5	4.6	4.4	4.3	4.2	4.2	4.3	4.3	4.3	4.4	4.3
Durable Goods	2.3	3.6	3.5	3.2	2.9	2.7	3.2	3.0	3.1	3.1	2.9
Motor Vehicles & Parts	-0.2	3.1	3.0	2.6	1.9	1.7	2.0	1.9	2.3	2.4	2.1
New Motor Vehicles	-1.6	3.2	3.2	2.7	1.6	1.2	1.1	0.7	1.4	1.4	0.8
New Autos	-0.9	2.6	1.4	0.4	-0.5	-0.9	-1.0	-1.3	-0.8	-0.9	-1.4
New Light Trucks	-2.3	3.7	4.8	4.6	3.3	2.7	2.6	2.1	2.9	2.8	2.1
Net Purchases of Used Motor Vehicles	2.8	4.3	4.0	3.5	3.3	3.5	4.5	4.4	4.4	4.7	4.5
Net Purchases of Used Autos	5.3	6.2	5.6	5.1	5.1	5.4	6.6	6.1	5.8	6.2	5.9
Net Purchases of Used Trucks	0.2	2.3	2.2	1.6	1.2	1.2	1.6	2.0	2.3	2.6	2.5
Motor Vehicle Parts & Accessories	-1.3	-1.4	-2.0	-2.4	-2.4	-2.4	-2.0	-1.8	-1.5	-1.5	-1.5
Furnishings & Durable Household Equip	2.7	3.3	2.7	2.6	2.6	2.4	3.5	3.6	3.2	3.0	2.9
Recreational Goods and Vehicles	3.6	3.8	4.2	3.7	3.3	3.0	3.3	2.9	3.1	3.2	2.7
Information Processing Equipment	5.2	5.3	4.7	4.1	3.6	3.4	3.5	3.3	3.5	3.4	3.2
Computers & Peripheral Equipment	5.2	5.3	4.7	4.1	3.6	3.4	3.5	3.3	3.5	3.4	3.2
Computer Software & Accessories	5.2	5.3	4.7	4.1	3.6	3.4	3.5	3.3	3.5	3.4	3.2
Calculators, Typewriters & Other	5.2	5.3	4.7	4.1	3.6	3.4	3.5	3.3	3.5	3.4	3.2
Other Recreational Goods & Vehicles	3.1	3.4	4.0	3.6	3.2	2.9	3.3	2.8	3.0	3.1	2.6
Other Durable Goods	4.9	4.9	4.5	4.5	4.7	4.7	4.8	4.7	4.5	4.6	4.5
Therapeutic Appliances & Equipment	5.9	5.9	5.6	5.5	5.8	5.9	5.9	5.8	5.7	5.7	5.7
All Other	4.3	4.3	3.8	3.9	4.1	3.9	4.1	3.9	3.7	3.8	3.7
Nondurable Goods	3.9	4.0	4.0	4.0	4.0	4.2	4.3	4.3	4.4	4.5	4.4
Food & Beverages (Off-Premises)	2.8	2.8	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.5
Clothing & Footwear	3.9	4.3	4.0	3.7	3.2	3.2	3.5	3.3	3.6	3.5	3.3
Gasoline & Other Energy Goods	0.5	0.1	0.4	0.9	1.1	2.9	3.0	2.8	3.1	3.4	3.1
Motor Vehicle Fuels, Lubricants & Fluids	0.5	0.1	0.4	0.9	1.2	3.0	3.1	2.9	3.2	3.5	3.2
Fuel Oil & Other Fuels	0.3	0.1	0.4	0.5	0.5	1.3	1.2	1.2	1.4	1.6	1.5
Other Nondurable Goods	6.0	6.3	6.2	6.1	6.1	6.0	6.0	6.2	6.2	6.4	6.2
Pharma. & Other Medical Products	10.2	10.4	9.7	9.0	8.9	8.5	8.1	8.1	8.1	8.2	7.9
Tobacco	1.5	1.7	1.7	1.4	1.0	1.0	0.9	0.8	0.7	0.6	0.4
All Other	1.6	1.7	1.9	2.2	2.4	2.6	2.9	3.3	3.2	3.3	3.2
Services	4.8	4.8	4.7	4.5	4.3	4.3	4.4	4.4	4.4	4.4	4.4
Household Cons. Expenditures (Services)	4.9	4.8	4.7	4.5	4.3	4.3	4.4	4.3	4.4	4.4	4.4
Housing & Utilities	3.8	3.7	3.6	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.5
Housing	3.8	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Utilities	3.7	3.5	3.4	3.2	3.1	2.9	3.2	3.3	3.3	3.4	3.2
Water Supply & Sanitation	3.9	3.7	3.6	3.4	3.3	3.4	3.4	3.5	3.5	3.5	3.6
Electricity	3.7	3.9	3.6	3.2	3.1	2.9	3.1	3.2	3.2	3.4	3.3
Natural Gas	3.2	2.2	2.2	2.6	2.8	2.1	3.2	3.3	3.0	3.1	2.5
Health Care	6.2	6.0	5.8	5.6	5.6	5.6	5.5	5.5	5.5	5.5	5.5
Transportation Services	4.0	4.3	3.9	3.6	3.3	3.3	3.5	3.6	3.7	3.7	3.6
Motor Vehicle Services	4.6	5.0	4.3	3.8	3.5	3.4	3.6	3.7	3.7	3.7	3.6
Motor Vehicle Leasing	8.0	11.8	7.8	4.3	3.0	3.0	4.2	5.2	5.0	4.7	4.8
Other	4.2	4.0	3.7	3.7	3.5	3.4	3.5	3.4	3.5	3.5	3.4
Public Transportation	1.9	2.3	2.6	2.9	3.0	3.1	3.3	3.4	3.5	3.6	3.7
Local (Taxi & Intracity Mass Trans.)	4.1	4.1	3.8	3.6	3.2	3.3	3.4	3.2	3.3	3.3	3.1
Other	0.8	1.4	2.1	2.5	2.8	3.0	3.3	3.5	3.6	3.8	3.9
Recreation Services	5.3	5.7	4.8	3.8	3.7	3.5	3.6	3.5	3.7	3.7	3.7
Food Services & Accommodations	4.3	4.3	4.1	4.0	3.9	3.8	4.0	3.9	4.0	4.0	3.9
Food Services	4.4	4.4	4.2	4.1	4.0	3.9	4.1	4.0	4.1	4.1	4.0
Accommodations	3.4	3.5	3.6	3.5	3.2	3.1	3.2	3.2	3.3	3.3	3.2
Financial Services & Insurance	4.5	4.6	4.7	4.7	4.4	4.3	4.4	4.5	4.6	4.5	4.5
Financial Services	4.5	4.4	4.5	4.6	4.2	4.2	4.3	4.3	4.5	4.4	4.3
Fin. Services Furnished w/o Payment	4.8	4.6	4.4	4.3	4.2	4.3	4.4	4.4	4.4	4.4	4.3
Fin. Service Fees & Commissions	4.1	4.3	4.7	4.8	4.2	4.1	4.3	4.2	4.5	4.3	4.3
Insurance	4.7	4.8	4.9	4.8	4.6	4.4	4.5	4.6	4.7	4.8	4.7
Other Services	4.9	4.9	4.9	4.4	3.9	3.8	4.1	3.9	4.2	4.1	4.1
Telecommunication Services	1.0	0.9	0.9	1.0	0.9	1.0	1.0	1.1	1.1	1.1	1.2
All Other	5.5	5.5	5.5	4.8	4.3	4.2	4.5	4.3	4.5	4.4	4.4
Final Cons. Nonprofits Serving Hshlds	4.0	4.1	4.4	4.6	4.8	4.8	4.7	4.6	4.6	4.8	4.9
Addenda:											
Health Consumption	6.9	6.9	6.6	6.3	6.3	6.2	6.1	6.1	6.1	6.1	6.1
Energy Consumption	1.7	1.4	1.6	1.8	1.9	2.8	3.1	3.0	3.1	3.3	3.1
Retail & Food Service Sales (SAAR)	4.2	4.6	4.5	4.4	4.3	4.4	4.6	4.5	4.6	4.6	4.5

TABLE 9

## Nominal Consumer Spending

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Percent Change											
Personal Consumption Expenditures	4.3	4.4	4.3	4.3	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Consumption Excluding Food and Energy	4.5	4.6	4.5	4.5	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Consumption Excluding New Motor Vehicles	4.4	4.4	4.4	4.4	4.4	4.4	4.5	4.4	4.4	4.4	4.4
Durable Goods	3.1	3.3	3.1	3.0	3.3	3.4	3.4	3.2	3.1	3.0	3.0
Motor Vehicles & Parts	2.3	2.5	2.5	2.5	2.8	2.8	3.1	3.2	3.1	3.2	3.2
New Motor Vehicles	0.8	0.8	1.2	0.9	1.1	1.1	1.3	1.2	1.2	1.1	1.0
New Autos	-1.5	-1.5	-1.3	-1.5	-1.4	-1.5	-1.5	-1.6	-1.6	-1.8	-2.0
New Light Trucks	2.1	2.2	2.5	2.2	2.4	2.4	2.6	2.4	2.5	2.3	2.2
Net Purchases of Used Motor Vehicles	5.0	5.2	4.7	4.8	5.2	5.2	5.5	5.6	5.3	5.6	5.5
Net Purchases of Used Autos	6.5	6.5	5.7	5.8	6.2	6.1	6.4	6.5	6.0	6.4	6.2
Net Purchases of Used Trucks	2.7	3.0	3.1	3.2	3.3	3.4	3.7	3.9	3.8	3.9	4.0
Motor Vehicle Parts & Accessories	-1.2	-1.1	-1.0	-1.0	-0.6	-0.4	-0.2	-0.2	0.0	0.1	0.2
Furnishings & Durable Household Equip.	3.6	3.9	3.4	3.4	4.2	4.4	4.5	4.3	4.1	4.2	4.3
Recreational Goods and Vehicles	2.7	2.9	2.7	2.3	2.5	2.5	2.2	1.6	1.4	0.9	0.7
Information Processing Equipment	3.3	3.3	3.3	3.2	3.4	3.4	3.4	3.4	3.3	3.3	3.3
Computers & Peripheral Equipment	3.3	3.3	3.3	3.2	3.4	3.4	3.4	3.4	3.3	3.3	3.3
Computer Software & Accessories	3.3	3.3	3.3	3.2	3.4	3.4	3.4	3.4	3.3	3.3	3.3
Calculators, Typewriters & Other	3.3	3.3	3.3	3.2	3.4	3.4	3.4	3.4	3.3	3.3	3.3
Other Recreational Goods & Vehicles	2.4	2.7	2.5	2.0	2.2	2.1	1.7	1.0	0.6	-0.1	-0.4
Other Durable Goods	4.6	4.7	4.7	4.6	4.7	4.7	4.7	4.6	4.6	4.7	4.8
Therapeutic Appliances & Equipment	5.7	5.7	5.6	5.6	5.5	5.5	5.5	5.4	5.4	5.4	5.3
All Other	3.8	4.0	3.9	3.8	4.0	4.0	4.0	3.8	3.9	4.0	4.3
Nondurable Goods	4.4	4.5	4.3	4.4	4.4	4.3	4.3	4.3	4.4	4.4	4.5
Food & Beverages (Off-Premises)	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Clothing & Footwear	3.5	3.5	3.4	3.4	3.6	3.6	3.6	3.6	3.5	3.5	3.5
Gasoline & Other Energy Goods	3.2	3.0	2.7	2.6	2.9	2.7	2.7	2.7	2.6	2.7	2.6
Motor Vehicle Fuels, Lubricants & Fluids	3.2	3.1	2.8	2.6	3.0	2.8	2.7	2.7	2.7	2.7	2.7
Fuel Oil & Other Fuels	1.5	1.6	1.5	1.4	1.6	1.2	1.6	1.5	1.5	1.5	1.3
Other Nondurable Goods	6.1	6.2	6.0	6.0	5.9	5.7	5.7	5.7	5.8	5.8	5.9
Pharma. & Other Medical Products	7.7	7.7	7.5	7.5	7.2	6.9	6.9	6.9	6.9	6.9	6.9
Tobacco	0.2	0.0	-0.3	-0.5	-0.7	-0.9	-1.1	-1.3	-1.5	-1.7	-1.9
All Other	3.2	3.2	3.0	3.0	3.1	3.2	3.0	2.9	3.0	2.9	3.0
Services	4.5	4.5	4.5	4.5	4.5	4.5	4.6	4.6	4.6	4.6	4.5
Household Cons. Expenditures (Services)	4.5	4.5	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.4
Housing & Utilities	3.5	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Housing	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Utilities	3.2	3.1	2.8	2.8	2.8	3.0	3.0	2.9	3.0	3.0	3.0
Water Supply & Sanitation	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Electricity	3.3	3.1	2.9	2.8	2.9	2.9	2.9	2.9	2.8	2.8	2.8
Natural Gas	2.1	2.1	1.1	1.5	1.2	2.2	2.1	2.0	2.5	2.5	2.3
Health Care	5.5	5.5	5.4	5.5	5.5	5.4	5.4	5.4	5.4	5.3	5.2
Transportation Services	3.7	3.9	3.8	3.7	3.8	3.9	3.9	3.9	3.9	3.9	3.9
Motor Vehicle Services	3.7	3.9	3.8	3.6	3.7	3.8	3.9	3.8	3.8	3.8	3.8
Motor Vehicle Leasing	5.5	6.2	5.8	5.3	5.5	5.8	5.8	5.7	5.5	5.4	5.5
Other	3.4	3.4	3.4	3.3	3.4	3.4	3.5	3.5	3.5	3.5	3.5
Public Transportation	3.7	3.8	3.8	3.8	3.9	4.0	4.0	4.1	4.1	4.1	4.1
Local (Taxi & Intracity Mass Trans.)	3.2	3.1	3.0	2.9	3.0	3.0	3.0	2.9	2.8	2.8	2.7
Other	4.0	4.1	4.2	4.2	4.3	4.4	4.5	4.6	4.6	4.6	4.7
Recreation Services	3.9	4.2	4.1	4.0	4.0	3.9	3.7	3.7	3.6	3.5	3.6
Food Services & Accommodations	4.0	4.0	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Food Services	4.1	4.1	4.1	4.1	4.1	4.2	4.2	4.2	4.1	4.1	4.1
Accommodations	3.3	3.4	3.4	3.3	3.4	3.5	3.6	3.6	3.6	3.6	3.6
Financial Services & Insurance	4.6	4.6	4.5	4.5	4.6	4.7	4.7	4.7	4.7	4.7	4.7
Financial Services	4.5	4.5	4.4	4.4	4.5	4.6	4.6	4.6	4.6	4.5	4.6
Fin. Services Furnished w/o Payment	4.5	4.5	4.5	4.4	4.5	4.6	4.7	4.7	4.6	4.6	4.8
Fin. Service Fees & Commissions	4.6	4.5	4.3	4.3	4.4	4.5	4.5	4.5	4.5	4.4	4.4
Insurance	4.7	4.8	4.8	4.7	4.8	4.9	4.9	4.9	4.9	4.9	4.9
Other Services	4.3	4.2	4.2	4.2	4.3	4.3	4.5	4.6	4.5	4.6	4.4
Telecommunication Services	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1
All Other	4.6	4.5	4.5	4.5	4.5	4.6	4.8	4.9	4.7	4.8	4.6
Final Cons. Nonprofits Serving Hshlds.	5.2	5.3	5.3	5.5	5.6	5.7	5.8	6.0	6.2	6.4	6.4
Addenda:											
Health Consumption	6.0	6.0	6.0	6.0	5.9	5.8	5.8	5.8	5.8	5.8	5.7
Energy Consumption	3.1	3.0	2.6	2.5	2.7	2.7	2.7	2.6	2.7	2.7	2.7
Retail & Food Service Sales (SAAR)	4.6	4.7	4.6	4.6	4.7	4.7	4.7	4.6	4.6	4.6	4.7

TABLE 10  
Consumer Spending

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Nominal Shares, Percent of Total										
Total Expenditures	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Goods	32.3	32.7	32.8	32.9	32.7	32.4	32.3	32.1	31.7	31.3
Durable Goods	10.2	10.4	10.5	10.7	10.6	10.4	10.5	10.4	10.1	9.8
Motor Vehicles & Parts	3.1	3.3	3.6	3.8	3.7	3.7	3.9	3.9	3.6	3.4
Furnishings & Durable Household Equip.	2.5	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1
Recreational Goods & Vehicles	3.2	3.2	3.2	3.1	3.1	3.1	3.0	3.0	3.0	2.9
Information Processing Equipment	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Computers & Peripheral Equipment	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Computer Software & Accessories	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other Durables	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Nondurable Goods	22.0	22.3	22.3	22.2	22.1	22.0	21.8	21.7	21.6	21.5
Food & Beverages (Off-Premises)	7.8	7.9	7.9	7.9	7.8	7.7	7.6	7.5	7.4	7.3
Clothing & Footwear	3.2	3.2	3.1	3.0	3.0	2.9	2.9	2.9	2.8	2.8
Gasoline and Other Energy Goods	3.0	3.3	3.3	3.3	3.3	3.2	3.2	3.1	3.0	2.9
Motor Veh. Fuels, Lubricants & Fluids	2.8	3.1	3.1	3.1	3.1	3.0	3.0	2.9	2.8	2.8
Fuel Oil & Other Fuels	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other Nondurables	7.9	8.0	8.0	8.0	8.0	8.1	8.1	8.2	8.3	8.5
Pharma & Other Medical Products	2.9	3.0	3.1	3.2	3.4	3.5	3.7	3.9	4.1	4.3
Tobacco	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7
All other	4.1	4.1	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.4
Services	67.7	67.3	67.2	67.1	67.3	67.6	67.7	67.9	68.3	68.7
Household Cons. Expend. (Services)	65.1	64.6	64.5	64.4	64.6	64.9	65.0	65.2	65.5	65.9
Housing	15.7	15.2	14.9	14.8	14.7	14.7	14.5	14.5	14.5	14.4
Household Utilities	2.9	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Healthcare	16.1	16.1	16.2	16.4	16.6	16.8	17.0	17.3	17.7	18.1
Transportation Services	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9
Motor Vehicle Services	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2
Public Transportation	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7
Recreation Services	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Food Services	5.3	5.3	5.4	5.5	5.6	5.6	5.6	5.6	5.6	5.6
Accommodations	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Financial Services	5.0	5.0	5.1	5.0	5.0	5.0	5.0	5.0	5.1	5.1
Insurance	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3
Other Services	9.4	9.4	9.3	9.3	9.2	9.3	9.3	9.2	9.3	9.3
Final Cons. Nonprofits Serving Hshlds	2.6	2.6	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.8
Addenda:										
Health Consumption	19.5	19.6	19.8	20.1	20.4	20.8	21.2	21.7	22.3	23.0
Energy Consumption	5.2	5.4	5.3	5.3	5.2	5.2	5.1	5.0	5.0	4.9
Factors Affecting Consumption										
Population, Millions	307.8	310.9	313.9	316.9	320.0	323.1	326.2	329.3	332.5	335.7
Percent Change, Annual Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Households, Millions	117.7	119.2	120.9	122.6	124.1	125.6	127.1	128.6	130.1	131.6
Percent Change, Annual Rate	0.6	1.2	1.4	1.4	1.3	1.2	1.2	1.2	1.2	1.1
Consumer Sentiment (Index)	66.3	74.4	75.8	79.1	81.5	80.6	80.8	81.8	83.2	85.3
Personal Income (Bil.\$)	12072.1	12547.4	13078.2	13759.1	14487.3	15265.4	16015.3	16772.7	17584.0	18464.6
Percent Change	-1.4	3.9	4.2	5.2	5.3	5.4	4.9	4.7	4.8	5.0
Disposable Income (Bil.\$)	10964.5	11370.5	11725.2	12207.0	12682.8	13359.1	14025.9	14682.8	15379.6	16130.6
Percent Change	1.5	3.7	3.1	4.1	3.9	5.3	5.0	4.7	4.7	4.9
Unemployment Rate (%)	9.3	9.9	9.3	8.3	7.5	7.0	6.8	6.6	6.3	6.0
Financial Obligations Ratio										
Percent of Disposable Income	17.9	17.3	17.1	17.3	17.8	18.6	19.5	20.0	20.4	20.8
30-Year Conventional Mtg. Rate, %	5.0	5.2	5.5	6.1	6.2	7.1	7.1	7.1	7.1	7.1

TABLE 10  
Consumer Spending

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Nominal Shares, Percent of Total											
Total Expenditures	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Goods	31.0	30.9	30.7	30.6	30.4	30.3	30.2	30.1	30.1	30.0	29.9
Durable Goods	9.6	9.5	9.4	9.3	9.2	9.1	9.0	8.9	8.8	8.7	8.6
Motor Vehicles & Parts	3.2	3.2	3.1	3.1	3.0	3.0	2.9	2.8	2.8	2.7	2.7
Furnishings & Durable Household Equip.	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.8
Recreational Goods & Vehicles	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.7	2.7	2.7
Information Processing Equipment	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Computers & Peripheral Equipment	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Computer Software & Accessories	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other Durables	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Nondurable Goods	21.5	21.4	21.3	21.2	21.2	21.2	21.2	21.2	21.3	21.3	21.3
Food & Beverages (Off-Premises)	7.2	7.1	7.0	6.9	6.8	6.7	6.6	6.5	6.4	6.3	6.1
Clothing & Footwear	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.6	2.6
Gasoline and Other Energy Goods	2.8	2.7	2.6	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.3
Motor Veh. Fuels, Lubricants & Fluids	2.7	2.5	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2
Fuel Oil & Other Fuels	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Other Nondurables	8.6	8.7	8.9	9.0	9.2	9.4	9.5	9.7	9.9	10.1	10.3
Pharma. & Other Medical Products	4.6	4.8	5.1	5.3	5.6	5.8	6.0	6.2	6.5	6.7	6.9
Tobacco	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5
All other	3.3	3.3	3.2	3.1	3.1	3.0	3.0	3.0	2.9	2.9	2.9
Services	69.0	69.1	69.3	69.4	69.6	69.7	69.8	69.9	69.9	70.0	70.1
Household Cons. Expend. (Services)	66.2	66.4	66.5	66.7	66.8	66.9	67.0	67.1	67.1	67.2	67.2
Housing	14.3	14.2	14.1	14.0	14.0	13.9	13.8	13.7	13.6	13.5	13.4
Household Utilities	2.7	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.4	2.4
Healthcare	18.4	18.7	18.9	19.2	19.4	19.7	20.0	20.2	20.5	20.7	20.9
Transportation Services	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7
Motor Vehicle Services	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1
Public Transportation	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Recreation Services	3.8	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.7	3.7	3.7
Food Services	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.5	5.5
Accommodations	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6
Financial Services	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Insurance	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.5	3.5
Other Services	9.3	9.4	9.4	9.4	9.4	9.4	9.4	9.3	9.3	9.3	9.3
Final Cons. Nonprofits Serving Hshlds.	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.9
Addenda:											
Health Consumption	23.5	24.1	24.6	25.0	25.6	26.1	26.6	27.0	27.5	28.0	28.5
Energy Consumption	4.7	4.6	4.5	4.4	4.3	4.2	4.2	4.1	4.1	4.0	4.0
Factors Affecting Consumption											
Population, Millions	338.8	342.0	345.2	348.5	351.7	354.9	358.1	361.3	364.5	367.7	370.9
Percent Change, Annual Rate	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Households, Millions	133.0	134.5	135.9	137.3	138.6	140.0	141.3	142.6	144.0	145.3	146.6
Percent Change, Annual Rate	1.1	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9
Consumer Sentiment (Index)	87.7	89.6	90.6	91.2	91.4	91.3	91.4	91.2	91.1	90.9	90.3
Personal Income (Bil.\$)	19419.9	20429.5	21424.1	22409.4	23410.9	24453.5	25574.7	26750.5	27983.7	29270.6	30615.4
Percent Change	5.2	5.2	4.9	4.6	4.5	4.5	4.6	4.6	4.6	4.6	4.6
Disposable Income (Bil.\$)	16948.0	17810.2	18631.0	19452.8	20236.3	21070.0	21992.8	22913.3	23924.0	24964.4	26004.0
Percent Change	5.1	5.1	4.6	4.4	4.0	4.1	4.4	4.2	4.4	4.3	4.2
Unemployment Rate (%)	5.6	5.2	5.0	4.9	4.9	4.8	4.8	4.9	4.9	4.9	4.9
Financial Obligations Ratio											
Percent of Disposable Income	21.2	21.5	21.8	21.9	22.0	22.0	22.0	22.0	22.0	21.9	21.8
30-Year Conventional Mtg. Rate, %	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1

TABLE 10  
Consumer Spending

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Nominal Shares, Percent of Total											
Total Expenditures	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Goods	29.8	29.7	29.6	29.6	29.5	29.4	29.3	29.2	29.1	29.0	28.9
Durable Goods	8.5	8.4	8.3	8.2	8.1	8.0	7.9	7.9	7.8	7.7	7.6
Motor Vehicles & Parts	2.6	2.6	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.3
Furnishings & Durable Household Equip.	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Recreational Goods & Vehicles	2.6	2.6	2.5	2.5	2.4	2.4	2.3	2.3	2.2	2.1	2.1
Information Processing Equipment	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Computers & Peripheral Equipment	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4
Computer Software & Accessories	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other Durables	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Nondurable Goods	21.3	21.4	21.4	21.4	21.4	21.4	21.3	21.3	21.3	21.3	21.3
Food & Beverages (Off-Premises)	6.0	5.9	5.8	5.7	5.6	5.5	5.4	5.3	5.2	5.1	5.0
Clothing & Footwear	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4
Gasoline and Other Energy Goods	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	1.9
Motor Veh. Fuels, Lubricants & Fluids	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.8
Fuel Oil & Other Fuels	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other Nondurables	10.4	10.6	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	12.0
Pharma. & Other Medical Products	7.2	7.4	7.6	7.8	8.1	8.2	8.4	8.6	8.9	9.1	9.3
Tobacco	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
All other	2.8	2.8	2.8	2.7	2.7	2.7	2.6	2.6	2.6	2.5	2.5
Services	70.2	70.3	70.4	70.4	70.5	70.6	70.7	70.8	70.9	71.0	71.1
Household Cons. Expend. (Services)	67.3	67.4	67.4	67.5	67.5	67.6	67.6	67.7	67.7	67.8	67.8
Housing	13.3	13.2	13.1	13.0	12.9	12.8	12.7	12.6	12.5	12.4	12.3
Household Utilities	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1
Healthcare	21.2	21.4	21.6	21.8	22.1	22.3	22.5	22.7	22.9	23.1	23.3
Transportation Services	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Motor Vehicle Services	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Public Transportation	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Recreation Services	3.7	3.7	3.7	3.7	3.6	3.6	3.6	3.6	3.6	3.5	3.5
Food Services	5.5	5.5	5.5	5.5	5.5	5.5	5.4	5.4	5.4	5.4	5.4
Accommodations	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Financial Services	5.1	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Insurance	3.5	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6
Other Services	9.3	9.3	9.3	9.2	9.2	9.2	9.2	9.3	9.3	9.3	9.3
Final Cons. Nonprofits Serving Hshlds.	2.9	2.9	2.9	3.0	3.0	3.0	3.1	3.1	3.2	3.2	3.3
Addenda:											
Health Consumption	28.9	29.4	29.8	30.3	30.8	31.2	31.6	32.0	32.5	32.9	33.3
Energy Consumption	3.9	3.9	3.8	3.8	3.7	3.6	3.6	3.5	3.5	3.4	3.3
Factors Affecting Consumption											
Population, Millions	374.1	377.3	380.5	383.7	386.9	390.1	393.3	396.5	399.8	403.0	406.2
Percent Change, Annual Rate	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Households, Millions	147.8	149.1	150.3	151.4	152.6	153.7	154.9	156.0	157.1	158.1	159.2
Percent Change, Annual Rate	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7
Consumer Sentiment (Index)	89.9	89.7	89.7	89.4	89.4	89.2	89.2	89.1	89.1	89.0	88.8
Personal Income (Bil.\$)	32024.3	33448.4	34932.8	36476.4	38113.6	39842.6	41646.7	43521.3	45464.1	47483.2	49595.9
Percent Change	4.6	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.4	4.4
Disposable Income (Bil.\$)	27125.6	28286.3	29472.1	30692.9	32012.9	33401.2	34843.6	36332.6	37872.2	39467.1	41128.8
Percent Change	4.3	4.3	4.2	4.1	4.3	4.3	4.3	4.3	4.2	4.2	4.2
Unemployment Rate (%)	5.0	5.0	5.0	5.1	5.1	5.1	5.1	5.2	5.2	5.2	5.2
Financial Obligations Ratio											
Percent of Disposable Income	21.7	21.7	21.6	21.5	21.4	21.3	21.2	21.1	21.0	21.0	20.9
30-Year Conventional Mtg. Rate, %	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1



TABLE 11  
Price Deflators for Consumer Spending—Levels

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Chained Price Deflators, 2005=100										
Personal Consumption Expenditures	109.3	111.0	112.7	114.5	116.4	118.4	120.5	122.8	125.1	127.5
Consumption Excluding Food and Energy	108.8	110.2	111.8	113.5	115.3	117.3	119.3	121.5	123.8	126.2
Consumption Excluding New Motor Veh.	109.6	111.3	113.0	114.8	116.7	118.8	121.0	123.3	125.7	128.1
Durable Goods	94.0	92.9	91.7	90.8	89.9	88.8	87.6	86.5	85.4	84.2
Motor Vehicles & Parts	98.7	103.0	103.9	104.9	105.6	106.1	106.4	106.7	106.9	107.1
New Motor Vehicles	98.0	100.7	101.3	102.4	103.4	104.0	104.2	104.4	104.5	104.6
New Autos	101.1	103.5	104.0	105.3	106.4	107.1	107.4	107.7	107.9	108.1
New Light Trucks	95.5	98.5	99.0	100.0	100.9	101.4	101.5	101.7	101.7	101.7
Net Purchases of Used Motor Veh.	92.9	101.0	103.2	104.6	105.5	106.3	107.1	107.9	108.8	109.7
Net Purchases of Used Autos	90.3	97.7	100.1	101.6	102.6	103.5	104.5	105.4	106.5	107.5
Net Purchases of Used Trucks	94.9	103.5	105.6	106.9	107.7	108.3	109.0	109.7	110.4	111.1
Motor Vehicle Parts & Accessories	117.5	118.5	117.9	117.1	116.2	115.1	113.8	112.7	111.6	110.4
Furnishings & Durable Household Equip.	97.7	94.8	93.7	93.2	92.7	92.2	91.5	90.8	90.2	89.5
Recreational Goods and Vehicles	79.7	74.8	71.2	67.9	64.9	62.0	59.0	56.3	53.6	51.0
Information Processing Equipment	64.4	58.7	53.0	47.9	43.2	39.0	35.2	31.7	28.5	25.6
Computers & Peripheral Equipment	57.7	51.2	45.1	39.7	35.0	30.8	27.1	23.8	20.8	18.2
Computer Software & Accessories	84.8	82.1	79.1	76.3	73.3	70.3	67.5	64.9	62.3	59.7
Calculators, Typewriters & Other	77.2	75.4	71.0	66.6	62.5	58.7	55.0	51.6	48.3	45.2
Other Recreational Goods & Veh.	83.8	79.3	76.5	74.1	71.8	69.7	67.5	65.5	63.5	61.5
Other Durable Goods	113.4	115.4	116.9	118.5	120.0	121.4	122.7	124.1	125.5	126.9
Therapeutic Appliances & Equipment	106.0	106.9	109.3	111.8	114.2	116.6	119.1	121.6	124.3	126.9
All Other	116.8	119.4	120.4	121.4	122.4	123.2	123.8	124.5	125.2	125.8
Nondurable Goods	109.1	112.4	114.7	117.1	119.3	121.4	123.5	125.8	128.0	130.1
Food & Beverages (Off-Premises)	113.3	114.4	116.3	118.0	119.8	121.7	123.7	125.8	128.1	130.3
Clothing & Footwear	98.7	98.5	98.4	98.3	98.1	97.9	97.6	97.4	97.3	97.1
Gasoline & Other Energy Goods	105.0	119.6	124.8	131.1	135.2	138.8	143.0	147.1	149.5	151.5
Motor Veh. Fuels, Lubricants & Fluids	104.6	119.5	125.1	131.4	135.4	138.9	143.1	147.2	149.6	151.5
Fuel Oil & Other Fuels	112.9	125.2	123.2	128.8	134.2	139.5	144.2	148.0	150.7	153.2
Other Nondurable Goods	111.0	113.3	116.0	119.0	121.8	124.5	127.2	130.1	133.2	136.4
Pharma. & Other Medical Products	111.4	115.0	120.0	125.3	130.6	135.7	140.9	146.3	151.9	157.7
Tobacco	145.3	160.7	169.9	179.2	189.0	199.5	210.5	222.4	235.0	248.3
All Other	105.0	104.3	104.8	105.3	105.5	105.5	105.6	105.6	105.7	105.8
Services	112.2	113.9	116.0	118.2	120.5	123.2	126.0	129.0	132.1	135.4
Household Cons. Expend. (Services)	112.6	114.4	116.4	118.6	121.0	123.6	126.5	129.4	132.5	135.8
Housing & Utilities	113.3	113.6	115.3	117.7	120.2	122.6	125.4	128.0	130.6	133.2
Housing	112.4	112.8	114.6	116.9	119.4	121.9	124.3	126.7	129.3	131.9
Utilities	118.0	118.1	119.0	121.6	124.1	126.5	131.1	134.6	137.6	140.5
Water Supply & Sanitation	124.0	129.9	132.9	137.0	141.2	145.5	149.9	154.6	159.5	164.7
Electricity	127.7	127.3	126.3	129.4	131.9	133.4	136.1	138.6	141.1	143.5
Natural Gas	90.2	84.6	86.9	87.2	87.5	89.8	98.2	102.8	104.7	106.3
Health Care	112.4	115.3	118.1	120.7	123.4	126.3	129.4	133.0	136.8	140.8
Transportation Services	115.4	118.2	120.3	122.4	124.6	127.0	129.4	131.9	134.6	137.4
Motor Vehicle Services	116.9	118.1	120.6	123.1	125.8	128.6	131.5	134.5	137.6	140.9
Motor Vehicle Leasing	110.4	106.9	107.5	108.8	109.5	110.0	109.8	109.5	109.2	108.7
Other	118.1	120.2	123.0	125.8	128.9	132.3	135.8	139.5	143.4	147.4
Public Transportation	111.4	118.4	119.4	120.1	121.1	122.2	123.2	124.5	125.8	127.2
Local (Taxi & Intracity Mass Trans.)	114.9	118.4	120.4	122.6	125.1	127.8	130.6	133.6	136.7	139.9
Other	109.9	118.0	118.6	118.8	119.2	119.6	120.0	120.6	121.3	122.0
Recreation Services	110.8	112.4	114.3	116.1	118.2	120.6	123.3	126.0	128.9	131.8
Food Services & Accommodations	114.3	116.6	119.2	121.7	124.2	126.8	129.6	132.5	135.5	138.7
Food Services	115.6	117.9	120.6	123.0	125.6	128.3	131.1	134.0	137.2	140.4
Accommodations	106.4	108.2	110.6	113.0	115.3	117.7	120.0	122.3	124.7	127.2
Financial Services & Insurance	109.2	110.6	112.6	114.5	117.0	119.9	123.0	126.2	129.6	133.0
Financial Services	107.0	107.4	109.1	110.8	112.9	115.4	118.1	121.0	124.0	127.1
Fin. Serv. Furnished w/o Payment	108.4	108.6	109.6	110.7	112.5	114.8	117.2	119.8	122.5	125.3
Fin. Service Fees & Commissions	105.4	106.1	108.6	111.0	113.4	116.2	119.2	122.5	125.9	129.4
Insurance	112.8	115.9	118.2	120.6	123.7	127.4	131.1	134.8	138.8	142.8
Other Services	113.3	115.7	117.1	118.5	120.2	122.4	125.0	127.6	130.3	133.2
Telecommunication Services	105.7	105.0	103.6	102.0	100.3	98.7	97.2	95.7	94.4	93.1
All Other	115.1	118.2	120.4	122.5	125.0	128.1	131.6	135.1	138.8	142.7
Final Cons. Nonprofits Serving Hshlds	103.3	103.9	105.7	107.4	109.7	112.6	115.8	119.1	122.5	126.0
Addenda:										
Health Consumption	112.1	115.0	118.1	121.2	124.2	127.5	131.0	134.8	138.9	143.1
Energy Consumption	109.5	117.9	121.1	125.8	129.0	131.8	136.2	140.0	142.4	144.4

TABLE 11  
Price Deflators for Consumer Spending—Levels

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Chained Price Deflators, 2005=100											
Personal Consumption Expenditures	129.8	131.9	134.0	136.2	138.4	140.8	143.3	145.9	148.6	151.3	154.2
Consumption Excluding Food and Energy	128.6	130.8	133.0	135.3	137.6	140.0	142.6	145.2	147.8	150.6	153.4
Consumption Excluding New Motor Veh.	130.4	132.6	134.8	137.0	139.3	141.8	144.4	147.0	149.8	152.6	155.5
Durable Goods	82.9	81.6	80.2	78.8	77.5	76.2	74.9	73.7	72.5	71.3	70.1
Motor Vehicles & Parts	107.3	107.4	107.4	107.3	107.2	107.2	107.3	107.4	107.5	107.7	107.9
New Motor Vehicles	104.6	104.5	104.3	103.9	103.5	103.3	103.1	102.9	102.8	102.7	102.6
New Autos	108.2	108.2	108.1	107.8	107.5	107.4	107.3	107.3	107.2	107.2	107.3
New Light Trucks	101.6	101.5	101.2	100.7	100.3	100.0	99.7	99.5	99.3	99.1	99.0
Net Purchases of Used Motor Veh.	110.6	111.5	112.3	113.0	113.8	114.6	115.5	116.4	117.3	118.2	119.2
Net Purchases of Used Autos	108.5	109.5	110.5	111.3	112.2	113.2	114.2	115.2	116.2	117.3	118.4
Net Purchases of Used Trucks	111.8	112.6	113.3	113.8	114.4	115.1	115.8	116.5	117.2	117.9	118.7
Motor Vehicle Parts & Accessories	109.2	107.7	106.2	104.6	103.2	101.8	100.5	99.2	98.0	96.8	95.7
Furnishings & Durable Household Equip.	88.9	88.1	87.2	86.3	85.4	84.6	83.8	83.0	82.2	81.4	80.7
Recreational Goods and Vehicles	48.5	46.1	43.7	41.4	39.3	37.3	35.4	33.5	31.8	30.1	28.5
Information Processing Equipment	23.0	20.7	18.6	16.7	15.0	13.5	12.2	10.9	9.8	8.8	7.9
Computers & Peripheral Equipment	16.0	14.0	12.3	10.7	9.4	8.2	7.2	6.3	5.5	4.9	4.3
Computer Software & Accessories	57.3	54.9	52.7	50.6	48.5	46.5	44.6	42.8	41.0	39.3	37.7
Calculators, Typewriters & Other	42.3	39.7	37.1	34.8	32.6	30.5	28.6	26.8	25.1	23.5	22.0
Other Recreational Goods & Veh.	59.6	57.6	55.6	53.6	51.8	50.0	48.3	46.7	45.0	43.5	41.9
Other Durable Goods	128.2	129.3	130.3	131.4	132.6	133.9	135.3	136.6	138.0	139.5	141.0
Therapeutic Appliances & Equipment	129.5	131.9	132.4	136.8	139.6	142.7	145.9	149.3	152.6	156.1	159.7
All Other	126.3	126.6	126.8	127.0	127.2	127.4	127.6	127.8	128.1	128.3	128.5
Nondurable Goods	132.0	133.6	135.2	137.0	138.9	141.3	143.9	146.4	149.1	151.9	154.8
Food & Beverages (Off-Premises)	132.4	134.3	136.1	137.9	139.8	141.7	143.7	145.8	147.9	150.0	152.2
Clothing & Footwear	96.8	96.4	96.0	95.6	95.3	95.1	95.0	94.8	94.7	94.6	94.5
Gasoline & Other Energy Goods	151.2	149.8	148.7	148.3	148.4	151.3	154.2	157.0	160.3	164.5	168.6
Motor Veh. Fuels, Lubricants & Fluids	151.2	149.7	148.5	148.1	148.1	151.0	153.8	156.7	160.1	164.2	168.3
Fuel Oil & Other Fuels	154.1	154.2	154.8	155.7	156.8	159.5	162.3	165.1	168.3	172.0	175.9
Other Nondurable Goods	139.6	142.8	146.0	149.3	152.9	156.8	160.8	165.0	169.2	173.5	178.0
Pharma. & Other Medical Products	163.7	169.6	175.5	181.5	188.0	194.7	201.8	209.1	216.4	224.1	232.0
Tobacco	261.9	275.8	290.2	305.4	321.3	338.3	356.2	375.1	395.0	416.1	438.3
All Other	105.8	105.6	105.4	105.3	105.2	105.2	105.2	105.2	105.2	105.1	105.1
Services	138.6	141.7	144.8	147.9	151.2	154.5	157.9	161.5	165.2	169.0	172.8
Household Cons. Expend. (Services)	139.0	142.1	145.1	148.3	151.5	154.8	158.2	161.7	165.4	169.2	173.0
Housing & Utilities	136.0	138.6	141.1	143.6	146.2	148.7	151.4	154.2	157.0	159.9	162.9
Housing	134.5	137.0	139.5	141.9	144.4	146.9	149.4	152.1	154.8	157.5	160.3
Utilities	143.9	147.0	150.0	152.8	155.9	158.8	162.2	165.9	169.5	173.5	177.4
Water Supply & Sanitation	170.1	175.4	180.5	185.7	190.9	196.4	202.1	208.0	214.2	220.7	227.5
Electricity	146.0	148.7	151.1	153.1	155.4	157.5	160.0	162.8	165.5	168.4	171.5
Natural Gas	109.3	111.4	113.2	115.5	118.1	120.0	123.3	126.7	130.0	133.5	136.3
Health Care	144.8	148.5	152.3	156.1	160.1	164.1	168.3	172.6	176.9	181.4	186.0
Transportation Services	140.1	142.5	144.9	147.4	149.9	152.5	155.2	158.1	161.0	164.0	167.1
Motor Vehicle Services	144.1	147.0	150.0	153.0	156.0	159.3	162.7	166.3	170.0	173.8	177.7
Motor Vehicle Leasing	108.3	107.7	107.0	106.2	105.3	104.6	104.0	103.4	102.8	102.3	101.8
Other	151.3	155.0	158.8	162.7	166.7	171.0	175.4	180.1	184.9	190.0	195.2
Public Transportation	128.5	129.5	130.4	131.3	132.1	132.9	133.7	134.5	135.4	136.1	136.9
Local (Taxi & Intracity Mass Trans.)	143.0	145.8	148.6	151.3	154.0	156.7	159.3	161.9	164.5	167.0	169.4
Other	122.6	122.9	123.0	123.1	123.1	123.2	123.4	123.5	123.7	123.8	124.0
Recreation Services	134.7	137.5	140.3	143.1	146.0	149.0	152.2	155.5	158.9	162.5	166.1
Food Services & Accommodations	141.7	144.7	147.5	150.3	153.1	156.1	159.2	162.4	165.6	169.0	172.5
Food Services	143.6	146.6	149.4	152.3	155.2	158.3	161.4	164.7	168.0	171.5	175.1
Accommodations	129.7	132.2	134.7	137.2	139.7	142.1	144.6	147.2	149.9	152.6	155.4
Financial Services & Insurance	136.5	139.9	143.4	147.0	150.7	154.6	158.7	162.9	167.3	171.9	176.6
Financial Services	130.2	133.2	136.3	139.5	142.8	146.2	149.7	153.2	157.0	160.8	164.7
Fin. Serv. Furnished w/o Payment	128.1	131.0	134.0	137.2	140.4	143.7	147.0	150.5	154.1	157.7	161.4
Fin. Service Fees & Commissions	132.8	136.0	139.1	142.4	145.7	149.2	152.9	156.6	160.5	164.5	168.7
Insurance	147.0	151.0	155.1	159.5	164.0	168.7	173.8	179.0	184.6	190.5	196.6
Other Services	136.2	139.1	141.9	144.9	148.0	151.1	154.5	157.9	161.6	165.3	169.2
Telecommunication Services	91.7	90.2	88.6	87.0	85.4	83.9	82.5	81.1	79.7	78.4	77.2
All Other	146.6	150.5	154.4	158.4	162.6	166.8	171.3	175.9	180.7	185.6	190.8
Final Cons. Nonprofits Serving Hshlds.	129.6	133.1	136.6	140.2	143.9	147.7	151.6	155.6	159.8	164.0	168.4
Addenda:											
Health Consumption	147.4	151.5	155.6	159.8	164.2	168.7	173.4	178.2	183.1	188.2	193.4
Energy Consumption	145.4	145.7	146.0	146.7	147.8	150.4	153.2	156.2	159.3	163.0	166.7

TABLE 11  
Price Deflators for Consumer Spending—Levels

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Chained Price Deflators, 2005=100											
Personal Consumption Expenditures	157.1	160.0	163.0	166.1	169.3	172.5	175.8	179.2	182.7	186.2	189.9
Consumption Excluding Food and Energy	156.3	159.3	162.4	165.5	168.7	172.0	175.3	178.8	182.3	185.9	189.6
Consumption Excluding New Motor Veh.	158.5	161.5	164.6	167.7	170.9	174.2	177.6	181.1	184.6	188.3	192.0
Durable Goods	69.0	67.9	66.8	65.8	64.7	63.7	62.7	61.7	60.8	59.9	59.0
Motor Vehicles & Parts	108.2	108.5	108.7	109.1	109.4	109.7	110.1	110.4	110.8	111.2	111.6
New Motor Vehicles	102.5	102.5	102.5	102.4	102.4	102.3	102.3	102.3	102.2	102.2	102.1
New Autos	107.3	107.4	107.5	107.6	107.7	107.8	107.9	108.0	108.1	108.2	108.3
New Light Trucks	98.9	98.8	98.7	98.5	98.4	98.4	98.3	98.2	98.1	98.0	97.8
Net Purchases of Used Motor Veh.	120.2	121.2	122.2	123.3	124.4	125.4	126.5	127.6	128.8	129.9	131.0
Net Purchases of Used Autos	119.5	120.6	121.8	122.9	124.1	125.3	126.6	127.8	129.0	130.3	131.6
Net Purchases of Used Trucks	119.5	120.2	121.0	121.9	122.7	123.5	124.3	125.2	126.0	126.9	127.7
Motor Vehicle Parts & Accessories	94.6	93.5	92.4	91.3	90.3	89.2	88.1	87.1	86.0	85.0	84.0
Furnishings & Durable Household Equip.	79.9	79.1	78.4	77.6	76.9	76.2	75.5	74.7	74.0	73.3	72.6
Recreational Goods and Vehicles	27.0	25.6	24.2	23.0	21.7	20.5	19.4	18.4	17.4	16.4	15.5
Information Processing Equipment	7.1	6.4	5.8	5.2	4.7	4.2	3.8	3.4	3.0	2.7	2.5
Computers & Peripheral Equipment	3.7	3.3	2.9	2.5	2.2	1.9	1.7	1.5	1.3	1.1	1.0
Computer Software & Accessories	36.2	34.7	33.3	31.9	30.6	29.4	28.1	27.0	25.9	24.8	23.8
Calculators, Typewriters & Other	20.6	19.3	18.1	17.0	15.9	14.9	13.9	13.1	12.2	11.5	10.8
Other Recreational Goods & Veh.	40.4	39.0	37.6	36.3	35.0	33.7	32.5	31.3	30.1	29.0	27.9
Other Durable Goods	142.5	144.0	145.6	147.1	148.8	150.4	152.1	153.8	155.6	157.4	159.2
Therapeutic Appliances & Equipment	163.3	167.1	170.9	174.8	178.8	182.9	187.1	191.4	195.8	200.3	205.0
All Other	128.7	128.9	129.1	129.3	129.5	129.8	130.0	130.2	130.4	130.6	130.8
Nondurable Goods	157.8	160.9	164.0	167.2	170.5	173.9	177.4	181.0	184.6	188.4	192.3
Food & Beverages (Off-Premises)	154.4	156.6	158.9	161.2	163.5	165.8	168.2	170.6	173.0	175.4	177.8
Clothing & Footwear	94.5	94.4	94.3	94.2	94.1	94.0	93.9	93.8	93.7	93.6	93.5
Gasoline & Other Energy Goods	172.7	176.8	180.5	184.3	188.4	192.1	195.8	199.5	203.3	207.3	211.2
Motor Veh. Fuels, Lubricants & Fluids	172.5	176.6	180.3	184.0	188.2	191.9	195.5	199.2	203.0	206.9	210.8
Fuel Oil & Other Fuels	179.7	183.8	187.7	191.8	196.1	199.6	203.9	208.2	212.7	217.2	221.2
Other Nondurable Goods	182.6	187.4	192.4	197.6	202.9	208.5	214.2	220.1	226.3	232.7	239.3
Pharma. & Other Medical Products	240.2	248.6	257.5	266.6	276.1	285.9	296.1	306.8	317.9	329.3	341.2
Tobacco	461.7	486.5	512.4	539.6	568.2	598.2	629.7	662.8	697.7	734.3	772.7
All Other	105.0	104.9	104.9	104.8	104.7	104.5	104.4	104.3	104.1	103.9	103.8
Services	176.8	180.8	185.0	189.2	193.5	197.9	202.5	207.1	211.9	216.8	221.7
Household Cons. Expend. (Services)	177.0	181.0	185.1	189.3	193.6	198.0	202.6	207.2	211.9	216.8	221.8
Housing & Utilities	165.8	168.8	171.7	174.7	177.7	180.8	184.0	187.2	190.5	193.9	197.3
Housing	163.1	165.9	168.8	171.7	174.6	177.6	180.7	183.8	187.0	190.2	193.5
Utilities	181.2	185.0	188.4	191.8	195.3	199.1	203.0	206.8	210.9	215.2	219.5
Water Supply & Sanitation	234.5	241.8	249.3	257.1	265.0	273.2	281.6	290.2	299.0	308.2	317.5
Electricity	174.6	177.5	180.0	182.5	185.2	187.8	190.5	193.1	195.8	198.6	201.4
Natural Gas	138.7	141.0	142.0	143.4	144.3	146.5	148.7	150.8	153.6	156.6	159.6
Health Care	190.7	195.6	200.5	205.7	210.9	216.4	222.0	227.6	233.5	239.5	245.7
Transportation Services	170.2	173.4	176.6	179.8	183.1	186.4	189.7	193.0	196.4	199.8	203.1
Motor Vehicle Services	181.7	185.9	190.1	194.3	198.7	203.1	207.6	212.2	216.8	221.5	226.3
Motor Vehicle Leasing	101.3	100.8	100.4	99.9	99.5	99.0	98.6	98.2	97.8	97.3	96.9
Other	200.6	206.2	211.9	217.7	223.7	229.9	236.2	242.7	249.4	256.2	263.2
Public Transportation	137.6	138.3	139.0	139.5	140.0	140.5	140.9	141.2	141.5	141.8	142.0
Local (Taxi & Intracity Mass Trans.)	171.7	174.0	176.1	178.1	179.9	181.6	183.3	184.7	186.1	187.3	188.3
Other	124.2	124.3	124.4	124.5	124.6	124.6	124.7	124.7	124.7	124.6	124.6
Recreation Services	169.8	173.7	177.5	181.5	185.5	189.6	193.9	198.2	202.5	207.0	211.5
Food Services & Accommodations	176.0	179.7	183.4	187.1	190.9	194.8	198.7	202.7	206.7	210.9	215.1
Food Services	178.7	182.5	186.3	190.1	194.1	198.0	202.0	206.1	210.3	214.6	218.9
Accommodations	158.2	161.0	163.9	166.8	169.7	172.8	175.9	179.1	182.3	185.7	189.0
Financial Services & Insurance	181.4	186.4	191.5	196.8	202.2	207.9	213.6	219.6	225.7	231.9	238.4
Financial Services	168.7	172.8	177.0	181.2	185.6	190.0	194.5	199.1	203.8	208.5	213.4
Fin. Serv. Furnished w/o Payment	165.2	169.2	173.2	177.3	181.5	185.8	190.2	194.7	199.3	204.0	208.9
Fin. Service Fees & Commissions	172.9	177.3	181.7	186.1	190.6	195.2	199.8	204.5	209.3	214.1	219.0
Insurance	202.9	209.4	216.2	223.3	230.6	238.4	246.4	254.8	263.4	272.4	281.8
Other Services	173.1	177.2	181.3	185.5	189.8	194.3	198.9	203.7	208.4	213.3	218.4
Telecommunication Services	76.0	74.8	73.6	72.4	71.3	70.1	69.0	67.8	66.7	65.6	64.5
All Other	196.0	201.3	206.8	212.3	218.0	223.9	229.9	236.1	242.4	248.8	255.4
Final Cons. Nonprofits Serving Hshlds.	172.8	177.2	181.7	186.2	190.9	195.7	200.5	205.4	210.4	215.4	220.5
Addenda:											
Health Consumption	198.7	204.3	210.0	215.8	221.9	228.2	234.7	241.3	248.2	255.3	262.6
Energy Consumption	170.3	173.8	176.8	179.9	183.2	186.4	189.6	192.8	196.2	199.6	203.1

TABLE 12  
Price Deflators for Consumer Spending—Percent Changes

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Percent Change										
Personal Consumption Expenditures	0.2	1.6	1.5	1.6	1.6	1.7	1.8	1.9	1.9	1.9
Consumption Excluding Food and Energy	1.5	1.3	1.5	1.5	1.6	1.7	1.7	1.8	1.9	1.9
Consumption Excluding New Motor Vehicles	0.2	1.5	1.6	1.6	1.7	1.8	1.8	1.9	1.9	1.9
Durable Goods	-1.6	-1.2	-1.3	-1.0	-1.0	-1.2	-1.3	-1.3	-1.3	-1.4
Motor Vehicles & Parts	0.2	4.3	0.9	0.9	0.7	0.4	0.3	0.2	0.2	0.2
New Motor Vehicles	1.2	2.8	0.5	1.1	1.0	0.6	0.2	0.2	0.1	0.0
New Autos	0.9	2.4	0.5	1.2	1.1	0.7	0.3	0.3	0.2	0.1
New Light Trucks	1.2	3.1	0.5	1.0	0.9	0.5	0.2	0.1	0.1	0.0
Net Purchases of Used Motor Vehicles	-3.0	8.7	2.2	1.3	0.9	0.7	0.8	0.8	0.8	0.8
Net Purchases of Used Autos	-5.3	8.2	2.5	1.5	1.0	0.9	0.9	0.9	1.0	1.0
Net Purchases of Used Trucks	-1.1	9.0	2.0	1.2	0.7	0.6	0.6	0.6	0.7	0.7
Motor Vehicle Parts & Accessories	3.8	0.9	-0.5	-0.7	-0.8	-0.9	-1.1	-1.0	-1.0	-1.0
Furnishings & Durable Household Equip.	-0.3	-3.0	-1.1	-0.5	-0.5	-0.6	-0.7	-0.8	-0.7	-0.7
Recreational Goods and Vehicles	-5.5	-6.1	-4.8	-4.6	-4.5	-4.5	-4.7	-4.7	-4.7	-4.8
Information Processing Equipment	-10.0	-8.9	-9.6	-9.6	-9.8	-9.7	-9.9	-9.9	-10.1	-10.1
Computers & Peripheral Equipment	-13.3	-11.2	-11.9	-11.9	-12.0	-11.9	-12.1	-12.1	-12.4	-12.4
Computer Software & Accessories	-1.4	-3.2	-3.6	-3.6	-4.0	-4.1	-3.9	-3.8	-4.0	-4.2
Calculators, Typewriters & Other	-4.5	-2.3	-5.9	-6.2	-6.2	-6.1	-6.3	-6.3	-6.4	-6.4
Other Recreational Goods & Vehicles	-4.4	-5.4	-3.5	-3.2	-3.0	-3.0	-3.1	-3.1	-3.0	-3.1
Other Durable Goods	1.7	1.8	1.3	1.3	1.3	1.2	1.1	1.1	1.2	1.1
Therapeutic Appliances & Equipment	1.0	0.8	2.2	2.3	2.2	2.1	2.1	2.1	2.2	2.1
All Other	1.9	2.2	0.8	0.9	0.8	0.6	0.5	0.6	0.6	0.5
Nondurable Goods	-2.7	3.0	2.1	2.2	1.8	1.7	1.8	1.8	1.7	1.7
Food & Beverages (Off-Premises)	1.2	1.0	1.6	1.4	1.6	1.6	1.6	1.7	1.8	1.7
Clothing & Footwear	0.9	-0.2	-0.1	-0.1	-0.2	-0.2	-0.3	-0.2	-0.2	-0.2
Gasoline & Other Energy Goods	-26.9	13.9	4.3	5.1	3.1	2.7	3.0	2.9	1.7	1.3
Motor Vehicle Fuels, Lubricants & Fluids	-26.4	14.2	4.7	5.1	3.1	2.6	3.0	2.9	1.6	1.3
Fuel Oil & Other Fuels	-32.1	10.9	-1.6	4.6	4.2	4.0	3.3	2.7	1.8	1.7
Other Nondurable Goods	4.6	2.0	2.4	2.6	2.3	2.2	2.2	2.3	2.4	2.4
Pharma. & Other Medical Products	3.2	3.2	4.3	4.5	4.2	4.0	3.8	3.8	3.9	3.8
Tobacco	24.1	10.6	5.7	5.5	5.5	5.5	5.6	5.6	5.7	5.6
All Other	2.0	-0.7	0.4	0.5	0.2	0.1	0.1	0.0	0.1	0.1
Services	1.5	1.5	1.8	1.9	2.0	2.2	2.3	2.4	2.4	2.4
Household Cons. Expenditures (Services)	1.6	1.6	1.8	1.9	2.0	2.2	2.3	2.3	2.4	2.4
Housing & Utilities	1.2	0.3	1.5	2.1	2.1	2.0	2.2	2.1	2.0	2.0
Housing	1.8	0.3	1.6	2.1	2.1	2.1	2.0	2.0	2.0	2.0
Utilities	-1.6	0.1	0.7	2.2	2.0	1.9	3.6	2.7	2.2	2.1
Water Supply & Sanitation	6.2	4.8	2.3	3.1	3.1	3.0	3.1	3.1	3.2	3.3
Electricity	3.1	-0.3	-0.8	2.4	2.0	1.2	2.0	1.8	1.8	1.7
Natural Gas	-21.8	-6.2	2.7	0.3	0.4	2.6	9.4	4.7	1.8	1.5
Health Care	2.5	2.5	2.4	2.2	2.2	2.3	2.5	2.7	2.9	2.9
Transportation Services	2.7	2.4	1.7	1.7	1.8	1.9	1.9	2.0	2.1	2.1
Motor Vehicle Services	5.1	1.1	2.1	2.1	2.2	2.3	2.2	2.3	2.4	2.4
Motor Vehicle Leasing	7.7	-3.1	0.5	1.3	0.6	0.4	-0.1	-0.3	-0.3	-0.4
Other	4.6	1.8	2.4	2.3	2.4	2.6	2.7	2.7	2.8	2.8
Public Transportation	-3.8	6.3	0.8	0.7	0.8	0.9	0.9	1.0	1.1	1.1
Local (Taxi & Intracity Mass Trans.)	4.7	3.1	1.7	1.8	2.1	2.2	2.2	2.3	2.3	2.3
Other	-6.6	7.4	0.5	0.2	0.3	0.4	0.4	0.5	0.6	0.6
Recreation Services	1.2	1.5	1.7	1.5	1.8	2.1	2.2	2.2	2.3	2.3
Food Services & Accommodations	2.4	2.0	2.2	2.1	2.1	2.1	2.1	2.2	2.3	2.3
Food Services	3.5	2.1	2.2	2.1	2.1	2.1	2.2	2.3	2.4	2.4
Accommodations	-4.3	1.7	2.2	2.1	2.1	2.0	2.0	1.9	2.0	2.0
Financial Services & Insurance	-0.7	1.3	1.8	1.7	2.2	2.5	2.6	2.6	2.7	2.7
Financial Services	-2.7	0.4	1.6	1.6	1.9	2.2	2.3	2.4	2.5	2.5
Fin. Services Furnished w/o Payment	-1.6	0.2	0.9	1.0	1.6	2.0	2.1	2.2	2.3	2.3
Fin. Service Fees & Commissions	-3.9	0.7	2.4	2.1	2.2	2.4	2.6	2.8	2.8	2.7
Insurance	2.5	2.7	2.0	2.0	2.6	3.0	2.9	2.9	2.9	2.9
Other Services	2.2	2.1	1.2	1.2	1.4	1.9	2.1	2.1	2.2	2.2
Telecommunication Services	1.5	-0.6	-1.4	-1.5	-1.7	-1.6	-1.5	-1.5	-1.4	-1.4
All Other	2.4	2.8	1.8	1.7	2.0	2.5	2.7	2.7	2.7	2.8
Final Cons. Nonprofits Serving Hshlds	-1.2	0.6	1.8	1.6	2.1	2.7	2.8	2.8	2.9	2.9
Addenda:										
Health Consumption	2.5	2.6	2.7	2.6	2.5	2.6	2.7	2.9	3.1	3.1
Energy Consumption	-18.9	7.6	2.7	3.9	2.5	2.2	3.3	2.7	1.7	1.4

TABLE 12  
Price Deflators for Consumer Spending—Percent Changes

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Percent Change											
Personal Consumption Expenditures	1.8	1.7	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.9	1.9
Consumption Excluding Food and Energy	1.9	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.9	1.9
Consumption Excluding New Motor Vehicles	1.8	1.7	1.6	1.7	1.7	1.8	1.8	1.8	1.9	1.9	1.9
Durable Goods	-1.5	-1.6	-1.7	-1.8	-1.7	-1.7	-1.6	-1.6	-1.6	-1.6	-1.6
Motor Vehicles & Parts	0.1	0.1	0.0	-0.1	-0.1	0.0	0.1	0.1	0.1	0.2	0.2
New Motor Vehicles	0.0	-0.1	-0.2	-0.4	-0.3	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1
New Autos	0.1	0.0	-0.1	-0.3	-0.2	-0.2	-0.1	0.0	0.0	0.0	0.0
New Light Trucks	-0.1	-0.1	-0.3	-0.4	-0.4	-0.3	-0.3	-0.2	-0.2	-0.2	-0.1
Net Purchases of Used Motor Vehicles	0.8	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8
Net Purchases of Used Autos	0.9	1.0	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9
Net Purchases of Used Trucks	0.6	0.7	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Motor Vehicle Parts & Accessories	-1.1	-1.3	-1.4	-1.5	-1.4	-1.3	-1.3	-1.2	-1.2	-1.2	-1.2
Furnishings & Durable Household Equip.	-0.8	-0.9	-1.0	-1.1	-1.0	-1.0	-0.9	-0.9	-1.0	-1.0	-1.0
Recreational Goods and Vehicles	-4.9	-5.1	-5.2	-5.2	-5.2	-5.1	-5.1	-5.2	-5.2	-5.2	-5.2
Information Processing Equipment	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1
Computers & Peripheral Equipment	-12.4	-12.4	-12.4	-12.4	-12.4	-12.4	-12.4	-12.4	-12.4	-12.4	-12.4
Computer Software & Accessories	-4.1	-4.0	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Calculators, Typewriters & Other	-6.4	-6.2	-6.3	-6.3	-6.3	-6.3	-6.3	-6.3	-6.3	-6.3	-6.3
Other Recreational Goods & Vehicles	-3.2	-3.4	-3.5	-3.5	-3.4	-3.4	-3.4	-3.4	-3.5	-3.5	-3.5
Other Durable Goods	1.0	0.9	0.8	0.8	0.9	1.0	1.0	1.0	1.0	1.0	1.1
Therapeutic Appliances & Equipment	2.0	1.9	1.8	1.9	2.1	2.2	2.3	2.3	2.3	2.3	2.3
All Other	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nondurable Goods	1.4	1.2	1.2	1.3	1.4	1.7	1.8	1.8	1.8	1.9	1.9
Food & Beverages (Off-Premises)	1.6	1.4	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.5	1.4
Clothing & Footwear	-0.3	-0.4	-0.5	-0.4	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1
Gasoline & Other Energy Goods	-0.2	-0.9	-0.8	-0.2	0.0	1.9	1.9	1.9	2.1	2.6	2.5
Motor Vehicle Fuels, Lubricants & Fluids	-0.2	-1.0	-0.8	-0.3	0.0	2.0	1.9	1.9	2.1	2.6	2.5
Fuel Oil & Other Fuels	0.6	0.1	0.3	0.6	0.7	1.7	1.7	1.8	1.9	2.2	2.2
Other Nondurable Goods	2.4	2.3	2.2	2.3	2.4	2.5	2.6	2.6	2.5	2.6	2.6
Pharma. & Other Medical Products	3.8	3.6	3.5	3.5	3.5	3.6	3.6	3.6	3.5	3.5	3.5
Tobacco	5.5	5.3	5.2	5.2	5.2	5.3	5.3	5.3	5.3	5.3	5.4
All Other	0.0	-0.1	-0.2	-0.2	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1
Services	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3
Household Cons. Expenditures (Services)	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3
Housing & Utilities	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8
Housing	2.0	1.9	1.8	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.8
Utilities	2.4	2.2	2.0	1.9	2.0	1.9	2.2	2.3	2.2	2.3	2.2
Water Supply & Sanitation	3.2	3.1	2.9	2.8	2.8	2.9	2.9	2.9	3.0	3.0	3.1
Electricity	1.8	1.8	1.6	1.3	1.5	1.4	1.6	1.7	1.6	1.8	1.8
Natural Gas	2.9	1.9	1.7	2.0	2.2	1.6	2.7	2.8	2.5	2.7	2.1
Health Care	2.8	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Transportation Services	1.9	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.9	1.9	1.9
Motor Vehicle Services	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.3	2.3
Motor Vehicle Leasing	-0.4	-0.5	-0.7	-0.8	-0.8	-0.7	-0.6	-0.6	-0.6	-0.5	-0.5
Other	2.6	2.5	2.4	2.5	2.5	2.6	2.6	2.6	2.7	2.7	2.8
Public Transportation	1.0	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Local (Taxi & Intracity Mass Trans.)	2.2	2.0	1.9	1.8	1.8	1.8	1.7	1.6	1.6	1.5	1.5
Other	0.5	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Recreation Services	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.2
Food Services & Accommodations	2.2	2.1	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1
Food Services	2.2	2.1	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.1
Accommodations	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Financial Services & Insurance	2.6	2.5	2.5	2.5	2.5	2.6	2.6	2.7	2.7	2.7	2.7
Financial Services	2.4	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4
Fin. Services Furnished w/o Payment	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.3
Fin. Service Fees & Commissions	2.6	2.4	2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.5	2.5
Insurance	2.9	2.8	2.7	2.8	2.8	2.9	3.0	3.0	3.1	3.2	3.2
Other Services	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3
Telecommunication Services	-1.5	-1.6	-1.8	-1.8	-1.8	-1.8	-1.7	-1.7	-1.6	-1.6	-1.6
All Other	2.7	2.7	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.8
Final Cons. Nonprofits Serving Hshlds.	2.8	2.7	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.6
Addenda:											
Health Consumption	3.0	2.8	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.8
Energy Consumption	0.7	0.2	0.2	0.5	0.7	1.7	1.9	1.9	2.0	2.3	2.2

TABLE 12  
Price Deflators for Consumer Spending—Percent Changes

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Percent Change											
Personal Consumption Expenditures	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0
Consumption Excluding Food and Energy	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0
Consumption Excluding New Motor Vehicles	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0
Durable Goods	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.5	-1.5	-1.5	-1.5
Motor Vehicles & Parts	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
New Motor Vehicles	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
New Autos	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
New Light Trucks	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Net Purchases of Used Motor Vehicles	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Net Purchases of Used Autos	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Net Purchases of Used Trucks	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Motor Vehicle Parts & Accessories	-1.2	-1.1	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2
Furnishings & Durable Household Equip.	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9
Recreational Goods and Vehicles	-5.3	-5.3	-5.3	-5.3	-5.4	-5.4	-5.4	-5.5	-5.5	-5.5	-5.6
Information Processing Equipment	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1
Computers & Peripheral Equipment	-12.4	-12.4	-12.4	-12.4	-12.4	-12.4	-12.4	-12.4	-12.4	-12.4	-12.4
Computer Software & Accessories	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Calculators, Typewriters & Other	-6.3	-6.3	-6.3	-6.3	-6.3	-6.3	-6.3	-6.3	-6.3	-6.3	-6.0
Other Recreational Goods & Vehicles	-3.5	-3.5	-3.6	-3.6	-3.6	-3.6	-3.7	-3.7	-3.7	-3.7	-3.7
Other Durable Goods	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2
Therapeutic Appliances & Equipment	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
All Other	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nondurable Goods	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1
Food & Beverages (Off-Premises)	1.4	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Clothing & Footwear	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Gasoline & Other Energy Goods	2.4	2.4	2.1	2.1	2.2	2.0	1.9	1.9	1.9	1.9	1.9
Motor Vehicle Fuels, Lubricants & Fluids	2.5	2.4	2.1	2.1	2.2	2.0	1.9	1.9	1.9	1.9	1.9
Fuel Oil & Other Fuels	2.2	2.3	2.2	2.1	2.3	1.8	2.1	2.1	2.1	2.1	1.8
Other Nondurable Goods	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8
Pharma. & Other Medical Products	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Tobacco	5.3	5.4	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.2
All Other	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2
Services	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Household Cons. Expenditures (Services)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Housing & Utilities	1.8	1.8	1.7	1.7	1.7	1.8	1.8	1.7	1.8	1.8	1.8
Housing	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Utilities	2.2	2.1	1.8	1.8	1.8	2.0	1.9	1.9	2.0	2.0	2.0
Water Supply & Sanitation	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0
Electricity	1.8	1.6	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Natural Gas	1.7	1.7	0.7	1.0	0.6	1.5	1.5	1.4	1.9	1.9	1.9
Health Care	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Transportation Services	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7
Motor Vehicle Services	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Motor Vehicle Leasing	-0.5	-0.4	-0.4	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
Other	2.8	2.8	2.8	2.7	2.8	2.7	2.8	2.8	2.7	2.7	2.7
Public Transportation	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1
Local (Taxi & Intracity Mass Trans.)	1.4	1.3	1.2	1.1	1.1	1.0	0.9	0.8	0.7	0.6	0.6
Other	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Recreation Services	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Food Services & Accommodations	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Food Services	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0
Accommodations	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Financial Services & Insurance	2.7	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Financial Services	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3
Fin. Services Furnished w/o Payment	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Fin. Service Fees & Commissions	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3
Insurance	3.2	3.2	3.2	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4
Other Services	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.4
Telecommunication Services	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.7
All Other	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6
Final Cons. Nonprofits Serving Hshlds	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4
Addenda:											
Health Consumption	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.9
Energy Consumption	2.2	2.1	1.8	1.7	1.8	1.8	1.7	1.7	1.8	1.8	1.7

TABLE 13  
Personal Income

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Dollars										
Personal Income	12072.1	12547.4	13078.2	13759.1	14487.3	15265.4	16015.3	16772.7	17584.0	18464.6
(Percent change, annual rate)	-1.4	3.9	4.2	5.2	5.3	5.4	4.9	4.7	4.8	5.0
Wage and Salary Disbursements	6330.6	6525.4	6798.3	7144.4	7514.3	7862.0	8183.3	8508.4	8852.7	9218.9
Private	5148.1	5322.7	5591.7	5913.6	6241.4	6543.4	6820.7	7101.2	7397.3	7711.3
Government	1182.5	1202.7	1206.6	1230.8	1272.9	1318.6	1362.6	1407.2	1455.3	1507.6
Other Labor Income	1043.9	1071.4	1121.0	1186.2	1254.2	1322.5	1387.0	1445.2	1504.2	1571.0
Medical	557.1	568.3	598.6	642.9	691.0	736.3	778.8	819.0	859.8	906.9
Non-Medical	486.8	503.1	522.4	543.3	563.2	586.2	608.2	626.2	644.4	664.2
Proprietors' Income										
Farm	29.9	41.6	40.2	42.8	43.1	43.1	40.9	39.0	38.5	37.9
Nonfarm	1012.4	1068.0	1136.8	1201.0	1265.2	1333.8	1387.8	1452.2	1525.2	1612.9
Rental Income	268.3	310.7	304.0	258.3	200.4	170.9	156.4	146.3	143.3	140.8
Personal Dividend Income	554.6	603.9	664.3	695.2	740.4	756.2	745.7	743.8	753.1	776.0
Personal Interest Income	1236.9	1246.4	1308.6	1483.9	1671.4	1878.8	2099.7	2285.5	2462.6	2638.3
Transfer Payments	2106.9	2205.9	2256.2	2331.3	2417.9	2553.0	2702.9	2873.5	3060.1	3261.5
Federal	1598.3	1667.5	1674.3	1711.1	1754.2	1844.6	1947.9	2068.2	2199.6	2341.3
State and Local	475.9	504.9	547.5	582.7	621.3	661.9	705.6	753.6	806.4	863.2
Business	32.7	33.5	34.5	37.6	42.5	46.5	49.3	51.6	54.1	57.0
Less: Pers. Cont. for Social Insurance	973.2	998.8	1045.3	1104.0	1168.1	1230.6	1289.5	1350.6	1415.3	1484.3
Equals: Personal Income	12072.1	12547.4	13078.2	13759.1	14487.3	15265.4	16015.3	16772.7	17584.0	18464.6
Less: Pers. Tax and Nontax Payments	1107.6	1176.8	1353.0	1552.0	1804.5	1906.3	1989.4	2089.9	2204.4	2334.0
Equals: Disposable Personal Income	10964.5	11370.5	11725.2	12207.0	12682.8	13359.1	14025.9	14682.8	15379.6	16130.6
Less:										
Personal Consumption	10092.6	10496.8	10941.3	11425.5	11867.2	12359.8	12919.2	13458.8	14000.1	14589.8
Interest Paid	214.3	193.7	195.6	207.8	227.2	247.1	269.9	291.5	307.1	320.4
Net Transfer Payments	154.9	164.1	177.7	190.4	203.9	218.1	233.3	249.2	266.0	283.4
To Government	92.3	99.2	106.9	114.9	123.4	132.3	141.6	151.5	161.7	172.4
To Rest of World	62.7	64.9	70.8	75.5	80.5	85.8	91.6	97.7	104.2	111.1
Equals: Personal Saving	502.7	515.9	410.5	383.2	384.4	534.2	603.5	683.2	806.4	936.9
Saving Rate (% of Disposable Income)	4.6	4.5	3.5	3.1	3.0	4.0	4.3	4.7	5.2	5.8
Real Disposable Income										
Level (Billions of Chained 2000 \$)	10035.3	10247.0	10407.2	10660.8	10897.1	11283.1	11635.5	11959.1	12294.5	12655.4
(Percent change, annual rate)	1.3	2.1	1.6	2.4	2.2	3.5	3.1	2.8	2.8	2.9
Per Capita (Thous. of chained 2000 \$)	32.6	33.0	33.2	33.6	34.1	34.9	35.7	36.3	37.0	37.7

TABLE 13  
Personal Income

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Dollars											
Personal Income	19419.9	20429.5	21424.1	22409.4	23410.9	24453.5	25574.7	26750.5	27983.7	29270.6	30615.4
(Percent change, annual rate)	5.2	5.2	4.9	4.6	4.5	4.5	4.6	4.6	4.6	4.6	4.6
Wage and Salary Disbursements	9606.4	10007.3	10421.8	10860.6	11315.2	11790.7	12297.6	12832.9	13394.7	13982.7	14601.4
Private	8044.0	8383.4	8743.7	9123.1	9515.8	9928.0	10368.1	10833.5	11322.8	11835.8	12377.1
Government	1562.5	1623.9	1678.1	1737.6	1799.4	1862.6	1929.5	1999.4	2071.9	2146.9	2224.3
Other Labor Income	1640.1	1714.6	1793.6	1877.9	1965.6	2056.5	2153.6	2254.9	2362.0	2473.1	2590.2
Medical	953.8	1004.7	1057.5	1111.9	1169.1	1227.8	1289.7	1353.7	1421.1	1490.4	1562.8
Non-Medical	686.3	709.9	736.1	766.0	796.5	828.8	863.9	901.2	940.9	982.7	1027.4
Proprietors' Income											
Farm	37.3	37.5	37.9	38.3	38.9	38.8	38.2	38.0	38.1	37.8	37.6
Nonfarm	1708.1	1808.5	1913.0	2015.2	2112.7	2207.1	2309.2	2412.1	2519.3	2630.5	2744.4
Rental Income	135.1	130.8	129.5	129.2	127.9	126.9	127.0	127.2	127.6	129.2	131.9
Personal Dividend Income	818.4	866.9	919.3	947.4	964.3	988.3	1023.8	1062.8	1103.4	1145.3	1186.0
Personal Interest Income	2835.8	3055.6	3234.7	3388.2	3545.4	3700.7	3861.9	4031.2	4209.3	4394.0	4585.2
Transfer Payments	3469.3	3678.3	3887.4	4106.1	4337.3	4582.5	4846.2	5121.3	5408.5	5708.8	6023.9
Federal	2489.0	2638.1	2785.3	2939.4	3102.7	3276.7	3465.0	3661.4	3866.2	4080.5	4305.5
State and Local	920.0	976.1	1034.5	1096.4	1161.7	1230.4	1303.2	1379.4	1459.2	1542.6	1630.1
Business	60.4	64.1	67.6	70.3	72.9	75.4	78.0	80.5	83.1	85.7	88.2
Less: Pers. Cont. for Social Insurance	37.9	39.4	40.9	42.4	43.8	45.4	47.0	48.6	50.3	52.1	53.8
Equals: Personal Income	19419.9	20429.5	21424.1	22409.4	23410.9	24453.5	25574.7	26750.5	27983.7	29270.6	30615.4
Less: Pers. Tax and Nontax Payments	2471.9	2619.3	2793.0	2956.7	3174.6	3383.5	3581.9	3837.2	4059.7	4306.2	4611.4
Equals: Disposable Personal Income	16948.0	17810.2	18631.0	19452.8	20236.3	21070.0	21992.8	22913.3	23924.0	24964.4	26004.0
Less:											
Personal Consumption	15227.3	15917.3	16621.2	17327.8	18045.3	18791.8	19591.0	20419.0	21295.9	22217.8	23166.4
Interest Paid	333.6	347.9	362.2	375.0	386.2	395.3	405.3	415.0	426.2	438.4	449.8
Net Transfer Payments	302.0	320.6	338.9	357.7	377.2	397.5	418.5	440.4	463.3	487.0	511.8
To Government	183.4	193.9	203.6	213.2	222.8	232.6	242.4	252.3	262.3	272.3	282.5
To Rest of World	118.6	126.7	135.3	144.5	154.4	164.9	176.1	188.1	201.0	214.7	229.3
Equals: Personal Saving	1085.1	1224.4	1308.8	1392.3	1427.6	1485.5	1578.0	1638.8	1738.7	1821.2	1876.1
Saving Rate (% of Disposable Income)	6.4	6.9	7.0	7.2	7.1	7.1	7.2	7.2	7.3	7.3	7.2
Real Disposable Income											
Level (Billions of Chained 2000 \$)	13061.4	13502.1	13903.3	14285.6	14619.6	14962.4	15344.2	15702.9	16100.9	16494.8	16866.1
(Percent change, annual rate)	3.2	3.4	3.0	2.7	2.3	2.3	2.6	2.3	2.5	2.4	2.3
Per Capita (Thous. of chained 2000 \$)	38.5	39.5	40.3	41.0	41.6	42.2	42.9	43.5	44.2	44.9	45.5



TABLE 13

## Personal Income

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Dollars											
Personal Income	32024.3	33448.4	34932.8	36476.4	38113.6	39842.6	41646.7	43521.3	45464.1	47483.2	49595.9
(Percent change, annual rate)	4.6	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.4	4.4
Wage and Salary Disbursements	15249.6	15892.2	16561.0	17249.7	17979.0	18743.7	19541.4	20371.4	21230.0	22124.6	23065.2
Private	12939.9	13507.0	14091.4	14692.4	15331.4	16001.6	16701.3	17429.4	18183.6	18969.3	19786.1
Government	2309.7	2385.3	2469.7	2557.2	2647.6	2742.0	2840.2	2942.0	3046.4	3155.3	3279.0
Other Labor Income	2713.5	2839.3	2968.4	3101.7	3239.9	3384.3	3533.9	3690.1	3853.8	4023.5	4198.5
Medical	1638.9	1717.7	1798.2	1881.5	1967.3	2056.8	2149.4	2246.3	2348.8	2454.9	2563.0
Non-Medical	1074.7	1121.7	1170.2	1220.2	1272.6	1327.6	1384.5	1443.8	1505.0	1568.7	1635.4
Proprietors' Income											
Farm	37.1	37.2	37.5	37.3	37.1	36.8	36.1	35.6	35.3	34.8	34.4
Nonfarm	2863.4	2984.7	3108.7	3238.5	3377.3	3523.2	3675.8	3834.0	3997.7	4169.4	4351.1
Rental Income	135.3	139.2	144.4	150.3	157.2	164.9	173.4	182.7	193.1	204.4	215.9
Personal Dividend Income	1227.8	1270.5	1317.6	1370.0	1429.0	1493.8	1562.0	1633.4	1709.4	1788.2	1878.6
Personal Interest Income	4789.6	5005.6	5231.6	5467.9	5719.5	5987.3	6270.6	6569.6	6881.3	7202.9	7528.7
Transfer Payments	6350.0	6682.2	7025.3	7383.3	7761.1	8162.6	8577.7	9001.9	9436.5	9887.2	10358.3
Federal	4537.8	4772.3	5013.7	5264.8	5530.3	5813.6	6105.7	6402.4	6704.8	7017.8	7345.7
State and Local	1721.3	1816.2	1915.1	2019.1	2128.3	2243.3	2362.9	2486.8	2615.3	2749.2	2888.5
Business	91.0	93.7	96.5	99.4	102.5	105.7	109.1	112.7	116.3	120.1	124.1
Less: Pers. Cont. for Social Insurance	55.7	57.6	59.6	61.6	63.7	66.0	68.3	70.6	73.1	75.6	78.2
Equals: Personal Income	32024.3	33448.4	34932.8	36476.4	38113.6	39842.6	41646.7	43521.3	45464.1	47483.2	49595.9
Less: Pers. Tax and Nontax Payments	4898.7	5162.1	5460.8	5783.5	6100.7	6441.5	6803.1	7188.8	7591.9	8016.1	8467.1
Equals: Disposable Personal Income	27125.6	28286.3	29472.1	30692.9	32012.9	33401.2	34843.6	36332.6	37872.2	39467.1	41128.8
Less:											
Personal Consumption	24172.7	25232.3	26322.0	27458.2	28659.9	29919.4	31241.0	32618.8	34054.1	35556.7	37119.4
Interest Paid	461.9	475.1	489.1	503.0	518.0	533.9	550.4	568.2	586.9	606.4	627.3
Net Transfer Payments	537.6	564.6	592.9	622.4	653.3	685.6	719.4	754.2	789.1	823.9	858.7
To Government	292.7	303.0	313.3	323.8	334.3	344.9	355.7	366.4	377.3	388.1	398.9
To Rest of World	245.0	261.7	279.5	298.6	318.9	340.7	363.8	387.8	411.8	435.8	459.8
Equals: Personal Saving	1953.4	2014.3	2068.1	2109.4	2181.7	2262.3	2332.7	2391.3	2442.1	2480.1	2523.3
Saving Rate (% of Disposable Income)	7.2	7.1	7.0	6.9	6.8	6.8	6.7	6.6	6.4	6.3	6.1
Real Disposable Income											
Level (Billions of Chained 2000 \$)	17270.1	17676.3	18077.9	18478.4	18913.7	19363.6	19819.5	20275.4	20732.7	21192.6	21660.8
(Percent change, annual rate)	2.4	2.4	2.3	2.2	2.4	2.4	2.4	2.3	2.3	2.2	2.2
Per Capita (Thous. of chained 2000 \$)	46.2	46.8	47.5	48.2	48.9	49.6	50.4	51.1	51.9	52.6	53.3

TABLE 14  
Household Finances

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Dollars, SAAR										
Financial Assets	39035	41964	44794	47630	50572	53554	57060	60608	64080	67583
Money	7738	8190	8634	9042	9441	9809	10195	10650	11150	11685
Equities	12348	13470	14408	15056	15545	16098	16949	17771	18429	18959
Other (Bonds, Life Insur. Reserves, etc.)	18949	20305	21751	23533	25586	27647	29916	32187	34501	36939
Nonfinancial Assets	29743	29496	30660	32489	34295	36074	38308	40100	42700	45310
Liabilities	14003	14244	14838	15675	16629	17674	18814	19985	21131	22288
Nonmortgage Consumer Credit	2457	2545	2699	2851	2938	3036	3147	3250	3325	3426
Net Worth	54774.5	57216.2	60616.3	64444.6	68238.3	71953.3	76553.7	80722.6	85649.0	90605.5
Percent of Disposable Income	500	503	517	528	538	539	546	550	557	562
Real Net Worth (Billions of 2000 \$)	49689	51334	53459	55954	58269	60373	63083	65295	67994	70607
Percent Change										
Financial Assets	13.5	7.5	6.7	6.3	6.2	5.9	6.5	6.2	5.7	5.5
Money	-2.1	5.8	5.4	4.7	4.4	3.9	3.9	4.5	4.7	4.8
Equities	32.9	9.1	7.0	4.5	3.3	3.6	5.3	4.8	3.7	2.9
Other (Bonds, Life Ins. Res., etc.)	10.2	7.2	7.1	8.2	8.7	8.1	8.2	7.6	7.2	7.1
Nonfinancial Assets	-4.7	-0.8	3.9	6.0	5.6	5.2	6.2	4.7	6.5	6.1
Liabilities	-1.5	1.7	4.2	5.6	6.1	6.3	6.4	6.2	5.7	5.5
Nonmortgage Consumer Credit	-4.0	3.6	6.1	5.6	3.0	3.3	3.7	3.3	2.3	3.0
Net Worth	6.6	4.5	5.9	6.3	5.9	5.4	6.4	5.4	6.1	5.8
Real Net Worth	5.3	3.3	4.1	4.7	4.1	3.6	4.5	3.5	4.1	3.8
Addenda:										
Percent of Disposable Income										
Monthly Financial Obligations*	17.9	17.3	17.1	17.3	17.8	18.6	19.5	20.0	20.4	20.8
Outstanding Nonmortgage Cons. Debt	22.4	22.4	23.0	23.4	23.2	22.7	22.4	22.1	21.6	21.2
Outstanding Mortgage Debt	98.8	98.1	98.7	100.1	102.9	104.8	107.0	109.4	111.3	112.6
Personal Bankruptcies (Thousands)	1471.3	1646.8	1440.6	1326.7	1289.9	1278.0	1267.2	1263.1	1249.8	1228.4
Per Thousand Adults (Ages 16 and up)	6.08	6.73	5.83	5.31	5.12	5.02	4.93	4.87	4.77	4.64
Bank Card Delinquencies										
30 or more days, percent of accounts	4.8	4.8	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.4

\* Debt service plus rent, motor vehicle leases, etc.

TABLE 14

## Household Finances

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Dollars, SAAR											
Financial Assets	71175	74918	79062	83304	87567	91909	96494	101172	106022	110989	116116
Money	12263	12858	13503	14165	14833	15544	16289	17043	17816	18607	19432
Equities	19421	19907	20642	21436	22242	23068	23958	24837	25751	26666	27631
Other (Bonds, Life Insur. Reserves, etc.)	39491	42153	44917	47703	50491	53297	56247	59292	62454	65716	69052
Nonfinancial Assets	48057	51012	53892	56589	59270	62067	65029	68151	71373	74719	78184
Liabilities	23468	24668	25701	26717	27673	28624	29592	30570	31579	32581	33580
Nonmortgage Consumer Credit	3530	3645	3739	3831	3897	3971	4048	4122	4212	4300	4385
Net Worth	95764.7	101262.0	107252.9	113175.7	119163.3	125352.7	131930.8	138752.3	145816.8	153127.8	160719.2
Percent of Disposable Income	565	569	576	582	589	595	600	606	609	613	618
Real Net Worth (Billions of 2000 \$)	73333	76325	79565	82614	85550	88437	91439	94450	97469	100478	103523
Percent Change											
Financial Assets	5.3	5.3	5.5	5.4	5.1	5.0	5.0	4.8	4.8	4.7	4.6
Money	4.9	4.9	5.0	4.9	4.7	4.8	4.8	4.6	4.5	4.4	4.4
Equities	2.4	2.5	3.7	3.8	3.8	3.7	3.9	3.7	3.7	3.6	3.6
Other (Bonds, Life Ins. Res., etc.)	6.9	6.7	6.6	6.2	5.8	5.6	5.5	5.4	5.3	5.2	5.1
Nonfinancial Assets	6.1	6.1	5.6	5.0	4.7	4.7	4.8	4.8	4.7	4.7	4.6
Liabilities	5.3	5.1	4.2	4.0	3.6	3.4	3.4	3.3	3.3	3.2	3.1
Nonmortgage Consumer Credit	3.0	3.3	2.6	2.5	1.7	1.9	1.9	1.8	2.2	2.1	2.0
Net Worth	5.7	5.7	5.9	5.5	5.3	5.2	5.2	5.2	5.1	5.0	5.0
Real Net Worth	3.9	4.1	4.2	3.8	3.6	3.4	3.4	3.3	3.2	3.1	3.0
Addenda:											
Percent of Disposable Income											
Monthly Financial Obligations*	21.2	21.5	21.8	21.9	22.0	22.0	22.0	22.0	22.0	21.9	21.8
Outstanding Nonmortgage Cons. Debt	20.8	20.5	20.1	19.7	19.3	18.8	18.4	18.0	17.6	17.2	16.9
Outstanding Mortgage Debt	113.4	113.9	114.6	115.2	115.9	116.2	116.1	116.1	115.7	115.2	114.7
Personal Bankruptcies (Thousands)	1210.4	1198.2	1196.2	1201.5	1203.8	1203.2	1201.5	1205.3	1213.8	1226.3	1241.1
Per Thousand Adults (Ages 16 and up)	4.53	4.44	4.39	4.37	4.33	4.29	4.24	4.22	4.21	4.21	4.22
Bank Card Delinquencies											
30 or more days, percent of accounts	4.3	4.2	4.1	4.1	4.1	4.0	3.9	3.8	3.7	3.7	3.6

\* Debt service plus rent, motor vehicle leases, etc.

TABLE 14  
Household Finances

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2021	2040
Billions of Dollars, SAAR											
Financial Assets	121529	127106	132807	138762	145038	151619	158512	165695	173191	79062	188935
Money	20303	21180	22077	23029	24019	25045	26113	27209	28347	13503	30744
Equities	28666	29696	30746	31868	33048	34291	35601	36967	38429	20642	41450
Other (Bonds, Life Insur. Reserves, etc.)	72560	76231	79984	83865	87971	92283	96799	101519	106415	44917	116740
Nonfinancial Assets	81820	85658	89644	93785	98145	102734	107493	112435	117604	53892	128407
Liabilities	34631	35706	36776	37885	39054	40275	41553	42876	44238	25701	47105
Nonmortgage Consumer Credit	4483	4585	4687	4797	4914	5035	5165	5302	5445	3739	5757
Net Worth	168718.9	177057.9	185674.3	194661.7	204128.8	214077.8	224451.6	235253.6	246556.8	107252.9	270236.6
Percent of Disposable Income	622	626	630	634	638	641	644	648	651	576	657
Real Net Worth (Billions of 2000 \$)	106678	109877	113101	116376	119753	123231	126765	130347	134007	79565	141292
Percent Change											
Financial Assets	4.7	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	5.5	4.4
Money	4.5	4.3	4.2	4.3	4.3	4.3	4.3	4.2	4.2	5.0	4.1
Equities	3.7	3.6	3.5	3.7	3.7	3.8	3.8	3.8	4.0	3.7	3.7
Other (Bonds, Life Ins. Res., etc.)	5.1	5.1	4.9	4.9	4.9	4.9	4.9	4.9	4.8	6.6	4.7
Nonfinancial Assets	4.7	4.7	4.7	4.6	4.6	4.7	4.6	4.6	4.6	5.6	4.4
Liabilities	3.1	3.1	3.0	3.0	3.1	3.1	3.2	3.2	3.2	4.2	3.2
Nonmortgage Consumer Credit	2.2	2.3	2.2	2.3	2.4	2.5	2.6	2.7	2.7	2.6	2.9
Net Worth	5.0	4.9	4.9	4.8	4.9	4.9	4.8	4.8	4.8	5.9	4.6
Real Net Worth	3.0	3.0	2.9	2.9	2.9	2.9	2.9	2.8	2.8	4.2	2.6
Addenda:											
Percent of Disposable Income											
Monthly Financial Obligations*	21.7	21.7	21.6	21.5	21.4	21.3	21.2	21.1	21.0	21.8	20.9
Outstanding Nonmortgage Cons. Debt	16.5	16.2	15.9	15.6	15.3	15.1	14.8	14.6	14.4	20.1	14.0
Outstanding Mortgage Debt	114.1	113.5	112.9	112.2	111.5	110.8	110.2	109.5	108.9	114.6	107.7
Personal Bankruptcies (Thousands)	1255.5	1270.7	1285.9	1300.9	1314.9	1327.7	1341.0	1355.7	1371.5	1196.2	1405.1
Per Thousand Adults (Ages 16 and up)	4.23	4.24	4.26	4.27	4.28	4.28	4.29	4.30	4.31	4.39	4.35
Bank Card Delinquencies											
30 or more days, percent of accounts	3.6	3.5	3.4	3.4	3.3	3.3	3.2	3.2	3.1	4.1	3.1

\* Debt service plus rent, motor vehicle leases, etc.

TABLE 15  
Light Vehicles

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Millions of Units										
Total Sales	10.35	11.80	13.81	15.59	16.53	16.97	17.36	17.41	17.05	16.83
Cars	5.42	6.28	7.48	8.55	9.18	9.52	9.76	9.81	9.61	9.54
Domestic	3.59	3.88	4.65	5.51	5.98	6.29	6.44	6.42	6.27	6.24
Imported	1.83	2.40	2.84	3.04	3.20	3.24	3.31	3.40	3.33	3.30
Light Trucks	4.92	5.52	6.33	7.04	7.35	7.45	7.60	7.60	7.44	7.29
Domestic	4.04	4.60	5.16	5.75	6.01	6.13	6.23	6.22	6.07	5.95
Imported	0.88	0.92	1.17	1.30	1.34	1.33	1.37	1.38	1.37	1.34
Stock of Registered Vehicles	245.7	244.0	244.1	245.9	248.5	251.4	254.6	257.7	260.6	263.2
Cars	133.1	132.1	132.3	133.7	135.8	138.3	141.1	144.1	146.9	149.8
All Trucks—Light, Medium & Heavy	112.6	111.9	111.8	112.2	112.8	113.2	113.5	113.6	113.6	113.4
Billions of Chained 2005 Dollars										
Consumer Purchases of New Vehicles	166.1	189.4	226.0	247.6	241.4	250.5	292.6	305.7	292.5	277.9
Business Purchases of New Vehicles	104.3	124.7	148.6	181.0	217.7	229.6	206.3	199.6	209.7	226.6
Net investment in Used Cars	-33.1	-30.3	-33.5	-40.0	-46.4	-48.9	-47.3	-47.5	-48.4	-50.0
Net investment in Used Light Trucks	-40.1	-34.9	-32.1	-31.6	-33.9	-41.4	-44.8	-48.0	-51.3	-55.6
Net investment in Light Vehicles	33.5	62.0	86.2	113.6	142.7	144.7	118.5	107.9	114.2	125.6
Motor Vehicle Dealer Inventories*	147.4	139.5	138.5	152.0	163.9	165.4	165.4	180.8	192.4	200.3
Change in Inventory	-10.7	-7.9	-1.0	13.5	12.0	1.5	-0.1	15.4	11.6	8.0
Billions of Dollars										
Consumer Purchases of New Vehicles	162.6	190.9	228.9	253.5	249.5	260.4	304.9	319.1	305.7	290.6
Business Purchases of New Vehicles	36.2	60.9	84.3	111.5	141.2	143.9	118.0	107.6	114.1	125.7
Consumer Spending on Leased Vehicles	345.4	351.9	360.8	369.1	378.0	388.7	395.9	402.1	409.3	418.7
Addenda:										
Sales per 100 Registered Vehicles	4.2	4.8	5.7	6.3	6.7	6.8	6.8	6.8	6.5	6.4
Average Price of New Vehicle, \$000	26.1	27.3	28.0	28.5	29.1	29.7	30.3	30.7	31.2	31.8
Motor Fuel Taxes, Cents per Gallon	41.6	41.7	41.8	41.9	42.0	42.07	42.15	42.23	42.31	42.40
Federal	19.7	19.7	19.7	19.7	19.7	19.72	19.72	19.72	19.72	19.72
State & Local	21.9	22.0	22.1	22.2	22.3	22.35	22.43	22.51	22.59	22.68

\* Includes used and new cars, parts and miscellaneous stock.

TABLE 15  
Light Vehicles

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<i>Millions of Units</i>											
Total Sales	16.99	17.37	17.53	17.64	17.74	17.93	18.24	18.51	18.80	19.12	19.38
Cars	9.65	9.87	9.97	10.03	10.09	10.19	10.37	10.53	10.69	10.87	11.02
Domestic	6.37	6.51	6.57	6.61	6.67	6.75	6.87	6.98	7.07	7.18	7.27
Imported	3.29	3.37	3.40	3.42	3.42	3.45	3.50	3.55	3.62	3.69	3.75
Light Trucks	7.34	7.49	7.56	7.61	7.66	7.73	7.87	7.99	8.11	8.25	8.36
Domestic	6.01	6.13	6.19	6.23	6.27	6.33	6.44	6.54	6.64	6.75	6.84
Imported	1.33	1.36	1.37	1.38	1.39	1.40	1.43	1.45	1.47	1.50	1.52
<i>Stock of Registered Vehicles</i>											
Cars	266.1	269.4	272.8	276.3	279.9	283.6	287.5	291.4	295.5	299.7	304.0
All Trucks—Light, Medium & Heavy	152.9	156.2	159.6	163.1	166.5	169.9	173.1	176.3	179.4	182.4	185.5
	113.2	113.1	113.1	113.2	113.4	113.7	114.3	115.1	116.1	117.3	118.6
<i>Billions of Chained 2005 Dollars</i>											
Consumer Purchases of New Vehicles	273.3	282.2	292.0	300.9	306.9	311.3	315.3	318.0	322.9	327.6	330.5
Business Purchases of New Vehicles	245.9	258.8	268.4	277.2	286.6	297.0	311.0	324.3	336.6	350.1	364.5
Net investment in Used Cars	-52.3	-54.2	-56.2	-58.2	-60.2	-62.4	-65.0	-67.5	-69.9	-72.6	-75.3
Net investment in Used Light Trucks	-59.1	-61.4	-63.8	-66.1	-68.0	-69.9	-71.7	-73.7	-75.8	-78.0	-80.2
Net investment in Light Vehicles	139.8	148.9	154.2	159.0	164.6	171.4	181.4	190.8	198.8	208.0	218.1
Motor Vehicle Dealer Inventories*	202.4	203.3	205.9	210.3	215.9	220.8	225.4	229.5	233.0	237.1	241.3
Change in Inventory	2.0	0.9	2.6	4.4	5.6	4.9	4.6	4.1	3.5	4.1	4.2
<i>Billions of Dollars</i>											
Consumer Purchases of New Vehicles	285.8	294.9	304.4	312.7	317.8	321.5	324.9	327.3	331.9	336.4	339.1
Business Purchases of New Vehicles	139.9	148.6	153.3	157.3	162.0	168.1	177.4	186.1	193.5	202.0	211.5
Consumer Spending on Leased Vehicles	431.5	446.9	459.2	467.3	474.8	481.6	488.5	495.1	502.1	509.4	516.4
<i>Addenda:</i>											
Sales per 100 Registered Vehicles	6.4	6.4	6.4	6.4	6.3	6.3	6.3	6.4	6.4	6.4	6.4
Average Price of New Vehicle, \$000	32.5	33.1	34.0	34.7	35.4	35.9	36.3	36.6	37.0	37.5	37.9
<i>Motor Fuel Taxes, Cents per Gallon</i>											
Federal	42.48	42.57	42.66	42.75	42.83	42.92	43.01	43.10	43.19	43.27	43.36
State & Local	19.72	19.72	19.72	19.72	19.72	19.72	19.72	19.72	19.72	19.72	19.72
	22.76	22.85	22.94	23.03	23.11	23.20	23.29	23.38	23.47	23.55	23.64

\* Includes used and new cars, parts and miscellaneous stock.

TABLE 15  
Light Vehicles

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Millions of Units											
Total Sales	19.73	20.02	20.27	20.52	20.81	21.12	21.49	21.86	22.16	22.55	22.89
Cars	11.22	11.38	11.53	11.67	11.83	12.01	12.22	12.43	12.60	12.82	13.01
Domestic	7.39	7.48	7.57	7.65	7.75	7.86	7.99	8.12	8.23	8.37	8.50
Imported	3.83	3.90	3.96	4.02	4.08	4.15	4.23	4.30	4.37	4.45	4.52
Light Trucks	8.51	8.64	8.75	8.85	8.98	9.11	9.27	9.43	9.56	9.73	9.88
Domestic	6.97	7.07	7.16	7.25	7.35	7.46	7.59	7.72	7.83	7.96	8.09
Imported	1.54	1.57	1.59	1.60	1.63	1.65	1.68	1.71	1.73	1.76	1.79
Stock of Registered Vehicles	308.5	313.1	317.9	322.7	327.8	333.0	338.3	343.8	349.4	355.0	360.8
Cars	188.5	191.7	194.8	198.0	201.2	204.4	207.7	211.1	214.6	218.1	221.6
All Trucks—Light, Medium & Heavy	120.0	121.5	123.1	124.8	126.6	128.6	130.6	132.7	134.8	136.9	139.2
Billions of Chained 2005 Dollars											
Consumer Purchases of New Vehicles	333.4	336.2	340.2	343.5	347.5	351.5	356.1	360.3	364.9	369.1	373.0
Business Purchases of New Vehicles	382.0	400.3	416.0	433.3	453.5	474.0	494.9	516.7	538.5	562.3	586.9
Net investment in Used Cars	-78.4	-81.7	-84.7	-87.9	-91.4	-95.1	-98.9	-102.8	-106.7	-110.9	-115.3
Net investment in Used Light Trucks	-82.4	-84.7	-87.2	-89.8	-92.4	-95.0	-97.8	-100.6	-103.6	-106.6	-109.6
Net investment in Light Vehicles	231.0	244.5	255.3	267.5	282.6	297.7	313.1	329.2	345.1	362.9	381.5
Motor Vehicle Dealer Inventories*	245.2	250.1	254.8	259.3	263.9	268.8	273.9	279.5	285.4	291.2	297.4
Change in Inventory	3.8	4.9	4.7	4.4	4.6	5.0	5.1	5.5	5.9	5.8	6.2
Billions of Dollars											
Consumer Purchases of New Vehicles	341.8	344.7	348.6	351.8	355.8	359.7	364.3	368.5	373.0	377.1	380.9
Business Purchases of New Vehicles	223.7	236.5	246.7	258.3	272.6	287.1	301.7	316.9	332.0	348.9	366.4
Consumer Spending on Leased Vehicles	524.5	534.7	544.4	553.8	563.2	572.5	581.1	589.5	597.6	605.3	613.5
Addenda:											
Sales per 100 Registered Vehicles	6.4	6.4	6.4	6.4	6.3	6.3	6.4	6.4	6.3	6.4	6.3
Average Price of New Vehicle, \$000	38.4	39.0	39.6	40.2	40.9	41.6	42.2	42.9	43.6	44.2	45.0
Motor Fuel Taxes, Cents per Gallon	43.45	43.54	43.62	43.71	43.80	43.89	43.98	44.06	44.15	44.24	44.33
Federal	19.72	19.72	19.72	19.72	19.72	19.72	19.72	19.72	19.72	19.72	19.72
State & Local	23.73	23.82	23.90	23.99	24.08	24.17	24.26	24.34	24.43	24.52	24.61

\* Includes used and new cars, parts and miscellaneous stock.

TABLE 16

Investment in Equipment and Software

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Chained 2005 Dollars										
Equipment & Software	887.9	975.3	1097.7	1228.6	1333.9	1399.4	1434.1	1485.0	1556.5	1644.0
Information Processing Equipment	553.7	599.6	644.3	700.3	751.1	801.2	854.1	909.6	968.9	1033.1
Computers	116.6	139.2	154.2	183.6	220.0	258.8	306.3	363.0	432.1	515.2
Software	238.3	254.4	273.9	291.8	304.6	315.5	326.6	338.2	350.1	362.5
Communications Equipment	92.5	102.4	115.2	128.8	139.8	151.1	160.3	170.5	181.0	192.1
Other	109.3	112.0	112.5	117.3	122.4	128.6	136.4	143.0	149.5	156.2
Industrial Equipment	133.9	142.9	168.7	189.0	193.4	191.1	191.0	192.5	194.7	201.0
Transportation Equipment	66.1	100.6	133.5	171.8	208.1	216.2	191.4	181.2	187.2	199.2
Light Vehicles (Net of used)	33.5	62.0	86.2	113.6	142.7	144.7	118.5	107.9	114.2	125.6
Aircraft	13.6	15.6	18.6	21.9	23.9	25.1	25.8	26.2	26.7	27.4
Other Transportation Equipment	17.7	22.2	28.4	36.5	42.8	46.8	45.2	44.1	44.0	44.9
Other Equipment	144.8	143.7	159.8	174.5	188.8	202.4	215.5	225.9	235.8	245.8
Percent Change, Annual Rate										
Equipment & Software	-16.9	9.8	12.6	11.9	8.6	4.9	2.5	3.5	4.8	5.6
Information Processing Equipment	-6.0	8.3	7.5	8.7	7.3	6.7	6.6	6.5	6.5	6.6
Computers	-5.9	19.4	10.8	19.1	19.8	17.6	18.4	18.5	19.0	19.2
Software	-7.3	6.8	7.7	6.5	4.4	3.6	3.5	3.5	3.5	3.5
Communications Equipment	-8.9	10.7	12.5	11.8	8.6	8.1	6.1	6.4	6.2	6.1
Other	0.0	2.5	0.5	4.2	4.4	5.1	6.0	4.9	4.5	4.5
Industrial Equipment	-23.4	6.8	18.0	12.0	2.3	-1.2	0.0	0.8	1.1	3.3
Transportation Equipment	-48.7	52.2	32.7	28.7	21.1	3.9	-11.4	-5.3	3.3	6.4
Light Vehicles (Net of used)	-58.7	85.2	39.1	31.7	25.6	1.5	-18.1	-8.9	5.8	10.0
Aircraft	-24.5	14.4	19.4	17.6	9.5	4.8	2.8	1.7	1.7	2.6
Other Transportation Equipment	-39.4	25.4	27.5	28.7	17.2	9.4	-3.5	-2.4	-0.1	1.9
Other Equipment	-19.7	-0.8	11.2	9.2	8.2	7.2	6.5	4.8	4.3	4.3
Billions of Dollars, SAAR										
Equipment & Software	906.0	989.0	1115.4	1254.6	1367.7	1434.6	1466.1	1514.6	1584.8	1669.2
Information Processing Equipment	519.9	556.4	592.1	637.5	677.6	714.5	750.9	788.7	828.7	870.3
Computers	74.7	82.5	83.2	90.0	98.4	105.5	113.7	122.7	133.1	144.5
Software	241.8	259.4	282.6	304.1	321.2	336.0	350.7	366.4	382.9	399.3
Communications Equipment	90.3	98.3	108.5	119.1	127.2	134.9	139.8	144.9	150.1	155.5
Other	113.1	116.3	117.8	124.3	131.0	138.1	146.8	154.7	162.7	171.0
Industrial Equipment	150.4	163.3	196.7	225.5	235.1	234.9	237.1	241.8	247.6	258.8
Transportation Equipment	72.4	106.0	141.8	185.0	227.3	238.3	212.6	202.8	211.6	227.1
Light Vehicles (Net of used)	36.2	60.9	84.3	111.5	141.2	143.9	118.0	107.6	114.1	125.7
Aircraft	15.6	18.1	22.3	27.0	30.5	32.6	34.2	35.5	36.9	38.7
Other Transportation Equipment	20.7	27.0	35.2	46.5	55.7	61.8	60.4	59.8	60.7	62.7
Other Equipment	163.2	163.2	185.0	206.5	227.7	246.9	265.4	281.2	296.9	313.1
Rental Cost of Capital. Index										
Equipment & Software	0.066	0.062	0.057	0.052	0.047	0.043	0.039	0.036	0.033	0.030
Computers	0.066	0.062	0.057	0.052	0.047	0.043	0.039	0.036	0.033	0.030
Software	0.421	0.432	0.438	0.444	0.449	0.456	0.459	0.463	0.467	0.470
Communications Equipment	0.118	0.120	0.119	0.117	0.115	0.114	0.111	0.108	0.105	0.103
Other Communications Equipment	0.275	0.287	0.290	0.296	0.299	0.302	0.302	0.303	0.305	0.307
Industrial Equipment	0.152	0.161	0.166	0.172	0.175	0.180	0.181	0.182	0.184	0.186
Light Vehicles	0.227	0.234	0.236	0.239	0.241	0.244	0.244	0.244	0.244	0.245
Aircraft	0.203	0.214	0.222	0.232	0.239	0.247	0.251	0.255	0.260	0.265
Other Transportation Equipment	0.260	0.281	0.289	0.299	0.306	0.313	0.316	0.320	0.325	0.329
Other Equipment	0.222	0.233	0.239	0.246	0.251	0.257	0.259	0.261	0.263	0.266
Addenda:										
Percent of GDP										
Fixed Nonresidential Investment	9.7	9.3	9.6	10.5	11.1	11.4	11.3	11.3	11.3	11.4
Equipment & Software	6.4	6.7	7.2	7.7	8.0	8.0	7.9	7.8	7.8	7.9
Information Processing Equipment	3.6	3.7	3.8	3.9	4.0	4.0	4.0	4.1	4.1	4.1
Light Vehicles (Net of used)	0.3	0.4	0.5	0.7	0.8	0.8	0.6	0.6	0.6	0.6
Construction	3.4	2.7	2.4	2.8	3.2	3.4	3.5	3.5	3.5	3.5



TABLE 16

## Investment in Equipment and Software

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Chained 2005 Dollars											
Equipment & Software	1739.6	1834.4	1927.8	2020.1	2118.0	2222.1	2338.0	2460.8	2588.4	2722.9	2865.8
Information Processing Equipment	1101.1	1175.0	1249.7	1323.1	1403.7	1491.1	1586.9	1690.3	1799.4	1915.1	2037.6
Computers	611.7	714.4	813.5	926.5	1057.0	1207.0	1380.1	1579.4	1807.0	2067.5	2365.7
Software	375.3	389.3	403.7	416.5	430.9	446.3	462.9	480.4	498.3	516.6	535.7
Communications Equipment	203.6	216.1	230.6	247.2	265.9	285.9	308.2	332.3	358.0	385.4	414.6
Other	163.3	172.7	182.9	190.8	199.1	208.3	218.9	230.3	242.2	254.8	267.9
Industrial Equipment	208.8	216.1	224.0	231.9	239.5	246.2	253.3	262.0	271.5	281.4	291.8
Transportation Equipment	214.0	224.8	232.5	240.5	249.4	259.8	273.2	285.8	297.2	309.6	323.2
Light Vehicles (Net of used)	139.8	148.9	154.2	159.0	164.6	171.4	181.4	190.8	198.8	208.0	218.1
Aircraft	28.2	29.3	30.4	31.8	33.2	34.8	36.6	38.3	40.0	41.8	43.6
Other Transportation Equipment	46.0	47.3	48.5	50.2	52.1	54.0	56.0	57.9	59.8	61.7	63.8
Other Equipment	256.1	266.0	276.8	287.4	297.7	308.3	320.1	332.0	344.6	357.6	371.6
Percent Change, Annual Rate											
Equipment & Software	5.8	5.5	5.1	4.8	4.8	4.9	5.2	5.3	5.2	5.2	5.2
Information Processing Equipment	6.6	6.7	6.4	5.9	6.1	6.2	6.4	6.5	6.5	6.4	6.4
Computers	18.7	16.8	13.9	13.9	14.1	14.2	14.3	14.4	14.4	14.4	14.4
Software	3.5	3.7	3.7	3.2	3.5	3.6	3.7	3.8	3.7	3.7	3.7
Communications Equipment	6.0	6.1	6.7	7.2	7.5	7.5	7.8	7.8	7.7	7.7	7.6
Other	4.5	5.8	5.9	4.3	4.3	4.6	5.1	5.2	5.2	5.2	5.1
Industrial Equipment	3.8	3.5	3.6	3.6	3.2	2.8	2.9	3.4	3.7	3.6	3.7
Transportation Equipment	7.4	5.1	3.4	3.4	3.7	4.2	5.2	4.6	4.0	4.2	4.4
Light Vehicles (Net of used)	11.3	6.5	3.6	3.1	3.5	4.1	5.9	5.1	4.2	4.6	4.8
Aircraft	3.1	3.7	4.0	4.4	4.4	4.9	5.1	4.7	4.5	4.3	4.3
Other Transportation Equipment	2.5	2.8	2.6	3.5	3.7	3.8	3.6	3.4	3.2	3.2	3.4
Other Equipment	4.2	3.9	4.1	3.8	3.6	3.6	3.8	3.7	3.8	3.8	3.9
Billions of Dollars, SAAR											
Equipment & Software	1760.3	1847.3	1928.8	2006.2	2088.6	2175.9	2273.8	2375.8	2479.2	2587.5	2701.7
Information Processing Equipment	913.4	959.2	1002.7	1042.9	1087.6	1135.5	1188.2	1243.9	1301.0	1360.3	1421.9
Computers	456.2	466.1	472.3	478.9	486.0	493.6	501.7	510.4	519.4	528.8	538.6
Software	156.8	163.1	165.4	167.0	169.3	171.9	174.2	176.7	179.4	182.8	186.1
Communications Equipment	160.8	166.3	172.7	179.8	187.7	196.0	205.2	215.0	225.0	235.4	246.2
Other	179.6	190.6	202.3	211.1	220.5	231.0	243.0	255.8	269.1	283.3	298.0
Industrial Equipment	271.6	283.6	295.8	307.9	319.5	330.2	341.5	354.5	368.7	383.4	398.9
Transportation Equipment	245.7	259.4	268.9	278.6	289.5	302.3	318.9	334.6	348.8	364.5	381.6
Light Vehicles (Net of used)	139.9	148.6	153.3	157.3	162.0	168.1	177.4	186.1	193.5	202.0	211.5
Aircraft	40.6	42.9	45.4	48.0	50.9	54.1	57.7	61.3	64.8	68.4	72.3
Other Transportation Equipment	65.2	67.8	70.2	73.3	76.6	80.2	83.7	87.2	90.5	94.0	97.8
Other Equipment	329.5	345.1	361.3	376.8	392.0	407.8	425.3	442.7	460.7	479.3	499.3
Rental Cost of Capital, Index											
Equipment & Software	0.027	0.025	0.023	0.021	0.019	0.017	0.016	0.014	0.013	0.012	0.011
Computers	0.027	0.025	0.023	0.021	0.019	0.017	0.016	0.014	0.013	0.012	0.011
Software	0.027	0.025	0.023	0.021	0.019	0.017	0.016	0.014	0.013	0.012	0.011
Communications Equipment	0.100	0.098	0.096	0.093	0.090	0.088	0.085	0.083	0.080	0.078	0.076
Other Communications Equipment	0.308	0.309	0.311	0.313	0.314	0.314	0.315	0.315	0.314	0.314	0.314
Industrial Equipment	0.188	0.190	0.192	0.194	0.195	0.196	0.197	0.197	0.197	0.198	0.198
Light Vehicles	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.245	0.245	0.245
Aircraft	0.271	0.276	0.281	0.286	0.290	0.294	0.298	0.302	0.305	0.308	0.312
Other Transportation Equipment	0.334	0.338	0.343	0.346	0.350	0.352	0.355	0.357	0.359	0.361	0.363
Other Equipment	0.269	0.272	0.274	0.276	0.278	0.279	0.280	0.281	0.281	0.282	0.282
Addenda:											
Percent of GDP											
Fixed Nonresidential Investment	11.4	11.5	11.5	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
Equipment & Software	7.9	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Information Equipment	4.1	4.1	4.2	4.1	4.1	4.2	4.2	4.2	4.2	4.2	4.2
Light Vehicles (Net of used)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Construction	3.5	3.5	3.5	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.4

TABLE 16

**Investment in Equipment and Software**

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Chained 2005 Dollars											
Equipment & Software	3021.2	3185.7	3354.9	3535.0	3729.7	3935.7	4155.9	4389.1	4633.0	4892.0	5162.6
Information Processing Equipment	2168.6	2308.8	2457.8	2616.4	2787.2	2969.6	3165.9	3375.6	3597.9	3835.7	4085.8
Computers	2710.4	3109.2	3561.5	4078.6	4675.1	5358.6	6143.0	7041.9	8071.7	9258.5	10629.1
Software	553.7	572.6	594.4	616.9	640.3	664.6	690.6	718.0	746.1	775.3	805.3
Communications Equipment	446.6	480.5	516.3	554.9	597.3	643.0	692.7	745.5	802.1	863.2	925.8
Other	283.3	299.8	315.1	331.4	349.0	367.9	387.9	408.9	431.1	454.8	479.4
Industrial Equipment	302.9	314.9	327.4	340.4	354.0	368.3	384.5	401.5	419.4	438.6	458.1
Transportation Equipment	339.7	356.8	371.9	388.5	407.9	428.0	448.5	470.0	491.5	514.6	538.9
Light Vehicles (Net of used)	231.0	244.5	255.3	267.5	282.6	297.7	313.1	329.2	345.1	362.9	381.5
Aircraft	45.6	47.7	50.0	52.3	54.8	57.6	60.4	63.4	66.5	69.7	73.2
Other Transportation Equipment	66.2	68.5	70.9	73.4	76.1	79.1	82.1	85.3	88.4	91.5	94.8
Other Equipment	386.9	402.5	418.7	435.8	454.1	473.5	493.7	515.1	536.9	559.1	582.5
Percent Change, Annual Rate											
Equipment & Software	5.4	5.4	5.3	5.4	5.5	5.5	5.6	5.6	5.6	5.6	5.5
Information Processing Equipment	6.4	6.5	6.5	6.5	6.5	6.5	6.6	6.6	6.6	6.6	6.5
Computers	14.6	14.7	14.5	14.5	14.6	14.6	14.6	14.6	14.6	14.7	14.8
Software	3.4	3.4	3.8	3.8	3.8	3.8	3.9	4.0	3.9	3.9	3.9
Communications Equipment	7.7	7.6	7.4	7.5	7.6	7.6	7.7	7.6	7.6	7.6	7.3
Other	5.7	5.8	5.1	5.2	5.3	5.4	5.4	5.4	5.4	5.5	5.4
Industrial Equipment	3.8	4.0	4.0	4.0	4.0	4.0	4.4	4.4	4.5	4.6	4.4
Transportation Equipment	5.1	5.0	4.2	4.5	5.0	4.9	4.8	4.8	4.6	4.7	4.7
Light Vehicles (Net of used)	5.9	5.8	4.4	4.8	5.6	5.4	5.2	5.1	4.8	5.2	5.1
Aircraft	4.7	4.7	4.7	4.7	4.8	4.9	5.0	4.9	4.9	4.9	4.9
Other Transportation Equipment	3.7	3.6	3.4	3.5	3.8	3.8	3.8	3.9	3.7	3.5	3.6
Other Equipment	4.1	4.0	4.0	4.1	4.2	4.3	4.3	4.3	4.2	4.1	4.2
Billions of Dollars, SAAR											
Equipment & Software	2825.5	2956.2	3089.1	3229.0	3379.9	3538.5	3706.0	3881.2	4063.0	4255.2	4453.7
Information Processing Equipment	1486.8	1555.8	1627.8	1702.8	1782.9	1867.6	1956.8	2050.0	2147.8	2251.4	2358.3
Computers	249.1	260.5	271.9	283.8	296.5	309.7	323.6	338.1	353.2	369.2	386.3
Software	664.6	691.8	722.8	754.7	788.5	824.4	861.9	901.3	942.7	986.5	1032.1
Communications Equipment	257.8	269.6	281.7	294.3	307.9	322.1	337.2	352.6	368.5	385.3	401.5
Other	315.3	333.9	351.3	369.9	389.9	411.4	434.1	458.0	483.3	510.3	536.3
Industrial Equipment	415.3	433.1	451.5	470.7	490.7	511.7	535.1	559.7	585.7	613.4	641.4
Transportation Equipment	402.3	424.0	443.3	464.6	489.4	515.1	541.4	569.0	596.7	626.6	657.9
Light Vehicles (Net of used)	223.7	236.5	246.7	258.3	272.6	287.1	301.7	316.9	332.0	348.9	366.4
Aircraft	76.6	81.1	86.0	91.1	96.6	102.5	108.8	115.4	122.3	129.7	137.5
Other Transportation Equipment	102.1	106.4	110.6	115.2	120.2	125.5	130.9	136.6	142.3	147.9	153.9
Other Equipment	521.1	543.5	566.6	590.9	616.9	644.2	672.7	702.5	732.9	763.8	796.2
Rental Cost of Capital, Index											
Equipment & Software											
Computers	0.010	0.009	0.008	0.007	0.007	0.006	0.006	0.005	0.005	0.004	0.004
Software	0.514	0.518	0.521	0.524	0.527	0.531	0.534	0.537	0.540	0.544	0.548
Communications Equipment	0.074	0.071	0.069	0.067	0.066	0.064	0.062	0.060	0.058	0.057	0.055
Other Communications Equipment	0.314	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.316	0.316	0.316
Industrial Equipment	0.198	0.199	0.199	0.200	0.200	0.200	0.200	0.201	0.201	0.201	0.201
Light Vehicles	0.245	0.245	0.246	0.246	0.246	0.246	0.246	0.247	0.247	0.247	0.247
Aircraft	0.315	0.319	0.322	0.326	0.330	0.333	0.336	0.340	0.343	0.346	0.350
Other Transportation Equipment	0.365	0.367	0.369	0.371	0.373	0.374	0.376	0.377	0.379	0.380	0.382
Other Equipment	0.283	0.283	0.283	0.284	0.284	0.285	0.285	0.285	0.285	0.285	0.285
Addenda:											
Percent of GDP											
Fixed Nonresidential Investment	11.4	11.4	11.4	11.4	11.5	11.5	11.5	11.5	11.6	11.6	11.6
Equipment & Software	8.1	8.1	8.1	8.2	8.2	8.2	8.2	8.3	8.3	8.3	8.4
Information Equipment	4.2	4.3	4.3	4.3	4.3	4.3	4.4	4.4	4.4	4.4	4.4
Light Vehicles (Net of used)	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Construction	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2

TABLE 17

## Price Deflators for Investment in Equipment and Software

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Level, 2005=100										
Equipment & Software	102.0	101.4	101.6	102.1	102.5	102.5	102.2	102.0	101.8	101.5
Information Processing Equipment	93.9	92.8	91.9	91.0	90.2	89.2	87.9	86.7	85.5	84.3
Computers	64.3	59.3	54.0	49.1	44.8	40.8	37.2	33.8	30.8	28.1
Software	101.5	102.0	103.2	104.2	105.4	106.5	107.3	108.3	109.4	110.2
Communications Equipment	97.6	96.0	94.2	92.5	90.9	89.3	87.2	85.0	82.9	80.9
Other	103.5	103.8	104.6	106.0	107.0	107.4	107.6	108.1	108.8	109.4
Industrial Equipment	112.3	114.2	116.5	119.3	121.5	123.0	124.2	125.6	127.2	128.7
Transportation Equipment						110.2	111.0	112.0	113.0	114.0
Light Vehicles (Net of used)	108.8	98.3	97.8	98.2	98.9	99.4	99.6	99.7	99.9	100.0
Aircraft	114.6	116.5	119.7	123.7	127.3	130.1	132.6	135.3	138.2	141.2
Other Transportation Equipment	116.5	121.2	124.0	127.3	130.1	132.0	133.7	135.6	137.8	139.8
Other Equipment	112.6	113.6	115.7	118.4	120.6	122.0	123.2	124.5	125.9	127.4
Percent Change										
Equipment & Software	0.5	-0.6	0.2	0.5	0.4	0.0	-0.3	-0.2	-0.2	-0.3
Information Processing Equipment	-1.8	-1.2	-1.0	-0.9	-0.9	-1.1	-1.4	-1.4	-1.4	-1.5
Computers	-8.1	-7.8	-8.9	-9.1	-8.8	-8.8	-9.0	-8.9	-8.9	-8.9
Software	-1.2	0.5	1.2	1.0	1.2	1.0	0.8	0.9	0.9	0.7
Communications Equipment	-1.0	-1.6	-1.9	-1.8	-1.7	-1.9	-2.3	-2.5	-2.5	-2.4
Other	1.0	0.3	0.8	1.3	0.9	0.3	0.3	0.5	0.6	0.6
Industrial Equipment	1.2	1.7	2.0	2.3	1.9	1.2	1.0	1.1	1.3	1.2
Transportation Equipment	6.6	-3.7	0.7	1.4	1.4	1.0	0.7	0.8	0.9	0.9
Light Vehicles (Net of used)	11.2	-9.7	-0.5	0.4	0.8	0.5	0.2	0.1	0.2	0.2
Aircraft	2.0	1.6	2.8	3.3	2.9	2.2	1.9	2.0	2.2	2.1
Other Transportation Equipment	3.7	4.0	2.3	2.7	2.2	1.5	1.3	1.4	1.6	1.5
Other Equipment	4.0	0.9	1.9	2.3	1.9	1.2	0.9	1.1	1.2	1.1

TABLE 17  
Price Deflators for Investment in Equipment and Software

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Level, 2005=100											
Equipment & Software	101.2	100.7	100.1	99.3	98.6	97.9	97.3	96.6	95.8	95.0	94.3
Information Processing Equipment	83.0	81.6	80.2	78.8	77.5	76.2	74.9	73.6	72.3	71.0	69.8
Computers	25.6	23.3	21.2	19.3	17.6	16.1	14.6	13.3	12.2	11.1	10.1
Software	111.1	112.0	112.8	113.6	114.5	115.4	116.3	117.1	117.9	118.6	119.3
Communications Equipment	79.0	77.0	74.9	72.8	70.6	68.6	66.6	64.7	62.9	61.1	59.4
Other	110.0	110.4	110.6	110.6	110.7	110.9	111.0	111.1	111.1	111.2	111.2
Industrial Equipment	130.1	131.2	132.1	132.7	133.4	134.1	134.8	135.3	135.8	136.2	136.7
Transportation Equipment	114.8	115.4	115.7	115.9	116.1	116.4	116.7	117.1	117.4	117.7	118.1
Light Vehicles (Net of used)	100.1	99.8	99.4	98.9	98.4	98.1	97.8	97.6	97.3	97.1	97.0
Aircraft	144.0	146.7	149.1	151.2	153.3	155.5	157.7	159.9	161.9	163.9	165.9
Other Transportation Equipment	141.8	143.4	144.8	145.9	147.1	148.3	149.5	150.6	151.5	152.4	153.4
Other Equipment	128.7	129.7	130.5	131.1	131.7	132.3	132.9	133.3	133.7	134.0	134.4
Percent Change											
Equipment & Software	-0.3	-0.5	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8
Information Processing Equipment	-1.5	-1.6	-1.7	-1.8	-1.7	-1.7	-1.7	-1.7	-1.8	-1.8	-1.8
Computers	-9.0	-9.0	-8.9	-8.9	-8.9	-8.9	-8.9	-8.9	-8.9	-8.9	-8.9
Software	0.8	0.9	0.7	0.7	0.8	0.8	0.8	0.7	0.6	0.6	0.6
Communications Equipment	-2.4	-2.5	-2.7	-2.9	-2.9	-2.9	-2.9	-2.9	-2.8	-2.8	-2.8
Other	0.5	0.3	0.2	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1
Industrial Equipment	1.1	0.9	0.7	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.3
Transportation Equipment	0.7	0.5	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Light Vehicles (Net of used)	0.0	-0.2	-0.4	-0.5	-0.5	-0.4	-0.3	-0.2	-0.2	-0.2	-0.2
Aircraft	2.0	1.8	1.6	1.4	1.4	1.4	1.4	1.4	1.2	1.2	1.2
Other Transportation Equipment	1.4	1.2	1.0	0.8	0.8	0.8	0.8	0.7	0.6	0.6	0.6
Other Equipment	1.0	0.8	0.6	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3

TABLE 17

## Price Deflators for Investment in Equipment and Software

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Level, 2005=100											
Equipment & Software	93.5	92.8	92.1	91.3	90.6	89.9	89.2	88.4	87.7	87.0	86.3
Information Processing Equipment	68.6	67.4	66.2	65.1	64.0	62.9	61.8	60.7	59.7	58.7	57.7
Computers	9.2	8.4	7.6	7.0	6.3	5.8	5.3	4.8	4.4	4.0	3.6
Software	120.0	120.8	121.6	122.3	123.1	124.0	124.8	125.5	126.3	127.2	128.2
Communications Equipment	57.7	56.1	54.6	53.1	51.6	50.1	48.7	47.3	46.0	44.6	43.4
Other	111.3	111.4	111.5	111.6	111.7	111.8	111.9	112.0	112.1	112.2	112.3
Industrial Equipment	137.1	137.5	137.9	138.3	138.6	138.9	139.2	139.4	139.6	139.8	140.0
Transportation Equipment	118.4	118.8	119.2	119.6	120.0	120.3	120.7	121.1	121.4	121.7	122.1
Light Vehicles (Net of used)	96.8	96.7	96.6	96.6	96.5	96.4	96.4	96.3	96.2	96.1	96.0
Aircraft	167.9	170.0	172.0	174.1	176.1	178.1	180.1	182.1	184.0	186.0	187.9
Other Transportation Equipment	154.3	155.2	156.1	157.0	157.9	158.7	159.5	160.2	161.0	161.7	162.3
Other Equipment	134.7	135.0	135.3	135.6	135.8	136.1	136.2	136.4	136.5	136.6	136.7
Percent Change											
Equipment & Software	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
Information Processing Equipment	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7
Computers	-8.9	-8.9	-8.9	-8.9	-8.9	-8.9	-8.9	-8.9	-8.9	-8.9	-8.9
Software	0.6	0.7	0.7	0.6	0.7	0.7	0.6	0.6	0.7	0.7	0.7
Communications Equipment	-2.8	-2.8	-2.8	-2.8	-2.8	-2.8	-2.8	-2.8	-2.9	-2.9	-2.9
Other	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Industrial Equipment	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1
Transportation Equipment	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Light Vehicles (Net of used)	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Aircraft	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.0
Other Transportation Equipment	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4
Other Equipment	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1

TABLE 18  
Inventory Investment

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Level, 2005=100										
Changes										
Total	-111.7	20.9	48.7	69.4	58.7	38.7	34.4	50.1	50.4	55.9
Farm	-0.4	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Nonfarm	-111.7	20.1	48.1	68.9	58.2	38.0	33.7	49.5	49.7	55.2
Manufacturing	-33.8	7.3	14.1	15.2	11.5	6.9	3.7	4.2	7.4	11.8
Wholesale Trade	-46.0	16.8	21.5	20.5	18.2	16.0	15.4	15.2	15.7	18.1
Retail Trade	-28.5	-5.8	7.7	23.9	19.5	7.0	7.3	22.7	19.6	18.2
Automotive	-10.7	-7.9	-1.0	13.5	12.0	1.5	-0.1	15.4	11.6	8.0
Other	-18.1	1.6	8.4	11.1	8.3	5.4	7.1	8.5	8.8	10.6
Construction, Mining & Public Utilities	1.5	1.6	0.7	3.8	3.4	2.2	1.0	0.8	0.8	1.0
Levels										
Total	1707.1	1728.0	1776.8	1846.2	1904.9	1943.6	1978.0	2028.2	2078.5	2134.4
Farm	150.2	151.1	152.0	152.8	153.7	154.5	155.4	156.2	157.1	158.0
Nonfarm	1556.9	1577.0	1625.1	1694.0	1752.2	1790.1	1823.8	1873.3	1923.0	1978.3
Manufacturing	503.3	510.6	524.6	539.8	551.3	558.2	561.9	566.1	573.5	585.3
Wholesale Trade	383.5	400.3	421.8	442.4	460.5	476.6	492.0	507.1	522.8	540.9
Retail Trade	446.1	440.3	448.0	471.9	491.4	498.4	505.8	528.5	548.0	566.2
Automotive	147.4	139.5	138.5	152.0	163.9	165.4	165.4	180.8	192.4	200.3
Other	299.5	301.0	309.4	320.6	328.8	334.2	341.3	349.8	358.6	369.2
Construction, Mining & Public Utilities	89.0	90.6	91.3	95.1	98.4	100.6	101.6	102.4	103.2	104.2
Billions of Dollars										
Changes										
Total	-125.0	22.2	53.0	76.9	65.8	43.5	38.7	57.2	57.8	64.5
Farm	-2.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Nonfarm	-122.5	21.2	52.0	75.9	64.8	42.5	37.7	56.2	56.8	63.5
Manufacturing	-37.4	7.6	14.5	15.4	11.7	6.9	3.7	4.2	7.3	11.6
Wholesale Trade	-51.6	19.3	25.4	24.8	22.4	20.1	19.6	19.6	20.5	24.0
Retail Trade	-30.3	-7.1	7.4	25.8	21.3	7.2	7.5	25.7	22.1	20.4
Automotive	-10.5	-8.2	-1.0	14.2	12.6	1.6	-0.1	16.4	12.3	8.5
Other	-19.8	1.1	8.4	11.6	8.6	5.6	7.5	9.3	9.7	11.9
Construction, Mining & Public Utilities	1.4	1.8	0.8	4.6	4.2	2.7	1.2	1.0	1.0	1.2
Implicit Price Deflators, 2000=100.										
Total	110.1	111.7	112.2	113.2	114.6	115.7	116.7	117.4	118.1	119.0
Farm	112.4	113.8	119.3	120.4	121.2	121.9	122.6	123.4	124.1	124.8
Nonfarm	109.9	111.5	111.5	112.5	114.0	115.1	116.1	116.8	117.6	118.4
Manufacturing	110.6	109.2	103.9	102.1	101.5	100.9	99.9	99.1	98.7	98.5
Merchant Wholesaler	113.2	116.8	119.6	122.3	124.9	127.2	129.6	131.5	133.0	134.5
Retail	107.0	110.1	111.8	113.8	115.8	117.3	118.2	119.0	119.9	120.8
Automotive	100.7	103.5	103.8	104.6	105.3	105.8	106.0	106.3	106.4	106.6
Other	109.8	113.0	115.4	118.0	120.5	122.6	123.8	124.9	126.1	127.4
Construction, Mining & Public Utilities	107.7	110.7	113.6	116.5	119.1	121.5	124.1	125.9	127.4	128.9
Implicit Price Deflators, Percent Change, SAAR										
Total	-5.3	1.5	0.4	1.0	1.2	1.0	0.8	0.6	0.6	0.7
Farm	-13.1	1.2	4.8	0.9	0.6	0.6	0.6	0.6	0.6	0.6
Nonfarm	-4.5	1.5	-0.1	1.0	1.3	1.0	0.8	0.6	0.6	0.7
Manufacturing	-6.8	-1.3	-4.8	-1.8	-0.5	-0.6	-1.0	-0.8	-0.4	-0.2
Wholesale Trade	-4.8	3.2	2.4	2.3	2.1	1.8	1.9	1.4	1.2	1.2
Retail Trade	-0.4	2.9	1.6	1.8	1.8	1.3	0.8	0.7	0.7	0.8
Automotive	-0.7	2.8	0.3	0.7	0.7	0.4	0.2	0.2	0.2	0.1
Other	-0.3	3.0	2.1	2.2	2.2	1.7	1.0	0.8	1.0	1.0
Construction, Mining & Public Utilities	-10.4	2.8	2.6	2.5	2.3	2.0	2.1	1.5	1.2	1.2

TABLE 18

**Inventory Investment**

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Level, 2005=100											
Changes											
Total	57.3	57.4	55.4	54.0	54.8	54.7	57.8	60.1	59.2	61.0	62.0
Farm	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Nonfarm	56.6	56.7	54.8	53.4	54.2	54.1	57.3	59.6	58.7	60.5	61.4
Manufacturing	15.1	15.7	12.9	10.0	9.4	10.0	11.4	11.8	10.6	10.1	10.3
Wholesale Trade	19.9	19.4	19.5	19.3	19.9	19.9	20.9	22.7	23.5	24.7	25.1
Retail Trade	14.4	14.2	14.7	15.9	16.4	16.2	17.0	16.6	15.9	16.7	17.1
Automotive	2.0	0.9	2.6	4.4	5.6	4.9	4.6	4.1	3.5	4.1	4.2
Other	11.9	12.6	11.7	11.4	10.9	11.2	12.2	12.3	12.1	12.4	12.6
Construction, Mining & Public Utilities	1.3	1.5	1.2	1.2	1.1	0.7	0.9	0.9	0.8	0.6	0.6
Levels											
Total	2191.6	2249.0	2304.4	2358.5	2413.2	2467.9	2525.8	2585.9	2645.1	2706.1	2768.1
Farm	158.8	159.7	160.5	161.4	162.2	163.1	164.0	164.8	165.7	166.5	167.4
Nonfarm	2034.9	2091.6	2146.4	2199.9	2254.0	2308.2	2365.4	2425.0	2483.6	2544.1	2605.5
Manufacturing	600.4	616.1	629.0	639.0	648.4	658.5	669.8	681.7	692.2	702.3	712.6
Wholesale Trade	560.8	580.2	599.8	619.1	639.0	658.9	679.8	702.5	726.0	750.7	775.8
Retail Trade	580.6	594.8	609.5	625.4	641.8	658.1	675.0	691.7	707.6	724.3	741.4
Automotive	202.4	203.3	205.9	210.3	215.9	220.8	225.4	229.5	233.0	237.1	241.3
Other	381.1	393.7	405.5	416.8	427.7	439.0	451.2	463.4	475.5	487.9	500.5
Construction, Mining & Public Utilities	105.5	107.0	108.3	109.5	110.6	111.3	112.1	113.1	113.9	114.5	115.0
Billions of Dollars											
Changes											
Total	66.5	66.8	64.8	63.4	64.5	64.6	68.7	71.8	71.0	73.6	75.1
Farm	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1
Nonfarm	65.5	65.8	63.8	62.3	63.4	63.6	67.6	70.7	70.0	72.5	74.0
Manufacturing	14.7	15.3	12.4	9.6	9.0	9.5	10.8	11.2	9.9	9.4	9.5
Wholesale Trade	26.7	26.3	26.6	26.6	27.5	27.8	29.4	32.3	33.7	35.9	36.8
Retail Trade	15.8	15.6	16.4	17.9	18.7	18.5	19.3	19.0	18.2	19.3	19.8
Automotive	2.2	1.0	2.8	4.6	5.9	5.3	4.9	4.4	3.7	4.3	4.5
Other	13.6	14.6	13.6	13.2	12.7	13.2	14.4	14.6	14.5	15.0	15.3
Construction, Mining & Public Utilities	1.8	2.0	1.7	1.6	1.5	0.9	1.2	1.3	1.1	0.8	0.8
Implicit Price Deflators, 2000=100.											
Total	119.7	120.2	120.6	120.9	121.3	121.8	122.4	123.0	123.6	124.2	124.8
Farm	125.6	126.4	127.1	127.9	128.7	129.4	130.2	131.0	131.7	132.5	133.3
Nonfarm	119.1	119.6	120.0	120.3	120.6	121.1	121.7	122.3	122.8	123.4	124.1
Manufacturing	98.2	97.6	97.0	96.3	95.7	95.3	94.9	94.5	94.0	93.6	93.2
Merchant Wholesaler	135.9	137.1	138.2	139.2	140.1	141.3	142.6	143.9	145.3	146.6	148.0
Retail	121.6	122.3	122.7	123.0	123.4	123.8	124.3	124.8	125.3	125.8	126.4
Automotive	106.7	106.7	106.6	106.4	106.3	106.2	106.2	106.2	106.3	106.4	106.5
Other	128.6	129.6	130.3	130.9	131.5	132.2	133.0	133.7	134.4	135.1	135.8
Construction, Mining & Public Utilities	130.2	131.4	132.5	133.4	134.3	135.5	136.8	138.1	139.4	140.7	142.1
Implicit Price Deflators, Percent Change, SAAR											
Total	0.6	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5
Farm	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Nonfarm	0.6	0.4	0.3	0.2	0.3	0.4	0.5	0.5	0.5	0.5	0.5
Manufacturing	-0.3	-0.6	-0.7	-0.7	-0.6	-0.5	-0.4	-0.4	-0.5	-0.5	-0.5
Wholesale Trade	1.0	0.9	0.9	0.7	0.6	0.9	0.9	0.9	0.9	0.9	0.9
Retail Trade	0.7	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
Automotive	0.1	0.0	-0.1	-0.2	-0.2	-0.1	0.0	0.0	0.1	0.1	0.1
Other	1.0	0.7	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5
Construction, Mining & Public Utilities	1.0	0.9	0.9	0.7	0.6	0.9	0.9	1.0	1.0	0.9	1.0

TABLE 18  
Inventory Investment

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Level, 2005=100											
Changes											
Total	66.3	68.7	68.6	71.0	75.4	77.7	80.5	82.0	84.3	87.5	91.0
Farm	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Nonfarm	65.8	68.2	68.1	70.6	75.0	77.2	80.1	81.7	83.9	87.1	90.7
Manufacturing	11.4	10.0	10.4	11.2	11.5	12.0	13.0	12.9	13.1	13.9	14.2
Wholesale Trade	26.9	28.5	28.8	29.6	31.6	32.6	34.0	34.8	36.0	37.4	38.9
Retail Trade	18.3	19.6	19.0	19.7	21.2	21.6	22.1	22.6	23.3	24.0	25.3
Automotive	3.8	4.9	4.7	4.4	4.6	5.0	5.1	5.5	5.9	5.8	6.2
Other	14.0	14.4	13.9	14.8	16.1	16.1	16.6	16.6	17.0	17.8	18.7
Construction, Mining & Public Utilities	0.7	0.7	0.6	0.6	0.8	1.0	0.8	0.9	0.8	0.8	1.0
Levels											
Total	2834.4	2903.1	2971.7	3042.7	3118.1	3195.8	3276.3	3358.3	3442.6	3530.1	3621.1
Farm	168.2	169.1	170.0	170.8	171.7	172.5	173.4	174.2	175.1	176.0	176.8
Nonfarm	2671.4	2739.6	2807.7	2878.2	2953.2	3030.5	3110.6	3192.2	3276.2	3363.3	3454.0
Manufacturing	724.0	734.0	744.4	755.6	767.2	779.2	792.2	805.1	818.2	832.1	846.3
Wholesale Trade	802.7	831.2	860.0	889.6	921.2	953.8	987.8	1022.6	1058.6	1096.0	1134.9
Retail Trade	759.8	779.4	798.3	818.0	839.3	860.8	883.0	905.5	928.8	952.8	978.1
Automotive	245.2	250.1	254.8	259.3	263.9	268.8	273.9	279.5	285.4	291.2	297.4
Other	514.5	528.9	542.8	557.6	573.8	589.9	606.4	623.1	640.0	657.8	676.5
Construction, Mining & Public Utilities	115.7	116.5	117.0	117.7	118.5	119.4	120.3	121.2	121.9	122.8	123.8
Billions of Dollars											
Changes											
Total	80.8	84.2	84.5	87.9	93.9	97.3	101.4	104.0	107.4	112.0	117.1
Farm	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Nonfarm	79.8	83.1	83.4	86.9	92.8	96.2	100.3	102.9	106.3	110.9	115.9
Manufacturing	10.5	9.2	9.6	10.2	10.5	10.9	11.6	11.5	11.7	12.2	12.4
Wholesale Trade	39.8	42.5	43.4	45.0	48.5	50.6	53.2	55.0	57.4	60.3	63.2
Retail Trade	21.3	23.0	22.3	23.3	25.2	25.7	26.6	27.2	28.2	29.2	30.8
Automotive	4.1	5.3	5.1	4.8	5.0	5.4	5.5	6.0	6.4	6.3	6.8
Other	17.2	17.7	17.2	18.5	20.3	20.3	21.0	21.2	21.8	22.8	24.1
Construction, Mining & Public Utilities	0.9	1.1	0.8	0.9	1.2	1.5	1.3	1.4	1.2	1.3	1.5
Implicit Price Deflators, 2000=100.											
Total	125.5	126.1	126.7	127.4	128.1	128.8	129.5	130.1	130.8	131.4	132.0
Farm	134.1	134.9	135.7	136.5	137.3	138.1	138.9	139.8	140.6	141.4	142.3
Nonfarm	124.7	125.3	125.9	126.6	127.3	127.9	128.6	129.3	129.9	130.5	131.1
Manufacturing	92.7	92.3	91.9	91.4	91.0	90.5	90.1	89.5	89.0	88.4	87.7
Merchant Wholesaler	149.3	150.7	152.1	153.5	155.0	156.5	157.9	159.4	160.9	162.3	163.8
Retail	126.9	127.5	128.0	128.6	129.1	129.6	130.2	130.7	131.1	131.5	131.8
Automotive	106.6	106.8	107.0	107.2	107.5	107.7	108.0	108.3	108.6	108.9	109.2
Other	136.6	137.3	138.0	138.7	139.4	140.1	140.8	141.4	141.9	142.3	142.6
Construction, Mining & Public Utilities	143.4	144.7	146.1	147.5	149.0	150.4	151.9	153.3	154.8	156.2	157.7
Implicit Price Deflators, Percent Change, SAAR											
Total	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Farm	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Nonfarm	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
Manufacturing	-0.5	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.7	-0.8
Wholesale Trade	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9
Retail Trade	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2
Automotive	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Other	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.2
Construction, Mining & Public Utilities	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9	1.0	0.9	1.0



TABLE 19  
Residential Construction

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Chained 2005 Dollars										
Residential Construction	350.0	367.0	476.0	570.3	613.1	625.0	627.2	640.1	643.1	649.9
Permanent Site	136.0	153.2	266.0	349.5	377.1	378.2	377.9	384.9	384.2	386.3
Single-Family	108.8	139.6	255.5	333.2	352.3	347.6	344.5	348.6	344.8	344.1
Multi-Family	25.9	14.9	14.8	21.6	29.4	34.2	36.5	39.2	41.7	44.1
Other	214.5	214.7	213.1	225.5	241.1	251.8	254.3	260.3	263.9	268.7
Manufactured Homes	3.0	3.7	5.2	6.1	7.0	8.4	9.3	10.1	10.7	11.2
Improvements	147.7	146.0	143.5	144.8	150.5	155.7	156.2	158.2	159.6	161.2
Other, Incl. Commissions	62.6	63.9	63.3	74.0	83.3	87.3	88.4	91.6	93.2	95.9
Residential Equipment Investment	9.2	9.7	10.0	10.5	11.0	11.3	11.7	12.1	12.6	13.0
Percent Change										
Residential Construction	-20.7	4.8	29.7	19.8	7.5	1.9	0.4	2.1	0.5	1.1
Permanent Site	-37.4	12.6	73.7	31.4	7.9	0.3	-0.1	1.9	-0.2	0.6
Single-Family	-39.5	28.3	83.1	30.4	5.7	-1.3	-0.9	1.2	-1.1	-0.2
Multi-Family	-28.8	-42.4	-0.6	45.8	35.8	16.5	6.7	7.2	6.6	5.6
Other	-4.6	0.1	-0.7	5.8	6.9	4.4	1.0	2.4	1.4	1.8
Manufactured Homes	-44.3	24.1	40.5	16.0	15.5	20.9	10.0	9.2	5.8	4.0
Improvements	-2.4	-1.2	-1.7	0.9	3.9	3.4	0.3	1.3	0.9	1.0
Other, Incl. Commissions	-6.5	2.0	-0.9	17.0	12.6	4.7	1.3	3.6	1.7	2.9
Residential Equipment Investment	-6.1	5.0	3.1	5.1	4.7	2.7	3.5	3.8	3.5	3.9
Billions of Dollars										
Residential Construction	352.0	373.2	497.3	612.2	676.0	707.2	727.8	761.8	785.6	815.0
Permanent Site	135.4	152.7	272.7	368.2	408.3	420.6	431.3	450.8	462.3	477.5
Single-Family	105.2	135.5	255.2	342.0	371.4	376.3	382.6	397.1	403.3	413.4
Multi-Family	30.2	17.2	17.5	26.2	36.8	44.3	48.7	53.7	59.0	64.1
Other	216.6	220.5	224.6	244.0	267.7	286.6	296.5	311.0	323.3	337.5
Manufactured Homes	3.3	4.2	6.0	7.2	8.6	10.8	12.3	13.8	15.1	16.2
Improvements	155.0	155.7	156.6	161.9	172.1	181.9	186.2	192.6	198.5	204.9
Other, Incl. Commissions	58.3	60.5	61.9	74.9	86.9	93.9	98.0	104.6	109.7	116.4
Residential Equipment Investment	9.2	9.2	9.3	9.6	10.0	10.1	10.3	10.6	10.8	11.0
Chained Price Deflators (2000=100)										
Residential Construction	100.7	101.7	104.4	107.3	110.2	113.2	116.0	119.0	122.2	125.4
Permanent Site	99.7	99.6	102.4	105.3	108.3	111.2	114.2	117.2	120.3	123.6
Single-Family	96.7	97.0	99.7	102.6	105.4	108.3	111.0	113.9	117.0	120.1
Multi-Family	116.2	115.4	117.9	121.3	125.4	129.5	133.4	137.2	141.3	145.4
Other	101.0	102.7	105.4	108.2	111.0	113.8	116.6	119.5	122.5	125.6
Manufactured Homes	111.3	112.3	115.2	119.0	123.5	128.0	132.2	136.4	140.7	145.1
Improvements	104.9	106.7	109.2	111.8	114.3	116.8	119.3	121.7	124.4	127.1
Other, Incl. Commissions	93.0	94.8	97.8	101.1	104.3	107.6	110.8	114.2	117.7	121.4
Residential Equipment Investment	99.8	94.7	93.0	91.8	90.7	89.5	88.3	87.0	85.8	84.6
Percent Change										
Residential Construction	-4.9	1.0	2.7	2.8	2.7	2.7	2.5	2.6	2.6	2.6
Permanent Site	-5.7	-0.1	2.8	2.9	2.8	2.7	2.6	2.6	2.7	2.7
Single-Family	-6.2	0.3	2.8	2.9	2.7	2.7	2.6	2.6	2.7	2.7
Multi-Family	-4.1	-0.7	2.1	2.9	3.4	3.3	3.0	2.9	2.9	2.9
Other	-4.3	1.7	2.6	2.7	2.6	2.5	2.4	2.4	2.6	2.6
Manufactured Homes	2.0	0.9	2.6	3.3	3.8	3.7	3.3	3.1	3.2	3.1
Improvements	-4.0	1.7	2.4	2.4	2.2	2.2	2.1	2.1	2.2	2.2
Other, Incl. Commissions	-5.4	1.9	3.2	3.3	3.2	3.1	3.0	3.0	3.1	3.1
Residential Equipment Investment	-1.8	-5.1	-1.9	-1.2	-1.2	-1.3	-1.4	-1.5	-1.4	-1.4

TABLE 19  
Residential Construction

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Chained 2005 Dollars											
Residential Construction	660.6	671.3	671.0	671.8	672.2	671.6	680.1	686.1	683.5	675.3	669.8
Permanent Site	392.0	397.5	395.2	393.5	392.5	390.0	393.9	396.0	390.9	381.9	375.0
Single-Family	346.7	349.2	344.7	342.2	341.2	339.4	344.1	346.6	341.4	332.0	325.0
Multi-Family	46.8	49.4	51.1	51.8	51.7	51.1	50.5	50.3	50.2	50.3	50.3
Other	273.8	279.0	281.0	283.4	284.8	286.7	291.4	295.4	297.8	298.5	299.9
Manufactured Homes	11.6	11.8	11.7	11.7	11.2	10.8	10.5	10.3	10.3	10.1	9.8
Improvements	162.8	164.8	166.4	168.3	170.1	171.9	174.4	176.9	179.5	181.3	182.7
Other, Incl. Commissions	99.0	101.9	102.4	103.0	103.2	103.8	106.4	108.0	108.0	107.2	107.5
Residential Equipment Investment	13.6	14.2	14.9	15.5	16.1	16.7	17.4	18.2	19.0	19.8	20.7
Percent Change											
Residential Construction	1.6	1.6	0.0	0.1	0.1	-0.1	1.3	0.9	-0.4	-1.2	-0.8
Permanent Site	1.5	1.4	-0.6	-0.4	-0.3	-0.6	1.0	0.5	-1.3	-2.3	-1.8
Single-Family	0.7	0.7	-1.3	-0.7	-0.3	-0.5	1.4	0.7	-1.5	-2.7	-2.1
Multi-Family	6.1	5.6	3.5	1.3	-0.1	-1.2	-1.1	-0.5	-0.1	0.2	-0.1
Other	1.9	1.9	0.7	0.9	0.5	0.7	1.6	1.4	0.8	0.2	0.5
Manufactured Homes	3.5	2.2	-0.7	-0.7	-3.5	-3.9	-2.6	-1.6	-0.7	-1.9	-2.4
Improvements	1.0	1.3	0.9	1.2	1.0	1.1	1.4	1.5	1.4	1.0	0.8
Other, Incl. Commissions	3.3	2.9	0.5	0.6	0.2	0.6	2.5	1.5	0.0	-0.8	0.3
Residential Equipment Investment	4.4	4.6	4.5	4.4	3.8	3.8	4.2	4.1	4.5	4.6	4.5
Billions of Dollars											
Residential Construction	849.5	883.7	903.1	923.9	944.8	965.2	999.7	1031.6	1051.4	1063.0	1079.4
Permanent Site	497.2	516.5	525.4	535.1	545.9	555.0	573.7	590.4	596.8	597.2	600.7
Single-Family	427.2	440.7	445.0	451.7	460.7	468.8	486.4	501.4	505.6	503.5	504.7
Multi-Family	69.9	75.8	80.4	83.4	85.2	86.2	87.3	89.0	91.2	93.7	96.1
Other	352.3	367.2	377.6	388.8	398.9	410.2	426.0	441.2	454.6	465.8	478.6
Manufactured Homes	17.3	18.1	18.5	18.8	18.6	18.3	18.2	18.4	18.7	18.8	18.8
Improvements	211.3	218.0	223.9	230.4	236.8	243.6	251.5	259.8	268.4	276.1	283.6
Other, Incl. Commissions	123.8	131.0	135.2	139.6	143.5	148.4	156.3	163.0	167.5	170.9	176.2
Residential Equipment Investment	11.4	11.7	12.0	12.3	12.6	12.8	13.1	13.5	13.8	14.2	14.5
Chained Price Deflators (2000=100)											
Residential Construction	128.6	131.6	134.6	137.5	140.6	143.7	147.0	150.4	153.8	157.4	161.1
Permanent Site	126.8	129.9	133.0	136.0	139.1	142.3	145.6	149.1	152.7	156.4	160.2
Single-Family	123.2	126.2	129.1	132.0	135.0	138.1	141.4	144.7	148.1	151.6	155.3
Multi-Family	149.5	153.4	157.3	161.0	164.7	168.6	172.7	177.0	181.5	186.3	191.1
Other	128.7	131.6	134.4	137.2	140.1	143.1	146.2	149.4	152.7	156.1	159.6
Manufactured Homes	149.4	153.6	157.6	161.4	165.2	169.2	173.3	177.6	182.0	186.6	191.4
Improvements	129.8	132.2	134.5	136.9	139.2	141.7	144.2	146.9	149.6	152.3	155.2
Other, Incl. Commissions	125.0	128.6	132.0	135.5	139.1	142.9	146.8	150.9	155.1	159.4	163.9
Residential Equipment Investment	83.4	82.2	80.8	79.4	78.0	76.7	75.4	74.1	72.8	71.5	70.1
Percent Change											
Residential Construction	2.5	2.4	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4
Permanent Site	2.6	2.5	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4
Single-Family	2.6	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4
Multi-Family	2.8	2.6	2.5	2.3	2.3	2.4	2.4	2.5	2.6	2.6	2.6
Other	2.4	2.3	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3
Manufactured Homes	3.0	2.8	2.6	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5
Improvements	2.1	1.9	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.9	1.9
Other, Incl. Commissions	3.0	2.8	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8
Residential Equipment Investment	-1.4	-1.5	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.8	-1.8	-1.8

TABLE 19  
Residential Construction

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Chained 2005 Dollars											
Residential Construction	674.1	677.7	673.2	672.8	679.9	688.1	695.8	699.9	701.6	705.3	710.2
Permanent Site	375.5	375.5	369.3	366.0	368.6	371.9	374.6	374.5	372.3	371.6	371.7
Single-Family	325.7	325.4	318.3	314.4	316.4	319.2	321.9	321.9	319.7	319.1	319.3
Multi-Family	50.1	50.3	50.9	51.3	51.8	52.3	52.4	52.3	52.2	52.1	52.0
Other	303.8	307.4	309.1	312.0	316.6	321.5	326.7	330.9	334.9	339.4	344.3
Manufactured Homes	9.7	9.6	9.5	9.3	9.1	8.9	8.7	8.6	8.5	8.5	8.4
Improvements	184.9	187.5	189.8	191.9	194.6	197.6	200.8	203.9	206.8	209.7	212.7
Other, Incl. Commissions	109.5	110.6	110.2	111.3	113.4	115.6	117.8	119.2	120.4	122.1	124.1
Residential Equipment Investment	21.7	22.8	24.0	25.2	26.6	28.1	29.7	31.3	33.1	34.9	37.0
Percent Change											
Residential Construction	0.6	0.5	-0.7	-0.1	1.1	1.2	1.1	0.6	0.2	0.5	0.7
Permanent Site	0.1	0.0	-1.7	-0.9	0.7	0.9	0.7	0.0	-0.6	-0.2	0.0
Single-Family	0.2	-0.1	-2.2	-1.2	0.7	0.9	0.8	0.0	-0.7	-0.2	0.1
Multi-Family	-0.3	0.4	1.1	0.9	1.0	0.9	0.1	-0.1	-0.2	-0.1	-0.2
Other	1.3	1.2	0.6	0.9	1.5	1.6	1.6	1.3	1.2	1.3	1.4
Manufactured Homes	-1.6	-0.8	-1.1	-2.4	-2.3	-2.1	-1.5	-1.1	-1.2	-0.6	-0.5
Improvements	1.2	1.4	1.2	1.1	1.4	1.5	1.6	1.5	1.4	1.4	1.4
Other, Incl. Commissions	1.8	1.0	-0.3	1.0	1.9	1.9	1.9	1.2	1.1	1.4	1.6
Residential Equipment Investment	4.9	5.0	5.0	5.2	5.5	5.7	5.6	5.6	5.6	5.6	5.7
Billions of Dollars											
Residential Construction	1112.0	1144.6	1164.1	1190.8	1231.7	1275.8	1320.3	1359.1	1394.2	1434.2	1477.7
Permanent Site	616.3	631.6	636.4	646.2	666.9	689.3	711.1	728.3	741.7	758.4	777.1
Single-Family	517.9	530.2	531.0	537.0	553.6	571.8	590.2	604.1	614.2	627.4	642.6
Multi-Family	98.3	101.4	105.3	109.2	113.3	117.5	120.9	124.2	127.5	131.1	134.6
Other	495.8	513.1	527.7	544.5	564.9	586.5	609.2	630.7	652.5	675.8	700.6
Manufactured Homes	19.0	19.3	19.6	19.6	19.7	19.7	19.9	20.2	20.5	20.9	21.3
Improvements	292.3	302.1	311.6	321.0	331.6	343.0	355.0	366.9	379.0	391.3	404.0
Other, Incl. Commissions	184.4	191.6	196.4	204.0	213.6	223.8	234.3	243.6	253.0	263.6	275.2
Residential Equipment Investment	15.0	15.4	15.9	16.4	16.9	17.5	18.1	18.7	19.3	19.9	20.6
Chained Price Deflators (2000=100)											
Residential Construction	164.953	168.901	172.918	176.976	181.160	185.415	189.752	194.191	198.720	203.364	208.067
Permanent Site	164.113	168.187	172.341	176.551	180.898	185.328	189.856	194.499	199.247	204.125	209.075
Single-Family	159.045	162.917	166.859	170.842	174.943	179.110	183.348	187.685	192.105	196.636	201.224
Multi-Family	196.196	201.551	207.053	212.686	218.566	224.638	230.968	237.522	244.318	251.349	258.547
Other	163.2	166.9	170.7	174.5	178.4	182.4	186.5	190.6	194.8	199.1	203.5
Manufactured Homes	196.188	201.264	206.426	211.655	217.062	222.589	228.297	234.150	240.159	246.314	252.544
Improvements	158.131	161.156	164.210	167.262	170.397	173.555	176.741	179.983	183.264	186.613	189.970
Other, Incl. Commissions	168.498	173.287	178.189	183.170	188.311	193.557	198.920	204.425	210.063	215.861	221.764
Residential Equipment Investment	68.835	67.527	66.217	64.909	63.601	62.293	60.986	59.680	58.373	57.066	55.759
Percent Change											
Residential Construction	2.4	2.4	2.4	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3
Permanent Site	2.4	2.5	2.5	2.4	2.5	2.4	2.4	2.4	2.4	2.4	2.4
Single-Family	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3
Multi-Family	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	2.9
Other	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Manufactured Homes	2.5	2.6	2.6	2.5	2.6	2.5	2.6	2.6	2.6	2.6	2.5
Improvements	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8
Other, Incl. Commissions	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7
Residential Equipment Investment	-1.9	-1.9	-1.9	-2.0	-2.0	-2.1	-2.1	-2.1	-2.2	-2.2	-2.3

TABLE 20  
Housing Market Indicators

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Housing Starts and Sales- Millions of Units										
Total	0.552	0.753	1.272	1.606	1.730	1.734	1.756	1.783	1.785	1.794
Single-Family	0.439	0.633	1.107	1.367	1.424	1.403	1.404	1.405	1.385	1.374
Multi-Family	0.114	0.120	0.166	0.238	0.306	0.331	0.352	0.378	0.399	0.420
Shipments of Mfg. Houses	0.050	0.081	0.113	0.129	0.150	0.181	0.198	0.217	0.230	0.238
Sales of Existing Houses										
Single-Family	4.573	4.791	4.835	5.417	5.696	5.714	5.781	5.820	5.817	5.826
Condos & Co-ops	0.591	0.612	0.627	0.719	0.757	0.758	0.766	0.770	0.769	0.769
Sales of New Houses	0.372	0.460	0.733	0.934	0.994	0.983	0.996	0.996	0.978	0.968
New Houses Offered for Sale	0.279	0.211	0.221	0.265	0.295	0.312	0.319	0.322	0.324	0.325
House Prices - Thousands of Dollars										
Average, Existing Houses	217.6	220.8	220.6	227.7	239.2	249.3	263.3	275.3	291.8	309.4
(Percent change)	-9.5	1.4	-0.1	3.2	5.1	4.2	5.6	4.6	6.0	6.0
Median, Existing Houses	173.2	178.3	178.6	184.4	193.7	201.9	213.3	223.0	236.4	250.6
(Percent change)	12.1	-6.6	-10.9	-12.0	-3.6	-3.4	-2.4	-2.8	-1.4	-1.8
Average, New Houses	268.7	282.2	283.5	274.3	281.0	277.9	288.6	294.6	308.0	321.0
(Percent change)	-7.0	5.0	0.4	-3.2	2.4	-1.1	3.9	2.1	4.5	4.2
Median, New Houses	213.6	225.3	225.4	217.8	223.2	220.6	229.4	234.3	245.2	255.8
(Percent change)	-7.3	5.5	0.0	-3.4	2.5	-1.2	4.0	2.1	4.6	4.3
Price of 1996-Style House	237.7	235.8	233.1	238.1	244.6	250.5	259.9	265.0	276.9	287.4
(Percent change)	-4.5	-0.8	-1.2	2.2	2.7	2.4	3.8	1.9	4.5	3.8
OFHEO Housing Price Index (1980Q1=100)	359.4	333.0	331.2	344.7	356.6	366.1	382.8	396.5	415.9	436.9
(Percent change)	-14.0	1.2	6.9	10.4	8.1	2.5	0.1	1.4	2.5	2.6
OFHEO HPI - Purchase Only (1990Q4=100)	199.3	194.8	194.2	201.0	210.3	217.1	227.2	235.7	247.7	260.7
(Percent change)	13.9	0.0	-9.2	0.4	-1.7	3.0	1.4	1.9	3.1	3.6
Interest Rates - Percent										
Conventional 30-Year Fixed	5.0	5.2	5.5	6.1	6.2	7.1	7.10	7.10	7.10	7.10
1-Year Treasury Yield	0.5	0.7	2.4	3.7	3.9	4.8	4.86	4.86	4.86	4.86
Addenda:										
Financial Obligations Ratio										
Percent of Disposable Income	17.9	17.3	17.1	17.3	17.8	18.6	19.5	20.0	20.4	20.8
Rental Vacancy Rate, %	10.6	10.4	9.1	8.2	7.7	7.2	6.7	6.5	6.3	6.2
Single-Family Affordability Index	1.7	1.6	1.6	1.5	1.5	1.3	1.30	1.28	1.25	1.22
Households (Millions)	117.7	119.2	120.9	122.6	124.1	125.6	127.1	128.6	130.1	131.6
(Percent change)	0.6	1.2	1.4	1.4	1.3	1.2	1.2	1.2	1.2	1.1

TABLE 20  
Housing Market Indicators

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Housing Starts and Sales- Millions of Units											
Total	1 815	1 818	1 788	1 769	1 746	1 726	1 733	1 724	1 690	1 644	1 612
Single-Family	1 372	1 356	1 321	1 304	1 287	1 276	1 288	1 283	1 252	1 208	1 181
Multi-Family	0.443	0.463	0.467	0.465	0.459	0.450	0.444	0.441	0.438	0.436	0.432
Shipments of Mfg Houses	0.244	0.246	0.242	0.239	0.230	0.221	0.215	0.211	0.209	0.205	0.200
Sales of Existing Houses											
Single-Family	5 866	5 857	5 760	5 702	5 637	5 601	5 666	5 690	5 638	5 550	5 511
Condos & Co-ops	0.773	0.771	0.757	0.748	0.739	0.733	0.740	0.742	0.734	0.722	0.716
Sales of New Houses	0.967	0.948	0.915	0.900	0.882	0.875	0.887	0.880	0.848	0.806	0.784
New Houses Offered for Sale	0.326	0.327	0.329	0.329	0.330	0.330	0.330	0.330	0.331	0.333	0.333
House Prices - Thousands of Dollars											
Average, Existing Houses	327.3	346.5	364.0	379.2	394.1	409.5	425.5	442.2	459.6	477.7	496.7
(Percent change)	5.8	5.9	5.1	4.2	3.9	3.9	3.9	3.9	3.9	3.9	4.0
Median, Existing Houses	265.1	280.7	294.9	307.2	319.3	331.7	344.7	358.3	372.4	387.1	402.4
(Percent change)	-2.9	-2.9	-5.2	-7.0	-7.5	-8.1	-8.8	-9.7	-10.7	-12.0	-13.6
Average, New Houses	338.9	359.9	373.0	385.4	396.6	407.8	419.4	431.4	443.9	457.0	470.7
(Percent change)	5.6	6.2	3.6	3.3	2.9	2.8	2.8	2.9	2.9	3.0	3.0
Median, New Houses	270.3	287.5	298.1	308.2	317.3	326.4	335.8	345.5	355.7	366.4	377.5
(Percent change)	5.7	6.3	3.7	3.4	3.0	2.9	2.9	2.9	2.9	3.0	3.0
Price of 1996-Style House	297.7	310.0	319.0	326.6	333.9	341.5	349.4	357.5	365.9	374.5	383.4
(Percent change)	3.6	4.1	2.9	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4
OFHEO Housing Price Index (1980Q1=100)											
Average	458.7	483.7	508.9	530.5	550.7	571.3	593.2	616.1	639.8	664.3	689.9
(Percent change)	2.3	1.3	1.0	0.7	0.6	0.7	1.0	0.7	0.2	-0.2	0.0
OFHEO HPI - Purchase Only (1990Q4=100)											
Average	274.2	289.1	303.9	316.7	328.6	340.7	353.5	367.0	381.0	395.4	410.5
(Percent change)	3.3	2.3	0.3	0.5	-0.2	0.3	0.8	-0.2	0.3	-0.2	-0.7
Interest Rates - Percent											
Conventional 30-Year Fixed	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10
1-Year Treasury Yield	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86
Addenda:											
Financial Obligations Ratio											
Percent of Disposable Income	21.2	21.5	21.8	21.9	22.0	22.0	22.0	22.0	22.0	21.9	21.8
Rental Vacancy Rate, %	6.1	6.2	6.4	6.5	6.6	6.7	6.8	6.8	6.9	6.9	7.0
Single-Family Affordability Index	1.20	1.17	1.16	1.15	1.15	1.14	1.14	1.13	1.13	1.12	1.12
Households (Millions)	133.0	134.5	135.9	137.3	138.6	140.0	141.3	142.6	144.0	145.3	146.6
(Percent change)	1.1	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9

TABLE 20  
Housing Market Indicators

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Housing Starts and Sales- Millions of Units											
Total	1 609	1 596	1 563	1 549	1 552	1 554	1 553	1 539	1 523	1 512	1 504
Single-Family	1 179	1 166	1 131	1 116	1 118	1 120	1 122	1 111	1 098	1 090	1 085
Multi-Family	0 429	0 429	0 432	0 432	0 434	0 434	0 431	0 428	0 425	0 422	0 419
Shipments of Mfg Houses	0 197	0 195	0 192	0 188	0 183	0 179	0 176	0 174	0 172	0 171	0 169
Sales of Existing Houses											
Single-Family	5 546	5 547	5 484	5 480	5 520	5 563	5 605	5 615	5 617	5 635	5 662
Condos & Co-ops	0 719	0 718	0 709	0 707	0 711	0 716	0 720	0 720	0 719	0 720	0 723
Sales of New Houses	0 783	0 769	0 736	0 726	0 727	0 729	0 730	0 719	0 707	0 700	0 697
New Houses Offered for Sale	0 333	0 333	0 333	0 333	0 332	0 332	0 332	0 332	0 332	0 332	0 331
House Prices - Thousands of Dollars											
Average, Existing Houses	516.3	536.8	558.1	579.9	602.6	626.1	650.4	675.5	701.8	729.3	757.8
(Percent change)	4.0	4.0	4.0	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Median, Existing Houses	418.3	434.9	452.2	469.9	488.3	507.3	527.0	547.4	568.7	591.0	614.1
(Percent change)	-15.8	-18.7	-23.0	-29.8	-42.4	-73.6	-278.9	155.9	60.9	37.9	27.5
Average, New Houses	484.8	499.3	514.3	529.9	546.3	563.1	580.3	597.9	616.1	635.1	654.7
(Percent change)	3.0	3.0	3.0	3.0	3.1	3.1	3.0	3.0	3.0	3.1	3.1
Median, New Houses	389.0	400.8	413.0	425.8	439.1	452.8	466.8	481.1	496.0	511.5	527.4
(Percent change)	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Price of 1996-Style House	392.6	402.1	411.8	421.5	431.6	441.8	452.3	462.9	474.1	485.6	497.3
(Percent change)	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
OFHEO Housing Price Index (1980Q1=100)											
	716.4	744.5	773.7	804.2	836.0	869.4	903.7	939.0	975.5	1014.1	1052.0
(Percent change)	0.2	0.1	-0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.6	0.6
OFHEO HPI - Purchase Only (1990Q4=100)											
	426.1	442.6	459.8	477.7	496.5	516.1	536.3	557.1	578.6	601.3	623.6
(Percent change)	-0.3	-0.2	-0.5	-0.7	-0.4	-0.4	-0.6	-0.8	-0.8	-0.6	-0.6
Interest Rates - Percent											
Conventional 30-Year Fixed	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10
1-Year Treasury Yield	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86
Addenda:											
Financial Obligations Ratio											
Percent of Disposable Income	21.7	21.7	21.6	21.5	21.4	21.3	21.2	21.1	21.0	21.0	20.9
Rental Vacancy Rate, %	7.0	7.0	7.0	7.1	7.1	7.1	7.1	7.2	7.2	7.2	7.2
Single-Family Affordability Index	1.12	1.11	1.11	1.10	1.10	1.10	1.10	1.10	1.09	1.09	1.09
Households (Millions)	147.8	149.1	150.3	151.4	152.6	153.7	154.9	156.0	157.1	158.1	159.2
(Percent change)	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7

TABLE 21  
Nonresidential Construction

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Chained 2005 Dollars										
Nonresidential Construction	391.0	333.8	313.0	372.4	428.9	460.5	474.2	476.3	480.8	486.4
Commercial & Health Care	115.7	92.4	94.5	125.2	161.6	181.0	184.5	183.3	183.6	185.2
Manufacturing	62.1	43.7	38.1	47.5	58.0	60.4	60.5	57.8	58.1	59.4
Power & Communications	76.3	66.9	56.2	59.3	60.9	65.1	68.4	69.6	69.8	69.4
Power	60.6	53.0	40.6	39.2	39.7	43.3	46.4	47.2	46.7	45.6
Communications	16.2	14.3	15.9	20.2	21.4	21.9	22.3	22.7	23.3	24.0
Mining & Petroleum	65.8	73.6	66.7	71.9	71.2	70.9	74.9	77.6	78.4	77.9
Other	73.4	58.0	58.5	68.5	74.6	79.2	82.6	85.5	88.6	91.7
Percent Change										
Nonresidential Construction	-19.7	-14.6	-6.2	19.0	15.2	7.4	3.0	0.4	0.9	1.2
Commercial & Health Care	-25.6	-20.1	2.3	32.4	29.1	12.1	1.9	-0.6	0.2	0.9
Manufacturing	22.7	-29.5	-12.8	24.6	21.9	4.2	0.1	-4.4	0.5	2.3
Power & Communications	-1.3	-12.3	-15.9	5.4	2.7	6.9	5.2	1.8	0.2	-0.5
Power	6.9	-12.5	-23.4	-3.4	1.2	9.2	7.0	1.7	-1.0	-2.3
Communications	-23.3	-11.6	11.2	27.4	5.6	2.7	1.5	1.9	2.6	3.0
Mining & Petroleum	-41.6	11.8	-9.3	7.7	-0.9	-0.4	5.6	3.6	1.0	-0.6
Other	-18.3	-20.9	0.7	17.1	8.9	6.1	4.4	3.5	3.6	3.5
Billions of Dollars										
Nonresidential Construction	480.7	394.0	369.9	451.6	540.6	603.8	644.4	670.3	701.6	735.2
Commercial & Health Care	138.9	108.2	113.9	157.0	211.7	247.8	262.9	271.6	283.0	296.9
Manufacturing	76.5	53.7	49.0	63.9	81.6	88.9	92.7	92.2	96.4	102.5
Power & Communications	94.9	82.3	70.1	75.5	79.6	87.6	94.8	99.1	102.2	104.6
Power	74.8	64.4	50.1	49.6	51.6	58.0	63.8	66.6	67.9	68.2
Communications	20.0	17.9	20.0	25.9	28.0	29.6	31.0	32.5	34.3	36.4
Mining & Petroleum	87.4	85.1	69.6	73.2	74.3	76.1	81.9	86.8	90.1	91.6
Other	83.0	64.6	67.3	82.1	93.3	103.4	112.2	120.7	129.9	139.7
Chained Price Deflators (2000=100)										
Nonresidential Construction	122.8	118.0	118.2	121.2	126.0	131.1	135.9	140.7	145.9	151.2
Commercial & Health Care	119.7	117.1	120.5	125.3	131.0	136.9	142.5	148.2	154.2	160.3
Manufacturing	123.2	122.8	128.4	134.3	140.8	147.2	153.3	159.5	165.9	172.6
Power & Communications	124.2	123.1	124.6	127.4	130.8	134.7	138.5	142.3	146.4	150.7
Power	123.5	121.4	123.4	126.6	130.1	133.9	137.5	141.2	145.3	149.5
Communications	124.0	125.7	125.9	127.8	131.0	135.0	139.1	142.9	147.1	151.6
Mining & Petroleum	132.3	115.5	104.3	101.8	104.3	107.3	109.4	111.9	114.9	117.6
Other	112.9	111.4	115.1	119.8	125.1	130.6	135.8	141.1	146.7	152.4
Percent Change										
Nonresidential Construction	-2.0	-3.9	0.2	2.6	4.0	4.0	3.6	3.6	3.7	3.6
Commercial & Health Care	0.6	-2.2	2.9	4.0	4.6	4.5	4.1	4.0	4.0	4.0
Manufacturing	2.8	-0.3	4.6	4.6	4.8	4.6	4.2	4.0	4.0	4.0
Power & Communications	1.7	-0.9	1.2	2.3	2.7	3.0	2.8	2.7	2.9	2.9
Power	1.7	-1.7	1.6	2.6	2.8	2.9	2.7	2.7	2.9	2.9
Communications	2.2	1.3	0.2	1.5	2.5	3.1	3.0	2.8	2.9	3.0
Mining & Petroleum	-10.1	-12.7	-9.7	-2.4	2.4	2.8	2.0	2.3	2.8	2.3
Other	-1.9	-1.3	3.3	4.1	4.5	4.4	4.0	3.9	3.9	3.9
Rental Cost of Capital, Index										
Buildings & Other Structures	0.082	0.086	0.096	0.107	0.114	0.128	0.133	0.137	0.142	0.148
Corporate	0.129	0.123	0.132	0.142	0.152	0.165	0.172	0.177	0.183	0.190
Limited Partnership	0.071	0.087	0.101	0.117	0.127	0.148	0.153	0.159	0.165	0.170
Public	0.073	0.078	0.095	0.107	0.115	0.129	0.134	0.139	0.144	0.149
Public Utilities	0.093	0.092	0.097	0.102	0.106	0.114	0.116	0.119	0.122	0.125
Communications	0.086	0.088	0.092	0.096	0.099	0.107	0.109	0.111	0.114	0.117
Other	0.095	0.095	0.100	0.105	0.109	0.118	0.120	0.122	0.125	0.128

TABLE 21  
Nonresidential Construction

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Chained 2005 Dollars											
Nonresidential Construction	493.9	501.0	504.3	511.0	514.3	516.9	520.9	526.4	530.8	535.3	538.1
Commercial & Health Care	187.5	190.1	190.7	192.7	193.3	193.0	193.6	194.6	195.4	195.5	194.9
Manufacturing	60.6	61.6	62.2	63.0	63.3	63.6	64.2	65.0	65.8	66.5	67.2
Power & Communications	70.0	71.0	73.6	76.8	79.9	82.6	84.9	87.2	89.6	92.1	94.7
Power	45.4	45.6	47.5	49.9	52.3	54.1	55.6	57.0	58.5	60.1	61.8
Communications	24.8	25.6	26.4	27.1	27.9	28.7	29.5	30.5	31.4	32.3	33.3
Mining & Petroleum	78.0	78.4	77.8	76.9	75.3	74.0	73.6	74.6	74.4	74.3	74.2
Other	94.6	96.5	96.4	97.5	97.9	98.9	99.6	100.2	100.6	101.7	102.0
Percent Change											
Nonresidential Construction	1.5	1.4	0.7	1.3	0.6	0.5	0.8	1.1	0.8	0.8	0.5
Commercial & Health Care	1.3	1.4	0.3	1.1	0.3	-0.1	0.3	0.6	0.4	0.0	-0.3
Manufacturing	2.1	1.6	1.0	1.2	0.4	0.5	0.9	1.2	1.2	1.2	1.0
Power & Communications	0.8	1.4	3.7	4.3	4.0	3.3	2.9	2.6	2.8	2.8	2.8
Power	-0.4	0.4	4.1	5.1	4.7	3.5	2.8	2.4	2.7	2.7	2.8
Communications	3.2	3.3	3.1	2.9	2.8	2.9	3.0	3.1	3.0	2.9	3.0
Mining & Petroleum	0.2	0.4	-0.8	-1.2	-2.0	-1.8	-0.5	1.4	-0.3	-0.2	-0.1
Other	3.2	2.0	-0.2	1.2	0.4	1.0	0.7	0.6	0.4	1.1	0.3
Billions of Dollars											
Nonresidential Construction	771.9	807.6	837.5	872.7	902.9	933.4	967.5	1006.4	1045.2	1085.9	1124.6
Commercial & Health Care	312.1	327.8	340.2	355.2	367.8	379.4	393.1	408.5	424.1	438.6	452.2
Manufacturing	108.7	114.5	119.6	124.9	129.3	134.1	139.5	145.8	152.3	159.2	166.0
Power & Communications	108.4	112.7	119.5	127.4	135.4	143.1	150.6	158.1	166.4	175.2	184.6
Power	69.8	71.8	76.4	82.1	87.9	93.1	97.8	102.5	107.7	113.3	119.3
Communications	38.6	40.9	43.1	45.3	47.5	50.0	52.7	55.6	58.7	61.9	65.3
Mining & Petroleum	93.1	94.7	95.1	95.0	93.9	93.0	93.3	95.4	96.5	97.7	98.9
Other	149.6	158.0	163.0	170.3	176.4	183.8	191.0	198.5	205.9	215.1	223.0
Chained Price Deflators (2000=100)											
Nonresidential Construction	156.3	161.2	166.1	170.8	175.6	180.6	185.7	191.2	196.9	202.9	209.0
Commercial & Health Care	166.4	172.4	178.4	184.3	190.3	196.6	203.1	209.9	217.0	224.4	232.0
Manufacturing	179.2	185.7	192.1	198.2	204.3	210.8	217.4	224.4	231.7	239.2	247.0
Power & Communications	154.9	158.7	162.3	165.9	169.5	173.3	177.3	181.4	185.7	190.2	194.8
Power	153.6	157.4	161.0	164.5	168.1	171.9	175.8	179.9	184.2	188.6	193.1
Communications	155.9	159.9	163.5	167.0	170.6	174.4	178.5	182.7	187.1	191.6	196.4
Mining & Petroleum	119.4	120.8	122.2	123.6	124.7	125.7	126.7	127.9	129.6	131.5	133.3
Other	158.1	163.6	169.2	174.6	180.1	185.9	191.9	198.1	204.7	211.4	218.5
Percent Change											
Nonresidential Construction	3.4	3.2	3.0	2.8	2.8	2.8	2.9	2.9	3.0	3.0	3.0
Commercial & Health Care	3.8	3.6	3.5	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4
Manufacturing	3.8	3.6	3.4	3.2	3.1	3.1	3.2	3.2	3.2	3.3	3.3
Power & Communications	2.8	2.5	2.3	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.4
Power	2.7	2.5	2.3	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.4
Communications	2.9	2.6	2.2	2.1	2.1	2.2	2.3	2.3	2.4	2.4	2.5
Mining & Petroleum	1.5	1.2	1.2	1.1	1.0	0.8	0.7	0.9	1.4	1.5	1.3
Other	3.7	3.5	3.4	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3
Rental Cost of Capital, Index											
Buildings & Other Structures	0.153	0.159	0.165	0.172	0.179	0.185	0.191	0.198	0.204	0.210	0.217
Corporate	0.198	0.205	0.214	0.223	0.232	0.240	0.248	0.256	0.264	0.272	0.281
Limited Partnership	0.176	0.183	0.191	0.198	0.206	0.214	0.221	0.228	0.235	0.242	0.249
Public	0.155	0.160	0.167	0.173	0.180	0.187	0.193	0.200	0.206	0.212	0.218
Public Utilities	0.128	0.132	0.136	0.139	0.142	0.146	0.149	0.152	0.155	0.158	0.161
Communications	0.121	0.124	0.127	0.130	0.133	0.136	0.139	0.142	0.145	0.148	0.151
Other	0.132	0.136	0.139	0.143	0.147	0.150	0.153	0.156	0.159	0.163	0.166



TABLE 21

**Nonresidential Construction**

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Chained 2005 Dollars											
Nonresidential Construction	541.9	544.1	547.2	551.0	555.6	561.4	567.8	575.4	581.9	588.5	595.0
Commercial & Health Care	194.1	192.5	191.6	191.2	190.9	191.7	192.6	194.2	195.2	195.9	196.7
Manufacturing	67.8	68.5	69.3	70.0	70.8	71.7	72.6	73.5	74.5	75.4	76.3
Power & Communications	97.5	100.4	103.4	106.4	109.7	113.1	116.6	120.4	124.4	128.4	132.5
Power	63.5	65.4	67.2	69.2	71.2	73.4	75.7	78.2	80.8	83.5	86.1
Communications	34.3	35.4	36.5	37.6	38.8	40.0	41.3	42.6	44.0	45.3	46.8
Mining & Petroleum	74.2	74.2	74.0	74.1	74.1	74.0	74.1	74.1	74.1	74.1	74.4
Other	103.3	103.8	104.4	104.8	105.8	106.6	107.6	108.7	109.4	110.5	111.2
Percent Change											
Nonresidential Construction	0.7	0.4	0.6	0.7	0.8	1.0	1.1	1.3	1.1	1.1	1.1
Commercial & Health Care	-0.4	-0.8	-0.5	-0.2	-0.2	0.4	0.5	0.8	0.5	0.4	0.4
Manufacturing	0.9	1.0	1.1	1.0	1.2	1.2	1.3	1.2	1.3	1.3	1.1
Power & Communications	2.9	3.0	2.9	2.9	3.1	3.1	3.1	3.3	3.3	3.3	3.2
Power	2.8	2.9	2.9	2.9	3.0	3.1	3.1	3.3	3.4	3.3	3.1
Communications	3.1	3.2	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2
Mining & Petroleum	0.0	0.0	-0.2	0.1	-0.1	-0.1	0.1	0.1	0.0	0.0	0.4
Other	1.3	0.5	0.6	0.4	0.9	0.7	1.0	1.0	0.6	1.0	0.7
Billions of Dollars											
Nonresidential Construction	1166.7	1207.5	1251.5	1298.1	1349.0	1404.3	1463.7	1528.4	1592.9	1660.3	1729.2
Commercial & Health Care	465.8	477.8	491.9	507.6	524.2	544.4	565.8	590.2	613.4	636.7	661.0
Manufacturing	173.0	180.6	188.7	196.9	206.0	215.4	225.4	235.8	246.9	258.4	270.0
Power & Communications	194.6	205.3	216.5	228.2	240.8	254.2	268.3	283.7	300.0	317.1	334.8
Power	125.6	132.4	139.5	146.9	155.0	163.5	172.5	182.4	193.0	204.1	215.5
Communications	69.0	72.9	77.0	81.3	85.9	90.7	95.9	101.3	106.9	113.0	119.3
Mining & Petroleum	100.1	101.4	102.6	104.1	105.4	106.7	108.2	109.7	111.1	112.6	114.5
Other	233.3	242.3	251.8	261.3	272.5	283.7	296.0	309.1	321.5	335.5	349.0
Chained Price Deflators (2000=100)											
Nonresidential Construction	215.3	221.9	228.7	235.6	242.8	250.1	257.8	265.6	273.7	282.1	290.6
Commercial & Health Care	239.9	248.2	256.8	265.5	274.6	284.0	293.7	303.8	314.3	325.0	336.1
Manufacturing	255.1	263.7	272.4	281.4	290.7	300.4	310.4	320.8	331.5	342.6	354.0
Power & Communications	199.5	204.4	209.4	214.4	219.5	224.8	230.1	235.5	241.1	246.9	252.7
Power	197.8	202.6	207.5	212.4	217.5	222.7	227.9	233.3	238.8	244.5	250.3
Communications	201.2	206.1	211.2	216.3	221.5	226.8	232.1	237.6	243.3	249.1	255.0
Mining & Petroleum	135.0	136.8	138.6	140.4	142.3	144.1	146.0	147.9	149.9	151.9	153.9
Other	225.7	233.4	241.2	249.2	257.5	266.1	275.1	284.3	293.8	303.6	313.7
Percent Change											
Nonresidential Construction	3.0	3.1	3.1	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.0
Commercial & Health Care	3.4	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Manufacturing	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Power & Communications	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Power	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3
Communications	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Mining & Petroleum	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Other	3.3	3.4	3.4	3.3	3.3	3.3	3.4	3.4	3.4	3.3	3.3
Rental Cost of Capital, Index											
Buildings & Other Structures	0.223	0.231	0.238	0.246	0.254	0.262	0.271	0.279	0.289	0.298	0.308
Corporate	0.290	0.299	0.308	0.318	0.328	0.339	0.350	0.361	0.372	0.384	0.396
Limited Partnership	0.257	0.265	0.274	0.283	0.292	0.302	0.312	0.323	0.333	0.344	0.356
Public	0.225	0.232	0.240	0.248	0.256	0.265	0.273	0.283	0.292	0.302	0.311
Public Utilities	0.164	0.168	0.172	0.176	0.180	0.184	0.188	0.192	0.196	0.200	0.204
Communications	0.154	0.158	0.161	0.165	0.169	0.172	0.176	0.180	0.184	0.188	0.192
Other	0.169	0.173	0.177	0.181	0.185	0.189	0.193	0.197	0.201	0.206	0.210

TABLE 22  
Nonresidential Construction

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Chained 2005 Dollars, SAAR										
Federal	25.3	27.7	27.1	25.8	24.5	23.5	22.8	22.6	22.9	23.2
State and Local	237.1	247.1	246.0	239.6	241.4	245.0	247.9	250.4	253.2	256.2
Highway and Street	59.6	62.7	62.5	61.6	62.9	63.9	64.0	63.8	63.5	63.4
Education	69.8	72.5	75.0	73.0	74.4	75.6	75.8	75.5	75.2	75.0
Water and Sewer	31.8	33.6	35.0	35.7	36.5	37.1	37.5	37.2	36.5	35.9
Transportation	13.7	15.4	16.1	16.6	17.2	17.4	17.4	16.7	15.9	15.1
Other	62.9	63.3	57.6	52.4	50.0	50.6	52.8	57.4	62.5	67.7
Percent Change										
Federal	21.2	9.4	-2.0	-4.9	-4.8	-4.3	-3.0	-0.6	1.3	1.2
State and Local	1.0	4.3	-0.5	-2.6	0.8	1.5	1.2	1.0	1.1	1.2
Highway and Street	0.0	5.3	-0.4	-1.4	2.1	1.6	0.3	-0.4	-0.4	-0.3
Education	-1.5	4.0	3.3	-2.6	1.8	1.6	0.3	-0.4	-0.3	-0.2
Water and Sewer	-5.3	5.7	4.1	1.8	2.4	1.5	1.1	-0.9	-1.7	-1.7
Transportation	6.2	12.2	4.9	3.2	3.1	1.5	0.0	-4.3	-4.8	-5.0
Other	8.0	0.7	-9.1	-8.9	-4.7	1.2	4.4	8.7	8.8	8.4
Billions of Dollars										
Federal	30.0	32.5	32.3	31.6	31.2	30.8	30.6	31.0	31.9	32.8
State and Local	301.9	312.5	315.4	316.1	330.4	346.5	358.9	368.8	378.7	389.3
Highway and Street	84.2	88.1	89.0	90.3	95.6	100.3	103.0	104.3	105.6	107.0
Education	85.3	88.0	92.2	92.4	97.6	102.4	105.2	106.6	107.9	109.3
Water and Sewer	39.7	41.6	44.0	46.1	48.9	51.3	53.1	53.6	53.5	53.4
Transportation	18.5	20.6	21.9	23.3	24.9	26.1	26.7	26.0	25.2	24.3
Other	74.3	74.2	68.4	64.1	63.4	66.3	70.8	78.3	86.6	95.3
Chained Price Deflators (2000=100)										
Federal	118.6	117.5	119.1	122.6	127.1	131.3	134.5	136.8	139.0	141.2
State and Local	127.4	126.4	128.2	131.9	136.9	141.4	144.8	147.3	149.6	152.0
Highway and Street	141.4	140.5	142.5	146.6	152.0	157.1	160.8	163.6	166.2	168.8
Education	122.2	121.2	122.9	126.5	131.2	135.6	138.8	141.2	143.4	145.7
Water and Sewer	124.7	123.8	125.5	129.1	134.0	138.4	141.7	144.1	146.4	148.7
Transportation	135.0	134.0	135.9	139.9	145.1	149.9	153.5	156.1	158.6	161.1
Other	118.2	117.1	118.8	122.2	126.8	131.0	134.1	136.4	138.6	140.8
Percent Change, Annual Rate										
Federal	0.6	-1.0	1.4	2.9	3.7	3.3	2.4	1.7	1.6	1.6
State and Local	2.7	-0.7	1.4	2.9	3.7	3.3	2.4	1.7	1.6	1.6
Highway and Street	3.4	-0.6	1.4	2.9	3.7	3.3	2.4	1.7	1.6	1.6
Education	2.4	-0.8	1.4	2.9	3.7	3.3	2.4	1.7	1.6	1.6
Water and Sewer	4.7	-0.8	1.4	2.9	3.7	3.3	2.4	1.7	1.6	1.6
Transportation	3.0	-0.7	1.4	2.9	3.7	3.3	2.4	1.7	1.6	1.6
Other	1.2	-0.9	1.4	2.9	3.7	3.3	2.4	1.7	1.6	1.6

TABLE 22

**Nonresidential Construction**

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Chained 2005 Dollars, SAAR											
Federal	23.6	23.8	24.0	24.2	24.5	24.7	25.0	25.2	25.5	25.7	25.9
State and Local	258.9	260.8	264.6	268.9	273.6	279.5	285.0	290.7	296.7	302.9	309.1
Highway and Street	63.7	64.1	65.1	66.1	67.3	68.7	70.1	71.5	73.0	74.5	76.0
Education	75.4	76.0	77.1	78.3	79.7	81.4	83.0	84.7	86.4	88.2	90.1
Water and Sewer	35.9	36.2	36.7	37.3	37.9	38.8	39.5	40.3	41.1	42.0	42.9
Transportation	14.9	15.0	15.2	15.4	15.7	16.0	16.3	16.7	17.0	17.4	17.7
Other	70.1	70.6	71.7	72.8	74.1	75.7	77.2	78.7	80.4	82.0	83.7
Percent Change											
Federal	1.5	1.1	0.8	0.9	1.0	1.0	1.0	1.0	1.0	0.8	0.8
State and Local	1.0	0.7	1.5	1.6	1.7	2.2	2.0	2.0	2.1	2.1	2.1
Highway and Street	0.5	0.7	1.5	1.6	1.7	2.2	2.0	2.0	2.1	2.1	2.1
Education	0.5	0.7	1.5	1.6	1.7	2.2	2.0	2.0	2.1	2.1	2.1
Water and Sewer	-0.1	0.7	1.5	1.6	1.7	2.2	2.0	2.0	2.1	2.1	2.1
Transportation	-1.4	0.7	1.5	1.6	1.7	2.2	2.0	2.0	2.1	2.1	2.1
Other	3.6	0.7	1.5	1.6	1.7	2.2	2.0	2.0	2.1	2.1	2.1
Billions of Dollars											
Federal	33.8	34.6	35.3	36.0	36.7	37.4	38.2	38.9	39.7	40.5	41.2
State and Local	399.3	408.0	419.0	430.2	441.8	455.7	469.1	483.4	498.7	514.3	530.4
Highway and Street	109.1	111.5	114.5	117.5	120.7	124.5	128.2	132.1	136.3	140.5	144.9
Education	111.5	113.9	117.0	120.2	123.4	127.3	131.0	135.0	139.3	143.7	148.1
Water and Sewer	54.2	55.4	56.9	58.4	60.0	61.8	63.7	65.6	67.7	69.8	72.0
Transportation	24.3	24.8	25.5	26.2	26.9	27.7	28.5	29.4	30.3	31.3	32.3
Other	100.2	102.4	105.1	107.9	110.9	114.3	117.7	121.3	125.1	129.1	133.1
Chained Price Deflators (2000=100)											
Federal	143.3	145.3	147.1	148.6	150.0	151.4	152.9	154.5	156.1	157.8	159.4
State and Local	154.3	156.4	158.3	160.0	161.5	163.0	164.6	166.3	168.1	169.8	171.6
Highway and Street	171.4	173.8	175.9	177.7	179.4	181.1	182.9	184.8	186.7	188.7	190.6
Education	147.9	150.0	151.8	153.4	154.8	156.3	157.8	159.5	161.2	162.8	164.5
Water and Sewer	151.0	153.1	155.0	156.6	158.0	159.6	161.1	162.8	164.5	166.2	167.9
Transportation	163.5	165.8	167.8	169.6	171.2	172.8	174.5	176.3	178.2	180.0	181.9
Other	142.9	144.9	146.7	148.2	149.6	151.0	152.5	154.1	155.7	157.3	158.9
Percent Change, Annual Rate											
Federal	1.5	1.4	1.2	1.0	0.9	1.0	1.0	1.0	1.1	1.0	1.0
State and Local	1.5	1.4	1.2	1.0	0.9	1.0	1.0	1.0	1.1	1.0	1.0
Highway and Street	1.5	1.4	1.2	1.0	0.9	1.0	1.0	1.0	1.1	1.0	1.0
Education	1.5	1.4	1.2	1.0	0.9	1.0	1.0	1.0	1.1	1.0	1.0
Water and Sewer	1.5	1.4	1.2	1.0	0.9	1.0	1.0	1.0	1.1	1.0	1.0
Transportation	1.5	1.4	1.2	1.0	0.9	1.0	1.0	1.0	1.1	1.0	1.0
Other	1.5	1.4	1.2	1.0	0.9	1.0	1.0	1.0	1.1	1.0	1.0

TABLE 22  
Nonresidential Construction

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Chained 2005 Dollars, SAAR											
Federal	26.1	26.3	26.5	26.7	27.0	27.2	27.4	27.6	27.8	28.0	28.1
State and Local	315.6	322.5	329.6	337.0	344.6	352.4	360.4	368.8	377.8	387.1	396.7
Highway and Street	77.6	79.3	81.1	82.9	84.8	86.7	88.6	90.7	92.9	95.2	97.6
Education	91.9	93.9	96.0	98.2	100.4	102.6	105.0	107.4	110.0	112.8	115.6
Water and Sewer	43.8	44.7	45.7	46.7	47.8	48.9	50.0	51.1	52.4	53.7	55.0
Transportation	18.1	18.5	18.9	19.3	19.8	20.2	20.7	21.2	21.7	22.2	22.8
Other	85.5	87.3	89.3	91.3	93.3	95.5	97.6	99.9	102.3	104.9	107.5
Percent Change											
Federal	0.9	0.8	0.8	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.6
State and Local	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.5
Highway and Street	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.5
Education	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.5
Water and Sewer	2.1	2.2	2.2	2.2	2.3	2.2	2.3	2.3	2.4	2.5	2.5
Transportation	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.5
Other	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.5
Billions of Dollars											
Federal	42.0	42.8	43.6	44.4	45.3	46.2	47.0	47.9	48.7	49.6	50.4
State and Local	547.0	564.8	583.8	603.0	623.0	643.9	665.7	688.8	713.0	738.3	764.4
Highway and Street	149.5	154.3	159.5	164.8	170.2	175.9	181.9	188.2	194.8	201.7	208.9
Education	152.8	157.8	163.0	168.4	174.0	179.9	185.9	192.4	199.1	206.2	213.5
Water and Sewer	74.2	76.7	79.2	81.8	84.6	87.4	90.4	93.5	96.8	100.2	103.7
Transportation	33.3	34.4	35.5	36.7	37.9	39.2	40.5	41.9	43.4	44.9	46.5
Other	137.3	141.7	146.5	151.3	156.3	161.6	167.0	172.8	178.9	185.3	191.8
Chained Price Deflators (2000=100)											
Federal	161.0	162.7	164.5	166.2	167.9	169.8	171.6	173.5	175.3	177.2	179.0
State and Local	173.3	175.2	177.1	178.9	180.8	182.7	184.7	186.7	188.7	190.7	192.7
Highway and Street	192.5	194.6	196.7	198.8	200.9	203.0	205.2	207.5	209.7	211.9	214.1
Education	166.2	167.9	169.8	171.6	173.3	175.2	177.1	179.1	181.0	182.9	184.8
Water and Sewer	169.6	171.5	173.4	175.2	177.0	178.9	180.9	182.8	184.8	186.7	188.7
Transportation	183.7	185.7	187.7	189.7	191.7	193.7	195.8	198.0	200.1	202.2	204.3
Other	160.5	162.3	164.1	165.8	167.5	169.3	171.1	173.0	174.8	176.7	178.5
Percent Change, Annual Rate											
Federal	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0
State and Local	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0
Highway and Street	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0
Education	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0
Water and Sewer	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0
Transportation	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0
Other	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.0	1.0

TABLE 23  
Real Government Purchases

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Chained 2005 Dollars, SAAR										
Federal	1026.7	1065.6	1034.4	996.4	978.6	974.1	975.9	981.4	988.1	995.2
Defense	695.1	717.1	694.2	658.8	641.9	636.1	635.8	637.6	640.1	643.1
Consumption	589.4	608.7	589.9	559.2	542.7	535.9	533.7	533.3	533.5	534.3
Labor Compensation	235.0	244.0	235.0	222.8	215.9	212.8	210.6	209.3	208.5	208.2
Consumption of Fixed Capital	80.3	85.3	88.1	89.8	91.1	92.2	93.4	94.6	95.9	97.3
Other	274.4	279.6	267.3	247.3	236.5	231.9	230.9	230.9	230.9	230.9
Gross Investment	106.5	109.2	104.9	100.3	100.2	101.5	103.8	106.4	109.1	111.9
Nondefense	331.5	348.5	340.3	337.9	337.1	338.5	340.7	344.3	348.6	352.7
Consumption	286.9	299.4	289.4	286.4	286.2	287.1	288.7	290.5	292.6	294.8
Labor Compensation	141.6	147.2	143.1	143.0	143.0	143.0	143.0	143.0	143.0	143.0
Consumption of Fixed Capital	30.5	32.6	34.6	36.7	38.7	40.7	42.8	44.9	47.2	49.7
Other	115.1	119.7	112.1	107.3	105.3	104.4	104.3	104.4	104.7	105.0
Gross Investment	44.6	49.3	51.5	52.2	51.5	52.1	52.7	54.8	57.4	59.8
State & Local	1542.8	1545.3	1540.6	1545.3	1570.3	1587.7	1598.2	1608.2	1622.7	1638.6
Consumption	1249.4	1237.6	1234.9	1249.9	1272.7	1285.3	1291.0	1296.4	1306.3	1317.2
Wages & Salaries	910.0	897.7	891.4	903.0	923.3	938.8	947.7	953.0	958.6	965.6
Consumption of Fixed Capital	127.9	131.8	134.7	134.7	134.1	134.9	136.8	139.0	141.7	144.4
Other	212.2	208.6	209.3	212.7	215.8	211.9	206.5	204.2	205.8	207.0
Gross Investment	293.1	306.7	304.7	294.7	297.0	301.7	306.4	310.9	315.5	320.4
Construction	237.1	247.1	246.0	239.6	241.4	245.0	247.9	250.4	253.2	256.2
Equipment	56.0	59.7	58.7	54.6	55.1	56.3	58.6	61.1	63.7	66.1
Percent Change										
Federal	5.2	3.8	-2.9	-3.7	-1.8	-0.5	0.2	0.6	0.7	0.7
Defense	5.4	3.2	-3.2	-5.1	-2.6	-0.9	0.0	0.3	0.4	0.5
Consumption	4.9	3.3	-3.1	-5.2	-3.0	-1.2	-0.4	-0.1	0.0	0.1
Labor Compensation	6.9	3.9	-3.7	-5.2	-3.1	-1.5	-1.0	-0.6	-0.4	-0.2
Consumption of Fixed Capital	5.4	6.3	3.2	1.9	1.5	1.3	1.3	1.3	1.4	1.4
Other	3.1	1.9	-4.4	-7.5	-4.4	-1.9	-0.4	0.0	0.0	0.0
Gross Investment	8.3	2.5	-3.9	-4.4	-0.1	1.2	2.3	2.5	2.5	2.5
Nondefense	4.7	5.1	-2.3	-0.7	-0.2	0.4	0.6	1.1	1.2	1.2
Consumption	4.9	4.3	-3.3	-1.0	-0.1	0.3	0.6	0.7	0.7	0.7
Labor Compensation	5.4	3.9	-2.8	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Consumption of Fixed Capital	5.2	6.9	6.1	6.0	5.5	5.2	5.0	5.0	5.1	5.2
Other	4.2	4.0	-6.4	-4.3	-1.9	-0.8	-0.1	0.1	0.3	0.3
Gross Investment	3.7	10.7	4.5	1.3	-1.3	1.1	1.2	4.0	4.7	4.3
State & Local	-0.1	0.2	-0.3	0.3	1.6	1.1	0.7	0.6	0.9	1.0
Consumption	-0.2	-0.9	-0.2	1.2	1.8	1.0	0.4	0.4	0.8	0.8
Wages & Salaries	-0.4	-1.4	-0.7	1.3	2.3	1.7	0.9	0.6	0.6	0.7
Consumption of Fixed Capital	2.8	3.1	2.2	0.0	-0.5	0.6	1.4	1.6	1.9	1.9
Other	-0.9	-1.7	0.3	1.6	1.5	-1.8	-2.5	-1.1	0.8	0.6
Gross Investment	0.3	4.6	-0.6	-3.3	0.8	1.6	1.6	1.5	1.5	1.5
Construction	1.0	4.3	-0.5	-2.6	0.8	1.5	1.2	1.0	1.1	1.2
Equipment	-3.6	6.7	-1.7	-7.0	0.8	2.2	4.2	4.2	4.2	3.8

TABLE 23  
Real Government Purchases

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Chained 2005 Dollars, SAAR											
Federal	1003.1	1014.8	1018.6	1026.3	1034.1	1041.9	1049.8	1057.7	1065.7	1073.5	1081.1
Defense	646.3	649.6	652.9	656.4	659.9	663.4	666.9	670.4	673.9	677.3	680.8
Consumption	535.2	536.2	537.3	538.7	540.0	541.4	542.9	544.3	545.8	547.3	548.8
Labor Compensation	207.9	207.7	207.6	207.6	207.6	207.6	207.6	207.6	207.6	207.6	207.6
Consumption of Fixed Capital	98.7	100.2	101.7	103.4	105.2	107.0	108.9	110.9	113.0	115.1	117.2
Other	230.9	230.9	230.9	230.9	230.9	230.9	230.9	230.9	230.9	230.9	230.9
Gross Investment	114.7	117.7	120.5	123.4	126.2	129.1	132.0	134.9	137.8	140.7	143.6
Nondefense	357.5	366.0	366.4	370.7	374.9	379.3	383.6	388.0	392.5	396.9	401.1
Consumption	297.1	303.3	302.2	304.6	307.0	309.5	311.9	314.3	316.7	319.2	321.6
Labor Compensation	143.0	146.3	143.1	143.1	143.1	143.1	143.1	143.1	143.1	143.1	143.1
Consumption of Fixed Capital	52.3	55.2	58.2	61.3	64.5	67.8	71.1	74.7	78.3	82.2	86.2
Other	105.3	105.6	106.0	106.4	106.7	107.1	107.5	107.8	108.2	108.6	108.9
Gross Investment	63.0	65.7	68.0	70.3	72.8	75.5	78.3	81.2	84.3	87.2	89.8
State & Local	1654.9	1670.1	1686.0	1701.6	1717.9	1734.3	1751.2	1768.7	1785.5	1802.0	1817.8
Consumption	1329.1	1341.2	1352.3	1362.7	1373.4	1382.9	1393.3	1404.1	1413.9	1423.3	1432.0
Wages & Salaries	973.2	981.3	989.0	996.0	1003.3	1009.9	1017.0	1024.3	1031.1	1037.5	1043.5
Consumption of Fixed Capital	146.9	149.0	150.6	152.4	154.5	156.9	159.6	162.4	165.2	168.1	171.2
Other	209.1	210.9	212.8	214.4	215.7	216.3	217.0	217.9	218.2	218.3	218.0
Gross Investment	324.7	327.9	332.7	338.0	343.8	350.9	357.7	364.7	372.1	379.8	387.6
Construction	258.9	260.8	264.6	268.9	273.6	279.5	285.0	290.7	296.7	302.9	309.1
Equipment	68.3	70.0	71.0	72.0	73.1	74.2	75.4	76.7	78.1	79.6	81.0
Percent Change											
Federal	0.8	1.2	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7
Defense	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Consumption	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Labor Compensation	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Consumption of Fixed Capital	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.9	1.9
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Investment	2.5	2.5	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.1
Nondefense	1.4	2.4	0.1	1.2	1.1	1.2	1.2	1.2	1.2	1.1	1.1
Consumption	0.8	2.1	-0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Labor Compensation	0.0	2.3	-2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Consumption of Fixed Capital	5.4	5.5	5.4	5.3	5.2	5.1	5.0	4.9	4.9	4.9	4.9
Other	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Gross Investment	5.3	4.3	3.4	3.5	3.5	3.6	3.7	3.8	3.8	3.4	3.1
State & Local	1.0	0.9	0.9	0.9	1.0	1.0	1.0	1.0	0.9	0.9	0.9
Consumption	0.9	0.9	0.8	0.8	0.8	0.7	0.8	0.8	0.7	0.7	0.6
Wages & Salaries	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6
Consumption of Fixed Capital	1.7	1.5	1.1	1.2	1.4	1.5	1.7	1.7	1.7	1.8	1.8
Other	1.0	0.9	0.9	0.8	0.6	0.3	0.3	0.4	0.1	0.0	-0.1
Gross Investment	1.3	1.0	1.5	1.6	1.7	2.1	1.9	2.0	2.0	2.1	2.0
Construction	1.0	0.7	1.5	1.6	1.7	2.2	2.0	2.0	2.1	2.1	2.1
Equipment	3.3	2.5	1.4	1.4	1.5	1.5	1.7	1.7	1.8	1.9	1.8

TABLE 23

## Real Government Purchases

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Chained 2005 Dollars, SAAR											
Federal	1093.7	1097.0	1105.0	1113.0	1121.2	1129.5	1137.7	1145.9	1154.1	1162.3	1176.1
Defense	684.2	687.5	690.9	694.2	697.6	700.9	704.2	707.6	710.9	714.1	717.3
Consumption	550.3	551.8	553.4	554.9	556.4	557.9	559.4	560.9	562.4	564.0	565.5
Labor Compensation	207.6	207.6	207.6	207.6	207.6	207.6	207.6	207.6	207.6	207.6	207.6
Consumption of Fixed Capital	119.4	121.7	124.0	126.4	128.8	131.2	133.7	136.3	138.9	141.6	144.3
Other	230.9	230.9	230.9	230.9	230.9	230.9	230.9	230.9	230.9	230.9	230.9
Gross Investment	146.5	149.4	152.4	155.4	158.5	161.6	164.7	168.0	171.2	174.5	177.8
Nondefense	410.2	410.2	414.8	419.5	424.3	429.1	434.0	438.9	443.8	448.6	459.1
Consumption	328.5	326.9	329.5	332.1	334.7	337.4	340.2	342.9	345.7	348.5	356.3
Labor Compensation	146.5	143.3	143.3	143.3	143.3	143.3	143.3	143.3	143.3	143.3	146.7
Consumption of Fixed Capital	90.4	94.8	99.5	104.4	109.6	115.0	120.8	126.9	133.3	139.9	146.9
Other	109.3	109.7	110.0	110.4	110.8	111.2	111.5	111.9	112.2	112.6	113.0
Gross Investment	92.9	96.1	99.5	103.1	106.9	110.8	114.8	118.8	122.8	126.7	130.7
State & Local	1832.9	1848.9	1865.2	1882.3	1899.9	1918.4	1937.4	1957.0	1976.8	1998.0	2020.9
Consumption	1440.0	1448.3	1456.8	1465.9	1475.3	1485.4	1496.0	1506.7	1517.3	1529.0	1542.0
Wages & Salaries	1048.8	1054.0	1059.3	1064.8	1070.1	1075.7	1081.5	1087.3	1092.7	1098.6	1105.3
Consumption of Fixed Capital	174.3	177.5	180.9	184.4	188.0	191.8	195.6	199.6	203.7	208.1	212.7
Other	217.9	218.2	218.5	219.0	220.3	222.0	224.1	226.2	228.7	231.8	235.5
Gross Investment	395.4	403.9	412.7	421.8	431.2	440.8	450.6	460.9	471.9	483.4	495.1
Construction	315.6	322.5	329.6	337.0	344.6	352.4	360.4	368.8	377.8	387.1	396.7
Equipment	82.0	83.6	85.2	86.8	88.4	90.1	91.7	93.4	95.0	96.8	98.6
Percent Change											
Federal	1.2	0.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.2
Defense	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Consumption	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Labor Compensation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Consumption of Fixed Capital	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Investment	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9
Nondefense	2.3	0.0	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	2.3
Consumption	2.1	-0.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	2.2
Labor Compensation	2.3	-2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Consumption of Fixed Capital	4.9	4.9	4.9	4.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Other	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Gross Investment	3.4	3.5	3.5	3.6	3.7	3.7	3.6	3.5	3.4	3.2	3.1
State & Local	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1
Consumption	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.9
Wages & Salaries	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6
Consumption of Fixed Capital	1.8	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2
Other	-0.1	0.2	0.1	0.3	0.6	0.8	0.9	1.0	1.1	1.3	1.6
Gross Investment	2.0	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.4
Construction	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.5
Equipment	1.3	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.7	2.0	1.8

TABLE 24  
Nominal Government Purchases

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Dollars										
Federal	1144.9	1214.3	1202.9	1184.3	1188.1	1207.7	1234.6	1266.4	1300.9	1336.9
Defense	779.1	823.8	814.1	789.7	785.6	794.3	809.5	827.4	846.8	867.3
Consumption	666.8	706.8	700.6	680.7	676.8	684.3	697.3	712.7	729.4	747.2
Labor Compensation	278.7	299.0	294.7	287.8	287.8	293.0	299.8	308.1	317.5	327.9
Consumption of Fixed Capital	87.0	93.8	98.7	102.1	104.6	106.7	108.7	110.8	113.0	115.3
Other	301.1	314.0	307.1	290.8	284.4	284.6	288.8	293.8	298.9	304.0
Gross Investment	112.3	117.0	113.5	109.0	108.8	110.0	112.2	114.7	117.4	120.1
Nondefense	365.8	390.6	388.8	394.6	402.5	413.4	425.1	439.0	454.1	469.6
Consumption	320.0	340.0	335.9	340.7	349.1	359.3	370.5	382.5	395.2	408.5
Labor Compensation	161.1	170.6	169.9	175.2	181.1	187.5	194.4	201.5	209.0	216.8
Consumption of Fixed Capital	32.0	34.2	36.5	38.9	41.3	43.5	45.6	47.7	49.9	52.3
Other	127.0	135.2	129.5	126.6	126.7	128.3	130.6	133.3	136.4	139.4
Gross Investment	45.8	50.6	52.9	53.9	53.4	54.1	54.6	56.5	58.9	61.1
State & Local	1788.4	1816.3	1840.1	1880.6	1954.2	2021.9	2081.1	2139.9	2206.9	2277.6
Consumption	1431.0	1445.4	1467.7	1511.8	1570.9	1621.8	1667.1	1714.2	1769.6	1828.2
Wages & Salaries	1048.1	1053.0	1064.9	1097.3	1144.7	1191.1	1233.2	1274.2	1318.4	1366.3
Consumption of Fixed Capital	153.3	156.6	161.2	164.5	168.2	173.5	178.9	183.8	189.1	194.5
Other	229.6	235.7	241.6	250.1	258.0	257.2	255.1	256.2	262.1	267.3
Gross Investment	357.5	371.0	372.4	368.8	383.3	400.1	414.0	425.6	437.3	449.4
Construction	301.9	312.5	315.4	316.1	330.4	346.5	358.9	368.8	378.7	389.3
Equipment	55.5	58.5	57.0	52.7	52.9	53.6	55.2	56.8	58.5	60.1
Percent Change										
Federal	5.8	6.1	-0.9	-1.5	0.3	1.6	2.2	2.6	2.7	2.8
Defense	5.6	5.7	-1.2	-3.0	-0.5	1.1	1.9	2.2	2.3	2.4
Consumption	5.2	6.0	-0.9	-2.8	-0.6	1.1	1.9	2.2	2.3	2.4
Labor Compensation	10.2	7.3	-1.4	-2.3	0.0	1.8	2.3	2.8	3.0	3.3
Consumption of Fixed Capital	5.0	7.8	5.3	3.4	2.4	2.0	1.9	1.9	2.0	2.1
Other	0.9	4.3	-2.2	-5.3	-2.2	0.1	1.5	1.8	1.7	1.7
Gross Investment	8.1	4.2	-3.0	-4.0	-0.1	1.1	2.0	2.2	2.3	2.3
Nondefense	6.1	6.8	-0.4	1.5	2.0	2.7	2.8	3.3	3.4	3.4
Consumption	6.5	6.3	-1.2	1.4	2.5	2.9	3.1	3.2	3.3	3.4
Labor Compensation	8.1	5.9	-0.4	3.1	3.4	3.6	3.6	3.7	3.7	3.8
Consumption of Fixed Capital	5.3	7.0	6.6	6.6	6.1	5.4	4.8	4.5	4.7	4.8
Other	4.7	6.5	-4.2	-2.2	0.1	1.2	1.8	2.1	2.3	2.2
Gross Investment	3.4	10.4	4.7	1.8	-0.9	1.3	0.9	3.5	4.2	3.8
State & Local	-0.7	1.6	1.3	2.2	3.9	3.5	2.9	2.8	3.1	3.2
Consumption	-1.5	1.0	1.5	3.0	3.9	3.2	2.8	2.8	3.2	3.3
Wages & Salaries	2.1	0.5	1.1	3.0	4.3	4.1	3.5	3.3	3.5	3.6
Consumption of Fixed Capital	4.8	2.2	2.9	2.0	2.3	3.1	3.1	2.8	2.9	2.9
Other	-17.8	2.7	2.5	3.5	3.2	-0.3	-0.8	0.4	2.3	2.0
Gross Investment	2.7	3.8	0.4	-1.0	3.9	4.4	3.5	2.8	2.7	2.8
Construction	3.8	3.5	0.9	0.2	4.5	4.9	3.6	2.8	2.7	2.8
Equipment	-3.1	5.3	-2.6	-7.5	0.3	1.3	3.0	3.0	3.0	2.6



TABLE 24

## Nominal Government Purchases

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Dollars											
Federal	1374.1	1415.9	1446.6	1483.3	1521.1	1560.8	1602.2	1645.2	1690.1	1736.4	1784.3
Defense	887.9	908.0	928.1	948.7	969.9	992.1	1015.4	1039.6	1064.7	1090.8	1117.9
Consumption	765.2	782.8	800.8	819.3	838.4	858.6	879.6	901.6	924.6	948.5	973.3
Labor Compensation	338.9	350.3	362.4	375.1	388.4	402.2	416.7	431.8	447.5	464.0	481.1
Consumption of Fixed Capital	117.6	119.8	121.9	124.1	126.4	128.8	131.4	134.1	137.0	140.0	143.2
Other	308.6	312.7	316.5	320.1	323.7	327.6	331.6	335.7	340.0	344.5	349.1
Gross Investment	122.8	125.2	127.3	129.4	131.5	133.6	135.8	137.9	140.1	142.4	144.6
Nondefense	486.2	507.9	518.5	534.6	551.3	568.6	586.7	605.7	625.4	645.6	666.4
Consumption	422.1	441.5	450.3	464.8	479.7	495.2	511.4	528.2	545.7	564.0	583.1
Labor Compensation	225.0	239.0	242.6	251.9	261.5	271.6	282.2	293.4	305.0	317.2	330.0
Consumption of Fixed Capital	54.8	57.5	60.1	62.7	65.3	68.0	70.7	73.5	76.4	79.4	82.5
Other	142.3	145.0	147.6	150.2	152.8	155.6	158.4	161.4	164.4	167.4	170.6
Gross Investment	64.1	66.4	68.1	69.8	71.6	73.4	75.4	77.5	79.7	81.6	83.3
State & Local	2350.0	2421.0	2492.9	2565.2	2639.8	2717.5	2799.1	2884.9	2973.2	3064.1	3156.7
Consumption	1889.4	1951.2	2012.2	2073.5	2136.6	2200.6	2268.8	2340.4	2413.4	2488.6	2565.2
Wages & Salaries	1416.8	1469.3	1522.2	1575.7	1631.1	1687.4	1747.1	1809.5	1874.0	1940.4	2008.6
Consumption of Fixed Capital	199.6	204.0	207.5	210.8	214.5	218.5	223.2	228.1	233.1	238.4	243.9
Other	273.0	277.8	282.5	287.0	291.1	294.7	298.6	302.8	306.3	309.8	312.7
Gross Investment	460.6	469.9	480.7	491.7	503.2	516.9	530.3	544.5	559.8	575.5	591.5
Construction	399.3	408.0	419.0	430.2	441.8	455.7	469.1	483.4	498.7	514.3	530.4
Equipment	61.3	61.9	61.8	61.5	61.4	61.3	61.2	61.2	61.1	61.2	61.1
Percent Change											
Federal	2.8	3.0	2.2	2.5	2.6	2.6	2.7	2.7	2.7	2.7	2.8
Defense	2.4	2.3	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.5	2.5
Consumption	2.4	2.3	2.3	2.3	2.3	2.4	2.5	2.5	2.5	2.6	2.6
Labor Compensation	3.4	3.4	3.4	3.5	3.5	3.6	3.6	3.6	3.7	3.7	3.7
Consumption of Fixed Capital	2.0	1.9	1.8	1.8	1.8	1.9	2.0	2.1	2.1	2.2	2.2
Other	1.5	1.3	1.2	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3
Gross Investment	2.2	2.0	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Nondefense	3.5	4.5	2.1	3.1	3.1	3.2	3.2	3.2	3.3	3.2	3.2
Consumption	3.3	4.6	2.0	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.4
Labor Compensation	3.8	6.2	1.5	3.8	3.8	3.9	3.9	3.9	4.0	4.0	4.0
Consumption of Fixed Capital	4.9	4.9	4.6	4.3	4.1	4.0	4.0	4.0	3.9	3.9	4.0
Other	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9
Gross Investment	4.8	3.7	2.6	2.5	2.5	2.6	2.7	2.8	2.8	2.4	2.1
State & Local	3.2	3.0	3.0	2.9	2.9	2.9	3.0	3.1	3.1	3.1	3.0
Consumption	3.3	3.3	3.1	3.0	3.0	3.0	3.1	3.2	3.1	3.1	3.1
Wages & Salaries	3.7	3.7	3.6	3.5	3.5	3.5	3.5	3.6	3.6	3.5	3.5
Consumption of Fixed Capital	2.6	2.2	1.7	1.6	1.7	1.9	2.1	2.2	2.2	2.3	2.3
Other	2.1	1.7	1.7	1.6	1.4	1.3	1.3	1.4	1.2	1.1	0.9
Gross Investment	2.5	2.0	2.3	2.3	2.3	2.7	2.6	2.7	2.8	2.8	2.8
Construction	2.6	2.2	2.7	2.7	2.7	3.1	2.9	3.0	3.2	3.1	3.1
Equipment	2.0	1.1	-0.3	-0.3	-0.2	-0.3	-0.1	-0.1	-0.1	0.1	-0.1

TABLE 24  
Nominal Government Purchases

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Dollars											
Federal	1842.1	1886.1	1939.3	1994.2	2051.1	2109.8	2170.4	2233.0	2297.4	2363.9	2444.3
Defense	1145.8	1174.6	1204.2	1234.6	1265.9	1298.1	1331.3	1365.6	1400.9	1437.2	1474.5
Consumption	999.0	1025.6	1053.0	1081.1	1110.2	1140.2	1171.1	1203.1	1236.2	1270.3	1305.4
Labor Compensation	498.9	517.4	536.7	556.7	577.6	599.4	622.0	645.6	670.2	695.7	722.3
Consumption of Fixed Capital	146.4	149.7	153.1	156.6	160.1	163.7	167.3	171.1	174.9	178.8	182.7
Other	353.7	358.5	363.1	367.8	372.5	377.1	381.7	386.4	391.1	395.8	400.4
Gross Investment	146.8	149.0	151.3	153.5	155.7	158.0	160.2	162.5	164.7	166.9	169.1
Nondefense	696.3	711.4	735.1	759.6	785.1	811.7	839.1	867.4	896.6	926.7	969.8
Consumption	610.9	623.9	645.2	667.3	690.3	714.3	739.1	764.9	791.7	819.4	860.2
Labor Compensation	351.3	357.6	372.2	387.3	403.2	419.8	437.1	455.2	474.1	493.8	526.4
Consumption of Fixed Capital	85.8	89.2	92.8	96.5	100.4	104.5	108.8	113.2	117.8	122.6	127.5
Other	173.8	177.0	180.2	183.5	186.7	190.0	193.3	196.5	199.8	203.0	206.3
Gross Investment	85.4	87.6	89.9	92.3	94.8	97.4	99.9	102.4	104.9	107.3	109.6
State & Local	3250.7	3349.2	3451.0	3556.3	3665.6	3780.1	3899.4	4023.3	4150.8	4284.7	4425.4
Consumption	2642.9	2723.5	2806.4	2892.5	2981.8	3075.4	3173.1	3274.1	3377.6	3486.2	3601.0
Wages & Salaries	2077.7	2148.7	2221.9	2297.8	2375.6	2456.9	2541.3	2628.7	2717.6	2810.4	2908.1
Consumption of Fixed Capital	249.4	255.3	261.6	268.1	274.7	281.7	289.0	296.5	304.4	312.6	321.2
Other	315.7	319.5	322.9	326.7	331.5	336.8	342.8	348.9	355.6	363.2	371.7
Gross Investment	607.8	625.6	644.6	663.8	683.8	704.6	726.3	749.2	773.2	798.5	824.3
Construction	547.0	564.8	583.8	603.0	623.0	643.9	665.7	688.8	713.0	738.3	764.4
Equipment	60.8	60.8	60.8	60.8	60.7	60.7	60.6	60.4	60.2	60.1	59.9
Percent Change											
Federal	3.2	2.4	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9	3.4
Defense	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6
Consumption	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.8
Labor Compensation	3.7	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Consumption of Fixed Capital	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2
Other	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2
Gross Investment	1.5	1.5	1.5	1.4	1.5	1.4	1.4	1.4	1.4	1.4	1.3
Nondefense	4.5	2.2	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4	4.6
Consumption	4.8	2.1	3.4	3.4	3.4	3.5	3.5	3.5	3.5	3.5	5.0
Labor Compensation	6.5	1.8	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.2	6.6
Consumption of Fixed Capital	4.0	4.0	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.0	4.0
Other	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.6	1.6
Gross Investment	2.5	2.5	2.6	2.7	2.7	2.7	2.6	2.5	2.4	2.3	2.2
State & Local	3.0	3.0	3.0	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.3
Consumption	3.0	3.1	3.0	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.3
Wages & Salaries	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.5
Consumption of Fixed Capital	2.3	2.3	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.8
Other	1.0	1.2	1.1	1.2	1.5	1.6	1.8	1.8	1.9	2.1	2.4
Gross Investment	2.8	2.9	3.0	3.0	3.0	3.0	3.1	3.2	3.2	3.3	3.2
Construction	3.1	3.3	3.4	3.3	3.3	3.4	3.4	3.5	3.5	3.6	3.5
Equipment	-0.6	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.3	-0.4	-0.1	-0.3

TABLE 25  
Price Deflators for Government Purchases

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Chained Price Deflators (2005=100)										
Federal	111.5	114.0	116.3	118.9	121.4	124.0	126.5	129.0	131.7	134.3
Defense	112.1	114.9	117.3	119.9	122.4	124.9	127.3	129.8	132.3	134.9
Consumption	113.1	116.1	118.8	121.7	124.7	127.7	130.7	133.6	136.7	139.8
Labor Compensation	118.6	122.5	125.4	129.2	133.3	137.7	142.3	147.2	152.3	157.5
Consumption of Fixed Capital	108.4	110.0	112.1	113.8	114.9	115.7	116.4	117.1	117.8	118.5
Other	109.7	112.3	114.9	117.6	120.3	122.7	125.1	127.3	129.5	131.7
Gross Investment	105.5	107.1	108.2	108.6	108.6	108.4	108.1	107.8	107.6	107.4
Nondefense	110.4	112.1	114.3	116.8	119.4	122.1	124.8	127.5	130.3	133.1
Consumption	111.5	113.6	116.1	119.0	122.0	125.2	128.4	131.6	135.1	138.6
Labor Compensation	113.7	115.9	118.8	122.6	126.7	131.2	135.9	140.9	146.2	151.7
Consumption of Fixed Capital	104.9	104.9	105.4	106.1	106.6	106.8	106.6	106.1	105.7	105.2
Other	110.3	112.9	115.6	118.0	120.4	122.8	125.2	127.7	130.3	132.8
Gross Investment	102.8	102.6	102.8	103.2	103.6	103.8	103.6	103.1	102.6	102.2
State & Local	115.9	117.5	119.4	121.7	124.4	127.3	130.2	133.1	136.0	139.0
Consumption	114.5	116.8	118.8	120.9	123.4	126.2	129.1	132.2	135.5	138.8
Wages & Salaries	115.2	117.3	119.5	121.5	124.0	126.9	130.1	133.7	137.5	141.5
Consumption of Fixed Capital	119.9	118.8	119.6	122.1	125.5	128.6	130.8	132.2	133.5	134.7
Other	108.2	113.0	115.4	117.6	119.5	121.4	123.5	125.5	127.4	129.1
Gross Investment	122.0	121.0	122.2	125.1	129.1	132.6	135.1	136.9	138.6	140.2
Construction	127.4	126.4	128.2	131.9	136.9	141.4	144.8	147.3	149.6	152.0
Equipment	99.2	97.9	97.0	96.5	96.0	95.2	94.1	93.0	92.0	90.9
Percent Change										
Federal	0.5	2.2	2.0	2.2	2.1	2.1	2.0	2.0	2.0	2.0
Defense	0.2	2.5	2.1	2.2	2.1	2.0	2.0	1.9	1.9	1.9
Consumption	0.2	2.6	2.3	2.5	2.4	2.4	2.3	2.3	2.3	2.3
Labor Compensation	3.1	3.3	2.4	3.0	3.2	3.3	3.4	3.4	3.4	3.5
Consumption of Fixed Capital	-0.4	1.5	2.0	1.5	0.9	0.7	0.6	0.6	0.6	0.6
Other	-2.0	2.4	2.3	2.4	2.2	2.1	1.9	1.8	1.7	1.7
Gross Investment	-0.1	1.6	1.0	0.4	-0.1	-0.2	-0.3	-0.3	-0.2	-0.2
Nondefense	1.3	1.6	1.9	2.2	2.3	2.3	2.2	2.2	2.2	2.2
Consumption	1.5	1.8	2.2	2.5	2.5	2.6	2.6	2.6	2.6	2.6
Labor Compensation	2.5	1.9	2.5	3.2	3.4	3.6	3.6	3.7	3.7	3.8
Consumption of Fixed Capital	0.2	0.0	0.5	0.6	0.5	0.2	-0.2	-0.5	-0.5	-0.4
Other	0.4	2.3	2.3	2.1	2.0	2.0	1.9	2.0	2.0	1.9
Gross Investment	-0.2	-0.2	0.2	0.4	0.4	0.1	-0.2	-0.5	-0.5	-0.4
State & Local	-0.6	1.4	1.6	1.9	2.3	2.3	2.2	2.2	2.2	2.2
Consumption	-1.3	2.0	1.8	1.8	2.1	2.2	2.3	2.4	2.4	2.5
Wages & Salaries	2.5	1.9	1.8	1.7	2.0	2.3	2.6	2.8	2.9	2.9
Consumption of Fixed Capital	1.9	-0.9	0.7	2.0	2.8	2.5	1.7	1.1	1.0	0.9
Other	-17.0	4.4	2.2	1.9	1.7	1.6	1.7	1.6	1.5	1.4
Gross Investment	2.4	-0.8	1.0	2.4	3.1	2.7	1.9	1.3	1.2	1.2
Construction	2.7	-0.7	1.4	2.9	3.7	3.3	2.4	1.7	1.6	1.6
Equipment	0.6	-1.3	-0.9	-0.5	-0.5	-0.9	-1.1	-1.2	-1.1	-1.2

TABLE 25  
Price Deflators for Government Purchases

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Chained Price Deflators (2005=100)											
Federal	137.0	139.5	142.0	144.5	147.1	149.8	152.6	155.5	158.6	161.8	165.0
Defense	137.4	139.8	142.1	144.5	147.0	149.6	152.3	155.1	158.0	161.0	164.2
Consumption	143.0	146.0	149.0	152.1	155.2	158.6	162.0	165.6	169.4	173.3	177.3
Labor Compensation	163.0	168.7	174.6	180.7	187.1	193.8	200.7	208.0	215.6	223.5	231.8
Consumption of Fixed Capital	119.2	119.6	119.8	120.0	120.1	120.4	120.6	121.0	121.3	121.7	122.1
Other	133.7	135.4	137.1	138.6	140.2	141.9	143.6	145.4	147.3	149.2	151.2
Gross Investment	107.0	106.4	105.7	104.9	104.2	103.5	102.9	102.3	101.7	101.2	100.7
Nondefense	136.0	138.8	141.5	144.2	147.0	149.9	153.0	156.1	159.3	162.7	166.2
Consumption	142.1	145.6	149.0	152.6	156.2	160.0	164.0	168.1	172.3	176.7	181.3
Labor Compensation	157.4	163.3	169.5	176.0	182.7	189.8	197.2	204.9	213.1	221.6	230.5
Consumption of Fixed Capital	104.7	104.1	103.3	102.3	101.3	100.3	99.3	98.4	97.5	96.6	95.8
Other	135.2	137.2	139.2	141.2	143.2	145.3	147.4	149.6	151.9	154.2	156.6
Gross Investment	101.7	101.0	100.2	99.3	98.3	97.3	96.3	95.4	94.5	93.6	92.8
State & Local	142.0	145.0	147.9	150.7	153.7	156.7	159.8	163.1	166.5	170.0	173.7
Consumption	142.1	145.5	148.8	152.2	155.6	159.1	162.8	166.7	170.7	174.8	179.1
Wages & Salaries	145.6	149.7	153.9	158.2	162.6	167.1	171.8	176.7	181.7	187.0	192.5
Consumption of Fixed Capital	135.9	136.9	137.7	138.3	138.8	139.3	139.8	140.5	141.1	141.8	142.4
Other	130.6	131.7	132.8	133.8	134.9	136.2	137.6	139.0	140.4	141.9	143.5
Gross Investment	141.8	143.3	144.5	145.5	146.4	147.3	148.3	149.3	150.4	151.5	152.6
Construction	154.3	156.4	158.3	160.0	161.5	163.0	164.6	166.3	168.1	169.8	171.6
Equipment	89.7	88.4	87.0	85.5	84.0	82.6	81.2	79.7	78.3	76.9	75.5
Percent Change											
Federal	2.0	1.9	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.0
Defense	1.9	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.9	1.9	2.0
Consumption	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3
Labor Compensation	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.7	3.7	3.7
Consumption of Fixed Capital	0.5	0.4	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4
Other	1.5	1.3	1.2	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3
Gross Investment	-0.3	-0.6	-0.7	-0.7	-0.7	-0.6	-0.6	-0.6	-0.5	-0.5	-0.5
Nondefense	2.1	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.1
Consumption	2.5	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.6	2.6
Labor Compensation	3.8	3.8	3.8	3.8	3.8	3.9	3.9	3.9	4.0	4.0	4.0
Consumption of Fixed Capital	-0.5	-0.6	-0.8	-0.9	-1.0	-1.0	-1.0	-0.9	-0.9	-0.9	-0.9
Other	1.8	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5
Gross Investment	-0.5	-0.6	-0.8	-0.9	-1.0	-1.0	-1.0	-1.0	-1.0	-0.9	-0.9
State & Local	2.2	2.1	2.0	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.1
Consumption	2.4	2.3	2.3	2.3	2.2	2.3	2.3	2.4	2.4	2.4	2.5
Wages & Salaries	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9
Consumption of Fixed Capital	0.9	0.8	0.6	0.4	0.3	0.4	0.4	0.4	0.5	0.5	0.5
Other	1.2	0.9	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.1	1.1
Gross Investment	1.1	1.0	0.8	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7
Construction	1.5	1.4	1.2	1.0	0.9	1.0	1.0	1.0	1.1	1.0	1.0
Equipment	-1.3	-1.4	-1.6	-1.7	-1.7	-1.7	-1.7	-1.8	-1.8	-1.8	-1.8

TABLE 25  
Price Deflators for Government Purchases

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Chained Price Deflators (2005=100)											
Federal	168.4	171.9	175.5	179.2	182.9	186.8	190.8	194.9	199.1	203.4	207.8
Defense	167.5	170.8	174.3	177.8	181.5	185.2	189.0	193.0	197.1	201.3	205.6
Consumption	181.5	185.8	190.3	194.8	199.5	204.4	209.3	214.5	219.8	225.2	230.9
Labor Compensation	240.3	249.3	258.5	268.2	278.3	288.7	299.7	311.0	322.9	335.2	348.0
Consumption of Fixed Capital	122.6	123.0	123.5	123.9	124.3	124.8	125.1	125.5	125.9	126.3	126.6
Other	153.2	155.3	157.3	159.3	161.3	163.3	165.3	167.4	169.4	171.5	173.4
Gross Investment	100.2	99.7	99.3	98.8	98.3	97.8	97.2	96.7	96.2	95.7	95.1
Nondefense	169.7	173.4	177.2	181.1	185.1	189.1	193.3	197.6	202.0	206.6	211.3
Consumption	186.0	190.8	195.8	201.0	206.2	211.7	217.3	223.1	229.0	235.1	241.5
Labor Compensation	239.8	249.5	259.7	270.2	281.3	292.9	305.0	317.6	330.8	344.6	358.9
Consumption of Fixed Capital	94.9	94.1	93.3	92.5	91.7	90.9	90.0	89.2	88.4	87.6	86.8
Other	159.0	161.4	163.8	166.2	168.6	170.9	173.2	175.6	178.0	180.3	182.6
Gross Investment	91.9	91.1	90.3	89.5	88.7	87.9	87.1	86.3	85.4	84.6	83.8
State & Local	177.3	181.1	185.0	188.9	192.9	197.0	201.3	205.6	210.0	214.4	219.0
Consumption	183.5	188.0	192.6	197.3	202.1	207.0	212.1	217.3	222.6	228.0	233.5
Wages & Salaries	198.1	203.9	209.8	215.8	222.0	228.4	235.0	241.8	248.7	255.8	263.1
Consumption of Fixed Capital	143.1	143.8	144.6	145.4	146.1	146.9	147.7	148.6	149.4	150.2	151.0
Other	144.9	146.4	147.8	149.1	150.5	151.7	153.0	154.2	155.5	156.7	157.8
Gross Investment	153.7	154.9	156.2	157.4	158.6	159.9	161.2	162.5	163.9	165.2	166.5
Construction	173.3	175.2	177.1	178.9	180.8	182.7	184.7	186.7	188.7	190.7	192.7
Equipment	74.1	72.7	71.4	70.0	68.7	67.4	66.0	64.7	63.4	62.1	60.8
Percent Change											
Federal	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2
Defense	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1
Consumption	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5
Labor Compensation	3.7	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Consumption of Fixed Capital	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Other	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2
Gross Investment	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6
Nondefense	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
Consumption	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7
Labor Compensation	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.2	4.2
Consumption of Fixed Capital	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9
Other	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3
Gross Investment	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-1.0
State & Local	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Consumption	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Wages & Salaries	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Consumption of Fixed Capital	0.5	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5
Other	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.7
Gross Investment	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Construction	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0
Equipment	-1.8	-1.8	-1.9	-1.9	-1.9	-1.9	-2.0	-2.0	-2.0	-2.0	-2.1

TABLE 26  
Federal Government Receipts and Expenditures

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Dollars										
Unified Budget Basis NSA, FY										
Receipts	2113.4	2201.9	2503.1	2725.0	3042.6	3214.7	3344.4	3490.7	3644.2	3839.1
Outlays	3520.1	3576.7	3585.0	3598.3	3698.1	3862.9	4064.7	4231.4	4436.9	4697.8
Surplus or Deficit (-)	-1417.1	-1374.8	-1081.9	-873.3	-655.5	-648.2	-720.4	-740.7	-792.7	-858.7
National Income & Products Accounts Basis, SAAR										
Current Receipts	2234.7	2346.3	2667.1	2895.1	3216.3	3363.6	3496.5	3646.9	3815.0	4019.4
Current Tax Receipts	1166.8	1269.8	1552.0	1724.7	1979.2	2058.0	2126.2	2211.7	2312.1	2444.4
Personal Current Taxes	836.5	901.5	1049.4	1222.0	1450.1	1529.4	1593.2	1675.2	1767.3	1875.4
Taxes on Production & Imports	92.4	99.2	102.9	108.1	111.4	114.0	117.7	121.1	123.4	126.3
Taxes on Corporate Income	226.2	257.5	385.1	378.1	400.4	396.3	396.0	395.2	400.2	420.7
Taxes from the Rest of the World	11.8	11.6	14.6	16.4	17.4	18.3	19.3	20.2	21.1	22.1
Contributions for Social Insurance	956.4	982.0	1028.5	1086.8	1150.1	1211.9	1270.2	1330.8	1394.9	1463.2
Income Receipts on Assets	48.3	48.2	42.0	37.0	37.5	38.7	39.9	41.1	42.3	43.5
Interest	24.0	26.1	26.7	27.7	28.7	29.7	30.7	31.7	32.7	33.7
Dividends	18.8	16.4	8.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Rents & Royalties	5.5	5.7	7.3	8.5	8.8	9.0	9.2	9.4	9.6	9.8
Current Transfer Receipts	68.1	50.3	46.8	47.3	49.9	55.4	60.7	63.8	66.3	68.8
From Business	48.9	30.8	26.6	26.1	27.6	32.0	36.1	37.9	39.2	40.5
From Persons	19.2	19.5	20.2	21.1	22.3	23.5	24.7	25.9	27.1	28.3
Current Surplus of Gov't Enterprises	-4.9	-3.9	-2.2	-0.6	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Current Expenditures	3454.5	3634.4	3626.5	3719.0	3844.1	4035.4	4241.7	4441.5	4661.9	4942.7
Consumption Expenditures	986.8	1046.8	1036.5	1021.4	1025.9	1043.6	1067.8	1095.2	1124.6	1155.7
Defense	666.8	706.8	700.6	680.7	676.8	684.3	697.3	712.7	729.4	747.2
Labor Compensation	278.7	299.0	294.7	287.8	287.8	293.0	299.8	308.1	317.5	327.9
Consumption of Fixed Capital	87.0	93.8	98.7	102.1	104.6	106.7	108.7	110.8	113.0	115.3
Other	301.1	314.0	307.1	290.8	284.4	284.6	288.8	293.8	298.9	304.0
Nondefense	320.0	340.0	335.9	340.7	349.1	359.3	370.5	382.5	395.2	408.5
Labor Compensation	161.1	170.6	169.9	175.2	181.1	187.5	194.4	201.5	209.0	216.8
Consumption of Fixed Capital	32.0	34.2	36.5	38.9	41.3	43.5	45.6	47.7	49.9	52.3
Other	127.0	135.2	129.5	126.6	126.7	128.3	130.6	133.3	136.4	139.4
Current Transfer Payments	2137.1	2247.4	2208.2	2247.1	2313.1	2428.2	2559.2	2709.6	2873.7	3050.4
Government Social Benefits	1598.3	1667.5	1674.3	1711.1	1754.2	1844.6	1947.9	2068.2	2199.6	2341.3
Social Security	664.8	684.7	708.6	756.6	806.8	857.2	908.6	963.0	1024.5	1093.6
Medicare	491.9	523.3	553.2	584.0	618.5	656.9	702.4	755.4	811.1	869.5
Other Full-Employment	275.0	286.2	296.6	307.8	297.6	310.3	324.1	338.8	354.4	370.7
Other	166.6	173.3	115.9	62.7	31.4	20.2	12.7	11.0	9.6	7.4
To the Rest of the World	15.8	16.5	17.3	18.2	19.0	19.8	20.6	21.5	22.3	23.1
Other Current Transfer Payments	523.1	563.4	516.6	517.9	539.9	563.8	590.6	619.9	651.8	686.0
Grants-in-Aid to S&L Governments	476.6	518.3	472.6	473.2	494.3	517.2	543.0	571.3	602.2	635.4
Medicaid	264.4	287.1	262.0	280.1	299.2	320.0	342.8	368.1	396.0	426.1
Other	212.2	231.2	210.6	193.1	195.1	197.2	200.2	203.2	206.2	209.3
To the Rest of the World	46.5	45.1	43.9	44.7	45.6	46.6	47.6	48.6	49.6	50.6
Interest Payments	272.3	286.7	330.1	400.2	455.7	515.0	566.3	588.9	615.7	688.6
Subsidies	58.3	53.5	51.7	50.3	49.4	48.6	48.3	47.9	48.0	48.1
Less: Wage Accruals less Disburs.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Federal Government Saving	-1219.86	-1288.05	-959.40	-823.92	-627.78	-671.79	-745.14	-794.67	-846.90	-923.29
Percent of GDP										
Receipts	15.67	15.81	17.22	17.74	18.79	18.80	18.76	18.78	18.84	18.99
Expenditures	24.23	24.48	23.41	22.79	22.46	22.55	22.75	22.87	23.02	23.35
Net Saving	-8.56	-8.68	-6.19	-5.05	-3.67	-3.75	-4.00	-4.09	-4.18	-4.36
Tax Detail										
Personal Income Tax										
Adjusted Gross Income, \$ Bil.*	5622.2	5952.1	6205.8	6616.7	7274.5	7540.1	7763.7	8047.4	8385.4	8773.8
Tax Rate	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
AGI as a Percent of GDP	39.430	40.100	40.057	40.553	42.496	42.143	41.647	41.443	41.404	41.450
Corporate Income Tax										
Statutory Rate	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350
Effective Rate	0.350	0.178	0.253	0.240	0.249	0.251	0.255	0.256	0.258	0.257
Federal Debt, Billions of Dollars										
Total	11746.2	13458.3	14932.3	16186.4	17269.2	18299.5	19406.7	20548.6	21742.7	22998.8
Publicly Held	7837.9	9284.6	10235.2	11050.2	11662.9	12320.9	13037.7	13783.8	14582.1	15455.4
Held in Government Accounts	4377.9	4666.9	5030.9	5421.2	5821.6	6225.8	6632.6	7043.3	7457.7	7872.1
Publicly Held as Percent of GDP	55.0	62.6	66.1	67.7	68.1	68.9	69.9	71.0	72.0	73.0

TABLE 26

## Federal Government Receipts and Expenditures

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Dollars											
Unified Budget Basis NSA, FY											
Receipts	4048.9	4296.7	4568.9	4863.5	5170.8	5484.2	5778.1	6117.1	6443.0	6777.1	7169.1
Outlays	4996.2	5305.6	5620.5	5947.6	6280.0	6599.9	6935.5	7286.8	7652.1	8034.9	8435.9
Surplus or Deficit (-)	-947.2	-1008.8	-1051.6	-1084.1	-1109.2	-1115.7	-1157.4	-1169.7	-1209.0	-1257.8	-1266.7
National Income & Products Accounts Basis, SAAR											
Current Receipts	4235.1	4460.8	4757.2	5044.8	5365.9	5662.8	5962.1	6314.0	6632.2	6976.7	7381.6
Current Tax Receipts	2586.2	2735.1	2948.1	3157.1	3400.8	3617.0	3830.4	4091.9	4315.5	4561.0	4862.1
Personal Current Taxes	1988.4	2110.6	2261.2	2400.9	2595.4	2780.4	2954.3	3183.8	3379.6	3598.5	3875.5
Taxes on Production & Imports	130.0	134.0	137.1	140.1	143.3	147.8	154.7	160.8	167.3	174.8	182.5
Taxes on Corporate Income	444.8	466.6	525.2	591.0	636.7	662.8	695.0	720.4	741.3	760.0	775.8
Taxes from the Rest of the World	23.0	23.9	24.6	25.0	25.5	25.9	26.4	26.8	27.3	27.8	28.2
Contributions for Social Insurance	1533.4	1606.3	1686.0	1760.8	1834.5	1911.6	1993.7	2080.5	2171.5	2266.7	2366.9
Income Receipts on Assets	44.7	45.9	47.2	48.7	50.1	51.6	53.0	54.5	55.9	57.4	58.9
Interest	34.7	35.7	36.9	38.2	39.5	40.7	42.0	43.3	44.6	45.8	47.1
Dividends	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rents & Royalties	10.0	10.1	10.3	10.5	10.7	10.9	11.0	11.2	11.4	11.6	11.7
Current Transfer Receipts	71.3	74.0	76.5	78.7	80.9	83.2	85.4	87.6	89.8	92.1	94.3
From Business	41.9	43.4	45.0	46.6	48.2	49.8	51.4	53.0	54.6	56.2	57.8
From Persons	29.5	30.7	31.5	32.1	32.8	33.4	34.0	34.6	35.3	35.9	36.5
Current Surplus of Gov't. Enterprises	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Current Expenditures	5245.3	5562.9	5881.3	6211.4	6542.1	6864.3	7205.8	7561.8	7932.4	8321.7	8729.1
Consumption Expenditures	1187.3	1224.3	1251.1	1284.1	1318.1	1353.8	1391.0	1429.8	1470.3	1512.5	1556.4
Defense	765.2	782.8	800.8	819.3	838.4	858.6	879.6	901.6	924.6	948.5	973.3
Labor Compensation	338.9	350.3	362.4	375.1	388.4	402.2	416.7	431.8	447.5	464.0	481.1
Consumption of Fixed Capital	117.6	119.8	121.9	124.1	126.4	128.8	131.4	134.1	137.0	140.0	143.2
Other	308.6	312.7	316.5	320.1	323.7	327.6	331.6	335.7	340.0	344.5	349.1
Nondefense	422.1	441.5	450.3	464.8	479.7	495.2	511.4	528.2	545.7	564.0	583.1
Labor Compensation	225.0	239.0	242.6	251.9	261.5	271.6	282.2	293.4	305.0	317.2	330.0
Consumption of Fixed Capital	54.8	57.5	60.1	62.7	65.3	68.0	70.7	73.5	76.4	79.4	82.5
Other	142.3	145.0	147.6	150.2	152.8	155.6	158.4	161.4	164.4	167.4	170.6
Current Transfer Payments	3233.0	3416.6	3601.0	3794.8	3999.6	4217.3	4451.5	4696.0	4951.4	5218.5	5498.7
Government Social Benefits	2489.0	2638.1	2785.3	2939.4	3102.7	3276.7	3465.0	3661.4	3866.2	4080.5	4305.5
Social Security	1168.9	1245.6	1323.0	1405.0	1492.4	1585.5	1687.7	1793.2	1902.1	2015.1	2133.3
Medicare	928.6	989.0	1046.3	1102.8	1161.6	1223.6	1289.0	1358.0	1430.7	1507.5	1588.2
Other Full-Employment	387.2	403.2	419.3	436.3	454.3	473.7	494.4	516.3	539.4	563.8	589.5
Other	4.3	0.3	-3.4	-4.7	-5.6	-6.1	-6.2	-6.1	-6.0	-5.8	-5.5
To the Rest of the World	24.0	24.8	25.6	26.4	27.2	28.1	28.9	29.7	30.5	31.3	32.1
Other Current Transfer Payments	720.1	753.7	790.0	829.0	869.7	912.5	957.6	1005.0	1054.6	1106.6	1161.1
Grants-in-Aid to S&L Governments	668.4	701.1	736.1	773.8	813.4	855.0	898.8	945.0	993.4	1044.2	1097.5
Medicaid	456.1	485.9	517.2	550.6	585.9	623.0	662.2	703.5	746.9	792.5	840.4
Other	212.3	215.2	218.9	223.2	227.5	232.0	236.7	241.5	246.6	251.8	257.1
To the Rest of the World	51.6	52.6	53.9	55.2	56.4	57.6	58.8	60.0	61.2	62.4	63.6
Interest Payments	776.9	873.7	980.6	1083.6	1175.0	1243.6	1313.4	1385.7	1460.2	1539.8	1622.7
Subsidies	48.1	48.4	48.7	49.0	49.3	49.6	50.0	50.3	50.6	50.9	51.3
Less: Wage Accruals less Disburs.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Federal Government Saving	-1010.2	-1102.1	-1124.1	-1166.6	-1176.2	-1201.5	-1243.8	-1247.8	-1300.2	-1345.0	-1347.5
Percent of GDP											
Receipts	19.13	19.27	19.70	20.04	20.47	20.74	20.94	21.27	21.44	21.65	21.99
Expenditures	23.69	24.03	24.35	24.68	24.96	25.15	25.30	25.47	25.65	25.83	26.01
Net Saving	-4.56	-4.76	-4.65	-4.64	-4.49	-4.40	-4.37	-4.20	-4.20	-4.17	-4.01
Tax Detail											
Personal Income Tax											
Adjusted Gross Income, \$ Bil.*	9192.4	9629.8	10172.3	10794.4	11440.1	12125.8	12876.2	13669.6	14506.9	15392.3	16315.7
Tax Rate	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
AGI as a Percent of GDP	41.515	41.602	42.122	42.886	43.647	44.420	45.217	46.049	46.903	47.771	48.613
Corporate Income Tax											
Statutory Rate	0.350	0.350	0.370	0.390	0.400	0.400	0.400	0.400	0.400	0.400	0.400
Effective Rate	0.257	0.259	0.279	0.299	0.309	0.309	0.309	0.309	0.309	0.309	0.309
Federal Debt, Billions of Dollars											
Total	24357.8	25796.0	27273.1	28781.2	30316.3	31863.5	33448.2	35051.8	36689.1	38376.5	40083.0
Publicly Held	16417.8	17443.6	18492.8	19583.9	20685.9	21811.6	22979.9	24152.7	25377.2	26646.4	27917.6
Held in Government Accounts	8301.9	8738.2	9170.5	9602.8	10035.1	10467.4	10899.7	11332.0	11764.4	12196.7	12629.0
Publicly Held as Percent of GDP	74.1	75.4	76.6	77.8	78.9	79.9	80.7	81.4	82.0	82.7	83.2

TABLE 26  
 Federal Government Receipts and Expenditures

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Dollars											
Unified Budget Basis NSA, FY											
Receipts	7577.5	7959.6	8361.4	8818.0	9266.6	9744.4	10250.2	10785.5	11344.3	11935.8	12561.9
Outlays	8858.6	9274.9	9711.3	10161.9	10630.6	11124.2	11634.5	12155.7	12686.6	13229.4	13802.2
Surplus or Deficit (-)	-1281.1	-1315.3	-1350.0	-1343.9	-1363.9	-1379.8	-1384.3	-1370.3	-1342.3	-1293.6	-1240.3
National Income & Products Accounts Basis, SAAR											
Current Receipts	7781.1	8164.7	8583.1	9035.1	9491.6	9975.9	10488.7	11030.5	11596.8	12196.8	12829.0
Current Tax Receipts	5153.0	5428.9	5735.3	6072.2	6407.0	6763.9	7143.9	7547.8	7971.6	8423.2	8899.6
Personal Current Taxes	4133.5	4367.2	4635.2	4926.3	5209.8	5515.4	5840.1	6187.6	6550.4	6932.0	7337.6
Taxes on Production & Imports	191.2	200.6	210.5	220.9	232.4	244.2	257.4	271.4	286.0	301.7	317.6
Taxes on Corporate Income	799.6	832.0	860.1	894.9	934.2	973.3	1015.0	1057.0	1102.7	1156.6	1211.1
Taxes from the Rest of the World	28.7	29.1	29.6	30.1	30.5	31.0	31.4	31.9	32.3	32.8	33.3
Contributions for Social Insurance	2471.8	2575.8	2684.1	2795.5	2913.6	3037.3	3166.3	3300.6	3439.5	3584.1	3736.2
Income Receipts on Assets	60.3	61.8	63.2	64.7	66.1	67.6	69.0	70.5	71.9	73.4	74.9
Interest	48.4	49.7	51.0	52.2	53.5	54.8	56.1	57.3	58.6	59.9	61.2
Dividends	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rents & Royalties	11.9	12.1	12.3	12.4	12.6	12.8	13.0	13.1	13.3	13.5	13.7
Current Transfer Receipts	96.5	98.8	101.0	103.2	105.4	107.7	109.9	112.1	114.3	116.6	118.8
From Business	59.4	61.0	62.6	64.2	65.8	67.4	69.0	70.6	72.2	73.8	75.4
From Persons	37.1	37.8	38.4	39.0	39.7	40.3	40.9	41.5	42.2	42.8	43.4
Current Surplus of Gov't. Enterprises	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Current Expenditures	9156.7	9577.8	10020.5	10477.2	10954.5	11456.3	11972.8	12499.7	13036.9	13587.9	14169.2
Consumption Expenditures	1609.9	1649.5	1698.2	1748.4	1800.5	1854.4	1910.3	1968.1	2027.8	2089.7	2165.6
Defense	999.0	1025.6	1053.0	1081.1	1110.2	1140.2	1171.1	1203.1	1236.2	1270.3	1305.4
Labor Compensation	498.9	517.4	536.7	556.7	577.6	599.4	622.0	645.6	670.2	695.7	722.3
Consumption of Fixed Capital	146.4	149.7	153.1	156.6	160.1	163.7	167.3	171.1	174.9	178.8	182.7
Other	353.7	358.5	363.1	367.8	372.5	377.1	381.7	386.4	391.1	395.8	400.4
Nondefense	610.9	623.9	645.2	667.3	690.3	714.3	739.1	764.9	791.7	819.4	860.2
Labor Compensation	351.3	357.6	372.2	387.3	403.2	419.8	437.1	455.2	474.1	493.8	526.4
Consumption of Fixed Capital	85.8	89.2	92.8	96.5	100.4	104.5	108.8	113.2	117.8	122.6	127.5
Other	173.8	177.0	180.2	183.5	186.7	190.0	193.3	196.5	199.8	203.0	206.3
Current Transfer Payments	5788.7	6083.5	6387.9	6705.0	7039.4	7394.7	7761.9	8136.5	8519.8	8916.8	9331.7
Government Social Benefits	4537.8	4772.3	5013.7	5264.8	5530.3	5813.6	6105.7	6402.4	6704.8	7017.8	7345.7
Social Security	2253.0	2369.3	2486.1	2605.7	2732.9	2869.7	3007.1	3141.5	3274.7	3411.2	3555.4
Medicare	1673.3	1762.8	1857.3	1957.3	2062.5	2174.3	2292.7	2416.9	2546.0	2680.2	2819.4
Other Full-Employment	616.4	644.7	674.2	705.2	737.7	771.9	807.8	845.6	885.3	927.1	971.0
Other	-5.0	-4.5	-4.0	-3.4	-2.8	-2.3	-1.9	-1.6	-1.2	-0.6	-0.1
To the Rest of the World	32.9	33.7	34.5	35.4	36.2	37.0	37.8	38.6	39.4	40.2	41.0
Other Current Transfer Payments	1218.0	1277.5	1339.7	1404.8	1472.9	1544.2	1618.4	1695.5	1775.6	1858.8	1945.0
Grants-in-Aid to S&L Governments	1153.1	1211.4	1272.4	1336.4	1403.3	1473.3	1546.3	1622.2	1701.1	1783.1	1868.0
Medicaid	890.5	943.2	998.5	1056.6	1117.6	1181.5	1248.3	1317.8	1390.2	1465.6	1543.8
Other	262.6	268.2	273.9	279.7	285.7	291.7	298.0	304.4	310.9	317.5	324.2
To the Rest of the World	64.8	66.0	67.3	68.5	69.7	70.9	72.1	73.3	74.5	75.7	76.9
Interest Payments	1706.6	1792.9	1882.1	1971.2	2061.7	2153.9	2247.1	2341.2	2434.9	2526.7	2616.9
Subsidies	51.6	51.9	52.3	52.6	52.9	53.3	53.6	54.0	54.3	54.6	55.0
Less: Wage Accruals less Disburs.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Federal Government Saving	-1375.6	-1413.0	-1437.3	-1442.1	-1463.0	-1480.4	-1484.1	-1469.2	-1440.0	-1391.0	-1340.2
Percent of GDP											
Receipts	22.23	22.38	22.59	22.82	22.98	23.16	23.34	23.53	23.71	23.91	24.10
Expenditures	26.16	26.25	26.37	26.46	26.52	26.59	26.64	26.66	26.66	26.63	26.62
Net Saving	-3.93	-3.87	-3.78	-3.64	-3.54	-3.44	-3.30	-3.13	-2.94	-2.73	-2.52
Tax Detail											
Personal Income Tax											
Adjusted Gross Income, \$ Bil.*	17294.4	18272.9	19297.7	20382.6	21562.1	22830.5	24175.1	25614.7	27116.8	28698.6	30375.7
Tax Rate	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
AGI as a Percent of GDP	49.409	50.084	50.783	51.470	52.209	52.996	53.789	54.631	55.450	56.251	57.063
Corporate Income Tax											
Statutory Rate	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400
Effective Rate	0.309	0.309	0.309	0.309	0.309	0.309	0.309	0.309	0.309	0.309	0.309
Federal Debt, Billions of Dollars											
Total	41799.0	43551.8	45341.5	47129.5	48937.9	50764.0	52598.5	54424.1	56225.6	57983.9	59690.1
Publicly Held	29215.7	30550.3	31909.3	33271.8	34654.4	36053.6	37455.7	38841.8	40197.7	41503.1	42755.9
Held in Government Accounts	13061.3	13493.6	13925.9	14358.2	14790.5	15222.8	15655.1	16087.4	16519.7	16952.0	17384.3
Publicly Held as Percent of GDP	83.5	83.7	84.0	84.0	83.9	83.7	83.3	82.8	82.2	81.3	80.3



TABLE 27  
State and Local Government Receipts and Expenditures

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Dollars										
Current Receipts	1992.0	2076.3	2118.5	2208.2	2305.2	2400.3	2500.2	2601.5	2708.6	2824.2
(Percent change, annual rate)	0.9	4.2	2.0	4.2	4.4	4.1	4.2	4.1	4.1	4.3
Current Tax Receipts	1259.8	1291.3	1367.1	1440.7	1503.2	1561.4	1620.7	1678.5	1739.2	1805.6
Personal Current Taxes	271.2	275.4	303.6	330.0	354.5	376.9	396.2	414.7	437.1	458.6
Taxes on Production & Imports	931.6	953.6	992.7	1038.5	1075.5	1113.3	1155.8	1196.1	1234.2	1275.5
Property Taxes	421.8	431.4	439.7	449.5	459.5	472.0	485.3	497.7	509.5	522.2
Other	509.8	522.2	553.0	589.0	616.0	641.3	670.4	698.5	724.6	753.2
Taxes on Corporate Income	57.0	62.3	70.7	72.2	73.3	71.2	68.8	67.7	67.9	71.5
Contributions for Social Insurance	21.9	22.0	22.2	22.9	23.9	24.9	25.8	26.6	27.5	28.5
Income Receipts on Assets	116.0	117.3	119.3	121.2	123.5	126.0	128.9	131.9	134.9	137.9
Interest	101.7	102.7	103.8	105.0	106.4	108.1	110.1	112.1	114.1	116.1
Dividends	2.8	2.5	2.7	2.8	2.9	2.9	3.0	3.0	3.1	3.1
Rents & Royalties	11.6	12.2	12.8	13.5	14.3	15.1	15.9	16.8	17.7	18.7
Current Transfer Receipts	597.5	648.6	612.0	621.7	652.1	684.6	720.7	759.5	801.3	845.6
Federal Grants-in-Aid	476.6	518.3	472.6	473.2	494.3	517.2	543.0	571.3	602.2	635.4
Medicaid	264.4	287.1	262.0	280.1	299.2	320.0	342.8	368.1	396.0	426.1
Other	212.2	231.2	210.6	193.1	195.1	197.2	200.2	203.2	206.2	209.3
From Business (Net)	47.9	50.7	52.7	54.7	56.7	58.7	60.7	62.7	64.5	66.1
From Persons	73.1	79.7	86.7	93.8	101.1	108.8	117.0	125.6	134.7	144.1
Current Surplus of Gov't. Enterprises	-3.2	-3.0	-2.1	1.7	2.5	3.3	4.1	5.0	5.7	6.6
Current Expenditures	2015.1	2061.8	2125.1	2206.9	2309.9	2404.4	2496.4	2596.8	2709.8	2828.8
(Percent change, annual rate)	0.0	2.3	3.1	3.8	4.7	4.1	3.8	4.0	4.3	4.4
Consumption Expenditures	229.6	235.7	241.6	250.1	258.0	257.2	255.1	256.2	262.1	267.3
Labor Compensation	1048.1	1053.0	1064.9	1097.3	1144.7	1191.1	1233.2	1274.2	1318.4	1366.3
Consumption of Fixed Capital	153.3	156.6	161.2	164.5	168.2	173.5	178.9	183.8	189.1	194.5
Other	229.6	235.7	241.6	250.1	258.0	257.2	255.1	256.2	262.1	267.3
Government Social Benefits	475.9	504.9	547.5	582.7	621.3	661.9	705.6	753.6	806.4	863.2
Medicaid & Other Health	374.8	401.2	441.2	473.3	508.6	545.2	584.5	628.0	675.9	727.7
Other	101.1	103.7	106.3	109.4	112.7	116.7	121.1	125.7	130.5	135.5
Interest Payments	106.9	108.6	109.5	112.0	117.2	120.2	123.2	128.5	133.3	137.0
Subsidies	1.4	2.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Less: Wage Accruals less Disburs.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net State & Local Government Saving	-23.1	14.5	-6.6	1.4	-4.7	-4.2	3.8	4.6	-1.2	-4.6
Addenda:										
Effective Personal Tax Rate	0.030	0.030	0.031	0.032	0.032	0.033	0.033	0.033	0.033	0.033
Ratio of Medical Assistance Spending to Medicaid Grants	1.419	1.397	1.684	1.690	1.700	1.704	1.705	1.706	1.707	1.708
Outstanding Tax-Exempt Bonds (Billions of dollars)	2329.9	2434.2	2468.2	2495.4	2567.0	2591.5	2651.4	2714.3	2776.5	2838.0

TABLE 27  
State and Local Government Receipts and Expenditures

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Dollars											
Current Receipts	2948.2	3074.8	3205.7	3339.8	3474.9	3614.4	3762.7	3916.7	4074.2	4237.6	4405.3
(Percent change, annual rate)	4.4	4.3	4.3	4.2	4.0	4.0	4.1	4.1	4.0	4.0	4.0
Current Tax Receipts	1879.7	1956.9	2034.9	2112.9	2189.7	2268.8	2354.2	2442.9	2532.5	2625.6	2720.4
Personal Current Taxes	483.5	508.6	531.9	555.8	579.2	603.1	627.6	653.4	680.1	707.7	735.9
Taxes on Production & Imports	1320.5	1369.3	1419.8	1468.9	1518.1	1569.4	1625.6	1684.8	1744.7	1807.6	1871.9
Property Taxes	535.7	549.5	563.2	576.5	589.9	603.4	617.2	631.5	646.4	661.8	677.5
Other	784.8	819.8	856.6	892.4	928.2	966.1	1008.3	1053.3	1098.3	1145.8	1194.4
Taxes on Corporate Income	75.7	78.9	83.2	88.2	92.4	96.3	101.0	104.7	107.7	110.4	112.5
Contributions for Social Insurance	29.6	30.7	31.8	32.9	34.1	35.3	36.5	37.8	39.2	40.5	42.0
Income Receipts on Assets	141.0	144.2	147.6	151.0	154.5	158.1	161.7	165.3	169.0	172.8	176.6
Interest	118.1	120.3	122.7	125.1	127.6	130.2	132.8	135.4	138.1	140.9	143.7
Dividends	3.2	3.2	3.3	3.3	3.4	3.4	3.5	3.5	3.6	3.6	3.7
Rents & Royalties	19.8	20.7	21.7	22.6	23.6	24.5	25.4	26.4	27.3	28.3	29.2
Current Transfer Receipts	890.1	933.8	979.7	1028.4	1079.0	1131.7	1186.8	1244.2	1304.0	1366.2	1431.0
Federal Grants-in-Aid	668.4	701.1	736.1	773.8	813.4	855.0	898.8	945.0	993.4	1044.2	1097.5
Medicaid	456.1	485.9	517.2	550.6	585.9	623.0	662.2	703.5	746.9	792.5	840.4
Other	212.3	215.2	218.9	223.2	227.5	232.0	236.7	241.5	246.6	251.8	257.1
From Business (Net)	67.7	69.5	71.5	73.5	75.5	77.6	79.6	81.6	83.6	85.6	87.6
From Persons	154.0	163.2	172.1	181.0	190.1	199.2	208.4	217.7	227.0	236.4	246.0
Current Surplus of Gov't. Enterprises	7.8	9.2	11.6	14.6	17.6	20.6	23.5	26.5	29.5	32.5	35.4
Current Expenditures	2950.5	3072.3	3195.8	3322.9	3455.4	3592.0	3736.8	3888.4	4044.9	4207.1	4374.9
(Percent change, annual rate)	4.3	4.1	4.0	4.0	4.0	4.0	4.0	4.1	4.0	4.0	4.0
Consumption Expenditures	273.0	277.8	282.5	287.0	291.1	294.7	298.6	302.8	306.3	309.8	312.7
Labor Compensation	1416.8	1469.3	1522.2	1575.7	1631.1	1687.4	1747.1	1809.5	1874.0	1940.4	2008.6
Consumption of Fixed Capital	199.6	204.0	207.5	210.8	214.5	218.5	223.2	228.1	233.1	238.4	243.9
Other	273.0	277.8	282.5	287.0	291.1	294.7	298.6	302.8	306.3	309.8	312.7
Government Social Benefits	920.0	976.1	1034.5	1096.4	1161.7	1230.4	1303.2	1379.4	1459.2	1542.6	1630.1
Medicaid & Other Health	779.4	830.6	884.2	941.4	1001.6	1065.1	1132.1	1202.7	1277.0	1354.9	1436.8
Other	140.6	145.5	150.3	155.0	160.1	165.4	171.1	176.7	182.2	187.7	193.4
Interest Payments	140.7	144.6	148.7	152.7	156.6	160.5	164.3	168.1	171.8	175.5	179.1
Subsidies	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Less: Wage Accruals less Disburs.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net State & Local Government Saving	-2.3	2.5	9.9	16.9	19.5	22.4	25.9	28.3	29.4	30.5	30.4
Addenda:											
Effective Personal Tax Rate	0.033	0.033	0.033	0.033	0.034	0.034	0.033	0.033	0.033	0.033	0.033
Ratio of Medical Assistance Spending to Medicaid Grants	1.709	1.709	1.710	1.710	1.710	1.710	1.710	1.710	1.710	1.710	1.710
Outstanding Tax-Exempt Bonds (Billions of dollars)	2898.8	2959.1	3018.6	3077.5	3135.7	3193.1	3249.6	3305.3	3360.0	3413.8	3466.5

TABLE 27  
State and Local Government Receipts and Expenditures

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Dollars											
Current Receipts	4584.0	4770.5	4959.2	5158.7	5366.6	5581.6	5805.5	6037.2	6278.0	6529.6	6791.6
(Percent change, annual rate)	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Current Tax Receipts	2823.5	2931.6	3039.1	3154.2	3274.6	3398.9	3528.8	3663.5	3804.3	3952.7	4108.5
Personal Current Taxes	765.2	794.9	825.6	857.2	890.9	926.1	963.0	1001.2	1041.5	1084.0	1129.6
Taxes on Production & Imports	1942.4	2016.0	2088.7	2167.2	2248.0	2331.2	2418.2	2508.5	2602.1	2700.0	2802.0
Property Taxes	693.6	709.8	726.4	743.5	761.0	778.9	797.3	816.4	836.1	856.2	877.0
Other	1248.8	1306.2	1362.3	1423.7	1487.1	1552.3	1620.8	1692.0	1766.1	1843.7	1925.1
Taxes on Corporate Income	115.9	120.7	124.7	129.9	135.7	141.5	147.7	153.9	160.7	168.7	176.9
Contributions for Social Insurance	43.4	44.9	46.4	48.0	49.6	51.3	53.1	54.9	56.8	58.7	60.8
Income Receipts on Assets	180.5	184.4	188.4	192.4	196.5	200.6	204.7	208.8	212.9	217.0	221.1
Interest	146.6	149.5	152.5	155.6	158.7	161.8	164.8	167.9	171.0	174.1	177.2
Dividends	3.7	3.8	3.8	3.9	4.0	4.0	4.1	4.1	4.2	4.2	4.3
Rents & Royalties	30.1	31.1	32.0	33.0	33.9	34.8	35.8	36.7	37.7	38.6	39.5
Current Transfer Receipts	1498.2	1568.2	1641.0	1716.7	1795.6	1877.6	1962.6	2050.8	2141.9	2236.0	2333.2
Federal Grants-in-Aid	1153.1	1211.4	1272.4	1336.4	1403.3	1473.3	1546.3	1622.2	1701.1	1783.1	1868.0
Medicaid	890.5	943.2	998.5	1056.6	1117.6	1181.5	1248.3	1317.8	1390.2	1465.6	1543.8
Other	262.6	268.2	273.9	279.7	285.7	291.7	298.0	304.4	310.9	317.5	324.2
From Business (Net)	89.6	91.6	93.6	95.6	97.6	99.6	101.6	103.6	105.6	107.6	109.6
From Persons	255.5	265.2	274.9	284.8	294.7	304.7	314.7	324.9	335.1	345.3	355.5
Current Surplus of Gov't. Enterprises	38.4	41.4	44.4	47.3	50.3	53.3	56.3	59.2	62.2	65.2	68.2
Current Expenditures	4547.2	4726.2	4911.3	5104.7	5306.5	5518.3	5738.5	5966.4	6201.4	6446.6	6703.3
(Percent change, annual rate)	3.9	3.9	3.9	3.9	4.0	4.0	4.0	4.0	3.9	4.0	4.0
Consumption Expenditures	315.7	319.5	322.9	326.7	331.5	336.8	342.8	348.9	355.6	363.2	371.7
Labor Compensation	2077.7	2148.7	2221.9	2297.8	2375.6	2456.9	2541.3	2628.7	2717.6	2810.4	2908.1
Consumption of Fixed Capital	249.4	255.3	261.6	268.1	274.7	281.7	289.0	296.5	304.4	312.6	321.2
Other	315.7	319.5	322.9	326.7	331.5	336.8	342.8	348.9	355.6	363.2	371.7
Government Social Benefits	1721.3	1816.2	1915.1	2019.1	2128.3	2243.3	2362.9	2486.8	2615.3	2749.2	2888.5
Medicaid & Other Health	1522.6	1612.7	1707.1	1806.5	1910.8	2020.1	2134.2	2253.1	2376.9	2505.7	2639.5
Other	198.7	203.5	207.9	212.5	217.5	223.2	228.7	233.7	238.5	243.5	249.0
Interest Payments	182.6	186.1	189.4	192.7	196.0	199.1	202.1	205.1	208.0	210.7	213.4
Subsidies	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Less: Wage Accruals less Disburs.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net State & Local Government Saving	36.8	44.3	47.9	54.0	60.1	63.4	66.9	70.8	76.6	83.0	88.3
Addenda:											
Effective Personal Tax Rate	0.033	0.033	0.033	0.033	0.033	0.033	0.032	0.032	0.032	0.032	0.032
Ratio of Medical Assistance Spending to Medicaid Grants	1.710	1.710	1.710	1.710	1.710	1.710	1.710	1.710	1.710	1.710	1.710
Outstanding Tax-Exempt Bonds (Billions of dollars)	3518.3	3569.0	3618.6	3666.9	3714.0	3759.9	3804.4	3847.5	3889.2	3929.3	3967.8

TABLE 28

**Real International Trade in Goods and Services**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Chained 2005 Dollars										
Net Exports	-353.9	-399.6	-449.7	-456.6	-411.5	-357.0	-329.5	-289.6	-215.1	-146.4
Exports of Goods & Services	1468.6	1610.4	1711.7	1846.1	2008.6	2161.9	2299.0	2452.6	2629.6	2817.8
Goods	987.0	1117.7	1197.5	1301.9	1432.3	1556.2	1663.8	1786.0	1930.6	2086.9
Excluding Computers	937.5	1059.5	1131.9	1227.2	1347.6	1462.4	1561.2	1673.3	1806.1	1949.4
Foods, Feeds & Beverages	71.1	74.5	76.2	80.0	84.6	88.7	92.4	96.2	100.3	104.4
Industrial Materials & Supplies	265.6	292.0	298.7	314.1	333.0	351.0	368.7	387.0	406.4	425.9
Capital Goods exc. Automotive	390.8	443.4	495.8	555.8	633.2	713.7	794.1	882.9	986.9	1099.3
Computers, Peripherals & Parts	49.8	59.5	68.7	80.3	92.6	103.8	115.3	128.9	144.7	162.3
Aircraft	62.3	64.5	67.9	71.8	79.3	88.1	96.1	103.1	110.6	119.2
Other (Incl. semiconductors)	278.4	320.9	362.3	409.4	468.6	530.2	592.6	663.5	747.6	837.6
Vehicles & Parts	78.2	112.4	126.5	146.1	167.1	176.3	170.4	172.3	183.9	199.2
Consumer Goods	141.6	154.8	160.6	167.6	179.5	195.9	212.5	228.4	243.6	260.1
Other	35.9	38.9	41.7	44.7	47.5	50.3	53.1	55.9	58.7	61.6
Services	480.6	493.0	514.8	545.1	578.0	608.3	638.5	671.1	705.4	739.9
Tourism	112.4	113.4	119.8	131.5	145.7	156.9	167.6	179.7	192.6	205.0
Other	368.0	379.3	394.8	413.2	431.9	451.0	470.5	491.0	512.4	534.5
Imports of Goods & Services	1822.4	2010.0	2161.4	2302.6	2420.1	2518.9	2628.5	2742.3	2844.8	2964.2
Goods	1479.1	1659.3	1801.1	1929.8	2032.2	2112.8	2206.7	2306.4	2394.7	2498.8
Excl. Petroleum & Computers	1149.7	1308.8	1428.4	1543.7	1634.3	1704.8	1785.0	1872.1	1945.2	2031.2
Foods, Feeds & Beverages	68.5	69.3	70.8	71.4	71.9	72.9	74.0	74.6	75.1	75.8
Indus. Mats & Sup. excl. Petroleum	185.5	215.2	242.4	269.5	291.5	309.0	326.4	344.0	358.7	375.0
Petroleum & Products	212.4	213.6	224.0	226.3	226.6	226.0	227.8	228.6	229.9	232.7
Capital Goods exc. Automotive	367.4	430.3	494.6	553.5	610.1	670.7	734.5	799.6	869.0	947.7
Computers, Peripherals & Parts	119.3	149.4	166.0	187.1	210.5	234.0	259.6	288.3	321.4	358.7
Aircraft	24.8	28.1	32.7	35.6	39.1	42.6	45.8	48.6	51.6	55.0
Other (Incl. semiconductors)	229.5	262.6	305.4	342.2	374.5	410.7	448.9	486.8	526.2	571.1
Vehicles & Parts	152.0	201.7	229.2	263.3	280.0	284.5	293.9	309.5	310.1	310.0
Consumer Goods	415.5	458.8	472.5	482.9	493.9	498.7	509.2	524.0	541.2	563.6
Other	73.1	73.6	76.5	81.7	87.9	93.5	97.5	99.5	101.7	105.4
Services	342.9	351.1	361.4	374.5	389.9	408.1	424.1	438.6	453.0	468.8
Tourism	89.7	92.5	92.0	91.7	92.4	96.5	99.4	101.3	102.9	104.6
Other	253.4	258.7	269.8	283.3	298.0	312.1	325.2	337.8	350.7	364.9

TABLE 28

## Real International Trade in Goods and Services

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Chained 2005 Dollars											
Net Exports	-82.5	-41.3	10.6	69.0	134.8	218.9	303.9	376.0	440.5	502.8	573.7
Exports of Goods & Services	3014.6	3214.7	3416.2	3619.9	3836.0	4070.1	4312.2	4560.3	4812.3	5077.9	5357.6
Goods	2251.2	2417.7	2584.4	2752.2	2930.3	3124.3	3324.0	3527.7	3734.2	3951.7	4180.9
Excluding Computers	2099.7	2251.7	2403.6	2556.5	2718.7	2895.3	3076.5	3261.1	3448.3	3645.3	3852.7
Foods, Feeds & Beverages	108.6	112.5	116.1	119.6	123.1	126.8	130.5	134.3	138.0	141.8	145.6
Industrial Materials & Supplies	445.9	466.7	488.3	510.1	532.6	556.2	580.4	605.4	630.3	656.1	682.9
Capital Goods exc. Automotive	1216.5	1337.3	1452.7	1566.0	1688.4	1825.1	1962.7	2101.4	2244.6	2398.7	2564.4
Computers, Peripherals & Parts	182.0	203.0	224.7	246.9	271.1	297.7	326.6	357.3	388.5	422.4	458.9
Aircraft	128.9	139.9	152.1	165.3	179.2	193.4	208.7	225.1	242.7	261.1	280.7
Other (Incl. semiconductors)	929.9	1023.2	1109.0	1190.6	1279.5	1380.9	1480.4	1578.1	1678.5	1786.8	1903.7
Vehicles & Parts	215.8	229.7	243.6	258.1	273.6	290.8	310.4	330.1	348.7	368.5	389.4
Consumer Goods	279.1	300.3	325.0	351.9	380.2	410.3	442.0	475.5	510.1	545.6	581.9
Other	64.6	67.7	70.9	74.2	77.6	81.2	85.0	88.9	92.9	97.2	101.6
Services	775.6	812.5	850.9	890.5	932.8	978.0	1025.7	1075.5	1126.6	1180.6	1237.7
Tourism	217.2	229.8	242.5	255.1	268.7	283.1	298.2	313.4	328.0	343.3	359.3
Other	557.9	582.3	608.0	635.0	663.7	694.3	727.0	761.6	798.0	836.6	877.8
Imports of Goods & Services	3097.2	3256.0	3405.6	3550.9	3701.2	3851.2	4008.3	4184.3	4371.9	4575.1	4783.9
Goods	2614.0	2752.7	2882.1	3007.2	3138.8	3269.1	3403.7	3557.1	3720.9	3900.0	4085.1
Excl. Petroleum & Computers	2132.0	2250.7	2361.3	2467.0	2577.6	2685.7	2806.5	2936.2	3074.6	3225.8	3381.7
Foods, Feeds & Beverages	76.5	77.4	78.4	79.5	80.5	81.5	82.5	83.5	84.8	86.0	87.2
Indus. Mats & Sup. excl. Petroleum	393.0	411.3	425.4	439.5	454.2	467.5	483.6	500.4	517.6	536.0	554.9
Petroleum & Products	232.6	236.0	238.4	240.4	242.5	244.5	239.3	240.3	241.4	243.2	244.8
Capital Goods exc. Automotive	1033.0	1123.6	1219.9	1323.6	1434.5	1553.7	1684.4	1828.2	1986.3	2158.4	2345.3
Computers, Peripherals & Parts	399.7	442.3	485.0	530.6	579.6	632.8	691.0	754.0	822.5	896.8	976.9
Aircraft	58.8	63.0	67.5	72.3	77.4	82.7	88.5	94.4	100.6	107.1	113.9
Other (Incl. semiconductors)	619.4	671.2	727.6	788.6	854.0	924.3	1001.7	1088.0	1183.8	1288.9	1403.9
Vehicles & Parts	313.9	326.3	332.7	335.0	339.0	342.7	347.6	350.8	353.4	357.0	359.6
Consumer Goods	590.7	622.8	653.1	679.6	706.8	731.5	758.8	789.1	821.9	859.1	896.2
Other	110.0	115.4	121.0	126.6	131.5	136.0	141.4	147.5	153.8	160.4	167.1
Services	487.0	508.0	528.8	549.6	569.4	589.9	613.0	636.8	662.0	688.2	714.4
Tourism	107.1	110.9	116.0	121.9	127.0	132.5	139.1	145.6	153.4	161.7	169.7
Other	380.7	397.9	413.7	428.5	443.2	458.2	474.7	492.0	509.3	527.1	545.3

TABLE 28  
Real International Trade in Goods and Services

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Chained 2005 Dollars											
Net Exports	641.3	703.4	769.3	845.7	917.0	989.7	1063.3	1143.4	1226.5	1310.6	1397.2
Exports of Goods & Services	5650.6	5957.3	6274.7	6609.8	6961.7	7328.0	7710.8	8112.5	8530.3	8965.5	9419.6
Goods	4420.7	4671.6	4929.8	5202.3	5488.2	5785.2	6095.0	6419.7	6756.7	7105.5	7466.8
Excluding Computers	4069.4	4295.6	4528.1	4773.3	5030.3	5296.9	5574.8	5865.6	6166.9	6478.1	6800.5
Foods, Feeds & Beverages	149.6	153.6	157.7	161.9	166.3	170.7	175.3	179.9	184.7	189.6	194.6
Industrial Materials & Supplies	710.4	738.7	767.9	798.2	829.5	861.5	894.5	928.8	964.0	1000.4	1038.8
Capital Goods exc. Automotive	2739.3	2925.0	3117.6	3322.3	3536.0	3759.0	3992.3	4236.7	4492.6	4752.6	5017.1
Computers, Peripherals & Parts	498.3	541.3	587.3	636.8	690.2	747.3	808.5	874.9	946.3	1023.7	1104.2
Aircraft	301.5	323.4	346.5	370.8	396.5	423.6	452.1	481.9	513.3	546.2	581.4
Other (Incl. semiconductors)	2026.6	2156.6	2290.2	2432.2	2579.1	2731.1	2889.2	3053.8	3225.1	3394.6	3562.3
Vehicles & Parts	412.5	436.5	459.8	485.0	512.9	541.8	572.0	603.7	636.3	671.3	708.0
Consumer Goods	619.0	657.6	698.2	741.2	786.5	834.3	885.1	939.0	995.5	1055.3	1118.6
Other	106.2	111.0	115.9	121.1	126.4	131.9	137.7	143.7	149.9	156.4	163.2
Services	1297.8	1361.0	1427.5	1497.8	1572.0	1649.7	1731.4	1817.4	1907.3	2002.3	2103.0
Tourism	375.9	393.3	411.5	430.6	450.7	471.7	493.3	515.9	539.4	563.8	589.7
Other	921.2	967.0	1015.3	1066.5	1120.5	1177.3	1237.3	1300.7	1367.2	1437.8	1512.6
Imports of Goods & Services	5009.3	5253.9	5505.5	5764.1	6044.7	6338.3	6647.5	6969.1	7303.8	7655.0	8022.4
Goods	4284.4	4501.8	4726.8	4957.8	5208.4	5470.5	5746.5	6033.5	6333.1	6647.9	6978.1
Excl. Petroleum & Computers	3550.3	3734.2	3923.7	4117.7	4328.3	4548.4	4781.0	5022.2	5273.6	5537.3	5813.1
Foods, Feeds & Beverages	88.4	89.7	90.9	92.1	93.4	94.7	96.1	97.5	98.9	100.3	101.8
Indus. Mats & Sup. excl. Petroleum	574.7	593.5	612.1	631.2	649.7	668.9	691.1	712.9	736.0	759.4	782.6
Petroleum & Products	246.2	248.0	250.1	252.1	254.4	256.6	258.1	259.6	261.2	263.0	264.8
Capital Goods exc. Automotive	2551.9	2776.0	3015.7	3274.9	3557.8	3865.2	4200.1	4561.5	4951.9	5375.1	5831.2
Computers, Peripherals & Parts	1064.4	1160.2	1263.6	1375.4	1497.7	1630.6	1774.9	1931.6	2101.7	2286.9	2491.1
Aircraft	121.1	128.7	136.7	145.1	154.0	163.3	173.1	183.4	194.1	205.3	217.2
Other (Incl. semiconductors)	1532.0	1671.2	1820.1	1981.9	2159.1	2352.5	2564.3	2793.6	3042.2	3312.4	3602.9
Vehicles & Parts	363.2	370.2	377.0	382.8	389.5	396.4	404.4	412.3	419.4	425.7	431.6
Consumer Goods	935.4	979.4	1025.1	1070.2	1121.0	1172.2	1223.2	1275.5	1329.6	1387.0	1448.4
Other	174.6	183.0	191.1	199.2	208.4	218.2	228.6	239.4	249.9	260.5	270.6
Services	743.0	773.4	803.7	835.3	869.6	905.7	943.9	983.7	1024.7	1067.4	1111.8
Tourism	178.8	188.3	198.0	208.0	219.0	230.8	243.3	256.2	269.6	283.4	297.8
Other	564.8	585.5	606.2	627.7	650.8	675.1	700.6	727.4	755.0	783.8	813.7

TABLE 29

## Real International Trade in Goods and Services

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Percent Change										
Exports of Goods & Services	-9.9	9.7	6.3	7.8	8.8	7.6	6.3	6.7	7.2	7.2
Goods	-12.5	13.2	7.1	8.7	10.0	8.6	6.9	7.3	8.1	8.1
Excluding Computers	-12.6	13.0	6.8	8.4	9.8	8.5	6.8	7.2	7.9	7.9
Foods, Feeds & Beverages	-3.7	4.8	2.3	5.0	5.8	4.8	4.1	4.1	4.2	4.1
Industrial Materials & Supplies	-7.4	10.0	2.3	5.1	6.0	5.4	5.0	5.0	5.0	4.8
Capital Goods exc. Automotive	-13.8	13.4	11.8	12.1	13.9	12.7	11.3	11.2	11.8	11.4
Computers, Peripherals & Parts	-8.2	19.4	15.6	16.8	15.4	12.1	11.1	11.7	12.3	12.2
Aircraft	-4.1	3.6	5.3	5.7	10.5	11.0	9.1	7.3	7.3	7.8
Other (Incl. semiconductors)	-16.7	15.2	12.9	13.0	14.5	13.1	11.8	12.0	12.7	12.0
Vehicles & Parts	-33.3	43.9	12.5	15.5	14.3	5.5	-3.4	1.1	6.7	8.3
Consumer Goods	-7.3	9.3	3.8	4.3	7.1	9.1	8.5	7.5	6.7	6.8
Other	-15.2	8.4	7.4	7.0	6.3	6.0	5.5	5.2	5.0	4.9
Services	-4.2	2.6	4.4	5.9	6.0	5.2	5.0	5.1	5.1	4.9
Tourism	-9.2	0.9	5.6	9.8	10.7	7.7	6.8	7.2	7.2	6.4
Other	-2.6	3.1	4.1	4.7	4.5	4.4	4.3	4.4	4.4	4.3
Imports of Goods & Services	-14.2	10.3	7.5	6.5	5.1	4.1	4.4	4.3	3.7	4.2
Goods	-16.3	12.2	8.5	7.1	5.3	4.0	4.4	4.5	3.8	4.3
Excl. Petroleum & Computers	-18.8	13.8	9.1	8.1	5.9	4.3	4.7	4.9	3.9	4.4
Foods, Feeds & Beverages	-5.2	1.3	2.1	0.9	0.7	1.3	1.5	0.9	0.7	0.8
Indus. Mats. & Sup. excl. Petroleum	-24.8	16.0	12.6	11.2	8.2	6.0	5.6	5.4	4.3	4.5
Petroleum & Products	-9.5	0.6	4.9	1.0	0.1	-0.3	0.8	0.4	0.6	1.2
Capital Goods exc. Automotive	-18.3	17.1	14.9	11.9	10.2	9.9	9.5	8.9	8.7	9.1
Computers, Peripherals & Parts	-2.2	25.2	11.1	12.7	12.5	11.2	10.9	11.1	11.5	11.6
Aircraft	-18.9	13.6	16.1	9.0	9.8	8.9	7.5	6.2	6.1	6.6
Other (Incl. semiconductors)	-23.1	14.4	16.3	12.0	9.5	9.6	9.3	8.5	8.1	8.5
Vehicles & Parts	-32.4	32.7	13.6	14.8	6.4	1.6	3.3	5.3	0.2	0.0
Consumer Goods	-10.6	10.4	3.0	2.2	2.3	1.0	2.1	2.9	3.3	4.1
Other	-9.8	0.8	3.9	6.8	7.6	6.4	4.3	2.0	2.2	3.6
Services	-3.8	2.4	3.0	3.6	4.1	4.7	3.9	3.4	3.3	3.5
Tourism	-2.3	3.1	-0.6	-0.3	0.8	4.4	3.1	1.9	1.6	1.6
Other	-4.4	2.1	4.3	5.0	5.2	4.7	4.2	3.9	3.8	4.0

TABLE 29  
Real International Trade in Goods and Services

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Percent Change											
Exports of Goods & Services	7.0	6.6	6.3	6.0	6.0	6.1	5.9	5.8	5.5	5.5	5.5
Goods	7.9	7.4	6.9	6.5	6.5	6.6	6.4	6.1	5.9	5.8	5.8
Excluding Computers	7.7	7.2	6.7	6.4	6.3	6.5	6.3	6.0	5.7	5.7	5.7
Foods, Feeds & Beverages	4.0	3.6	3.2	3.0	2.9	3.0	2.9	2.9	2.8	2.7	2.7
Industrial Materials & Supplies	4.7	4.6	4.6	4.5	4.4	4.4	4.3	4.3	4.1	4.1	4.1
Capital Goods exc. Automotive	10.7	9.9	8.6	7.8	7.8	8.1	7.5	7.1	6.8	6.9	6.9
Computers, Peripherals & Parts	12.1	11.6	10.7	9.9	9.8	9.8	9.7	9.4	8.7	8.7	8.6
Aircraft	8.1	8.5	8.7	8.7	8.4	8.0	7.9	7.9	7.8	7.6	7.5
Other (Incl. semiconductors)	11.0	10.0	8.4	7.4	7.5	7.9	7.2	6.6	6.4	6.5	6.5
Vehicles & Parts	8.3	6.4	6.1	6.0	6.0	6.3	6.7	6.4	5.6	5.7	5.7
Consumer Goods	7.3	7.6	8.2	8.3	8.1	7.9	7.7	7.6	7.3	7.0	6.6
Other	4.9	4.8	4.7	4.7	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Services	4.8	4.8	4.7	4.7	4.7	4.8	4.9	4.9	4.7	4.8	4.8
Tourism	6.0	5.8	5.5	5.2	5.3	5.4	5.3	5.1	4.7	4.7	4.7
Other	4.4	4.4	4.4	4.4	4.5	4.6	4.7	4.8	4.8	4.8	4.9
Imports of Goods & Services	4.5	5.1	4.6	4.3	4.2	4.1	4.1	4.4	4.5	4.6	4.6
Goods	4.6	5.3	4.7	4.3	4.4	4.2	4.1	4.5	4.6	4.8	4.7
Excl. Petroleum & Computers	5.0	5.6	4.9	4.5	4.5	4.2	4.5	4.6	4.7	4.9	4.8
Foods, Feeds & Beverages	1.0	1.1	1.3	1.4	1.3	1.2	1.3	1.3	1.4	1.4	1.4
Indus. Mats & Sup. excl. Petroleum	4.8	4.7	3.4	3.3	3.3	2.9	3.4	3.5	3.4	3.5	3.5
Petroleum & Products	0.0	1.4	1.1	0.8	0.9	0.8	-2.2	0.4	0.5	0.7	0.7
Capital Goods exc. Automotive	9.0	8.8	8.6	8.5	8.4	8.3	8.4	8.5	8.6	8.7	8.7
Computers, Peripherals & Parts	11.4	10.7	9.7	9.4	9.2	9.2	9.2	9.1	9.1	9.0	8.9
Aircraft	6.9	7.2	7.2	7.2	7.0	6.9	6.9	6.7	6.6	6.4	6.3
Other (Incl. semiconductors)	8.5	8.4	8.4	8.4	8.3	8.2	8.4	8.6	8.8	8.9	8.9
Vehicles & Parts	1.3	4.0	2.0	0.7	1.2	1.1	1.4	0.9	0.7	1.0	0.7
Consumer Goods	4.8	5.4	4.9	4.1	4.0	3.5	3.7	4.0	4.2	4.5	4.3
Other	4.4	4.9	4.9	4.6	3.9	3.4	3.9	4.3	4.3	4.3	4.2
Services	3.9	4.3	4.1	3.9	3.6	3.6	3.9	3.9	4.0	3.9	3.8
Tourism	2.4	3.5	4.6	5.1	4.2	4.3	5.0	4.7	5.4	5.4	4.9
Other	4.3	4.5	4.0	3.6	3.4	3.4	3.6	3.6	3.5	3.5	3.4



TABLE 29

## Real International Trade in Goods and Services

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Percent Change											
Exports of Goods & Services	5.5	5.4	5.3	5.3	5.3	5.3	5.2	5.2	5.1	5.1	5.1
Goods	5.7	5.7	5.5	5.5	5.5	5.4	5.4	5.3	5.2	5.2	5.1
Excluding Computers	5.6	5.6	5.4	5.4	5.4	5.3	5.2	5.2	5.1	5.0	5.0
Foods, Feeds & Beverages	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.7	2.7
Industrial Materials & Supplies	4.0	4.0	4.0	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.8
Capital Goods exc. Automotive	6.8	6.8	6.6	6.6	6.4	6.3	6.2	6.1	6.0	5.8	5.6
Computers, Peripherals & Parts	8.6	8.6	8.5	8.4	8.4	8.3	8.2	8.2	8.2	8.2	7.9
Aircraft	7.4	7.3	7.1	7.0	6.9	6.8	6.7	6.6	6.5	6.4	6.5
Other (Incl. semiconductors)	6.5	6.4	6.2	6.2	6.0	5.9	5.8	5.7	5.6	5.3	4.9
Vehicles & Parts	5.9	5.8	5.4	5.5	5.7	5.6	5.6	5.5	5.4	5.5	5.5
Consumer Goods	6.4	6.2	6.2	6.2	6.1	6.1	6.1	6.1	6.0	6.0	6.0
Other	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.3
Services	4.9	4.9	4.9	4.9	5.0	4.9	4.9	5.0	4.9	5.0	5.0
Tourism	4.6	4.6	4.6	4.7	4.7	4.6	4.6	4.6	4.5	4.5	4.6
Other	5.0	5.0	5.0	5.0	5.1	5.1	5.1	5.1	5.1	5.2	5.2
Imports of Goods & Services	4.7	4.9	4.8	4.7	4.9	4.9	4.9	4.8	4.8	4.8	4.8
Goods	4.9	5.1	5.0	4.9	5.1	5.0	5.0	5.0	5.0	5.0	5.0
Excl. Petroleum & Computers	5.0	5.2	5.1	4.9	5.1	5.1	5.1	5.0	5.0	5.0	5.0
Foods, Feeds & Beverages	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1.5
Indus. Mats & Sup. excl. Petroleum	3.6	3.3	3.1	3.1	2.9	3.0	3.3	3.1	3.2	3.2	3.1
Petroleum & Products	0.6	0.7	0.9	0.8	0.9	0.8	0.6	0.6	0.6	0.7	0.7
Capital Goods exc. Automotive	8.8	8.8	8.6	8.6	8.6	8.6	8.7	8.6	8.6	8.5	8.5
Computers, Peripherals & Parts	9.0	9.0	8.9	8.9	8.9	8.9	8.8	8.8	8.8	8.8	8.9
Aircraft	6.4	6.3	6.2	6.1	6.1	6.1	6.0	5.9	5.8	5.8	5.8
Other (Incl. semiconductors)	9.1	9.1	8.9	8.9	8.9	9.0	9.0	8.9	8.9	8.9	8.8
Vehicles & Parts	1.0	1.9	1.8	1.5	1.7	1.8	2.0	2.0	1.7	1.5	1.4
Consumer Goods	4.4	4.7	4.7	4.4	4.7	4.6	4.3	4.3	4.2	4.3	4.4
Other	4.5	4.8	4.4	4.3	4.6	4.7	4.8	4.7	4.4	4.2	3.9
Services	4.0	4.1	3.9	3.9	4.1	4.2	4.2	4.2	4.2	4.2	4.2
Tourism	5.3	5.4	5.1	5.0	5.3	5.4	5.4	5.3	5.2	5.1	5.1
Other	3.6	3.7	3.5	3.6	3.7	3.7	3.8	3.8	3.8	3.8	3.8

TABLE 30  
Price Deflators for International Trade

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Levels (2005=100)										
Exports of Goods & Services	106.2	110.1	112.5	114.0	115.3	116.5	117.4	118.2	118.9	119.7
Goods	104.9	108.8	111.3	112.7	113.7	114.4	114.7	114.8	114.9	115.0
Excluding Computers	106.3	110.6	113.4	115.1	116.4	117.2	117.7	117.9	118.2	118.4
Foods, Feeds & Beverages	131.3	138.0	144.0	143.1	143.2	143.7	144.3	144.9	145.5	146.2
Industrial Materials & Supplies	106.1	115.5	122.3	126.9	130.4	133.3	135.7	137.8	139.7	141.7
Capital Goods exc. Automotive	99.8	101.1	100.5	99.9	99.2	98.1	96.7	95.3	93.9	92.6
Computers, Peripherals & Parts	75.6	74.6	71.6	68.7	66.1	63.8	61.6	59.4	57.4	55.4
Aircraft	119.0	121.2	123.2	124.8	126.3	127.7	128.8	129.5	130.0	130.5
Other (Incl. semiconductors)	99.9	101.5	100.9	100.3	99.5	98.3	96.7	95.1	93.6	92.2
Vehicles & Parts	104.2	104.9	106.5	108.3	110.3	112.0	113.4	114.4	115.4	116.4
Consumer Goods	105.9	107.3	109.9	112.0	113.7	115.0	116.2	117.6	119.1	120.6
Other	108.1	112.4	115.8	118.6	120.9	122.9	124.5	126.1	127.6	129.2
Services	109.2	112.9	114.9	116.9	119.0	121.4	123.9	126.4	129.0	131.7
Tourism	107.4	112.8	115.1	117.0	119.0	121.2	123.6	126.2	128.8	131.5
Other	109.8	113.0	115.0	116.9	119.1	121.6	124.1	126.6	129.2	131.8
Imports of Goods & Services	107.0	111.6	113.9	116.5	118.5	119.7	121.0	122.5	123.9	125.0
Goods	106.2	110.8	112.9	115.4	117.3	118.2	119.3	120.6	121.7	122.6
Excl. Petroleum & Computers	106.6	109.1	110.6	112.5	114.2	114.9	115.5	116.6	117.9	119.0
Foods, Feeds & Beverages	119.3	123.3	129.2	135.9	140.4	142.1	144.2	147.8	151.7	155.2
Indus. Mats & Sup. excl. Petroleum	104.6	114.6	113.2	111.3	110.7	110.3	110.4	111.5	113.2	115.0
Petroleum & Products	119.1	138.9	148.2	159.2	166.8	173.4	181.2	189.0	193.4	196.5
Capital Goods exc. Automotive	100.3	99.4	98.3	97.8	96.4	94.0	91.6	89.7	87.9	86.1
Computers, Peripherals & Parts	78.4	76.2	72.8	69.5	66.4	63.4	60.6	57.9	55.2	52.7
Aircraft	122.0	125.5	127.5	129.1	130.5	131.9	132.9	133.6	134.1	134.6
Other (Incl. semiconductors)	106.7	106.1	106.0	106.8	106.1	103.6	101.3	99.6	98.3	96.8
Vehicles & Parts	104.7	105.8	107.2	109.2	111.3	112.3	113.0	113.9	114.8	115.4
Consumer Goods	103.9	104.9	108.2	112.2	116.0	119.5	122.7	125.9	129.2	132.4
Other	115.6	118.3	119.9	121.9	123.8	124.9	125.9	127.6	129.3	131.0
Services	110.9	115.6	118.6	121.7	124.5	126.8	129.1	131.7	134.3	137.0
Tourism	112.1	116.8	120.2	123.5	126.2	128.5	130.9	133.6	136.4	139.3
Other	110.4	115.0	118.0	121.0	123.7	126.1	128.4	130.9	133.5	136.1

TABLE 30  
Price Deflators for International Trade

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Levels (2005=100)											
Exports of Goods & Services	120.3	120.7	120.9	121.1	121.2	121.4	121.7	122.0	122.3	122.7	123.2
Goods	114.9	114.5	114.0	113.4	112.8	112.2	111.8	111.3	110.9	110.5	110.2
Excluding Computers	118.5	118.3	117.9	117.4	116.9	116.5	116.1	115.8	115.5	115.2	115.0
Foods, Feeds & Beverages	146.8	147.4	148.1	148.7	149.3	150.0	150.6	151.3	151.9	152.6	153.2
Industrial Materials & Supplies	143.3	144.4	145.2	146.0	146.8	148.1	149.4	150.8	152.3	154.0	155.7
Capital Goods exc. Automotive	91.2	89.7	88.1	86.4	84.7	83.1	81.6	80.1	78.7	77.3	76.0
Computers, Peripherals & Parts	53.5	51.6	49.9	48.2	46.6	45.1	43.6	42.2	40.8	39.5	38.3
Aircraft	130.9	131.1	131.1	130.9	130.5	130.1	129.8	129.5	129.2	128.9	128.7
Other (Incl. semiconductors)	90.7	89.0	87.3	85.5	83.7	81.9	80.3	78.7	77.1	75.6	74.1
Vehicles & Parts	117.4	118.2	118.8	119.3	119.6	119.9	120.3	120.7	121.1	121.6	122.1
Consumer Goods	121.9	123.0	123.8	124.5	125.3	126.0	126.7	127.4	128.1	128.9	129.7
Other	130.6	131.7	132.7	133.5	134.3	135.3	136.3	137.3	138.4	139.5	140.7
Services	134.3	136.8	139.2	141.7	144.2	146.7	149.4	152.2	155.0	158.0	160.9
Tourism	134.1	136.6	139.1	141.6	144.2	147.0	149.8	152.8	155.8	158.9	162.1
Other	134.4	136.9	139.4	141.8	144.3	146.8	149.4	152.0	154.8	157.7	160.6
Imports of Goods & Services	125.8	126.0	125.9	125.8	125.9	126.3	126.9	127.3	127.6	128.0	128.3
Goods	123.0	122.9	122.3	121.7	121.4	121.5	121.6	121.7	121.5	121.5	121.5
Excl. Petroleum & Computers	120.1	121.0	121.6	122.0	122.7	123.4	124.2	124.8	125.2	125.6	126.0
Foods, Feeds & Beverages	158.6	161.7	164.1	166.0	168.3	170.6	172.9	174.7	175.9	177.3	178.8
Indus. Mats. & Sup. excl. Petroleum	116.9	118.6	119.9	120.9	122.1	123.3	124.6	125.7	126.5	127.4	128.3
Petroleum & Products	195.3	189.3	180.8	173.8	166.9	165.2	163.7	162.0	160.2	159.9	159.6
Capital Goods exc. Automotive	84.3	82.4	80.4	78.2	76.2	74.2	72.3	70.3	68.3	66.3	64.4
Computers, Peripherals & Parts	50.3	48.1	45.9	43.8	41.9	40.0	38.2	36.5	34.8	33.3	31.8
Aircraft	135.0	135.3	135.2	135.0	134.7	134.3	133.9	133.6	133.3	133.1	132.9
Other (Incl. semiconductors)	95.3	93.6	91.6	89.4	87.4	85.4	83.4	81.3	79.0	76.8	74.6
Vehicles & Parts	115.8	116.1	116.2	116.8	118.0	119.6	121.6	123.9	126.2	128.6	131.2
Consumer Goods	135.6	138.6	141.4	144.2	147.2	150.3	153.4	156.4	159.3	162.1	164.9
Other	132.6	134.0	135.1	136.1	137.4	138.9	140.6	142.1	143.4	144.8	146.3
Services	139.6	142.1	144.4	146.7	149.1	151.6	154.2	156.8	159.4	162.1	164.9
Tourism	142.3	145.0	147.6	150.2	152.9	155.7	158.4	161.2	164.0	166.7	169.6
Other	138.6	141.0	143.2	145.4	147.7	150.2	152.7	155.3	157.8	160.5	163.2

TABLE 30  
Price Deflators for International Trade

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Levels (2005=100)											
Exports of Goods & Services	123.6	124.1	124.6	125.1	125.6	126.1	126.6	127.2	127.8	128.4	129.0
Goods	109.9	109.6	109.3	109.0	108.7	108.4	108.1	107.9	107.6	107.4	107.1
Excluding Computers	114.8	114.7	114.5	114.3	114.1	113.9	113.8	113.6	113.5	113.4	113.2
Foods, Feeds & Beverages	153.9	154.5	155.2	155.8	156.5	157.2	157.9	158.5	159.2	159.9	160.6
Industrial Materials & Supplies	157.5	159.3	161.1	162.9	164.9	166.7	168.7	170.7	172.8	175.0	177.0
Capital Goods exc. Automotive	74.7	73.4	72.1	70.9	69.6	68.5	67.3	66.1	65.0	63.9	62.8
Computers, Peripherals & Parts	37.1	35.9	34.8	33.7	32.7	31.7	30.7	29.8	28.8	28.0	27.2
Aircraft	128.6	128.4	128.3	128.1	128.0	127.8	127.6	127.4	127.2	127.0	126.8
Other (Incl. semiconductors)	72.7	71.3	69.9	68.4	67.1	65.7	64.4	63.1	61.8	60.5	59.3
Vehicles & Parts	122.6	123.1	123.6	124.1	124.6	125.1	125.5	126.0	126.4	126.9	127.3
Consumer Goods	130.5	131.3	132.1	132.9	133.7	134.4	135.2	135.9	136.7	137.4	138.1
Other	141.9	143.1	144.3	145.5	146.7	147.9	149.1	150.4	151.6	152.9	154.1
Services	164.0	167.1	170.2	173.4	176.6	179.9	183.3	186.7	190.2	193.7	197.3
Tourism	165.3	168.7	172.0	175.5	179.0	182.6	186.2	190.0	193.8	197.7	201.7
Other	163.5	166.6	169.6	172.6	175.8	179.0	182.2	185.5	188.8	192.2	195.7
Imports of Goods & Services	128.7	129.1	129.6	130.1	130.5	131.0	131.5	132.0	132.5	132.9	133.4
Goods	121.4	121.4	121.5	121.5	121.5	121.5	121.6	121.6	121.7	121.7	121.8
Excl. Petroleum & Computers	126.4	126.8	127.2	127.6	128.0	128.4	128.8	129.2	129.6	130.0	130.3
Foods, Feeds & Beverages	180.2	181.6	183.2	184.7	186.3	188.0	189.6	191.1	192.7	194.2	195.8
Indus. Mats & Sup. excl. Petroleum	129.2	130.2	131.2	132.3	133.3	134.3	135.4	136.5	137.6	138.7	139.8
Petroleum & Products	159.5	159.7	160.1	160.8	161.6	161.3	162.2	163.4	164.6	165.7	167.2
Capital Goods exc. Automotive	62.5	60.7	59.0	57.3	55.7	54.2	52.6	51.2	49.7	48.3	47.0
Computers, Peripherals & Parts	30.3	29.0	27.7	26.4	25.2	24.1	23.0	22.0	21.0	20.0	19.1
Aircraft	132.7	132.6	132.5	132.3	132.2	132.0	131.8	131.6	131.4	131.2	131.0
Other (Incl. semiconductors)	72.5	70.5	68.6	66.7	64.9	63.1	61.4	59.7	58.1	56.5	54.9
Vehicles & Parts	133.8	136.6	139.5	142.6	145.8	149.1	152.5	155.9	159.4	163.0	166.6
Consumer Goods	167.8	170.6	173.5	176.3	179.2	182.1	185.1	188.1	191.1	194.2	197.4
Other	147.7	149.2	150.8	152.3	153.9	155.5	157.2	158.8	160.5	162.1	163.8
Services	167.7	170.5	173.4	176.4	179.4	182.6	185.7	188.9	192.1	195.4	198.7
Tourism	172.5	175.5	178.5	181.5	184.7	187.9	191.1	194.4	197.7	201.1	204.5
Other	165.9	168.7	171.6	174.5	177.6	180.7	183.8	187.0	190.2	193.4	196.7

TABLE 31

## Price Deflators for International Trade

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Percent Change										
Exports of Goods & Services	-5.5	3.6	2.2	1.4	1.2	1.0	0.8	0.7	0.7	0.6
Goods	-6.6	3.7	2.3	1.2	0.9	0.6	0.3	0.1	0.1	0.1
Excluding Computers	-6.6	4.0	2.6	1.4	1.1	0.7	0.4	0.2	0.2	0.2
Foods, Feeds & Beverages	-10.5	5.1	4.3	-0.6	0.1	0.4	0.4	0.4	0.4	0.4
Industrial Materials & Supplies	-17.5	8.8	6.0	3.7	2.8	2.2	1.8	1.5	1.4	1.4
Capital Goods exc. Automotive	-1.2	1.3	-0.6	-0.6	-0.8	-1.1	-1.4	-1.5	-1.4	-1.4
Computers, Peripherals & Parts	-6.6	-1.2	-4.0	-4.1	-3.8	-3.5	-3.4	-3.4	-3.5	-3.5
Aircraft	4.5	1.8	1.6	1.3	1.2	1.1	0.9	0.5	0.4	0.4
Other (Incl. semiconductors)	-1.7	1.6	-0.6	-0.6	-0.8	-1.2	-1.6	-1.7	-1.5	-1.5
Vehicles & Parts	0.5	0.7	1.5	1.7	1.8	1.6	1.2	0.9	0.9	0.9
Consumer Goods	0.2	1.3	2.4	1.9	1.5	1.1	1.1	1.2	1.3	1.2
Other	-6.3	4.0	3.0	2.4	2.0	1.6	1.3	1.2	1.2	1.2
Services	-2.9	3.4	1.8	1.7	1.8	2.0	2.1	2.0	2.1	2.1
Tourism	-6.2	5.1	2.0	1.7	1.7	1.9	2.0	2.1	2.1	2.1
Other	-1.8	2.8	1.8	1.7	1.9	2.1	2.1	2.0	2.1	2.1
Imports of Goods & Services	-10.5	4.3	2.0	2.3	1.7	1.0	1.0	1.3	1.1	0.9
Goods	-11.8	4.4	1.9	2.3	1.6	0.8	0.9	1.1	0.9	0.7
Excl. Petroleum & Computers	-3.9	2.3	1.4	1.8	1.4	0.6	0.6	1.0	1.1	1.0
Foods, Feeds & Beverages	-3.3	3.4	4.8	5.2	3.3	1.2	1.5	2.5	2.7	2.3
Indus. Mats. & Sup. excl. Petroleum	-18.5	9.6	-1.2	-1.7	-0.6	-0.4	0.1	1.0	1.5	1.6
Petroleum & Products	-38.5	16.6	6.7	7.4	4.8	3.9	4.5	4.3	2.3	1.6
Capital Goods exc. Automotive	-0.9	-0.9	-1.1	-0.5	-1.4	-2.6	-2.5	-2.1	-2.0	-2.1
Computers, Peripherals & Parts	-5.2	-2.8	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.6
Aircraft	5.2	2.9	1.7	1.2	1.1	1.0	0.8	0.5	0.4	0.4
Other (Incl. semiconductors)	-0.2	-0.5	-0.1	0.7	-0.6	-2.4	-2.3	-1.6	-1.4	-1.5
Vehicles & Parts	0.7	1.0	1.3	1.9	1.9	0.9	0.6	0.8	0.8	0.5
Consumer Goods	-0.4	1.0	3.1	3.8	3.4	3.0	2.7	2.6	2.6	2.5
Other	-0.4	2.3	1.4	1.7	1.5	0.9	0.9	1.3	1.4	1.3
Services	-4.1	4.2	2.6	2.6	2.3	1.9	1.8	2.0	2.0	2.0
Tourism	-8.4	4.2	2.9	2.8	2.2	1.8	1.9	2.1	2.1	2.1
Other	-2.5	4.2	2.6	2.5	2.3	1.9	1.8	1.9	2.0	1.9

TABLE 31  
Price Deflators for International Trade

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Percent Change											
Exports of Goods & Services	0.5	0.3	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4
Goods	-0.1	-0.3	-0.5	-0.5	-0.5	-0.5	-0.4	-0.4	-0.4	-0.3	-0.3
Excluding Computers	0.1	-0.2	-0.3	-0.4	-0.4	-0.4	-0.3	-0.3	-0.3	-0.2	-0.2
Foods, Feeds & Beverages	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Industrial Materials & Supplies	1.1	0.7	0.6	0.6	0.6	0.8	0.9	1.0	1.0	1.1	1.1
Capital Goods exc. Automotive	-1.5	-1.7	-1.8	-1.9	-1.9	-1.9	-1.8	-1.8	-1.8	-1.8	-1.7
Computers, Peripherals & Parts	-3.5	-3.4	-3.4	-3.4	-3.3	-3.3	-3.3	-3.3	-3.2	-3.2	-3.1
Aircraft	0.3	0.2	0.0	-0.2	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2
Other (Incl. semiconductors)	-1.6	-1.8	-2.0	-2.1	-2.1	-2.1	-2.0	-2.0	-2.0	-2.0	-1.9
Vehicles & Parts	0.8	0.7	0.5	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
Consumer Goods	1.1	0.9	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6
Other	1.1	0.9	0.7	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8
Services	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9
Tourism	2.0	1.9	1.8	1.8	1.8	1.9	2.0	2.0	2.0	2.0	2.0
Other	2.0	1.8	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8
Imports of Goods & Services	0.6	0.2	-0.1	-0.1	0.1	0.4	0.4	0.3	0.2	0.3	0.3
Goods	0.4	-0.1	-0.5	-0.4	-0.3	0.1	0.1	0.0	-0.1	0.0	0.0
Excl. Petroleum & Computers	0.9	0.7	0.5	0.4	0.5	0.6	0.6	0.5	0.3	0.3	0.3
Foods, Feeds & Beverages	2.2	2.0	1.5	1.1	1.4	1.4	1.3	1.0	0.7	0.8	0.8
Indus. Mats & Sup. excl. Petroleum	1.6	1.5	1.1	0.9	0.9	1.0	1.0	0.9	0.7	0.7	0.7
Petroleum & Products	-0.6	-3.1	-4.5	-3.9	-4.0	-1.0	-0.9	-1.0	-1.1	-0.2	-0.2
Capital Goods exc. Automotive	-2.1	-2.2	-2.5	-2.7	-2.6	-2.6	-2.6	-2.8	-2.9	-2.9	-2.9
Computers, Peripherals & Parts	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5
Aircraft	0.3	0.2	0.0	-0.2	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.1
Other (Incl. semiconductors)	-1.5	-1.8	-2.1	-2.4	-2.3	-2.3	-2.3	-2.6	-2.8	-2.8	-2.8
Vehicles & Parts	0.4	0.2	0.1	0.5	1.0	1.4	1.7	1.8	1.8	1.9	2.0
Consumer Goods	2.4	2.2	2.0	2.0	2.1	2.1	2.1	1.9	1.8	1.8	1.7
Other	1.2	1.0	0.8	0.8	1.0	1.1	1.2	1.1	0.9	1.0	1.0
Services	1.9	1.8	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7
Tourism	2.1	1.9	1.8	1.7	1.8	1.8	1.8	1.8	1.7	1.7	1.7
Other	1.9	1.7	1.6	1.5	1.6	1.6	1.7	1.7	1.7	1.7	1.7

TABLE 31

## Price Deflators for International Trade

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Percent Change											
Exports of Goods & Services	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5
Goods	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2
Excluding Computers	-0.2	-0.1	-0.2	-0.2	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1
Foods, Feeds & Beverages	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Industrial Materials & Supplies	1.1	1.2	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.3	1.2
Capital Goods exc. Automotive	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7
Computers, Peripherals & Parts	-3.2	-3.2	-3.1	-3.1	-3.1	-3.1	-3.0	-3.1	-3.1	-3.1	-2.6
Aircraft	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
Other (Incl. semiconductors)	-2.0	-1.9	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Vehicles & Parts	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
Consumer Goods	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5
Other	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Services	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Tourism	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Other	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Imports of Goods & Services	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
Goods	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Excl. Petroleum & Computers	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Foods, Feeds & Beverages	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
Indus. Mats & Sup. excl. Petroleum	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Petroleum & Products	-0.1	0.1	0.3	0.4	0.5	-0.2	0.6	0.7	0.7	0.7	0.9
Capital Goods exc. Automotive	-2.9	-2.9	-2.8	-2.8	-2.8	-2.8	-2.8	-2.8	-2.8	-2.8	-2.8
Computers, Peripherals & Parts	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5
Aircraft	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
Other (Incl. semiconductors)	-2.8	-2.8	-2.8	-2.7	-2.7	-2.7	-2.7	-2.7	-2.8	-2.7	-2.7
Vehicles & Parts	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2
Consumer Goods	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Other	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.0
Services	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Tourism	1.7	1.7	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7
Other	1.7	1.7	1.7	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7

TABLE 32  
International Trade and Investment

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Dollars										
Net Exports	-390.1	-471.6	-536.5	-579.1	-551.7	-497.2	-480.6	-461.5	-396.0	-332.4
Exports of Goods & Services	1560.1	1772.4	1925.1	2104.6	2317.0	2518.4	2698.9	2898.2	3127.9	3373.3
Goods	1035.1	1216.0	1333.4	1467.5	1629.2	1779.9	1907.9	2049.9	2217.8	2398.9
Excluding Computers	997.5	1171.6	1284.2	1412.4	1568.0	1713.8	1836.9	1973.3	2134.8	2309.1
Foods, Feeds & Beverages	93.3	102.9	109.8	114.5	121.2	127.5	133.3	139.4	145.9	152.6
Industrial Materials & Supplies	281.8	337.2	365.6	398.5	434.4	468.1	500.3	533.2	567.8	603.5
Capital Goods	390.0	448.3	498.4	555.4	627.8	699.8	767.9	841.1	926.8	1017.7
Computers, Peripherals & Parts	37.6	44.4	49.2	55.2	61.2	66.2	71.0	76.6	83.0	89.8
Aircraft	74.3	78.2	83.7	89.6	100.2	112.5	123.7	133.5	143.8	155.6
Other (Incl. semiconductors)	278.1	325.7	365.5	410.7	466.4	521.1	573.2	631.0	700.0	772.2
Vehicles & Parts	81.4	117.9	134.7	158.4	184.3	197.6	193.1	197.1	212.3	231.9
Consumer Goods	150.0	166.1	176.5	187.7	204.2	225.2	247.0	268.6	290.2	313.6
Other	38.8	43.7	48.4	52.9	57.4	61.8	66.1	70.4	74.9	79.5
Services	524.9	556.4	591.7	637.1	687.8	738.5	791.1	848.3	910.0	974.4
Tourism	120.7	127.9	137.8	153.9	173.4	190.1	207.2	226.7	248.0	269.5
Other	404.3	428.5	453.9	483.2	514.4	548.3	583.9	621.6	662.0	704.8
Imports of Goods & Services	1950.2	2244.0	2461.7	2683.7	2868.8	3015.6	3179.6	3359.7	3523.9	3705.8
Goods	1569.8	1838.3	2032.9	2227.8	2383.4	2498.2	2632.0	2782.3	2915.3	3063.5
Excl. Petroleum & Computers	1226.4	1428.0	1580.0	1737.5	1865.7	1958.0	2062.0	2183.4	2293.2	2417.3
Foods, Feeds & Beverages	81.7	85.5	91.5	97.1	101.0	103.6	106.7	110.3	114.0	117.6
Indus. Mats & Sup. excl. Petroleum	194.1	246.8	274.4	300.0	322.7	340.8	360.4	383.6	406.1	431.3
Petroleum & Products	250.0	296.5	332.2	360.3	378.0	391.8	412.8	432.2	444.6	457.2
Capital Goods exc. Automotive	368.5	427.7	486.2	541.4	588.3	630.0	672.5	716.7	763.7	815.7
Computers, Peripherals & Parts	93.4	113.8	120.8	130.0	139.8	148.4	157.2	166.8	177.5	189.0
Aircraft	30.3	35.3	41.7	46.0	51.0	56.2	60.8	64.9	69.2	74.0
Other (Incl. semiconductors)	244.9	278.6	323.8	365.5	397.5	425.4	454.4	485.0	517.0	552.7
Vehicles & Parts	159.3	213.3	245.7	287.5	311.6	319.4	332.1	352.6	356.0	357.7
Consumer Goods	431.6	481.4	511.0	541.9	573.0	595.9	624.8	660.0	699.2	746.0
Other	84.6	87.1	91.8	99.6	108.8	116.7	122.8	126.9	131.6	138.0
Services	380.4	405.7	428.8	455.9	485.3	517.3	547.6	577.4	608.6	642.3
Tourism	100.6	108.1	110.5	113.2	116.6	123.9	130.1	135.3	140.4	145.8
Other	279.8	297.6	318.3	342.7	368.7	393.4	417.4	442.1	468.1	496.5
Balance of Payments Basis										
Balance on Current Account	-432.1	-552.2	-625.9	-688.6	-680.6	-677.3	-677.1	-674.9	-628.1	-587.2
Goods & Services	-378.6	-461.4	-526.3	-569.8	-544.6	-492.3	-477.6	-460.5	-397.9	-337.4
Goods	-515.3	-607.1	-683.4	-743.6	-737.9	-702.8	-708.8	-717.2	-683.0	-650.9
Services	136.7	145.7	157.1	173.8	193.3	210.5	231.2	256.7	285.1	313.5
Net Income from Abroad	75.6	40.5	37.1	23.8	12.3	-30.6	-38.1	-45.3	-53.0	-64.4
Receipts	546.6	574.8	765.2	1015.0	1131.1	1334.1	1482.2	1624.1	1779.2	1945.3
Payments	471.0	534.3	728.0	991.2	1118.8	1364.7	1520.3	1669.4	1832.2	2009.7
Net Transfers to Foreigners	-129.1	-131.4	-136.7	-142.5	-148.3	-154.4	-161.5	-169.1	-177.1	-185.4
Statistical Discrepancy	175.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
International Investment Position										
U.S. Assets Abroad	20023	21109	22185	23547	25156	27299	29884	32749	35912	39377
Foreign Assets in the U.S.	23608	25155	26830	28861	31159	33979	37240	40783	44593	48660
Net International Investment Position	-3585	-4046	-4645	-5315	-6003	-6679	-7356	-8034	-8682	-9283



TABLE 32

## International Trade and Investment

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Dollars											
Net Exports	-268.8	-223.8	-157.1	-84.7	-9.2	76.1	161.7	236.6	309.9	378.3	459.8
Exports of Goods & Services	3627.3	3880.0	4130.5	4382.0	4649.0	4941.3	5247.1	5563.1	5887.3	6232.6	6599.6
Goods	2585.9	2768.7	2945.9	3120.3	3304.1	3506.2	3714.5	3926.3	4140.6	4367.6	4607.4
Excluding Computers	2488.6	2663.9	2833.9	3001.4	3177.8	3372.0	3572.2	3775.7	3982.0	4200.7	4431.7
Foods, Feeds & Beverages	159.5	165.9	171.9	177.8	183.8	190.1	196.5	203.1	209.7	216.3	223.1
Industrial Materials & Supplies	639.1	673.7	708.9	744.8	782.0	823.5	867.1	913.2	960.0	1010.3	1063.2
Capital Goods	1109.3	1199.2	1279.1	1352.7	1430.5	1517.0	1601.5	1683.4	1766.3	1854.2	1948.2
Computers, Peripherals & Parts	97.2	104.8	112.0	118.9	126.3	134.1	142.3	150.7	158.6	167.0	175.7
Aircraft	168.8	183.4	199.4	216.4	233.8	251.7	270.8	291.4	313.4	336.6	361.4
Other (Incl. semiconductors)	843.3	911.0	967.7	1017.4	1070.4	1131.2	1188.3	1241.3	1294.3	1350.6	1411.1
Vehicles & Parts	253.4	271.5	289.5	307.8	327.2	348.7	373.4	398.5	422.4	448.1	475.4
Consumer Goods	340.3	369.3	402.4	438.2	476.3	516.9	560.1	606.0	653.6	703.3	754.6
Other	84.4	89.2	94.1	99.1	104.3	109.9	115.8	122.0	128.6	135.6	143.0
Services	1041.5	1111.2	1184.6	1261.6	1344.8	1435.2	1532.6	1636.8	1746.7	1864.9	1992.2
Tourism	291.4	314.0	337.2	361.2	387.4	416.1	446.7	478.8	511.1	545.6	582.5
Other	750.1	797.3	847.4	900.4	957.4	1019.1	1085.9	1158.0	1235.6	1319.3	1409.7
Imports of Goods & Services	3896.1	4103.7	4287.7	4466.6	4658.2	4865.2	5085.4	5326.5	5577.4	5854.2	6139.8
Goods	3216.1	3381.9	3524.1	3660.5	3809.2	3970.9	4140.1	4327.8	4521.8	4738.6	4962.1
Excl. Petroleum & Computers	2560.6	2722.7	2870.4	3010.2	3161.9	3314.0	3484.7	3663.5	3848.8	4051.7	4261.1
Foods, Feeds & Beverages	121.4	125.2	128.7	132.0	135.5	139.0	142.6	145.9	149.1	152.5	155.8
Indus. Mats & Sup. excl. Petroleum	459.3	487.6	510.1	531.5	554.4	576.4	602.4	628.9	654.8	682.8	711.9
Petroleum & Products	454.4	446.7	431.2	417.8	404.8	404.0	391.8	389.4	386.7	388.8	390.9
Capital Goods exc. Automotive	870.6	925.9	980.5	1035.3	1093.1	1153.1	1217.5	1284.9	1355.4	1430.3	1509.2
Computers, Peripherals & Parts	201.0	212.5	222.5	232.5	242.5	252.9	263.7	274.8	286.3	298.1	310.1
Aircraft	79.4	85.2	91.3	97.7	104.2	111.1	118.5	126.2	134.2	142.5	151.4
Other (Incl. semiconductors)	590.2	628.2	666.6	705.1	746.3	789.1	835.3	884.0	934.9	989.7	1047.7
Vehicles & Parts	363.7	378.8	386.7	391.2	399.9	409.8	422.8	434.5	445.9	459.2	471.6
Consumer Goods	800.8	863.1	923.5	980.4	1040.8	1099.5	1164.3	1234.5	1309.2	1392.8	1478.2
Other	145.9	154.6	163.5	172.3	180.8	189.0	198.8	209.6	220.6	232.3	244.4
Services	680.0	721.8	763.6	806.2	849.0	894.4	945.3	998.7	1055.6	1115.6	1177.7
Tourism	152.4	160.9	171.2	183.1	194.2	206.2	220.4	234.8	251.7	269.7	287.9
Other	527.6	560.9	592.4	623.1	654.8	688.1	724.9	763.9	804.0	845.9	889.8
Balance of Payments Basis											
Balance on Current Account	-547.2	-517.8	-470.1	-435.5	-404.3	-364.0	-325.1	-300.2	-277.4	-269.6	-253.9
Goods & Services	-276.9	-234.8	-172.1	-104.1	-33.5	46.3	126.0	194.9	261.8	323.5	397.5
Goods	-617.4	-601.0	-566.8	-529.6	-495.3	-455.9	-417.8	-394.3	-374.8	-365.1	-349.5
Services	340.5	366.2	394.7	425.4	461.8	502.2	543.8	589.2	636.5	688.6	747.0
Net Income from Abroad	-75.9	-78.9	-83.5	-105.9	-133.7	-160.9	-188.8	-219.1	-248.7	-287.1	-329.0
Receipts	2127.6	2331.9	2552.7	2775.8	3015.3	3276.3	3565.4	3879.6	4222.6	4591.9	4993.6
Payments	2203.5	2410.8	2636.2	2881.7	3148.9	3437.2	3754.2	4098.7	4471.3	4879.0	5322.7
Net Transfers to Foreigners	-194.5	-204.1	-214.5	-225.5	-237.1	-249.3	-262.3	-276.0	-290.6	-306.0	-322.4
Statistical Discrepancy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
International Investment Position											
U.S. Assets Abroad	43173	47352	52001	57161	62860	69153	76107	83772	92221	101531	111792
Foreign Assets in the U.S.	53018	57726	62863	68471	74586	81259	88550	96526	105260	114841	125364
Net International Investment Position	-9845	-10374	-10862	-11310	-11726	-12106	-12444	-12754	-13039	-13311	-13572

TABLE 32  
International Trade and Investment

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Dollars											
Net Exports	537.3	608.8	683.1	769.8	851.2	937.2	1024.1	1120.1	1223.6	1331.9	1444.6
Exports of Goods & Services	6986.0	7394.1	7818.0	8266.8	8742.3	9239.7	9763.7	10317.0	10898.2	11509.1	12150.2
Goods	4857.6	5120.0	5388.1	5669.9	5965.9	6271.5	6590.5	6924.2	7271.0	7629.8	7999.8
Excluding Computers	4672.9	4925.7	5183.9	5455.3	5740.6	6035.0	6342.4	6663.9	6998.1	7343.7	7699.1
Foods, Feeds & Beverages	230.1	237.3	244.7	252.3	260.2	268.3	276.7	285.3	294.1	303.2	312.6
Industrial Materials & Supplies	1118.6	1176.8	1237.2	1300.5	1367.5	1435.9	1508.8	1585.7	1666.1	1751.1	1839.3
Capital Goods	2045.0	2146.3	2248.3	2354.1	2462.3	2572.9	2685.3	2800.5	2918.8	3034.7	3150.3
Computers, Peripherals & Parts	184.7	194.3	204.2	214.6	225.3	236.5	248.1	260.3	272.9	286.1	300.6
Aircraft	387.6	415.3	444.5	475.1	507.5	541.4	576.9	614.1	653.0	693.7	737.3
Other (Incl. semiconductors)	1472.7	1536.8	1599.6	1664.4	1729.5	1795.0	1860.2	1926.1	1993.0	2055.0	2112.4
Vehicles & Parts	505.6	537.2	568.4	601.9	639.0	677.6	718.0	760.5	804.4	851.6	901.2
Consumer Goods	807.6	863.5	922.3	984.9	1051.4	1121.6	1196.5	1276.3	1360.4	1450.1	1544.9
Other	150.7	158.8	167.3	176.1	185.5	195.1	205.3	216.1	227.3	239.1	251.5
Services	2128.3	2274.1	2429.8	2596.9	2776.4	2968.2	3173.1	3392.8	3627.2	3879.3	4150.4
Tourism	621.6	663.4	707.9	755.6	806.8	861.2	918.9	980.2	1045.5	1115.0	1189.7
Other	1506.7	1610.7	1721.9	1841.3	1969.6	2107.0	2254.3	2412.6	2581.7	2764.2	2960.6
Imports of Goods & Services	6448.6	6785.4	7134.9	7496.9	7891.1	8302.4	8739.5	9196.9	9674.6	10177.2	10705.5
Goods	5202.9	5466.7	5741.2	6023.7	6330.9	6648.9	6986.6	7338.6	7705.6	8091.2	8496.1
Excl. Petroleum & Computers	4487.4	4734.8	4991.4	5255.3	5540.2	5842.3	6159.7	6490.0	6834.8	7197.2	7577.0
Foods, Feeds & Beverages	159.3	162.8	166.5	170.1	174.0	178.0	182.1	186.2	190.5	194.8	199.2
Indus. Mats. & Sup. excl. Petroleum	742.8	773.0	803.4	834.9	866.2	898.7	935.7	972.8	1012.4	1053.0	1094.0
Petroleum & Products	392.8	396.0	400.4	405.2	411.2	413.9	418.7	424.4	430.0	435.9	442.6
Capital Goods exc. Automotive	1594.6	1685.1	1778.6	1876.9	1981.7	2092.7	2210.1	2333.0	2461.7	2597.3	2739.2
Computers, Peripherals & Parts	322.7	335.9	349.4	363.2	377.7	392.7	408.2	424.2	440.8	458.1	476.5
Aircraft	160.8	170.7	181.1	192.0	203.5	215.6	228.2	241.4	255.1	269.5	284.6
Other (Incl. semiconductors)	1111.2	1178.5	1248.1	1321.7	1400.6	1484.4	1573.7	1667.3	1765.7	1869.8	1978.0
Vehicles & Parts	486.1	505.8	526.2	545.9	567.8	591.1	616.7	643.0	668.7	693.8	719.1
Consumer Goods	1569.4	1671.0	1778.1	1887.2	2009.1	2135.1	2263.9	2398.9	2541.3	2693.9	2858.7
Other	257.9	273.1	288.0	303.4	320.8	339.4	359.4	380.2	401.1	422.5	443.3
Services	1245.8	1318.7	1393.7	1473.2	1560.3	1653.6	1753.0	1858.4	1969.0	2086.0	2209.4
Tourism	308.5	330.5	353.4	377.6	404.6	433.8	465.1	498.1	533.0	569.9	609.1
Other	937.3	988.2	1040.3	1095.6	1155.7	1219.8	1287.9	1360.2	1436.0	1516.1	1600.4
Balance of Payments Basis											
Balance on Current Account	-246.9	-243.5	-237.6	-230.6	-234.9	-240.8	-252.5	-255.1	-233.5	-185.7	-131.0
Goods & Services	467.2	530.3	595.7	672.7	743.7	818.7	893.7	976.9	1066.8	1160.3	1257.2
Goods	-340.6	-342.5	-349.2	-350.6	-362.0	-374.9	-393.9	-412.6	-433.2	-460.2	-495.4
Services	807.8	872.8	944.9	1023.3	1105.8	1193.6	1287.6	1389.5	1499.9	1620.5	1752.6
Net Income from Abroad	-374.3	-415.6	-455.5	-504.8	-558.1	-615.4	-677.3	-737.4	-779.9	-800.0	-816.4
Receipts	5438.1	5939.7	6494.9	7100.0	7770.2	8507.7	9321.0	10224.1	11243.9	12402.6	13688.8
Payments	5812.4	6355.4	6950.4	7604.8	8328.2	9123.1	9998.3	10961.5	12023.8	13202.6	14505.3
Net Transfers to Foreigners	-339.7	-358.1	-377.7	-398.5	-420.6	-444.1	-468.9	-494.6	-520.3	-546.1	-571.8
Statistical Discrepancy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
International Investment Position											
U.S. Assets Abroad	123113	135585	149330	164491	181216	199665	220021	242483	267281	294670	324874
Foreign Assets in the U.S.	136933	149649	163635	179027	195987	214674	235277	257996	283037	310632	340986
Net International Investment Position	-13820	-14064	-14305	-14537	-14771	-15009	-15256	-15512	-15756	-15962	-16113

TABLE 33

## Indicators for International Trade and Investment

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Exchange Rates (2005=1.000)										
Major Currency Trading Partners	0.929	0.916	0.890	0.858	0.848	0.866	0.875	0.871	0.863	0.858
Inflation-Adjusted	0.933	0.945	0.915	0.882	0.873	0.891	0.898	0.891	0.879	0.871
Other Important Trading Partners	0.984	0.950	0.934	0.923	0.919	0.917	0.917	0.918	0.919	0.921
Inflation-Adjusted	0.854	0.822	0.786	0.754	0.727	0.705	0.686	0.668	0.651	0.636
Foreign Real GDP Growth- Percent Change										
Major Currency Trading Partners	-3.3	1.7	2.4	2.7	2.7	2.5	2.3	2.1	2.0	1.9
Other Important Trading Partners	-1.4	4.5	4.6	4.9	4.7	4.7	4.7	4.6	4.5	4.5
Foreign WPI Inflation Rates, Percent Change										
Major Currency Trading Partners	-3.6	1.0	1.7	1.6	1.5	1.5	1.5	1.5	1.5	1.4
Converted to U.S. Dollars	-7.8	2.2	4.7	5.3	2.6	-0.6	0.5	1.9	2.4	2.1
Other Important Trading Partners	-0.1	3.2	4.3	5.0	4.7	4.3	3.9	3.9	3.8	3.7
Converted to U.S. Dollars	-7.1	6.9	6.2	6.2	5.2	4.6	3.9	3.9	3.7	3.5
Long-Term Interest Rates - Percent										
United States	3.26	3.80	4.03	4.54	4.72	5.54	5.57	5.57	5.57	5.57
Major Currency Trading Partners	2.97	3.16	3.64	4.14	4.34	4.55	4.52	4.47	4.43	4.41

TABLE 33  
Indicators for International Trade and Investment

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Exchange Rates (2005=1 000)											
Major Currency Trading Partners	0.853	0.850	0.848	0.849	0.845	0.843	0.841	0.843	0.846	0.849	0.853
Inflation-Adjusted	0.863	0.855	0.847	0.842	0.834	0.827	0.820	0.817	0.816	0.815	0.815
Other Important Trading Partners	0.923	0.926	0.932	0.938	0.945	0.951	0.958	0.968	0.981	0.993	1.006
Inflation-Adjusted	0.621	0.609	0.599	0.590	0.583	0.575	0.568	0.563	0.559	0.555	0.552
Foreign Real GDP Growth- Percent Change											
Major Currency Trading Partners	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.7
Other Important Trading Partners	4.4	4.3	4.3	4.2	4.1	4.1	4.1	4.0	4.0	3.9	3.9
Foreign WPI Inflation Rates, Percent Change											
Major Currency Trading Partners	1.5	1.5	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Converted to U.S. Dollars	2.1	1.9	1.6	1.2	1.7	1.5	1.5	1.1	0.8	0.9	0.8
Other Important Trading Partners	3.6	3.3	3.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Converted to U.S. Dollars	3.4	2.9	2.3	2.0	2.0	2.0	2.0	1.6	1.4	1.4	1.4
Long-Term Interest Rates - Percent											
United States	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57
Major Currency Trading Partners	4.41	4.40	4.41	4.41	4.41	4.41	4.41	4.41	4.41	4.41	4.40

TABLE 33

**Indicators for International Trade and Investment**

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
<i>Exchange Rates (2005=1.000)</i>											
Major Currency Trading Partners	0.857	0.860	0.863	0.865	0.867	0.868	0.870	0.873	0.876	0.879	0.882
<i>Inflation-Adjusted</i>	0.815	0.814	0.813	0.811	0.809	0.806	0.804	0.802	0.801	0.800	0.799
Other Important Trading Partners	1.019	1.033	1.047	1.061	1.075	1.091	1.106	1.121	1.136	1.151	1.166
<i>Inflation-Adjusted</i>	0.549	0.546	0.543	0.540	0.537	0.535	0.532	0.529	0.526	0.523	0.520
<i>Foreign Real GDP Growth- Percent Change</i>											
Major Currency Trading Partners	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Other Important Trading Partners	3.9	3.8	3.8	3.7	3.7	3.7	3.6	3.6	3.6	3.6	3.6
<i>Foreign WPI Inflation Rates, Percent Change</i>											
Major Currency Trading Partners	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
<i>Converted to U.S. Dollars</i>	0.8	0.9	1.0	1.0	1.1	1.1	1.0	1.0	0.9	0.9	0.9
Other Important Trading Partners	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
<i>Converted to U.S. Dollars</i>	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.4
<i>Long-Term Interest Rates - Percent</i>											
United States	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57
Major Currency Trading Partners	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40

TABLE 34  
Interest Rates, Money, and Financial Variables

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Percent per Annum										
Federal Funds Rate	0.16	0.24	1.70	3.34	3.55	4.59	4.75	4.75	4.75	4.75
New York Fed Discount Rate	0.50	0.58	2.07	4.22	4.55	5.59	5.75	5.75	5.75	5.75
Prime Rate	3.25	3.33	4.70	6.34	6.55	7.59	7.75	7.75	7.75	7.75
U.S. Treasury Yield Curve										
3-Month Bill, Bond Equiv. Yield	0.15	0.44	2.12	3.47	3.71	4.68	4.72	4.72	4.72	4.72
6-Month Bill, Bond Equiv. Yield	0.29	0.57	2.31	3.60	3.84	4.84	4.88	4.88	4.88	4.88
1-Year Bill/Note Yield	0.47	0.74	2.41	3.65	3.88	4.82	4.86	4.86	4.86	4.86
2-Year Note Yield	0.96	1.27	2.75	3.85	4.08	4.97	5.01	5.01	5.01	5.01
5-Year Note Yield	2.19	2.61	3.44	4.24	4.42	5.26	5.29	5.29	5.29	5.29
10-Year Note Yield	3.26	3.80	4.03	4.54	4.72	5.54	5.57	5.57	5.57	5.57
30-Year Bond Yield	4.07	4.68	4.81	4.95	5.12	5.88	5.92	5.92	5.92	5.92
Short-Term Rates										
3-Month Treasury Bill	0.15	0.43	2.08	3.39	3.62	4.56	4.60	4.60	4.60	4.60
6-Month Treasury Bill	0.28	0.56	2.25	3.49	3.72	4.66	4.70	4.70	4.70	4.70
3-Month Negotiable CDs	0.57	0.68	2.53	4.01	4.25	5.16	5.20	5.20	5.20	5.20
3-Month Commercial Paper	0.26	0.56	2.35	3.83	4.08	5.03	5.07	5.07	5.07	5.07
3-Month LIBOR	0.69	0.75	2.63	4.11	4.35	5.24	5.28	5.28	5.28	5.28
4-Year New Auto Loan (Banks)	6.72	5.78	6.43	7.77	7.70	8.52	8.75	8.75	8.75	8.75
Long-Term Rates										
Seasoned Aaa Corporate Bonds	5.31	5.41	5.59	5.95	6.06	6.74	6.77	6.77	6.77	6.77
Seasoned Baa Corporate Bonds	7.30	6.39	6.62	7.00	7.11	7.79	7.82	7.82	7.82	7.82
Seasoned Aa Public Utility Bonds	5.75	5.61	5.77	6.15	6.34	7.16	7.20	7.20	7.20	7.20
Bond Buyer Index, 20 GO Munis	4.62	4.47	4.71	5.22	5.24	5.82	5.85	5.85	5.85	5.85
Mortgage Rates										
30-Year Conventional Fixed	5.04	5.22	5.55	6.07	6.25	7.07	7.10	7.10	7.10	7.10
11th District Cost of Funds	1.69	1.54	2.63	4.30	4.17	4.85	5.05	5.05	5.05	5.05
Billions of Dollars, SA										
Monetary Aggregates and Reserves										
M1	1684	1806	1893	1944	1992	2038	2087	2131	2183	2237
(Percent Change, Annual Rate)	10.2	7.2	4.8	2.7	2.5	2.3	2.4	2.1	2.4	2.5
Cash & Travelers' Checks	867	911	947	977	1011	1049	1091	1130	1172	1215
Checkable Deposits	817	895	946	968	981	990	995	1001	1011	1023
M2	8505	8898	9436	9923	10384	10823	11285	11828	12424	13060
(Percent Change, Annual Rate)	4.9	4.6	6.0	5.2	4.6	4.2	4.3	4.8	5.0	5.1
M1 Velocity (GDP/M1)	8.47	8.22	8.18	8.39	8.59	8.78	8.93	9.11	9.28	9.46
M2 Velocity (GDP/M2)	1.68	1.67	1.64	1.64	1.65	1.65	1.65	1.64	1.63	1.62
Outstanding Credit										
Com'l & Indus. Loans, Com'l.Banks	1343	1447	1587	1719	1834	1940	2049	2150	2253	2357
Percent Change, Annual Rate	-17.0	7.7	9.7	8.3	6.7	5.8	5.6	4.9	4.8	4.6
Nonmortgage Consumer Credit	2457	2545	2699	2851	2938	3036	3147	3250	3325	3426
Percent Change, Annual Rate	-4.0	3.6	6.1	5.6	3.0	3.3	3.7	3.3	2.3	3.0
Mortgage Loans, All Issuers	14440	14856	15392	16228	17319	18584	19934	21339	22774	24219
Percent Change, Annual Rate	-1.2	2.9	3.6	5.4	6.7	7.3	7.3	7.1	6.7	6.3
Mortgage Loans										
Net Acquisitions	-176.5	416.5	535.8	836.4	1090.6	1265	1350	1405	1435	1446
Single-Family	-166.9	316.4	418.4	648.2	823.9	950	1013	1054	1061	1041
Multi-Family	7.5	29.3	38.1	50.1	64.0	71	77	84	90	96
Commercial	-19.5	67.2	75.1	133.5	197.8	239	254	263	279	303
Farm	2.5	3.8	4.2	4.6	4.9	5	5	5	5	5
Outstandings, End of Period										
Single-Family	10838.4	11154.7	11573.2	12221.4	13045.4	13996	15009	16063	17124	18166
Multi-Family	917.4	946.6	984.7	1034.8	1098.8	1170	1247	1331	1421	1516
Commercial	2550.7	2617.8	2692.9	2826.4	3024.2	3263	3517	3780	4059	4362
Farm	133.2	136.9	141.1	145.6	150.5	156	161	166	171	176

TABLE 34

## Interest Rates, Money, and Financial Variables

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Percent per Annum											
Federal Funds Rate	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75
New York Fed Discount Rate	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75
Prime Rate	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75
U.S. Treasury Yield Curve											
3-Month Bill, Bond Equiv. Yield	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72
6-Month Bill, Bond Equiv. Yield	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88
1-Year Bill/Note Yield	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86
2-Year Note Yield	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01
5-Year Note Yield	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29
10-Year Note Yield	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57
30-Year Bond Yield	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92
Short-Term Rates											
3-Month Treasury Bill	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60
6-Month Treasury Bill	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70
3-Month Negotiable CDs	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20
3-Month Commercial Paper	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07
3-Month LIBOR	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28
4-Year New Auto Loan (Banks)	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75
Long-Term Rates											
Seasoned Aaa Corporate Bonds	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77
Seasoned Baa Corporate Bonds	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82
Seasoned Aa Public Utility Bonds	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20
Bond Buyer Index, 20 GO Munis	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85
Mortgage Rates											
30-Year Conventional Fixed	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10
11th District Cost of Funds	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05
Billions of Dollars, SA											
Monetary Aggregates and Reserves											
M1	2300	2373	2448	2525	2601	2684	2774	2865	2964	3065	
(Percent Change, Annual Rate)	2.8	3.2	3.2	3.2	3.0	3.2	3.3	3.3	3.4	3.4	
Cash & Travelers' Checks	1264	1315	1363	1411	1457	1508	1563	1618	1678	1738	
Checkable Deposits	1036	1058	1085	1115	1145	1176	1211	1247	1286	1327	
M2	13748	14456	15179	15921	16670	17466	18300	19143	20008	20892	
(Percent Change, Annual Rate)	5.3	5.2	5.0	4.9	4.7	4.8	4.8	4.6	4.5	4.4	
M1 Velocity (GDP/M1)	9.63	9.75	9.87	9.97	10.08	10.17	10.27	10.36	10.44	10.51	
M2 Velocity (GDP/M2)	1.61	1.60	1.59	1.58	1.57	1.56	1.56	1.55	1.55	1.54	
Outstanding Credit											
Com'l & Indus. Loans, Com'l. Banks	2459	2564	2564	2564	2564	2564	2564	2564	2564	2564	2564
Percent Change, Annual Rate	4.3	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Nonmortgage Consumer Credit	3530	3645	3645	3645	3645	3645	3645	3645	3645	3645	3645
Percent Change, Annual Rate	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Mortgage Loans, All Issuers	25710	27205	27205	27205	27205	27205	27205	27205	27205	27205	27205
Percent Change, Annual Rate	6.2	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Mortgage Loans											
Net Acquisitions	1491	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495
Single-Family	1060	1067	1067	1067	1067	1067	1067	1067	1067	1067	1067
Multi-Family	102	103	103	103	103	103	103	103	103	103	103
Commercial	324	319	319	319	319	319	319	319	319	319	319
Farm	5	5	5	5	5	5	5	5	5	5	5
Outstandings, End of Period											
Single-Family	19226	20293	20293	20293	20293	20293	20293	20293	20293	20293	20293
Multi-Family	1618	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721
Commercial	4686	5005	5005	5005	5005	5005	5005	5005	5005	5005	5005
Farm	181	186	186	186	186	186	186	186	186	186	186

TABLE 34  
Interest Rates, Money, and Financial Variables

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Percent per Annum											
Federal Funds Rate	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75
New York Fed Discount Rate	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75
Prime Rate	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75
U.S. Treasury Yield Curve											
3-Month Bill, Bond Equiv. Yield	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72
6-Month Bill, Bond Equiv. Yield	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88
1-Year Bill/Note Yield	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86
2-Year Note Yield	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01
5-Year Note Yield	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29
10-Year Note Yield	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57
30-Year Bond Yield	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92
Short-Term Rates											
3-Month Treasury Bill	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60
6-Month Treasury Bill	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70
3-Month Negotiable CDs	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20
3-Month Commercial Paper	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07
3-Month LIBOR	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28
4-Year New Auto Loan (Banks)	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75
Long-Term Rates											
Seasoned Aaa Corporate Bonds	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77
Seasoned Baa Corporate Bonds	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82
Seasoned Aa Public Utility Bonds	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20
Bond Buyer Index, 20 GO Munis	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85
Mortgage Rates											
30-Year Conventional Fixed	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10
11th District Cost of Funds	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05
Billions of Dollars, SA											
Monetary Aggregates and Reserves											
M1	3280	3394	3510	3630	3757	3890	4029	4170	4317	4468	4624
(Percent Change, Annual Rate)	3.5	3.5	3.4	3.4	3.5	3.5	3.6	3.5	3.5	3.5	3.5
Cash & Travelers' Checks	1869	1938	2008	2082	2160	2241	2327	2413	2504	2596	2693
Checkable Deposits	1411	1456	1502	1548	1597	1649	1702	1757	1813	1871	1931
M2	22785	23764	24766	25827	26931	28075	29264	30484	31751	33061	34417
(Percent Change, Annual Rate)	4.5	4.3	4.2	4.3	4.3	4.2	4.2	4.2	4.2	4.1	4.1
M1 Velocity (GDP/M1)	10.67	10.75	10.83	10.91	10.99	11.07	11.16	11.24	11.33	11.42	11.51
M2 Velocity (GDP/M2)	1.54	1.54	1.53	1.53	1.53	1.53	1.54	1.54	1.54	1.54	1.55
Outstanding Credit											
Com'l & Indus. Loans, Com'l. Banks	2564	2564	2564	2564	2564	2564	2564	2564	2564	2564	2564
Percent Change, Annual Rate	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Nonmortgage Consumer Credit	3645	3645	3645	3645	3645	3645	3645	3645	3645	3645	3645
Percent Change, Annual Rate	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Mortgage Loans, All Issuers	27205	27205	27205	27205	27205	27205	27205	27205	27205	27205	27205
Percent Change, Annual Rate	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Mortgage Loans											
Net Acquisitions	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495
Single-Family	1067	1067	1067	1067	1067	1067	1067	1067	1067	1067	1067
Multi-Family	103	103	103	103	103	103	103	103	103	103	103
Commercial	319	319	319	319	319	319	319	319	319	319	319
Farm	5	5	5	5	5	5	5	5	5	5	5
Outstandings, End of Period											
Single-Family	20293	20293	20293	20293	20293	20293	20293	20293	20293	20293	20293
Multi-Family	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721
Commercial	5005	5005	5005	5005	5005	5005	5005	5005	5005	5005	5005
Farm	186	186	186	186	186	186	186	186	186	186	186



TABLE 35  
Gross Saving and Investment

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Billions of Dollars										
Gross Saving	1544.6	1622.4	1809.4	2101.9	2381.1	2544.9	2651.9	2799.7	2992.7	3208.2
Net Saving	-319.0	-259.8	-134.3	75.0	256.8	325.3	338.7	389.7	477.0	580.6
Net Private Saving	923.9	1013.8	831.7	897.6	889.3	1001.2	1080.1	1179.7	1325.1	1508.5
Personal Saving	502.7	515.9	410.5	383.2	384.4	534.2	603.5	683.2	806.4	936.9
Adjusted Corporate Retained Earnings	416.2	497.9	421.2	514.4	504.8	467.0	476.6	496.5	518.7	571.6
Undistributed Profits	534.7	654.2	652.1	686.7	669.8	606.4	590.0	590.0	599.1	647.2
Inventory Valuation Adjustment	9.2	1.7	-17.4	-11.8	-13.1	-10.5	-5.5	-5.5	-5.3	-6.9
Capital Consumption Adjustment	-127.7	-158.0	-213.5	-160.5	-151.9	-128.9	-107.9	-87.9	-75.0	-68.7
Wage Accruals less Disbursements <sup>1</sup>	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Government Saving	-1243.0	-1273.5	-966.0	-822.6	-632.4	-676.0	-741.4	-790.0	-848.1	-927.9
Federal	-1219.9	-1288.1	-959.4	-823.9	-627.8	-671.8	-745.1	-794.7	-846.9	-923.3
State & Local	-23.1	14.5	-6.6	1.4	-4.7	-4.2	3.8	4.6	-1.2	-4.6
Consumption of Fixed Capital										
Private	1538.4	1543.5	1590.5	1661.7	1747.4	1829.8	1910.6	1995.0	2087.4	2185.4
Government	325.3	338.6	353.2	365.1	376.9	389.8	402.6	415.0	428.3	442.2
General Government	272.3	284.6	296.4	305.5	314.1	323.7	333.2	342.2	351.9	362.1
Federal	119.0	128.0	135.2	141.0	145.9	150.2	154.3	158.4	162.8	167.6
State & Local	153.3	156.6	161.2	164.5	168.2	173.5	178.9	183.8	189.1	194.5
Government Enterprise	53.0	54.0	56.8	59.7	62.8	66.1	69.4	72.7	76.3	80.1
Gross Domestic Investment	2138.4	2326.0	2583.7	2936.7	3205.6	3363.5	3468.2	3611.4	3754.2	3925.6
Gross Domestic Investment	1622.9	1787.5	2044.9	2405.0	2660.0	2799.3	2887.3	3014.5	3140.6	3295.0
Gross Government Investment	515.5	538.5	538.8	531.7	545.5	564.2	580.8	596.9	613.6	630.7
Net Lending or Borrowing (-) *	-428.3	-543.0	-613.7	-674.3	-664.1	-658.3	-656.1	-651.6	-601.6	-557.6
Statistical Discrepancy	168.4	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2
* Includes a small amount of capital transfers.										
Percent of GDP										
Gross Saving	10.8	10.9	11.6	12.8	13.9	14.23	14.23	14.43	14.80	15.18
Private	17.1	17.2	15.6	15.6	15.4	15.83	16.05	16.37	16.87	17.48
Government	-6.4	-6.3	-3.9	-2.8	-1.5	-1.6	-1.8	-1.9	-2.1	-2.3
Stock Market and Equities										
S&P 500 Common Stock Index	946.7	1150.0	1241.2	1323.3	1396.6	1470.4	1567.6	1668.0	1759.5	1830.1
Four-Quarter Percent Change	-22.5	21.5	7.9	6.6	5.5	5.3	6.6	6.4	5.5	4.0
Reported Earnings	50.7	60.7	68.5	76.5	87.9	87.7	85.2	86.1	89.4	97.4
Operating Earnings	56.4	66.1	68.7	77.5	86.2	86.35	84.69	85.47	88.35	95.62
Price-(Reported) Earnings Ratio	101.0	20.0	19.4	18.8	17.0	16.6	18.1	19.6	20.2	19.8
Dividend Yield (Annual rate)	2.4	2.1	2.1	2.1	2.1	2.13	2.08	2.03	2.00	1.99
Cost of Funds - Percent										
Financial Capital	5.7	5.1	5.0	5.1	5.2	5.38	5.42	5.40	5.39	5.41
To Limited Partnerships	3.5	3.8	4.0	4.3	4.4	4.99	5.02	5.02	5.01	5.01
To Public Utilities	5.4	4.9	4.8	4.9	5.0	5.31	5.34	5.33	5.32	5.34
After-Tax Cost of Equity	7.3	6.3	6.1	6.1	6.1	6.19	6.23	6.20	6.19	6.21
After-Tax Cost of Corporate Debt	3.3	3.3	3.5	3.7	3.8	4.17	4.19	4.19	4.19	4.19

TABLE 35  
Gross Saving and Investment

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Dollars											
Gross Saving	3432.5	3636.6	3832.3	4018.8	4205.4	4407.8	4641.3	4867.2	5078.0	5276.3	5490.9
Net Saving	686.8	770.2	845.3	911.2	972.4	1043.9	1138.6	1219.4	1279.4	1320.3	1371.0
Net Private Saving	1699.2	1869.7	1959.6	2061.0	2129.0	2222.9	2356.5	2438.8	2550.3	2634.8	2688.1
Personal Saving	1085.1	1224.4	1308.8	1392.3	1427.6	1485.5	1578.0	1638.8	1738.7	1821.2	1876.1
Adjusted Corporate Retained Earnings	614.2	645.3	650.8	668.7	701.4	737.5	778.5	800.0	811.6	813.6	812.0
Undistributed Profits	684.2	706.5	707.3	718.9	748.0	781.1	817.7	833.4	838.6	835.7	827.3
Inventory Valuation Adjustment	-5.4	-1.3	-1.4	0.1	-1.2	-3.4	-4.4	-4.4	-4.0	-5.5	-5.2
Capital Consumption Adjustment	-64.6	-59.9	-55.1	-50.4	-45.4	-40.2	-34.7	-29.0	-23.0	-16.7	-10.1
Wage Accruals less Disbursements <sup>1</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Government Saving	-1012.4	-1099.6	-1114.3	-1149.8	-1156.6	-1179.1	-1217.9	-1219.5	-1270.9	-1314.5	-1317.1
Federal	-1010.2	-1102.1	-1124.1	-1166.6	-1176.2	-1201.5	-1243.8	-1247.8	-1300.2	-1345.0	-1347.5
State & Local	-2.3	2.5	9.9	16.9	19.5	22.4	25.9	28.3	29.4	30.5	30.4
Consumption of Fixed Capital											
Private	2289.7	2397.0	2504.9	2612.8	2724.7	2841.3	2964.6	3093.6	3227.5	3367.3	3512.9
Government	456.0	469.5	482.0	494.8	508.3	522.6	538.0	554.2	571.1	588.7	607.1
General Government	372.0	381.3	389.5	397.6	406.1	415.3	425.3	435.7	446.5	457.8	469.6
Federal	172.4	177.3	182.1	186.8	191.7	196.8	202.1	207.6	213.4	219.4	225.7
State & Local	199.6	204.0	207.5	210.8	214.5	218.5	223.2	228.1	233.1	238.4	243.9
Government Enterprise	84.0	88.1	92.5	97.2	102.1	107.3	112.8	118.5	124.5	130.9	137.5
Gross Domestic Investment	4106.9	4278.6	4422.4	4569.5	4719.6	4875.8	5064.3	5259.0	5440.3	5623.7	5814.8
Gross Domestic Investment	3459.5	3617.1	3746.2	3878.5	4013.3	4151.9	4322.8	4499.0	4660.7	4824.2	4995.4
Gross Government Investment	647.4	661.5	676.2	691.0	706.3	723.9	741.5	759.9	779.6	799.5	819.4
Net Lending or Borrowing (-) *	-514.7	-482.5	-430.8	-391.5	-355.2	-309.2	-264.3	-233.3	-203.9	-189.2	-165.8
Statistical Discrepancy	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2
* Includes a small amount of capital transfers.											
Percent of GDP											
Gross Saving	15.54	15.75	15.91	16.02	16.11	16.23	16.39	16.50	16.54	16.51	16.51
Private	18.06	18.47	18.53	18.63	18.59	18.64	18.79	18.76	18.81	18.78	18.64
Government	-2.5	-2.7	-2.6	-2.6	-2.5	-2.4	-2.4	-2.3	-2.3	-2.3	-2.1
Stock Market and Equities											
S&P 500 Common Stock Index	1890.4	1957.5	2036.2	2125.5	2217.3	2311.9	2413.3	2516.9	2622.6	2732.0	2846.0
Four-Quarter Percent Change	3.3	3.6	4.0	4.4	4.3	4.3	4.4	4.3	4.2	4.2	4.2
Reported Earnings	105.8	116.0	118.9	122.3	126.0	130.1	136.2	140.3	143.5	146.8	148.8
Operating Earnings	103.60	111.91	117.38	121.17	125.19	129.64	136.17	140.81	144.58	148.13	150.81
Price-(Reported) Earnings Ratio	18.8	17.8	17.4	17.7	17.9	18.1	18.2	18.2	18.5	18.8	19.3
Dividend Yield (Annual rate)	2.01	2.01	2.01	1.99	1.98	1.96	1.95	1.93	1.92	1.91	1.89
Cost of Funds - Percent											
Financial Capital	5.42	5.40	5.31	5.22	5.16	5.14	5.13	5.13	5.15	5.16	5.16
To Limited Partnerships	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01
To Public Utilities	5.35	5.34	5.23	5.13	5.07	5.05	5.05	5.05	5.06	5.06	5.07
After-Tax Cost of Equity	6.24	6.21	6.15	6.08	6.03	5.99	5.98	5.98	6.00	6.01	6.02
After-Tax Cost of Corporate Debt	4.19	4.19	4.06	3.94	3.87	3.87	3.87	3.87	3.87	3.87	3.87

TABLE 35

**Gross Saving and Investment**

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Dollars											
Gross Saving	5731.5	5973.7	6209.5	6467.4	6747.8	7041.1	7344.0	7663.9	8013.8	8411.3	8829.2
Net Saving	1439.9	1501.4	1549.3	1612.5	1688.1	1766.8	1845.6	1931.5	2037.3	2179.8	2333.3
Net Private Saving	2778.7	2870.1	2938.8	3000.6	3090.9	3183.8	3262.8	3330.0	3400.7	3487.8	3585.2
Personal Saving	1953.4	2014.3	2068.1	2109.4	2181.7	2262.3	2332.7	2391.3	2442.1	2480.1	2523.3
Adjusted Corporate Retained Earnings	825.3	855.8	870.7	891.2	909.2	921.5	930.1	938.6	958.6	1007.7	1061.9
Undistributed Profits	834.0	857.8	864.3	877.5	887.3	890.6	891.0	888.5	897.8	934.7	974.9
Inventory Valuation Adjustment	-5.6	-6.3	-5.6	-6.2	-6.5	-6.4	-7.6	-6.4	-6.0	-4.8	-2.1
Capital Consumption Adjustment	-3.1	4.2	11.9	19.9	28.4	37.3	46.7	56.5	66.9	77.7	89.1
Wage Accruals less Disbursements <sup>1</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Government Saving	-1338.8	-1368.7	-1389.5	-1388.1	-1402.9	-1417.0	-1417.2	-1398.5	-1363.4	-1308.0	-1251.9
Federal	-1375.6	-1413.0	-1437.3	-1442.1	-1463.0	-1480.4	-1484.1	-1469.2	-1440.0	-1391.0	-1340.2
State & Local	36.8	44.3	47.9	54.0	60.1	63.4	66.9	70.8	76.6	83.0	88.3
Consumption of Fixed Capital											
Private	3665.4	3826.1	3993.0	4166.1	4348.2	4539.2	4738.7	4947.3	5165.5	5394.0	5631.3
Government	626.2	646.1	667.1	688.9	711.5	735.2	759.7	785.1	811.0	837.5	864.6
General Government	481.6	494.2	507.5	521.2	535.3	550.0	565.2	580.8	597.1	614.0	631.4
Federal	232.2	238.9	245.9	253.1	260.6	268.2	276.1	284.3	292.7	301.4	310.2
State & Local	249.4	255.3	261.6	268.1	274.7	281.7	289.0	296.5	304.4	312.6	321.2
Government Enterprise	144.5	151.9	159.6	167.7	176.2	185.2	194.6	204.2	213.9	223.5	233.2
Gross Domestic Investment	6040.1	6270.2	6490.9	6731.7	7005.8	7293.5	7596.0	7905.4	8219.6	8554.4	8901.3
Gross Domestic Investment	5200.1	5408.0	5605.1	5822.2	6071.4	6333.5	6609.6	6891.3	7176.8	7481.7	7798.3
Gross Government Investment	840.0	862.2	885.7	909.6	934.3	960.0	986.4	1014.1	1042.8	1072.7	1103.0
Net Lending or Borrowing (-) *	-150.8	-138.9	-123.9	-106.9	-100.8	-95.3	-95.1	-84.8	-49.3	13.4	84.1
Statistical Discrepancy	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2
* Includes a small amount of capital transfers.											
Percent of GDP											
Gross Saving	16.54	16.55	16.53	16.53	16.55	16.57	16.58	16.60	16.64	16.74	16.83
Private	18.59	18.55	18.45	18.32	18.25	18.17	18.06	17.92	17.79	17.68	17.57
Government	-2.1	-2.0	-1.9	-1.8	-1.7	-1.6	-1.5	-1.3	-1.1	-0.9	-0.7
Stock Market and Equities											
S&P 500 Common Stock Index	2968.1	3091.8	3218.9	3352.2	3494.5	3643.4	3801.2	3965.5	4139.1	4322.8	4505.8
Four-Quarter Percent Change	4.3	4.2	4.1	4.1	4.2	4.3	4.3	4.3	4.4	4.4	4.2
Reported Earnings	152.4	156.8	160.6	165.6	171.0	176.6	182.5	187.3	194.1	203.4	212.7
Operating Earnings	155.08	160.17	164.86	170.75	177.04	183.67	190.34	196.18	203.71	213.91	224.94
Price-(Reported) Earnings Ratio	19.8	20.0	20.3	20.6	20.8	21.0	21.2	21.5	21.8	21.9	21.8
Dividend Yield (Annual rate)	1.88	1.86	1.85	1.84	1.82	1.81	1.80	1.78	1.77	1.75	1.74
Cost of Funds - Percent											
Financial Capital	5.16	5.16	5.16	5.15	5.14	5.14	5.13	5.13	5.12	5.11	5.11
To Limited Partnerships	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02
To Public Utilities	5.07	5.07	5.07	5.06	5.05	5.05	5.04	5.04	5.03	5.03	5.03
After-Tax Cost of Equity	6.03	6.03	6.02	6.00	5.99	5.98	5.97	5.96	5.95	5.94	5.94
After-Tax Cost of Corporate Debt	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87

TABLE 36  
Prices and Wages

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Indexes										
Employment Costs (June 1989=1.000)	1.098	1.118	1.139	1.160	1.189	1.223	1.258	1.295	1.333	1.373
Wages & Salaries	1.103	1.123	1.140	1.158	1.184	1.212	1.241	1.271	1.303	1.335
Benefits	1.085	1.107	1.135	1.166	1.203	1.250	1.300	1.352	1.407	1.464
Health Insurance	1.168	1.220	1.281	1.351	1.423	1.498	1.576	1.655	1.738	1.832
Consumer Prices (1982-84=1.000)										
All-Urban	2.146	2.186	2.225	2.268	2.312	2.356	2.403	2.451	2.498	2.547
Core (excl. Food & Energy)	2.192	2.224	2.259	2.300	2.342	2.385	2.429	2.474	2.522	2.571
Commodities	1.420	1.445	1.458	1.472	1.486	1.498	1.509	1.520	1.533	1.546
Nonenergy Services	2.659	2.695	2.745	2.802	2.863	2.928	2.994	3.061	3.133	3.206
Food	2.180	2.211	2.258	2.301	2.347	2.395	2.445	2.498	2.554	2.611
Energy	1.934	2.064	2.116	2.195	2.248	2.296	2.373	2.437	2.479	2.515
Energy Commodities	2.057	2.348	2.455	2.579	2.659	2.728	2.810	2.891	2.938	2.976
Energy Services	1.936	1.903	1.904	1.940	1.971	2.000	2.076	2.128	2.167	2.202
Producer Prices, Stage of Processing (1982=1.000)										
Finished Goods	1.729	1.778	1.805	1.834	1.864	1.893	1.928	1.957	1.981	2.005
Core (excl. Food & Energy)	1.718	1.735	1.759	1.788	1.817	1.843	1.864	1.884	1.905	1.927
Food	1.760	1.818	1.821	1.824	1.836	1.852	1.869	1.887	1.906	1.926
Energy	1.467	1.579	1.630	1.683	1.725	1.770	1.852	1.910	1.945	1.975
Consumer Goods	1.794	1.858	1.888	1.919	1.950	1.982	2.025	2.060	2.089	2.117
Core Consumer Goods	1.819	1.841	1.869	1.899	1.931	1.962	1.989	2.014	2.042	2.069
Producer Goods	1.571	1.582	1.602	1.627	1.653	1.673	1.687	1.699	1.712	1.726
Intermediate Materials	1.725	1.780	1.815	1.856	1.899	1.932	1.959	1.978	1.995	2.014
Crude Materials	1.748	1.864	1.979	2.035	2.078	2.132	2.224	2.277	2.304	2.333
Percent Change										
Employment Costs	1.5	1.8	1.9	1.9	2.5	2.9	2.9	2.9	3.0	3.0
Wages & Salaries	1.5	1.8	1.6	1.6	2.2	2.4	2.4	2.4	2.5	2.5
Benefits	1.2	2.0	2.6	2.7	3.2	3.9	4.0	4.0	4.0	4.1
Health Insurance	4.5	4.4	5.0	5.4	5.4	5.3	5.2	5.0	5.0	5.4
Consumer Prices										
All-Urban	-0.3	1.9	1.7	2.0	1.9	1.9	2.0	2.0	2.0	1.9
Core (excl. Food & Energy)	1.7	1.4	1.6	1.8	1.8	1.9	1.8	1.9	1.9	1.9
Commodities	1.3	1.7	0.9	1.0	0.9	0.8	0.7	0.8	0.8	0.8
Nonenergy Services	1.9	1.3	1.9	2.1	2.2	2.3	2.3	2.3	2.3	2.3
Food	1.8	1.4	2.1	1.9	2.0	2.1	2.1	2.2	2.3	2.2
Energy	-18.0	6.7	2.6	3.7	2.4	2.1	3.3	2.7	1.7	1.4
Energy Commodities	-27.2	14.1	4.5	5.1	3.1	2.6	3.0	2.9	1.6	1.3
Energy Services	-4.3	-1.7	0.1	1.9	1.6	1.5	3.8	2.5	1.8	1.6
Producer Prices, Stage of Processing										
Finished Goods	-2.4	2.8	1.5	1.6	1.6	1.6	1.9	1.5	1.3	1.2
Core (excl. Food & Energy)	2.6	1.0	1.4	1.6	1.6	1.4	1.2	1.1	1.1	1.1
Food	-1.4	3.3	0.2	0.2	0.7	0.8	0.9	1.0	1.0	1.0
Energy	-17.3	7.6	3.2	3.3	2.5	2.6	4.6	3.1	1.8	1.6
Consumer Goods	-3.7	3.6	1.6	1.7	1.6	1.7	2.2	1.7	1.4	1.3
Core Consumer Goods	3.0	1.2	1.5	1.6	1.7	1.6	1.4	1.3	1.4	1.4
Producer Goods	2.0	0.7	1.3	1.6	1.5	1.2	0.9	0.7	0.8	0.8
Intermediate Materials	-8.3	3.2	2.0	2.3	2.3	1.7	1.4	1.0	0.8	0.9
Crude Materials	-30.4	6.6	6.2	2.9	2.1	2.6	4.3	2.4	1.2	1.2

TABLE 36  
Prices and Wages

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Indexes											
Employment Costs (June 1989=1.000)	1.413	1.452	1.493	1.534	1.577	1.621	1.668	1.716	1.766	1.817	1.870
Wages & Salaries	1.367	1.400	1.434	1.468	1.504	1.541	1.580	1.621	1.663	1.707	1.751
Benefits	1.522	1.578	1.634	1.692	1.751	1.813	1.877	1.943	2.011	2.082	2.155
Health Insurance	1.925	2.025	2.130	2.239	2.356	2.477	2.607	2.743	2.889	3.041	3.201
Consumer Prices (1982-84=1.000)											
All-Urban	2.594	2.637	2.679	2.723	2.768	2.818	2.869	2.923	2.978	3.036	3.095
Core (excl. Food & Energy)	2.620	2.667	2.713	2.760	2.808	2.858	2.910	2.964	3.020	3.077	3.136
Commodities	1.558	1.569	1.579	1.589	1.601	1.614	1.629	1.645	1.661	1.679	1.697
Nonenergy Services	3.280	3.351	3.422	3.493	3.565	3.640	3.716	3.796	3.878	3.962	4.049
Food	2.665	2.716	2.765	2.814	2.864	2.916	2.971	3.026	3.083	3.142	3.202
Energy	2.533	2.540	2.546	2.559	2.578	2.623	2.673	2.725	2.779	2.844	2.908
Energy Commodities	2.970	2.942	2.918	2.911	2.911	2.968	3.025	3.081	3.146	3.227	3.308
Energy Services	2.248	2.289	2.326	2.361	2.401	2.436	2.482	2.531	2.579	2.632	2.682
Producer Prices, Stage of Processing (1982=1.000)											
Finished Goods	2.027	2.043	2.058	2.073	2.089	2.107	2.129	2.151	2.173	2.198	2.223
Core (excl. Food & Energy)	1.947	1.964	1.979	1.992	2.005	2.018	2.032	2.047	2.062	2.078	2.094
Food	1.944	1.960	1.975	1.989	2.003	2.018	2.033	2.049	2.066	2.082	2.100
Energy	1.999	2.010	2.024	2.042	2.065	2.099	2.141	2.185	2.230	2.282	2.331
Consumer Goods	2.142	2.160	2.178	2.197	2.217	2.241	2.268	2.296	2.325	2.357	2.388
Core Consumer Goods	2.096	2.119	2.139	2.158	2.177	2.198	2.219	2.241	2.263	2.286	2.310
Producer Goods	1.739	1.749	1.756	1.761	1.765	1.770	1.775	1.781	1.787	1.793	1.800
Intermediate Materials	2.031	2.042	2.050	2.057	2.064	2.074	2.086	2.099	2.112	2.127	2.142
Crude Materials	2.359	2.357	2.350	2.346	2.343	2.352	2.369	2.389	2.408	2.430	2.449
Percent Change											
Employment Costs	2.9	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9
Wages & Salaries	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.6	2.6	2.6	2.6
Benefits	3.9	3.7	3.5	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Health Insurance	5.1	5.2	5.2	5.1	5.2	5.2	5.2	5.2	5.3	5.3	5.3
Consumer Prices											
All-Urban	1.8	1.7	1.6	1.6	1.7	1.8	1.8	1.9	1.9	1.9	1.9
Core (excl. Food & Energy)	1.9	1.8	1.7	1.7	1.7	1.8	1.8	1.9	1.9	1.9	1.9
Commodities	0.8	0.7	0.6	0.7	0.7	0.8	0.9	1.0	1.0	1.0	1.1
Nonenergy Services	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2
Food	2.1	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9
Energy	0.7	0.2	0.3	0.5	0.8	1.7	1.9	1.9	2.0	2.3	2.2
Energy Commodities	-0.2	-0.9	-0.8	-0.3	0.0	2.0	1.9	1.9	2.1	2.6	2.5
Energy Services	2.1	1.8	1.6	1.5	1.7	1.5	1.9	2.0	1.9	2.0	1.9
Producer Prices, Stage of Processing											
Finished Goods	1.1	0.8	0.7	0.7	0.8	0.9	1.0	1.0	1.0	1.1	1.1
Core (excl. Food & Energy)	1.1	0.9	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.8	0.8
Food	0.9	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
Energy	1.2	0.6	0.7	0.9	1.1	1.6	2.0	2.1	2.1	2.3	2.2
Consumer Goods	1.2	0.9	0.8	0.8	0.9	1.1	1.2	1.2	1.3	1.4	1.3
Core Consumer Goods	1.3	1.1	1.0	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0
Producer Goods	0.7	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
Intermediate Materials	0.8	0.6	0.4	0.3	0.4	0.5	0.6	0.6	0.6	0.7	0.7
Crude Materials	1.1	-0.1	-0.3	-0.2	-0.1	0.4	0.7	0.8	0.8	0.9	0.8

TABLE 36  
Prices and Wages

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
<b>Indexes</b>											
Employment Costs (June 1989=1.000)	1.924	1.979	2.036	2.093	2.153	2.214	2.278	2.342	2.408	2.475	2.544
Wages & Salaries	1.797	1.842	1.888	1.934	1.982	2.032	2.083	2.134	2.185	2.237	2.290
Benefits	2.230	2.309	2.390	2.474	2.561	2.651	2.744	2.840	2.940	3.044	3.151
Health Insurance	3.369	3.545	3.730	3.922	4.122	4.332	4.551	4.781	5.023	5.273	5.531
<b>Consumer Prices (1982-84=1.000)</b>											
All-Urban	3.155	3.216	3.278	3.341	3.405	3.472	3.539	3.608	3.679	3.752	3.826
Core (excl. Food & Energy)	3.196	3.258	3.322	3.386	3.453	3.521	3.591	3.663	3.737	3.813	3.890
Commodities	1.716	1.737	1.758	1.780	1.804	1.828	1.853	1.880	1.908	1.937	1.967
Nonenergy Services	4.136	4.226	4.317	4.410	4.505	4.602	4.702	4.804	4.908	5.015	5.123
Food	3.263	3.325	3.389	3.453	3.518	3.583	3.649	3.717	3.785	3.854	3.924
Energy	2.970	3.032	3.084	3.138	3.194	3.250	3.305	3.361	3.419	3.480	3.540
Energy Commodities	3.390	3.471	3.544	3.617	3.698	3.771	3.843	3.916	3.991	4.067	4.144
Energy Services	2.729	2.775	2.809	2.846	2.880	2.922	2.964	3.005	3.051	3.099	3.147
<b>Producer Prices, Stage of Processing (1982=1.000)</b>											
Finished Goods	2.247	2.271	2.293	2.316	2.338	2.360	2.383	2.407	2.431	2.455	2.478
Core (excl. Food & Energy)	2.110	2.127	2.145	2.161	2.179	2.196	2.213	2.230	2.247	2.265	2.282
Food	2.117	2.135	2.153	2.170	2.188	2.205	2.222	2.240	2.257	2.275	2.292
Energy	2.378	2.424	2.460	2.498	2.536	2.571	2.613	2.654	2.699	2.743	2.781
Consumer Goods	2.419	2.449	2.477	2.505	2.534	2.561	2.591	2.620	2.651	2.682	2.711
Core Consumer Goods	2.334	2.359	2.384	2.408	2.434	2.459	2.484	2.509	2.535	2.561	2.587
Producer Goods	1.806	1.813	1.821	1.828	1.835	1.841	1.848	1.855	1.861	1.868	1.874
Intermediate Materials	2.156	2.171	2.183	2.194	2.207	2.218	2.230	2.242	2.255	2.269	2.280
Crude Materials	2.465	2.480	2.488	2.505	2.511	2.528	2.549	2.570	2.592	2.613	2.630
<b>Percent Change</b>											
Employment Costs	2.9	2.9	2.8	2.8	2.8	2.9	2.9	2.8	2.8	2.8	2.8
Wages & Salaries	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4
Benefits	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Health Insurance	5.3	5.2	5.2	5.1	5.1	5.1	5.1	5.0	5.1	5.0	4.9
<b>Consumer Prices</b>											
All-Urban	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0
Core (excl. Food & Energy)	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Commodities	1.1	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.5	1.5	1.6
Nonenergy Services	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Food	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8
Energy	2.1	2.1	1.7	1.7	1.8	1.7	1.7	1.7	1.8	1.8	1.7
Energy Commodities	2.5	2.4	2.1	2.1	2.2	2.0	1.9	1.9	1.9	1.9	1.9
Energy Services	1.8	1.7	1.3	1.3	1.2	1.5	1.4	1.4	1.5	1.6	1.6
<b>Producer Prices, Stage of Processing</b>											
Finished Goods	1.1	1.1	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	0.9
Core (excl. Food & Energy)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Food	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Energy	2.0	1.9	1.5	1.6	1.5	1.4	1.6	1.6	1.7	1.7	1.4
Consumer Goods	1.3	1.3	1.1	1.1	1.1	1.1	1.2	1.1	1.2	1.2	1.1
Core Consumer Goods	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Producer Goods	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
Intermediate Materials	0.7	0.7	0.5	0.5	0.6	0.5	0.6	0.5	0.6	0.6	0.5
Crude Materials	0.7	0.6	0.4	0.6	0.2	0.7	0.8	0.8	0.8	0.8	0.7

TABLE 37  
Producer Prices by Commodity

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Levels (1982=1.000)										
All Commodities	1.730	1.791	1.834	1.876	1.915	1.950	1.988	2.016	2.039	2.063
Farm Products	1.345	1.418	1.486	1.500	1.509	1.518	1.527	1.536	1.545	1.555
Processed Foods & Feeds	1.762	1.793	1.788	1.790	1.802	1.817	1.834	1.852	1.872	1.892
Industrial Commodities	1.750	1.814	1.862	1.909	1.953	1.992	2.034	2.065	2.089	2.114
Textile Products and Apparel	1.295	1.307	1.311	1.308	1.303	1.300	1.296	1.295	1.294	1.294
Fuels & Power	1.590	1.701	1.776	1.839	1.886	1.941	2.045	2.114	2.151	2.185
Coal	1.825	1.780	1.729	1.736	1.759	1.787	1.813	1.838	1.865	1.891
Gas Fuels	1.743	1.789	2.091	2.127	2.138	2.244	2.569	2.687	2.715	2.766
Electric Power	1.803	1.812	1.839	1.901	1.948	1.984	2.034	2.075	2.115	2.153
Utility Natural Gas	2.054	1.945	1.984	1.950	1.946	1.988	2.165	2.252	2.284	2.314
Crude Petroleum	1.613	1.950	2.061	2.209	2.311	2.397	2.503	2.609	2.664	2.705
Refined Petroleum Products	1.758	2.092	2.191	2.323	2.416	2.495	2.590	2.684	2.736	2.777
Residual Petroleum Products	1.567	1.896	2.029	2.166	2.259	2.353	2.471	2.592	2.672	2.716
Chemicals & Allied Products	2.297	2.426	2.526	2.588	2.641	2.682	2.719	2.754	2.792	2.832
Rubber & Plastic Products	1.651	1.686	1.719	1.739	1.758	1.771	1.780	1.790	1.803	1.817
Lumber & Wood Products	1.830	1.896	2.012	2.099	2.146	2.164	2.173	2.196	2.216	2.239
Pulp & Paper	2.255	2.303	2.378	2.441	2.500	2.546	2.588	2.633	2.686	2.741
Metals & Metal Products	1.871	1.999	2.040	2.143	2.270	2.372	2.413	2.431	2.457	2.489
Machinery & Equipment	1.313	1.325	1.334	1.348	1.360	1.365	1.365	1.364	1.364	1.365
Furniture & Household Durables	1.531	1.533	1.535	1.542	1.553	1.564	1.573	1.583	1.594	1.605
Transportation Equipment	1.622	1.642	1.672	1.702	1.733	1.762	1.787	1.807	1.826	1.846
Automobiles	1.310	1.314	1.321	1.337	1.355	1.369	1.379	1.387	1.397	1.408
Other Industrial Commodities	2.092	2.104	2.129	2.151	2.173	2.195	2.217	2.239	2.263	2.286
Non-Energy Industrial Commodities	1.766	1.815	1.852	1.893	1.935	1.968	1.988	2.005	2.024	2.046
Percent Change										
All Commodities	-8.7	3.5	2.4	2.3	2.1	1.8	1.9	1.4	1.2	1.2
Farm Products	-16.6	5.4	4.8	0.9	0.6	0.6	0.6	0.6	0.6	0.6
Processed Foods & Feeds	-2.4	1.7	-0.3	0.1	0.7	0.9	0.9	1.0	1.1	1.1
Industrial Commodities	-9.0	3.7	2.6	2.5	2.3	2.0	2.1	1.5	1.2	1.2
Textile Products and Apparel	0.5	0.9	0.3	-0.2	-0.4	-0.3	-0.2	-0.1	0.0	0.0
Fuels & Power	-25.7	7.0	4.4	3.6	2.6	2.9	5.3	3.4	1.8	1.6
Coal	12.8	-2.4	-2.9	0.4	1.3	1.6	1.4	1.4	1.4	1.4
Gas Fuels	-49.9	2.6	16.9	1.7	0.5	5.0	14.5	4.6	1.1	1.9
Electric Power	2.7	0.5	1.5	3.4	2.5	1.8	2.5	2.0	1.9	1.8
Utility Natural Gas	-19.7	-5.3	2.0	-1.7	-0.2	2.2	8.9	4.0	1.4	1.3
Crude Petroleum	-40.9	20.9	5.7	7.1	4.6	3.7	4.4	4.2	2.1	1.5
Refined Petroleum Products	-34.8	19.0	4.7	6.0	4.0	3.3	3.8	3.6	2.0	1.5
Residual Petroleum Products	-31.7	21.0	7.0	6.7	4.3	4.1	5.0	4.9	3.1	1.7
Chemicals & Allied Products	-6.4	5.6	4.1	2.5	2.1	1.6	1.4	1.3	1.4	1.4
Rubber & Plastic Products	-0.5	2.1	1.9	1.2	1.1	0.7	0.5	0.6	0.7	0.8
Lumber & Wood Products	-4.3	3.6	6.1	4.3	2.3	0.8	0.4	1.1	0.9	1.0
Pulp & Paper	-0.6	2.1	3.3	2.6	2.4	1.9	1.6	1.8	2.0	2.1
Metals & Metal Products	-12.1	6.9	2.0	5.0	5.9	4.5	1.7	0.7	1.1	1.3
Machinery & Equipment	1.2	0.9	0.7	1.1	0.9	0.4	0.0	-0.1	0.1	0.1
Furniture & Household Durables	2.8	0.1	0.1	0.5	0.7	0.7	0.6	0.6	0.7	0.7
Transportation Equipment	2.3	1.2	1.9	1.8	1.8	1.7	1.4	1.1	1.1	1.1
Automobiles	1.6	0.3	0.6	1.2	1.4	1.0	0.7	0.6	0.7	0.8
Other Industrial Commodities	0.9	0.6	1.2	1.0	1.0	1.0	1.0	1.0	1.1	1.0
Non-Energy Industrial Commodities	-2.5	2.8	2.1	2.2	2.2	1.7	1.0	0.8	1.0	1.0

TABLE 37  
Producer Prices by Commodity

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Levels (1982=1,000)											
All Commodities	2.083	2.101	2.119	2.133	2.147	2.166	2.186	2.207	2.227	2.248	2.269
Farm Products	1.564	1.574	1.583	1.593	1.602	1.612	1.621	1.631	1.640	1.650	1.660
Processed Foods & Feeds	1.910	1.926	1.941	1.955	1.969	1.984	1.999	2.015	2.031	2.048	2.066
Industrial Commodities	2.135	2.154	2.173	2.188	2.202	2.222	2.242	2.264	2.286	2.307	2.330
Textile Products and Apparel	1.292	1.287	1.281	1.276	1.270	1.265	1.260	1.256	1.253	1.250	1.247
Fuels & Power	2.211	2.214	2.219	2.229	2.243	2.274	2.314	2.358	2.401	2.453	2.500
Coal	1.918	1.945	1.973	2.000	2.027	2.056	2.084	2.130	2.166	2.205	2.244
Gas Fuels	2.877	2.925	2.990	3.050	3.113	3.155	3.242	3.344	3.444	3.543	3.620
Electric Power	2.192	2.233	2.270	2.301	2.336	2.368	2.407	2.448	2.489	2.535	2.582
Utility Natural Gas	2.377	2.416	2.454	2.501	2.555	2.596	2.666	2.740	2.808	2.883	2.942
Crude Petroleum	2.683	2.585	2.456	2.350	2.245	2.215	2.180	2.143	2.105	2.084	2.062
Refined Petroleum Products	2.763	2.724	2.700	2.692	2.691	2.742	2.794	2.845	2.905	2.979	3.054
Residual Petroleum Products	2.699	2.656	2.590	2.549	2.510	2.554	2.603	2.651	2.696	2.769	2.841
Chemicals & Allied Products	2.869	2.896	2.919	2.938	2.956	2.978	3.000	3.025	3.049	3.076	3.104
Rubber & Plastic Products	1.829	1.837	1.842	1.845	1.847	1.851	1.855	1.860	1.864	1.870	1.876
Lumber & Wood Products	2.261	2.277	2.282	2.285	2.288	2.293	2.303	2.312	2.315	2.316	2.318
Pulp & Paper	2.796	2.846	2.893	2.940	2.988	3.037	3.088	3.140	3.192	3.245	3.300
Metals & Metal Products	2.521	2.544	2.558	2.564	2.569	2.573	2.578	2.583	2.588	2.595	2.601
Machinery & Equipment	1.365	1.362	1.357	1.351	1.345	1.339	1.334	1.329	1.324	1.319	1.314
Furniture & Household Durables	1.615	1.623	1.629	1.634	1.639	1.644	1.649	1.654	1.660	1.666	1.672
Transportation Equipment	1.865	1.882	1.895	1.905	1.914	1.922	1.931	1.941	1.951	1.961	1.973
Automobiles	1.418	1.425	1.429	1.431	1.432	1.434	1.437	1.439	1.441	1.444	1.447
Other Industrial Commodities	2.307	2.323	2.338	2.353	2.369	2.386	2.403	2.420	2.437	2.454	2.473
Non-Energy Industrial Commodities	2.065	2.080	2.092	2.101	2.111	2.122	2.134	2.147	2.157	2.169	2.180
Percent Change											
All Commodities	1.0	0.9	0.9	0.7	0.6	0.9	0.9	0.9	0.9	0.9	0.9
Farm Products	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Processed Foods & Feeds	1.0	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
Industrial Commodities	1.0	0.9	0.9	0.7	0.6	0.9	0.9	1.0	1.0	0.9	1.0
Textile Products and Apparel	-0.2	-0.4	-0.5	-0.4	-0.4	-0.4	-0.4	-0.3	-0.3	-0.2	-0.2
Fuels & Power	1.1	0.1	0.2	0.5	0.7	1.4	1.8	1.9	1.9	2.1	1.9
Coal	1.4	1.4	1.4	1.4	1.3	1.4	1.4	2.2	1.7	1.8	1.8
Gas Fuels	4.0	1.7	2.2	2.0	2.1	1.4	2.8	3.1	3.0	2.9	2.2
Electric Power	1.9	1.9	1.6	1.4	1.5	1.4	1.6	1.7	1.7	1.8	1.9
Utility Natural Gas	2.7	1.6	1.6	1.9	2.2	1.6	2.7	2.8	2.5	2.7	2.0
Crude Petroleum	-0.8	-3.6	-5.0	-4.3	-4.5	-1.3	-1.6	-1.7	-1.8	-1.0	-1.0
Refined Petroleum Products	-0.5	-1.4	-0.9	-0.3	0.0	1.9	1.9	1.8	2.1	2.6	2.5
Residual Petroleum Products	-0.6	-1.6	-2.5	-1.6	-1.5	1.7	1.9	1.8	1.7	2.7	2.6
Chemicals & Allied Products	1.3	1.0	0.8	0.7	0.6	0.7	0.8	0.8	0.8	0.9	0.9
Rubber & Plastic Products	0.7	0.4	0.3	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.3
Lumber & Wood Products	1.0	0.7	0.2	0.1	0.2	0.2	0.5	0.4	0.1	0.0	0.1
Pulp & Paper	2.0	1.8	1.7	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7
Metals & Metal Products	1.3	0.9	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2
Machinery & Equipment	0.0	-0.2	-0.4	-0.4	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4	-0.3
Furniture & Household Durables	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Transportation Equipment	1.0	0.9	0.7	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.6
Automobiles	0.7	0.5	0.3	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2
Other Industrial Commodities	0.9	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Non-Energy Industrial Commodities	1.0	0.7	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5



TABLE 37

## Producer Prices by Commodity

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Levels (1982=1 000)											
All Commodities	2.290	2.310	2.332	2.354	2.376	2.399	2.421	2.443	2.466	2.489	2.512
Farm Products	1.670	1.680	1.690	1.700	1.710	1.720	1.730	1.740	1.751	1.761	1.771
Processed Foods & Feeds	2.083	2.101	2.119	2.136	2.154	2.171	2.189	2.206	2.224	2.241	2.259
Industrial Commodities	2.351	2.373	2.396	2.419	2.443	2.466	2.490	2.513	2.538	2.561	2.586
Textile Products and Apparel	1.245	1.242	1.240	1.238	1.235	1.232	1.229	1.226	1.222	1.219	1.215
Fuels & Power	2.545	2.588	2.621	2.659	2.692	2.727	2.769	2.810	2.854	2.899	2.936
Coal	2.283	2.322	2.363	2.402	2.443	2.484	2.527	2.569	2.611	2.652	2.693
Gas Fuels	3.678	3.720	3.728	3.773	3.758	3.823	3.887	3.950	4.014	4.078	4.142
Electric Power	2.628	2.671	2.710	2.749	2.789	2.829	2.870	2.909	2.951	2.993	3.036
Utility Natural Gas	2.994	3.044	3.064	3.095	3.113	3.161	3.208	3.254	3.316	3.380	3.444
Crude Petroleum	2.045	2.032	2.023	2.016	2.012	1.993	1.992	1.993	1.993	1.992	1.975
Refined Petroleum Products	3.129	3.203	3.270	3.337	3.411	3.454	3.518	3.581	3.644	3.707	3.745
Residual Petroleum Products	2.914	2.991	3.069	3.148	3.226	3.277	3.357	3.434	3.513	3.595	3.650
Chemicals & Allied Products	3.130	3.158	3.184	3.209	3.234	3.258	3.283	3.307	3.332	3.357	3.380
Rubber & Plastic Products	1.882	1.888	1.894	1.899	1.904	1.908	1.913	1.918	1.922	1.927	1.931
Lumber & Wood Products	2.327	2.336	2.338	2.343	2.354	2.364	2.374	2.381	2.388	2.395	2.402
Pulp & Paper	3.356	3.412	3.469	3.526	3.585	3.645	3.704	3.765	3.826	3.889	3.952
Metals & Metal Products	2.607	2.614	2.620	2.624	2.629	2.633	2.639	2.643	2.649	2.656	2.658
Machinery & Equipment	1.309	1.305	1.300	1.295	1.290	1.285	1.280	1.274	1.269	1.264	1.258
Furniture & Household Durables	1.678	1.684	1.691	1.697	1.703	1.709	1.715	1.721	1.727	1.732	1.738
Transportation Equipment	1.984	1.996	2.009	2.022	2.034	2.046	2.059	2.071	2.083	2.095	2.107
Automobiles	1.450	1.453	1.457	1.461	1.466	1.470	1.474	1.478	1.482	1.487	1.491
Other Industrial Commodities	2.490	2.509	2.527	2.544	2.562	2.579	2.596	2.613	2.630	2.647	2.664
Non-Energy Industrial Commodities	2.192	2.204	2.216	2.226	2.238	2.248	2.259	2.269	2.277	2.284	2.288
Percent Change											
All Commodities	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9
Farm Products	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Processed Foods & Feeds	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Industrial Commodities	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9	1.0	0.9	1.0
Textile Products and Apparel	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3
Fuels & Power	1.8	1.7	1.3	1.4	1.2	1.3	1.5	1.5	1.6	1.6	1.3
Coal	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6
Gas Fuels	1.6	1.1	0.2	1.2	-0.4	1.7	1.7	1.6	1.6	1.6	1.6
Electric Power	1.8	1.7	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.5
Utility Natural Gas	1.8	1.7	0.7	1.0	0.6	1.6	1.5	1.4	1.9	1.9	1.9
Crude Petroleum	-0.8	-0.6	-0.5	-0.3	-0.2	-0.9	0.0	0.0	0.0	0.0	-0.9
Refined Petroleum Products	2.4	2.4	2.1	2.0	2.2	1.2	1.9	1.8	1.8	1.7	1.0
Residual Petroleum Products	2.5	2.7	2.6	2.6	2.5	1.6	2.4	2.3	2.3	2.3	1.5
Chemicals & Allied Products	0.9	0.9	0.8	0.8	0.8	0.7	0.8	0.7	0.8	0.8	0.7
Rubber & Plastic Products	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Lumber & Wood Products	0.4	0.4	0.1	0.2	0.4	0.4	0.4	0.3	0.3	0.3	0.3
Pulp & Paper	1.7	1.7	1.7	1.6	1.7	1.7	1.6	1.6	1.6	1.6	1.6
Metals & Metal Products	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.1
Machinery & Equipment	-0.4	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.5
Furniture & Household Durables	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
Transportation Equipment	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Automobiles	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Other Industrial Commodities	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6
Non-Energy Industrial Commodities	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.2

TABLE 38  
Population, Labor Force and Potential GDP

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Millions										
Total Population	307.8	310.9	313.9	316.9	320.0	323.1	326.2	329.3	332.5	335.7
Under 5	21.2	21.4	21.6	21.8	22.0	22.2	22.3	22.5	22.7	22.8
Ages 5 through 21	70.5	70.9	71.1	71.3	71.5	71.8	72.2	72.7	73.3	74.0
Ages 16 and Up	242.2	244.8	247.3	249.7	252.1	254.5	257.0	259.5	262.0	264.6
Males Ages 25 through 54	64.6	64.7	64.9	65.0	65.2	65.4	65.6	65.8	66.1	66.3
Ages 55 through 64	35.0	36.3	37.4	38.1	38.9	39.7	40.5	41.3	41.9	42.4
Ages 65 and Up	39.7	40.5	41.5	42.9	44.3	45.7	47.2	48.6	50.2	51.7
Ages 85 and Up	5.9	6.0	6.2	6.3	6.4	6.5	6.6	6.7	6.7	6.7
Percent Change										
Total Population	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Under 5	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.7
Ages 5 through 21	0.5	0.5	0.4	0.2	0.3	0.4	0.6	0.7	0.8	0.9
Ages 16 and Up	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Males Ages 25 through 54	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.3
Ages 55 through 64	3.5	3.8	3.0	1.9	2.0	2.1	2.1	1.8	1.4	1.2
Ages 65 and Up	2.0	1.9	2.4	3.5	3.3	3.1	3.2	3.1	3.1	3.2
Ages 85 and Up	2.8	2.5	2.1	1.9	1.7	1.4	1.5	1.1	0.8	0.6
Labor Force and Employment										
Labor Force, Millions	154.2	153.7	155.2	156.8	158.5	160.0	161.2	162.4	163.5	164.7
Under 65	147.7	146.9	148.2	149.6	151.0	152.2	153.1	153.8	154.6	155.4
Ages 65 and Up	6.5	6.8	7.0	7.2	7.5	7.8	8.2	8.5	8.9	9.3
Participation Rate, Percent	63.7	62.8	62.8	62.8	62.9	62.9	62.7	62.6	62.4	62.2
Under 65	73.0	71.9	72.0	72.3	72.7	72.9	73.0	73.0	73.0	73.0
Ages 65 and Up	16.4	16.8	16.8	16.7	16.8	17.1	17.3	17.6	17.7	17.9
Employment, Millions										
Household Survey	139.9	138.5	140.7	143.8	146.7	148.8	150.3	151.7	153.2	154.7
Establishment Survey	130.9	130.0	131.9	135.6	138.9	141.0	142.4	143.5	144.6	145.8
Percent Change, Annual Rate	-4.3	-0.7	1.5	2.8	2.4	1.5	1.0	0.8	0.8	0.9
Unemployment Rate, Percent	9.3	9.9	9.3	8.3	7.5	7.0	6.8	6.6	6.3	6.0
Average Weekly Hours										
Manufacturing Workweek	39.9	40.6	40.7	40.9	40.9	40.8	40.8	40.8	40.7	40.7
Durables Workweek	39.9	40.7	40.8	41.1	41.0	40.9	40.8	40.8	40.7	40.6
Nondurables Workweek	39.8	40.6	40.6	40.7	40.7	40.7	40.7	40.8	40.7	40.7
Manhours in Private Nonfarm Estab.										
Billions of Hours, SAAR	182.0	182.1	186.8	192.9	197.7	200.8	202.7	204.3	205.9	207.7
Percent Change, Annual Rate	-5.6	0.1	2.6	3.3	2.5	1.5	0.9	0.8	0.8	0.9
Vendor Performance Index	51.4	58.3	55.2	55.6	53.8	52.3	51.5	52.0	52.2	52.6
Potential GDP										
Billions of Chained 2000 Dollars	14374.1	14658.1	14967.5	15292.9	15646.4	16029.0	16416.6	16798.9	17186.1	17579.9
Percent Change										
Potential GDP	2.5	2.0	2.1	2.2	2.3	2.4	2.4	2.3	2.3	2.3
Nonhousing, Non-Government	-3.4	3.6	3.6	4.5	3.7	3.0	2.7	2.7	2.8	3.0
Potential Output	2.2	2.4	2.8	2.5	2.6	2.7	2.6	2.5	2.5	2.5
Capital Stock	0.1	-0.3	0.9	2.4	3.5	3.8	3.5	3.1	3.1	3.2
R&D Capital Stock	2.6	2.3	2.3	2.4	2.7	2.7	2.7	2.6	2.6	2.7
Full-Employment Labor Force	0.4	1.2	1.9	1.1	0.6	0.6	0.6	0.6	0.6	0.5
Multifactor Productivity	1.6	1.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Nonfarm Productivity - Output per Hour										
Full-Employment	1.8	1.3	0.9	1.5	2.0	2.1	2.1	1.9	1.9	2.0
Actual	3.0	3.5	0.5	0.6	0.8	1.4	1.8	2.0	2.0	2.1
All Manufacturing	1.4	6.2	2.7	2.1	2.6	3.0	3.3	3.3	3.0	3.0
Durable Goods	-2.1	7.5	3.6	3.3	3.4	3.8	4.2	4.4	4.3	4.2
Nondurable Goods	2.7	4.3	1.6	0.7	1.6	2.0	2.2	1.9	1.5	1.6

TABLE 38

## Population, Labor Force and Potential GDP

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Millions											
Total Population	338.8	342.0	345.2	348.5	351.7	354.9	358.1	361.3	364.5	367.7	370.9
Under 5	23.0	23.1	23.2	23.4	23.5	23.6	23.7	23.9	24.0	24.1	24.3
Ages 5 through 21	74.8	75.5	76.3	77.0	77.7	78.4	79.0	79.7	80.3	80.9	81.6
Ages 16 and Up	267.2	269.9	272.5	275.1	277.8	280.5	283.1	285.8	288.5	291.3	294.0
Males Ages 25 through 54	66.5	66.7	67.0	67.3	67.7	68.0	68.2	68.6	69.0	69.6	70.2
Ages 55 through 64	42.7	42.9	42.8	42.5	42.2	42.0	41.8	41.7	41.4	40.9	40.5
Ages 65 and Up	53.4	55.2	57.0	58.8	60.6	62.4	64.3	66.1	67.8	69.4	71.0
Ages 85 and Up	6.8	6.9	7.0	7.1	7.2	7.4	7.5	7.8	8.1	8.4	8.8
Percent Change											
Total Population	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Under 5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.6
Ages 5 through 21	1.0	1.0	1.0	1.0	0.8	0.9	0.8	0.8	0.8	0.8	0.8
Ages 16 and Up	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9
Males Ages 25 through 54	0.3	0.3	0.5	0.5	0.5	0.4	0.4	0.5	0.7	0.8	0.9
Ages 55 through 64	0.9	0.4	-0.2	-0.6	-0.8	-0.5	-0.4	-0.4	-0.8	-1.1	-1.1
Ages 65 and Up	3.2	3.3	3.2	3.2	3.1	3.0	3.0	2.8	2.6	2.4	2.3
Ages 85 and Up	0.7	1.3	1.3	1.4	1.9	2.2	2.5	2.9	3.8	4.6	4.0
Labor Force and Employment											
Labor Force, Millions	165.7	166.8	167.9	168.8	169.8	170.7	171.6	172.5	173.5	174.6	175.7
Under 65	156.1	156.7	157.3	157.8	158.3	158.8	159.3	159.8	160.5	161.3	162.1
Ages 65 and Up	9.6	10.1	10.5	11.0	11.4	11.9	12.3	12.7	13.0	13.3	13.6
Participation Rate, Percent	62.0	61.8	61.6	61.4	61.1	60.9	60.6	60.3	60.1	59.9	59.8
Under 65	73.0	73.0	73.0	72.9	72.9	72.9	72.8	72.7	72.7	72.7	72.7
Ages 65 and Up	18.1	18.2	18.4	18.7	18.9	19.0	19.1	19.2	19.2	19.2	19.1
Employment, Millions											
Household Survey	156.4	158.1	159.4	160.5	161.5	162.5	163.2	164.1	165.1	166.1	167.1
Establishment Survey	147.2	148.6	149.9	151.3	152.6	154.0	155.5	156.9	158.4	159.9	161.4
Percent Change, Annual Rate	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Unemployment Rate, Percent	5.6	5.2	5.0	4.9	4.9	4.8	4.8	4.9	4.9	4.9	4.9
Average Weekly Hours											
Manufacturing Workweek	40.6	40.6	40.6	40.7	40.7	40.7	40.7	40.7	40.7	40.8	40.8
Durables Workweek	40.5	40.5	40.5	40.6	40.6	40.6	40.6	40.6	40.6	40.7	40.7
Nondurables Workweek	40.7	40.8	40.8	40.8	40.9	40.9	40.9	40.9	40.9	40.9	40.9
Manhours in Private Nonfarm Estab.											
Billions of Hours, SAAR	209.7	211.6	213.6	215.7	217.7	219.7	221.9	224.0	226.1	228.3	230.5
Percent Change, Annual Rate	1.0	0.9	1.0	1.0	0.9	0.9	1.0	1.0	0.9	1.0	1.0
Vendor Performance Index	52.7	52.4	52.1	51.8	51.7	51.6	51.7	51.6	51.7	51.7	51.6
Potential GDP											
Billions of Chained 2000 Dollars	17983.5	18393.4	18812.6	19235.6	19669.1	20115.0	20574.8	21046.1	21534.8	22038.2	22557.0
Percent Change											
Potential GDP	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.4
Nonhousing, Non-Government	3.2	3.2	3.1	2.9	2.8	2.8	3.0	2.8	2.7	2.7	2.7
Potential Output	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6
Capital Stock	3.4	3.5	3.5	3.4	3.4	3.3	3.4	3.4	3.4	3.4	3.4
R&D Capital Stock	2.7	2.8	2.8	2.9	3.0	3.0	3.1	3.1	3.1	3.2	3.2
Full-Employment Labor Force	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5
Multifactor Productivity	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Nonfarm Productivity - Output per Hour											
Full-Employment	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1
Actual	2.2	2.3	2.4	2.4	2.3	2.3	2.4	2.2	2.0	2.0	2.0
All Manufacturing	3.5	4.0	4.0	4.0	4.1	4.1	4.3	4.3	4.0	4.1	4.0
Durable Goods	4.6	5.2	5.2	5.1	5.3	5.3	5.6	5.6	5.3	5.4	5.3
Nondurable Goods	2.2	2.5	2.5	2.6	2.7	2.6	2.7	2.7	2.5	2.5	2.4

TABLE 38  
Population, Labor Force and Potential GDP

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Millions											
Total Population	374.1	377.3	380.5	383.7	386.9	390.1	393.3	396.5	399.8	403.0	406.2
Under 5	24.4	24.6	24.8	24.9	25.1	25.3	25.5	25.8	26.0	26.2	26.4
Ages 5 through 21	82.2	82.8	83.4	83.9	84.5	85.1	85.6	86.2	86.8	87.4	88.0
Ages 16 and Up	296.7	299.4	302.1	304.8	307.5	310.2	312.8	315.5	318.1	320.7	323.3
Males Ages 25 through 54	70.8	71.4	72.0	72.5	73.0	73.5	73.9	74.4	75.0	75.5	76.0
Ages 55 through 64	40.2	40.0	40.1	40.2	40.4	40.6	40.9	41.4	42.0	42.6	43.2
Ages 65 and Up	72.5	73.6	74.7	75.7	76.7	77.9	79.0	79.8	80.4	81.0	81.5
Ages 85 and Up	9.1	9.5	10.1	10.7	11.3	11.8	12.4	12.9	13.4	14.0	14.6
Percent Change											
Total Population	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Under 5	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Ages 5 through 21	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Ages 16 and Up	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
Males Ages 25 through 54	0.8	0.9	0.8	0.8	0.7	0.6	0.6	0.7	0.7	0.7	0.7
Ages 55 through 64	-0.8	-0.3	0.1	0.4	0.4	0.5	0.8	1.1	1.4	1.5	1.4
Ages 65 and Up	2.0	1.6	1.4	1.3	1.4	1.5	1.3	1.0	0.8	0.7	0.7
Ages 85 and Up	3.6	4.5	6.7	5.9	5.1	4.9	4.4	4.4	4.3	4.2	4.2
Labor Force and Employment											
Labor Force, Millions	177.0	178.4	179.9	181.4	182.8	184.1	185.5	187.0	188.7	190.5	192.2
Under 65	163.1	164.4	165.8	167.2	168.5	169.7	171.0	172.5	174.1	175.9	177.5
Ages 65 and Up	13.9	14.1	14.1	14.2	14.3	14.4	14.5	14.6	14.6	14.6	14.6
Participation Rate, Percent	59.7	59.6	59.6	59.5	59.4	59.4	59.3	59.3	59.3	59.4	59.4
Under 65	72.8	72.8	72.9	73.0	73.0	73.1	73.1	73.2	73.3	73.4	73.4
Ages 65 and Up	19.1	19.1	18.9	18.8	18.6	18.4	18.3	18.3	18.2	18.0	17.9
Employment, Millions											
Household Survey	168.2	169.5	170.9	172.2	173.5	174.7	176.0	177.4	179.0	180.6	182.1
Establishment Survey	162.9	164.2	165.6	166.9	168.3	169.8	171.2	172.7	174.2	175.8	177.4
Percent Change, Annual Rate	1.0	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9
Unemployment Rate, Percent	5.0	5.0	5.0	5.1	5.1	5.1	5.1	5.2	5.2	5.2	5.2
Average Weekly Hours											
Manufacturing Workweek	40.8	40.8	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7
Durables Workweek	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.6	40.6	40.6
Nondurables Workweek	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.8	40.8	40.8	40.8
Manhours in Private Nonfarm Estab.											
Billions of Hours, SAAR	232.8	234.9	236.9	238.8	240.9	243.1	245.3	247.5	249.8	252.2	254.5
Percent Change, Annual Rate	1.0	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9	1.0	0.9
Vendor Performance Index	51.7	51.7	51.6	51.6	51.6	51.6	51.7	51.6	51.7	51.8	51.5
Potential GDP											
Billions of Chained 2000 Dollars	23096.8	23667.7	24260.1	24866.2	25485.6	26112.6	26758.8	27439.6	28153.6	28894.8	29652.3
Percent Change											
Potential GDP	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6
Nonhousing, Non-Government	2.8	2.8	2.6	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Potential Output	2.6	2.8	2.8	2.8	2.7	2.7	2.7	2.8	2.9	2.9	2.9
Capital Stock	3.4	3.4	3.4	3.4	3.4	3.4	3.5	3.5	3.5	3.5	3.5
R&D Capital Stock	3.2	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4
Full-Employment Labor Force	0.6	0.8	0.7	0.7	0.7	0.6	0.7	0.8	0.8	0.9	0.8
Multifactor Productivity	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Nonfarm Productivity - Output per Hour											
Full-Employment	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1
Actual	2.1	1.9	1.9	2.0	2.1	2.1	2.1	2.0	1.9	2.0	2.0
All Manufacturing	4.0	3.8	3.8	4.0	4.1	4.1	4.1	4.0	3.9	3.9	3.9
Durable Goods	5.3	5.0	5.0	5.3	5.3	5.3	5.2	5.0	4.8	4.8	4.8
Nondurable Goods	2.5	2.4	2.4	2.5	2.5	2.7	2.6	2.7	2.7	2.7	2.8

TABLE 39  
The Capital Stock

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<i>Billions of Chained 2000 Dollars</i>										
Effective Capital Stock	14498.9	14550.5	14715.5	15052.1	15528.5	16057.8	16574.4	17071.9	17581.7	18119.1
Effective Nonenergy Capital Stock	11652.4	11612.0	11721.8	12001.1	12421.6	12892.5	13340.4	13757.0	14183.4	14640.7
Equipment & Software	5030.3	5029.4	5116.9	5285.5	5501.2	5727.7	5934.8	6138.4	6354.0	6591.4
<i>Information Processing Equipment</i>										
Computers	204.0	225.9	250.3	288.1	338.5	398.0	469.6	555.3	659.1	784.2
Software	482.6	497.0	521.7	550.9	578.8	604.2	628.6	652.5	676.6	701.1
Communications Equipment	542.6	560.7	588.4	624.8	666.4	712.6	760.7	811.5	864.9	921.0
Other	377.2	389.8	400.1	412.3	426.3	442.7	462.2	483.2	505.1	528.0
Industrial Equipment	1625.8	1625.5	1650.1	1692.3	1735.0	1771.7	1805.3	1837.5	1869.0	1904.0
Light Vehicles	617.9	595.5	596.6	622.1	671.1	719.7	738.9	748.5	765.3	793.4
Aircraft	229.4	222.3	218.7	218.7	220.6	223.5	226.8	230.1	233.6	237.4
Other Transportation Equipment	221.8	208.2	202.5	205.4	213.7	224.4	231.8	237.2	241.6	246.2
Other Equipment	1089.6	1079.1	1085.3	1104.6	1134.9	1173.9	1220.1	1270.0	1322.4	1377.3
Buildings	6668.5	6685.0	6698.1	6760.4	6873.5	7009.7	7148.9	7283.2	7417.6	7554.3
Public Utilities	1992.2	2029.2	2054.6	2082.6	2111.9	2145.1	2181.1	2217.8	2254.0	2289.4
Telecommunications	443.5	449.5	456.9	468.5	481.0	493.9	506.8	520.0	533.5	547.4
Other	1555.9	1587.2	1605.1	1621.3	1638.0	1658.1	1681.1	1704.5	1727.2	1748.5
Mining & Petroleum	1016.8	1029.7	1035.3	1045.5	1054.5	1062.7	1074.3	1087.9	1101.4	1113.7
Research & Development	2398.2	2453.8	2510.1	2571.4	2640.4	2711.9	2784.6	2857.9	2933.2	3011.4
<i>Percent Change</i>										
Effective Capital Stock	1.3	0.4	1.1	2.3	3.2	3.4	3.2	3.0	3.0	3.1
Effective Nonenergy Capital Stock	0.1	-0.3	0.9	2.4	3.5	3.8	3.5	3.1	3.1	3.2
Equipment & Software	-1.4	0.0	1.7	3.3	4.1	4.1	3.6	3.4	3.5	3.7
<i>Information Processing Equipment</i>										
Computers	3.8	10.7	10.8	15.1	17.5	17.6	18.0	18.3	18.7	19.0
Software	0.2	3.0	5.0	5.6	5.1	4.4	4.0	3.8	3.7	3.6
Communications Equipment	1.9	3.3	4.9	6.2	6.7	6.9	6.8	6.7	6.6	6.5
Other	3.8	3.4	2.7	3.0	3.4	3.8	4.4	4.5	4.5	4.5
Industrial Equipment	-0.6	0.0	1.5	2.6	2.5	2.1	1.9	1.8	1.7	1.9
Light Vehicles	-8.0	-3.6	0.2	4.3	7.9	7.2	2.7	1.3	2.2	3.7
Aircraft	-4.2	-3.1	-1.6	0.0	0.9	1.3	1.5	1.5	1.5	1.6
Other Transportation Equipment	-8.7	-6.1	-2.7	1.4	4.0	5.0	3.3	2.3	1.9	1.9
Other Equipment	-1.0	-1.0	0.6	1.8	2.7	3.4	3.9	4.1	4.1	4.2
Buildings	1.1	0.2	0.2	0.9	1.7	2.0	2.0	1.9	1.8	1.8
Public Utilities	2.5	1.9	1.3	1.4	1.4	1.6	1.7	1.7	1.6	1.6
Telecommunications	1.8	1.3	1.7	2.5	2.7	2.7	2.6	2.6	2.6	2.6
Other	2.7	2.0	1.1	1.0	1.0	1.2	1.4	1.4	1.3	1.2
Mining & Petroleum	0.6	1.3	0.5	1.0	0.9	0.8	1.1	1.3	1.2	1.1
Research & Development	2.6	2.3	2.3	2.4	2.7	2.7	2.7	2.6	2.6	2.7
<i>Rental Cost of Capital - Cents on the Dollar</i>										
Nonresidential Fixed Investment	0.1	0.1	0.1	0.1	0.1	0.1	0.152	0.154	0.156	0.158
Non-Energy Nonres. Fixed Investment	0.1	0.1	0.1	0.1	0.1	0.1	0.152	0.154	0.156	0.159
Research and Development	0.2	0.2	0.2	0.2	0.2	0.2	0.219	0.222	0.226	0.229

TABLE 39  
The Capital Stock

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Billions of Chained 2000 Dollars											
Effective Capital Stock	18691.9	19295.1	19916.8	20546.4	21185.2	21834.1	22503.0	23200.4	23922.6	24667.6	25435.0
Effective Nonenergy Capital Stock	15135.8	15660.6	16205.5	16759.2	17325.5	17905.5	18506.4	19131.9	19780.5	20451.3	21143.5
Equipment & Software	6851.4	7127.5	7415.7	7713.9	8024.1	8348.3	8691.9	9055.4	9438.1	9840.8	10265.1
Information Processing Equipment											
Computers	931.9	1096.2	1267.6	1454.2	1663.5	1901.1	2173.3	2485.9	2843.8	3253.5	3722.5
Software	726.2	752.8	780.3	807.2	835.2	864.5	895.6	928.5	962.9	998.4	1035.2
Communications Equipment	979.9	1042.0	1108.8	1181.7	1261.6	1348.9	1444.5	1549.2	1662.9	1786.0	1918.9
Other	551.8	578.7	608.4	638.3	668.7	700.4	734.1	770.3	808.7	849.6	892.7
Industrial Equipment	1943.5	1986.8	2034.0	2084.8	2138.6	2194.3	2252.2	2313.4	2378.7	2448.0	2521.5
Light Vehicles	832.4	874.7	916.4	957.1	997.4	1038.2	1082.4	1128.8	1176.0	1225.0	1276.3
Aircraft	241.7	246.6	252.1	258.4	265.4	273.3	282.2	291.8	302.3	313.3	325.0
Other Transportation Equipment	251.1	256.5	262.1	268.5	275.7	283.6	292.1	301.1	310.4	320.1	330.2
Other Equipment	1434.5	1493.5	1554.7	1617.8	1682.0	1747.8	1815.8	1886.0	1958.6	2033.7	2112.0
Buildings	7693.8	7835.0	7973.6	8112.5	8248.9	8382.8	8514.9	8646.0	8775.6	8903.8	9029.1
Public Utilities	2324.7	2360.6	2398.6	2439.2	2482.3	2527.4	2574.2	2622.6	2672.6	2724.4	2778.1
Telecommunications	561.8	576.8	592.2	608.1	624.5	641.4	658.8	676.8	695.4	714.6	734.4
Other	1769.3	1790.0	1812.4	1836.9	1863.5	1891.6	1920.9	1951.1	1982.5	2015.0	2048.7
Mining & Petroleum	1125.4	1136.7	1146.9	1155.5	1162.1	1167.0	1171.3	1176.4	1180.9	1185.1	1188.9
Research & Development	3093.2	3179.3	3269.5	3364.7	3465.2	3570.3	3679.2	3792.3	3910.7	4034.8	4164.6
Percent Change											
Effective Capital Stock	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Effective Nonenergy Capital Stock	3.4	3.5	3.5	3.4	3.4	3.3	3.4	3.4	3.4	3.4	3.4
Equipment & Software	3.9	4.0	4.0	4.0	4.0	4.0	4.1	4.2	4.2	4.3	4.3
Information Processing Equipment											
Computers	18.8	17.6	15.6	14.7	14.4	14.3	14.3	14.4	14.4	14.4	14.4
Software	3.6	3.7	3.6	3.5	3.5	3.5	3.6	3.7	3.7	3.7	3.7
Communications Equipment	6.4	6.3	6.4	6.6	6.8	6.9	7.1	7.2	7.3	7.4	7.4
Other	4.5	4.9	5.1	4.9	4.8	4.7	4.8	4.9	5.0	5.1	5.1
Industrial Equipment	2.1	2.2	2.4	2.5	2.6	2.6	2.6	2.7	2.8	2.9	3.0
Light Vehicles	4.9	5.1	4.8	4.4	4.2	4.1	4.3	4.3	4.2	4.2	4.2
Aircraft	1.8	2.0	2.2	2.5	2.7	3.0	3.2	3.4	3.6	3.7	3.7
Other Transportation Equipment	2.0	2.1	2.2	2.4	2.7	2.9	3.0	3.1	3.1	3.1	3.2
Other Equipment	4.2	4.1	4.1	4.1	4.0	3.9	3.9	3.9	3.9	3.8	3.8
Buildings	1.8	1.8	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.4
Public Utilities	1.5	1.5	1.6	1.7	1.8	1.8	1.9	1.9	1.9	1.9	2.0
Telecommunications	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.8
Other	1.2	1.2	1.2	1.4	1.4	1.5	1.5	1.6	1.6	1.6	1.7
Mining & Petroleum	1.1	1.0	0.9	0.8	0.6	0.4	0.4	0.4	0.4	0.4	0.3
Research & Development	2.7	2.8	2.8	2.9	3.0	3.0	3.1	3.1	3.1	3.2	3.2
Rental Cost of Capital - Cents on the Dollar											
Nonresidential Fixed Investment	0.161	0.163	0.165	0.168	0.170	0.172	0.173	0.175	0.177	0.179	0.180
Non-Energy Nonres. Fixed Investment	0.161	0.164	0.166	0.169	0.171	0.173	0.175	0.177	0.179	0.181	0.182
Research and Development	0.234	0.238	0.240	0.241	0.244	0.248	0.252	0.256	0.259	0.263	0.267

TABLE 39  
The Capital Stock

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Billions of Chained 2000 Dollars											
Effective Capital Stock	26228.5	27050.6	27900.0	28778.4	29689.6	30637.3	31623.5	32653.0	33722.5	34832.8	35984.0
Effective Nonenergy Capital Stock	21860.8	22604.7	23374.2	24170.6	24997.6	25858.7	26755.5	27691.9	28664.7	29675.1	30722.5
Equipment & Software	10715.4	11193.0	11695.4	12224.7	12785.4	13378.4	14006.8	14672.1	15373.7	16114.2	16893.1
Information Processing Equipment											
Computers	4262.3	4885.0	5597.0	6411.2	7346.5	8419.5	9650.7	11062.3	12680.3	14540.2	16683.9
Software	1071.8	1109.4	1149.7	1192.2	1236.8	1283.4	1332.5	1384.3	1438.2	1494.4	1552.5
Communications Equipment	2062.8	2217.8	2384.2	2562.9	2755.8	2963.9	3188.8	3430.9	3691.5	3972.1	4271.1
Other	939.7	990.5	1043.2	1098.4	1156.6	1218.2	1283.4	1352.3	1425.2	1502.5	1583.8
Industrial Equipment	2599.4	2682.3	2770.2	2863.2	2961.4	3065.1	3175.5	3293.0	3417.8	3550.6	3690.9
Light Vehicles	1331.8	1391.5	1452.4	1515.6	1583.2	1654.4	1729.0	1807.1	1887.8	1972.6	2061.3
Aircraft	337.6	351.0	365.2	380.4	396.5	413.7	432.0	451.3	471.8	493.5	516.3
Other Transportation Equipment	341.0	352.3	364.1	376.4	389.4	403.1	417.5	432.6	448.4	464.6	481.4
Other Equipment	2194.3	2280.3	2370.0	2463.9	2562.6	2666.3	2775.2	2889.7	3009.4	3134.1	3264.1
Buildings	9152.1	9271.4	9388.0	9502.3	9615.1	9727.3	9839.3	9951.9	10064.1	10176.0	10287.2
Public Utilities	2833.6	2891.3	2951.0	3012.8	3077.0	3143.5	3212.6	3284.4	3359.1	3436.6	3517.1
Telecommunications	754.8	775.9	797.7	820.2	843.5	867.6	892.5	918.2	944.8	972.3	1000.7
Other	2083.8	2120.2	2158.0	2197.2	2238.0	2280.3	2324.4	2370.4	2418.3	2468.3	2520.2
Mining & Petroleum	1192.4	1195.8	1198.8	1201.8	1204.5	1207.0	1209.4	1211.8	1214.0	1216.0	1218.2
Research & Development	4299.8	4440.5	4586.8	4738.7	4896.7	5061.0	5231.9	5409.5	5594.2	5786.1	5985.3
Percent Change											
Effective Capital Stock	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.3	3.3
Effective Nonenergy Capital Stock	3.4	3.4	3.4	3.4	3.4	3.4	3.5	3.5	3.5	3.5	3.5
Equipment & Software	4.4	4.5	4.5	4.5	4.6	4.6	4.7	4.7	4.8	4.8	4.8
Information Processing Equipment											
Computers	14.5	14.6	14.6	14.5	14.6	14.6	14.6	14.6	14.6	14.7	14.7
Software	3.5	3.5	3.6	3.7	3.7	3.8	3.8	3.9	3.9	3.9	3.9
Communications Equipment	7.5	7.5	7.5	7.5	7.5	7.6	7.6	7.6	7.6	7.6	7.5
Other	5.3	5.4	5.3	5.3	5.3	5.3	5.4	5.4	5.4	5.4	5.4
Industrial Equipment	3.1	3.2	3.3	3.4	3.4	3.5	3.6	3.7	3.8	3.9	4.0
Light Vehicles	4.4	4.5	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Aircraft	3.9	4.0	4.1	4.2	4.2	4.3	4.4	4.5	4.5	4.6	4.6
Other Transportation Equipment	3.3	3.3	3.3	3.4	3.4	3.5	3.6	3.6	3.6	3.6	3.6
Other Equipment	3.9	3.9	3.9	4.0	4.0	4.0	4.1	4.1	4.1	4.1	4.1
Buildings	1.4	1.3	1.3	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1
Public Utilities	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3
Telecommunications	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9
Other	1.7	1.7	1.8	1.8	1.9	1.9	1.9	2.0	2.0	2.1	2.1
Mining & Petroleum	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Research & Development	3.2	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4
Rental Cost of Capital - Cents on the Dollar											
Nonresidential Fixed Investment	0.182	0.184	0.186	0.188	0.190	0.192	0.194	0.196	0.197	0.199	0.201
Non-Energy Nonres. Fixed Investment	0.184	0.186	0.188	0.190	0.192	0.194	0.196	0.198	0.200	0.202	0.204
Research and Development	0.272	0.276	0.281	0.285	0.290	0.295	0.300	0.305	0.310	0.315	0.320

TABLE 40  
Energy

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fuel Demand & Supply, Quadrillion Btus										
Total Energy Demand	93.15	95.15	96.49	97.75	98.51	99.12	99.68	100.25	100.86	101.47
Percent Change, Annual Rate	-4.75	2.14	1.41	1.31	0.78	0.61	0.57	0.57	0.60	0.61
Electricity	12.15	12.66	12.99	13.23	13.44	13.59	13.70	13.77	13.84	13.97
Coal	1.53	1.74	1.78	1.79	1.82	1.83	1.84	1.83	1.82	1.82
Natural Gas	16.27	16.13	16.03	16.16	16.34	16.54	16.67	16.74	16.75	16.75
Petroleum	35.06	35.97	36.02	36.17	36.26	36.31	36.36	36.42	36.57	36.74
Domestic Energy Supply										
Oil & Natural Gas	35.66	33.87	33.13	33.22	33.50	33.74	33.81	34.07	34.03	33.95
Nuclear, Hydro & Other	35.64	35.89	36.81	37.57	38.03	38.38	38.64	38.86	39.20	39.51
Energy Imports	29.98	31.07	32.22	32.47	32.26	32.03	32.03	31.88	31.94	32.09
Energy-Use Ratios										
Million Btus per Capita	302.59	306.08	307.42	308.45	307.89	306.81	305.60	304.42	303.35	302.31
Million Btus per \$ Real GDP	7.17	7.11	7.01	6.85	6.69	6.56	6.44	6.33	6.22	6.09
Crude Oil Prices, Dollars per Barrel										
U.S. Refiners' Acquisition Cost										
for Crude Oil - Composite	59.41	67.04	72.18	77.41	81.06	84.15	87.87	91.52	93.47	94.93
Imported	59.66	66.43	71.56	76.79	80.45	83.56	87.30	90.95	92.92	94.40
Domestic	59.04	68.37	73.58	78.85	82.50	85.59	89.32	92.97	94.91	96.37
West Texas Intermediate Spot	61.77	71.90	77.58	83.16	87.01	90.27	94.20	98.06	100.11	101.64
Imported, Adjusted For Inflation	54.35	59.86	63.53	67.15	69.18	70.58	72.45	74.19	74.46	74.29
Average Wellhead	3.56	3.77	4.72	4.87	4.91	5.17	5.92	6.22	6.28	6.41
Henry Hub Cash Market	3.91	4.14	5.19	5.33	5.38	5.63	6.39	6.72	6.77	6.91
Price Indexes										
PPI for Fuels and Power (1982=1.000)										
Coal	1.590	1.701	1.776	1.839	1.886	1.941	2.045	2.114	2.151	2.185
Gas Fuels	1.825	1.780	1.729	1.736	1.759	1.787	1.813	1.838	1.865	1.891
Electricity	1.743	1.789	2.091	2.127	2.138	2.244	2.569	2.687	2.715	2.766
Utility Natural Gas	1.803	1.812	1.839	1.901	1.948	1.984	2.034	2.075	2.115	2.153
Domestic Crude Oil, NSA	2.054	1.945	1.984	1.950	1.946	1.988	2.165	2.252	2.284	2.314
Refined Petroleum Products	1.613	1.950	2.061	2.209	2.311	2.397	2.503	2.609	2.664	2.705
Residual Fuels	1.758	2.092	2.191	2.323	2.416	2.495	2.590	2.684	2.736	2.777
Consumer Energy Prices (2000=100)	1.567	1.896	2.029	2.166	2.259	2.353	2.471	2.592	2.672	2.716
Total										
Gasoline	109.526	117.902	121.089	125.768	128.971	131.849	136.237	139.970	142.370	144.418
Gasoline (cents/gallon, NSA)	104.620	119.456	125.053	131.423	135.442	138.926	143.096	147.201	149.614	151.543
Fuel Oil & Coal	240.075	275.145	288.396	303.111	312.391	320.411	330.033	339.528	345.071	349.552
Electricity	0.933	0.945	0.915	0.882	0.873	0.891	0.898	0.891	0.879	0.871
Natural Gas	97.741	94.763	93.712	93.220	92.748	92.185	91.524	90.821	90.175	89.543
Price Indexes, Percent Change	98.742	102.983	103.893	104.859	105.641	106.116	106.400	106.666	106.918	107.117
PPI for Fuels and Power										
Coal	-25.7	7.0	4.4	3.6	2.6	2.9	5.3	3.4	1.8	1.6
Gas Fuels	12.8	-2.4	-2.9	0.4	1.3	1.6	1.4	1.4	1.4	1.4
Electricity	-49.9	2.6	16.9	1.7	0.5	5.0	14.5	4.6	1.1	1.9
Utility Natural Gas	2.7	0.5	1.5	3.4	2.5	1.8	2.5	2.0	1.9	1.8
Domestic Crude Oil, NSA	-19.7	-5.3	2.0	-1.7	-0.2	2.2	8.9	4.0	1.4	1.3
Refined Petroleum Products	-40.9	20.9	5.7	7.1	4.6	3.7	4.4	4.2	2.1	1.5
Residual Fuels	-34.8	19.0	4.7	6.0	4.0	3.3	3.8	3.6	2.0	1.5
Consumer Energy Prices	-31.7	21.0	7.0	6.7	4.3	4.1	5.0	4.9	3.1	1.7
Total										
Gasoline	-18.9	7.6	2.7	3.9	2.5	2.2	3.3	2.7	1.7	1.4
Fuel Oil & Coal	-26.4	14.2	4.7	5.1	3.1	2.6	3.0	2.9	1.6	1.3
Electricity	7.9	1.3	-3.2	-3.7	-1.0	2.1	0.8	-0.8	-1.3	-0.9
Natural Gas	-0.3	-3.0	-1.1	-0.5	-0.5	-0.6	-0.7	-0.8	-0.7	-0.7
Energy Production, Percent Change	0.2	4.3	0.9	0.9	0.7	0.4	0.3	0.2	0.2	0.2
Coal Mining										
Oil & Gas Extraction	-7.7	-2.5	2.0	2.1	1.3	0.9	0.0	-0.2	-0.1	-0.2
Piped Gas & Electricity	4.7	-4.8	-2.2	0.3	0.8	0.7	0.2	0.8	-0.1	-0.2
Energy Import Detail	-2.6	0.9	1.3	1.6	1.4	1.1	0.9	0.8	0.7	1.1
Imports of Petroleum & Products										
Million Barrels per Day	25.7	25.9	27.2	27.4	27.5	27.4	27.6	27.7	27.9	28.2
Billions of Dollars	250.0	296.5	332.2	360.3	378.0	391.8	412.8	432.2	444.6	457.2
Oil Import Bill as Percent of GDP	1.75	2.00	2.14	2.21	2.21	2.19	2.21	2.23	2.20	2.16



TABLE 40  
Energy

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Fuel Demand & Supply, Quadrillion Btus											
Total Energy Demand	102.11	102.83	103.44	103.87	104.30	104.72	105.13	105.50	105.92	106.29	106.62
Percent Change, Annual Rate	0.63	0.71	0.60	0.41	0.42	0.40	0.40	0.35	0.39	0.35	0.31
Electricity	14.16	14.43	14.71	14.95	15.18	15.38	15.59	15.77	15.95	16.10	16.25
Coal	1.81	1.80	1.79	1.77	1.75	1.73	1.72	1.70	1.68	1.66	1.64
Natural Gas	16.73	16.72	16.66	16.59	16.54	16.48	16.36	16.27	16.18	16.08	15.97
Petroleum	37.00	37.37	37.80	38.28	38.80	39.34	40.05	40.64	41.20	41.70	42.14
Domestic Energy Supply											
Oil & Natural Gas	34.34	34.25	33.95	33.60	33.23	32.85	33.62	33.44	33.25	33.06	32.85
Nuclear, Hydro & Other	39.67	39.86	40.21	40.48	40.74	41.00	41.25	41.41	41.62	41.69	41.73
Energy Imports	31.93	32.31	32.79	33.29	33.84	34.38	33.77	34.15	34.54	35.05	35.54
Energy-Use Ratios											
Million Btus per Capita	301.34	300.63	299.62	298.09	296.60	295.08	293.59	292.00	290.58	289.06	287.45
Million Btus per \$ Real GDP	5.96	5.84	5.72	5.60	5.48	5.37	5.25	5.14	5.03	4.93	4.83
Crude Oil Prices, Dollars per Barrel											
U.S. Refiners' Acquisition Cost											
for Crude Oil - Composite	94.18	92.44	90.56	89.55	88.55	90.54	92.53	94.52	96.51	99.50	102.49
Imported	93.66	91.94	90.07	89.07	88.07	90.07	92.07	94.07	96.07	99.07	102.07
Domestic	95.58	93.79	91.88	90.85	89.82	91.79	93.75	95.72	97.69	100.66	103.62
West Texas Intermediate Spot	100.81	98.92	97.00	96.00	95.00	97.00	99.00	101.00	103.00	106.00	109.00
Imported, Adjusted For Inflation	72.45	69.96	67.46	65.68	63.94	64.37	64.75	65.08	65.35	66.26	67.11
Natural Gas Prices, Dollars per Million Btu											
Average Wellhead	6.71	6.82	6.97	7.11	7.26	7.36	7.56	7.80	8.03	8.26	8.44
Henry Hub Cash Market	7.22	7.34	7.50	7.65	7.81	7.91	8.13	8.39	8.64	8.89	9.08
Price Indexes											
PPI for Fuels and Power (1982=1.000)											
Coal	2.211	2.214	2.219	2.229	2.243	2.274	2.314	2.358	2.401	2.453	2.500
Gas Fuels	1.918	1.945	1.973	2.000	2.027	2.056	2.084	2.130	2.166	2.205	2.244
Electricity	2.877	2.925	2.990	3.050	3.113	3.155	3.242	3.344	3.444	3.543	3.620
Utility Natural Gas	2.192	2.233	2.270	2.301	2.336	2.368	2.407	2.448	2.489	2.535	2.582
Domestic Crude Oil, NSA	2.377	2.416	2.454	2.501	2.555	2.596	2.666	2.740	2.808	2.883	2.942
Refined Petroleum Products	2.683	2.585	2.456	2.350	2.245	2.215	2.180	2.143	2.105	2.084	2.062
Residual Fuels	2.763	2.724	2.700	2.692	2.691	2.742	2.794	2.845	2.905	2.979	3.054
Consumer Energy Prices (2000=100)	2.699	2.656	2.590	2.549	2.510	2.554	2.603	2.651	2.696	2.769	2.841
Consumer Energy Prices (2000=100)											
Total	145.426	145.712	146.033	146.744	147.812	150.376	153.217	156.160	159.282	163.000	166.665
Gasoline	151.172	149.709	148.470	148.057	148.056	150.952	153.847	156.742	160.050	164.186	168.321
Gasoline (cents/gallon, NSA)	348.683	345.297	342.433	341.433	341.433	348.433	355.433	362.433	370.433	380.433	390.433
Fuel Oil & Coal	0.863	0.855	0.847	0.842	0.834	0.827	0.820	0.817	0.816	0.815	0.815
Electricity	88.871	88.105	87.218	86.297	85.406	84.572	83.788	83.015	82.223	81.430	80.652
Natural Gas	107.277	107.406	107.403	107.289	107.205	107.196	107.270	107.401	107.541	107.718	107.936
Price Indexes, Percent Change											
PPI for Fuels and Power											
Coal	1.1	0.1	0.2	0.5	0.7	1.4	1.8	1.9	1.9	2.1	1.9
Gas Fuels	1.4	1.4	1.4	1.4	1.3	1.4	1.4	2.2	1.7	1.8	1.8
Electricity	4.0	1.7	2.2	2.0	2.1	1.4	2.8	3.1	3.0	2.9	2.2
Utility Natural Gas	1.9	1.9	1.6	1.4	1.5	1.4	1.6	1.7	1.7	1.8	1.9
Domestic Crude Oil, NSA	2.7	1.6	1.6	1.9	2.2	1.6	2.7	2.8	2.5	2.7	2.0
Refined Petroleum Products	-0.8	-3.6	-5.0	-4.3	-4.5	-1.3	-1.6	-1.7	-1.8	-1.0	-1.0
Residual Fuels	-0.5	-1.4	-0.9	-0.3	0.0	1.9	1.9	1.8	2.1	2.6	2.5
Consumer Energy Prices	-0.6	-1.6	-2.5	-1.6	-1.5	1.7	1.9	1.8	1.7	2.7	2.6
Consumer Energy Prices											
Total	0.7	0.2	0.2	0.5	0.7	1.7	1.9	1.9	2.0	2.3	2.2
Gasoline	-0.2	-1.0	-0.8	-0.3	0.0	2.0	1.9	1.9	2.1	2.6	2.5
Fuel Oil & Coal	-1.0	-0.9	-0.9	-0.6	-1.0	-0.8	-0.8	-0.4	-0.1	-0.1	0.0
Electricity	-0.8	-0.9	-1.0	-1.1	-1.0	-1.0	-0.9	-0.9	-1.0	-1.0	-1.0
Natural Gas	0.1	0.1	0.0	-0.1	-0.1	0.0	0.1	0.1	0.1	0.2	0.2
Energy Production, Percent Change											
Coal Mining	-0.1	-0.1	-0.3	-0.3	-0.2	-0.2	-0.1	0.0	-0.1	-0.1	-0.1
Oil & Gas Extraction	1.2	-0.3	-1.0	-0.9	-1.0	-1.1	2.9	-0.3	-0.4	-0.5	-0.5
Piped Gas & Electricity	1.4	1.8	1.5	1.3	1.2	1.0	1.0	0.9	0.9	0.7	0.7
Energy Import Detail											
Imports of Petroleum & Products											
Million Barrels per Day	28.2	28.6	28.9	29.1	29.4	29.6	29.0	29.1	29.3	29.5	29.7
Billions of Dollars	454.4	446.7	431.2	417.8	404.8	404.0	391.8	389.4	386.7	388.8	390.9
Oil Import Bill as Percent of GDP	2.05	1.93	1.79	1.66	1.54	1.48	1.38	1.31	1.25	1.21	1.16

TABLE 40

Energy

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Fuel Demand & Supply, Quadrillion Btus											
Total Energy Demand	106.97	107.29	107.74	108.16	108.62	109.05	109.41	109.79	110.16	110.58	111.01
Percent Change, Annual Rate	0.33	0.30	0.42	0.40	0.43	0.40	0.33	0.35	0.34	0.38	0.38
Electricity	16.40	16.55	16.69	16.82	16.98	17.15	17.35	17.58	17.81	18.05	18.29
Coal	1.63	1.61	1.59	1.57	1.55	1.53	1.52	1.50	1.48	1.46	1.45
Natural Gas	15.84	15.72	15.60	15.49	15.38	15.28	15.19	15.09	14.99	14.89	14.77
Petroleum	42.59	43.09	43.66	44.17	44.71	45.27	45.86	46.48	47.11	47.75	48.39
Domestic Energy Supply											
Oil & Natural Gas	32.67	32.44	32.25	32.05	31.86	31.67	31.48	31.29	31.10	30.92	30.73
Nuclear, Hydro & Other	41.81	41.84	41.90	41.96	41.97	41.99	42.04	42.08	42.12	42.16	42.20
Energy Imports	36.00	36.51	37.09	37.66	38.30	38.90	39.40	39.92	40.44	41.02	41.59
Energy-Use Ratios											
Million Btus per Capita	285.93	284.35	283.13	281.88	280.74	279.54	278.16	276.87	275.57	274.41	273.27
Million Btus per \$ Real GDP	4.73	4.63	4.54	4.45	4.36	4.27	4.18	4.09	4.00	3.92	3.84
Crude Oil Prices, Dollars per Barrel											
U.S. Refiners' Acquisition Cost											
for Crude Oil - Composite	105.48	108.47	111.47	114.46	117.45	119.44	122.43	125.42	128.41	131.40	133.40
Imported	105.07	108.07	111.07	114.07	117.07	119.07	122.07	125.07	128.07	131.07	133.07
Domestic	106.59	109.56	112.53	115.49	118.46	120.43	123.40	126.36	129.33	132.30	134.27
West Texas Intermediate Spot	112.00	115.00	118.00	121.00	124.00	127.00	130.00	133.00	136.00	139.00	142.00
Imported, Adjusted For Inflation	67.91	68.65	69.36	70.03	70.65	70.63	71.17	71.67	72.12	72.53	72.35
Natural Gas Prices, Dollars per Million Btu											
Average Wellhead	8.58	8.68	8.70	8.80	8.76	8.92	9.07	9.21	9.36	9.51	9.66
Henry Hub Cash Market	9.23	9.33	9.35	9.46	9.43	9.59	9.75	9.91	10.07	10.23	10.39
Price Indexes											
PPI for Fuels and Power (1982=1.000)											
Coal	2.545	2.588	2.621	2.659	2.692	2.727	2.769	2.810	2.854	2.899	2.936
Gas Fuels	2.283	2.322	2.363	2.402	2.443	2.484	2.527	2.569	2.611	2.652	2.693
Electricity	3.678	3.720	3.728	3.773	3.758	3.823	3.887	3.950	4.014	4.078	4.142
Utility Natural Gas	2.628	2.671	2.710	2.749	2.789	2.829	2.870	2.909	2.951	2.993	3.036
Domestic Crude Oil, NSA	2.994	3.044	3.064	3.095	3.113	3.161	3.208	3.254	3.316	3.380	3.444
Refined Petroleum Products	2.045	2.032	2.023	2.016	2.012	1.993	1.992	1.993	1.993	1.992	1.975
Residual Fuels	3.129	3.203	3.270	3.337	3.411	3.454	3.518	3.581	3.644	3.707	3.745
Consumer Energy Prices (2000=100)	2.914	2.991	3.069	3.148	3.226	3.277	3.357	3.434	3.513	3.595	3.650
Total											
Gasoline	170.258	173.798	176.845	179.928	183.205	186.413	189.595	192.781	196.157	199.600	203.074
Gasoline (cents/gallon, NSA)	172.457	176.593	180.315	184.037	188.173	191.896	195.529	199.237	203.025	206.902	210.812
Fuel Oil & Coal	400.433	410.433	419.433	428.433	438.433	447.433	455.433	463.433	471.433	479.433	487.433
Electricity	0.815	0.814	0.813	0.811	0.809	0.806	0.804	0.802	0.801	0.800	0.799
Natural Gas	79.888	79.133	78.384	77.644	76.910	76.181	75.463	74.750	74.043	73.343	72.649
Price Indexes, Percent Change											
PPI for Fuels and Power	1.8	1.7	1.3	1.4	1.2	1.3	1.5	1.5	1.6	1.6	1.3
Coal	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6
Gas Fuels	1.6	1.1	0.2	1.2	-0.4	1.7	1.7	1.6	1.6	1.6	1.6
Electricity	1.8	1.7	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.5
Utility Natural Gas	1.8	1.7	0.7	1.0	0.6	1.6	1.5	1.4	1.9	1.9	1.9
Domestic Crude Oil, NSA	-0.8	-0.6	-0.5	-0.3	-0.2	-0.9	0.0	0.0	0.0	0.0	-0.9
Refined Petroleum Products	2.4	2.4	2.1	2.0	2.2	1.2	1.9	1.8	1.8	1.7	1.0
Residual Fuels	2.5	2.7	2.6	2.6	2.5	1.6	2.4	2.3	2.3	2.3	1.5
Consumer Energy Prices											
Total	2.2	2.1	1.8	1.7	1.8	1.8	1.7	1.7	1.8	1.8	1.7
Gasoline	2.5	2.4	2.1	2.1	2.2	2.0	1.9	1.9	1.9	1.9	1.9
Fuel Oil & Coal	0.0	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3	-0.2	-0.1	-0.1	-0.2
Electricity	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9
Natural Gas	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Energy Production, Percent Change											
Coal Mining	-0.2	-0.2	-0.1	-0.3	-0.1	-0.1	-0.1	0.0	0.1	0.2	-0.1
Oil & Gas Extraction	-0.5	-0.7	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7
Piped Gas & Electricity	0.7	0.7	0.6	0.6	0.7	0.8	0.9	1.0	1.0	1.1	1.1
Energy Import Detail											
Imports of Petroleum & Products											
Million Barrels per Day	29.8	30.1	30.3	30.5	30.8	31.1	31.3	31.5	31.7	31.9	32.1
Billions of Dollars	392.8	396.0	400.4	405.2	411.2	413.9	418.7	424.4	430.0	435.9	442.6
Oil Import Bill as Percent of GDP	1.12	1.09	1.05	1.02	1.00	0.96	0.93	0.91	0.88	0.85	0.83

TABLE 41

## Industrial Production Indexes

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Levels (2002=100.0)										
Total	98.3	102.6	106.6	111.4	115.6	118.8	121.7	125.0	128.5	132.7
Mining	97.5	94.4	92.6	93.7	94.8	95.5	95.9	96.6	96.5	96.2
Mining except Oil & Gas	91.5	89.1	90.9	94.1	96.5	97.6	97.7	97.2	96.9	96.5
Metal Ores	98.9	108.8	112.1	113.5	112.8	110.3	107.3	104.2	101.0	97.8
Coal	97.8	95.4	97.3	99.3	100.6	101.5	101.5	101.3	101.2	101.0
Nonmetallic Minerals	77.6	69.3	70.0	75.7	81.7	85.5	87.7	88.6	89.7	90.7
Oil & Gas Extraction & Drilling	98.4	95.2	92.3	92.9	93.6	94.2	94.7	95.7	95.6	95.3
Oil & Gas Extraction	102.1	97.2	95.1	95.4	96.2	96.9	97.1	97.8	97.7	97.5
Support Activities for Mining	98.1	110.4	100.0	104.6	103.5	103.3	108.2	112.7	113.3	111.7
Utilities	105.9	106.8	108.1	109.8	111.4	112.6	113.7	114.6	115.3	116.6
Manufacturing - SIC Basis	96.9	102.5	107.6	113.2	118.2	122.1	125.6	129.6	134.2	139.5
Factory Operating Rate - SIC Basis	66.9	71.5	74.6	77.1	78.1	78.1	77.8	78.0	78.4	79.1
Food	110.7	113.7	116.4	119.6	121.6	123.7	125.6	127.4	129.1	130.9
Beverages & Tobacco	96.3	96.0	95.6	95.3	94.7	94.4	94.0	93.7	93.6	93.4
Beverages	111.6	117.7	120.1	122.5	124.2	126.1	128.0	129.7	131.3	133.0
Tobacco Products	79.6	72.5	69.4	66.6	63.6	60.9	58.4	56.1	54.1	52.1
Textile Mills	54.2	54.6	52.7	50.9	49.4	48.0	46.8	45.8	45.1	44.4
Fabric Mills	58.4	58.5	56.1	54.0	52.1	50.4	48.9	47.7	46.7	45.8
Fiber, Yarn & Textile Finishing	49.1	49.8	48.4	47.1	46.0	44.9	44.0	43.4	42.8	42.3
Textile Product Mills	69.0	69.1	68.9	68.7	67.4	65.9	64.5	63.4	62.4	61.4
Textile Furnishings & Carpets	57.1	56.3	59.2	61.9	62.8	63.0	63.3	63.7	64.2	64.4
Textile Furnishings Mills	74.4	75.1	72.3	69.6	66.9	64.4	62.3	60.4	58.6	56.8
Carpet & Rug Mills	62.8	63.3	71.1	78.5	82.1	84.1	86.1	88.3	90.3	91.9
Other Textile Product Mills	92.2	94.2	88.7	83.2	78.1	73.2	68.7	64.5	60.7	57.4
Apparel	62.4	59.6	55.6	52.1	49.1	46.3	43.7	41.3	39.1	37.3
Logging*	85.9	83.9	91.6	96.0	94.3	92.8	93.4	93.6	93.2	92.6
Wood Products	67.0	70.5	80.4	88.7	91.1	90.5	90.4	91.1	90.9	91.3
Furniture & Related Products	72.1	71.5	77.4	82.9	84.9	85.4	86.1	86.9	87.7	88.7
Hhld. & Institutional Furniture	62.3	62.4	70.1	77.1	79.1	78.8	78.7	79.0	79.4	80.2
Office & Other Furniture	85.2	83.6	87.0	90.5	92.5	94.2	95.9	97.5	98.7	99.9
Paper & Products	82.2	85.5	89.2	92.3	93.9	94.8	96.2	97.8	99.6	101.4
Pulp & Paper Mills	83.2	86.9	91.0	94.1	95.4	96.0	97.3	98.9	100.6	102.4
Converted Paper Products	81.1	83.9	87.4	90.4	92.3	93.7	95.2	96.9	98.7	100.5
Paperboard Containers	82.2	85.0	89.1	92.2	94.4	96.2	97.9	99.8	102.0	104.1
Bags, Coated & Treated Paper	75.1	79.7	82.8	85.8	87.2	88.3	89.7	91.0	92.3	94.0
Residual Paper Products	84.1	86.2	89.0	91.8	93.7	94.8	96.1	97.6	99.1	100.7
Newspapers, Periodicals, Books*	75.1	73.1	73.1	73.8	74.6	75.4	76.2	77.1	78.0	79.0
Newspaper Publishers*	57.5	55.8	54.7	53.8	53.0	52.3	51.7	51.3	51.0	50.8
Periodical, Book & Misc. Publishers*	84.6	82.4	83.0	84.5	86.1	87.7	89.3	90.8	92.3	93.9
Printing Support Activities	80.5	77.6	76.0	74.6	73.6	73.1	73.2	73.6	73.9	74.2
Petroleum & Coal Products	107.7	107.8	109.2	110.7	111.8	112.6	113.6	114.8	115.8	116.9
Chemicals	104.2	111.4	114.6	118.1	120.8	123.7	127.7	132.4	137.2	142.3
Basic Chemicals	104.3	115.8	117.7	119.0	119.4	119.1	118.9	118.8	118.7	118.5
Basis Organic Chemicals	110.6	125.5	127.9	129.8	130.6	131.0	131.4	132.3	132.9	133.3
Basic Inorganic Chemicals	97.6	104.7	105.9	106.6	106.4	105.4	104.4	103.3	102.4	101.4
Resins & Synthetic Materials	94.6	101.5	103.9	105.6	106.6	107.1	107.6	108.6	109.3	109.8
Agricultural Chemicals	94.4	96.0	96.5	98.2	99.8	101.3	102.8	104.4	105.6	106.7
Pharmaceuticals & Medicines	116.1	124.4	129.1	134.8	139.6	145.7	154.2	164.2	174.2	185.0
Paints, Soaps, Toiletries & Misc.	94.8	96.1	99.0	102.0	103.8	105.0	106.1	107.2	108.4	109.6
Paints & Misc. Products	77.8	79.7	83.9	87.7	89.8	90.8	92.1	93.6	95.1	96.6
Soaps, Cleaners & Toiletries	113.2	114.0	115.9	118.2	119.9	121.2	122.2	123.0	123.9	124.8
Rubber & Plastics Products	84.5	88.5	93.0	97.5	100.6	102.8	105.4	107.9	110.2	112.3
Tires	74.0	87.0	88.5	90.6	92.1	92.7	94.1	95.7	96.9	98.0
Other Rubber Products	84.2	86.9	91.3	94.5	96.2	97.3	98.6	100.3	102.1	104.0
Plastic Products	85.5	88.9	93.7	98.6	102.0	104.5	107.4	110.1	112.5	114.8
Leather & Allied Products	81.9	79.3	76.7	74.8	72.6	70.3	68.2	66.0	64.0	62.0

TABLE 41  
Industrial Production Indexes

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Levels (2002=100.0)											
Total	137.2	141.6	145.6	149.1	152.6	156.1	160.4	164.3	167.9	171.8	175.4
Mining	96.8	96.3	95.4	94.5	93.6	92.8	94.8	94.8	94.6	94.4	94.1
Mining except Oil & Gas	96.2	96.0	96.1	96.0	96.1	96.4	96.8	97.3	97.8	98.3	98.7
Metal Ores	94.8	91.8	89.0	86.4	84.5	83.4	82.6	82.1	81.7	81.4	81.1
Coal	100.9	100.8	100.5	100.1	99.9	99.7	99.7	99.7	99.6	99.6	99.5
Nonmetallic Minerals	92.0	93.4	95.8	97.5	99.2	100.9	102.7	104.4	106.1	107.8	109.4
Oil & Gas Extraction & Drilling	96.1	95.6	94.5	93.4	92.2	91.2	93.6	93.4	93.1	92.6	92.2
Oil & Gas Extraction	98.6	98.3	97.3	96.4	95.4	94.4	97.2	96.9	96.6	96.1	95.5
Support Activities for Mining	109.3	106.1	101.9	98.6	94.9	92.8	92.2	92.9	92.6	92.7	92.9
Utilities	118.3	120.4	122.2	123.8	125.3	126.6	127.9	129.0	130.1	131.0	131.9
Manufacturing - SIC Basis	145.1	150.6	155.7	160.2	164.8	169.5	174.9	180.2	185.1	190.4	195.6
Factory Operating Rate - SIC Basis	79.6	80.0	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.2	80.1
Food	132.9	135.1	137.4	139.8	142.0	144.2	146.5	148.7	151.0	153.3	155.5
Beverages & Tobacco	93.4	93.5	93.9	94.4	94.9	95.3	95.8	96.3	96.8	97.4	97.9
Beverages	134.8	136.8	139.2	141.8	144.4	146.9	149.5	152.1	154.7	157.4	160.0
Tobacco Products	50.2	48.4	46.7	45.0	43.2	41.4	39.7	37.9	36.2	34.5	32.9
Textile Mills	43.7	43.1	42.5	42.0	41.5	41.1	40.6	40.2	39.7	39.2	38.7
Fabric Mills	45.1	44.5	44.0	43.6	43.2	42.9	42.5	42.1	41.7	41.2	40.7
Fiber, Yarn & Textile Finishing	41.7	41.1	40.4	39.8	39.2	38.7	38.1	37.6	37.1	36.6	36.0
Textile Product Mills	60.4	59.5	58.6	57.8	57.3	56.7	56.7	56.6	56.4	56.0	55.7
Textile Furnishings & Carpets	64.3	64.2	64.0	63.7	63.5	63.2	63.6	64.0	64.0	63.8	63.6
Textile Furnishings Mills	55.2	53.6	52.2	51.0	49.9	49.1	48.4	47.7	47.0	46.3	45.7
Carpet & Rug Mills	92.7	93.7	94.1	94.3	94.6	94.6	95.8	97.0	97.4	97.3	97.4
Other Textile Product Mills	54.6	51.9	49.6	47.7	46.3	45.2	44.2	43.3	42.5	41.7	41.1
Apparel	35.5	33.9	32.4	31.1	29.9	28.9	27.8	26.8	25.9	24.9	24.1
Logging*	92.1	91.5	90.8	89.5	89.0	88.5	89.4	89.9	88.8	86.7	85.2
Wood Products	91.6	92.0	91.7	90.4	90.0	89.5	90.4	90.9	89.8	87.7	86.3
Furniture & Related Products	89.5	90.3	91.0	91.4	91.7	92.0	92.7	93.6	94.2	94.6	94.9
Hhld. & Institutional Furniture	80.9	81.4	81.9	82.2	82.5	82.7	83.8	84.9	85.4	85.6	85.8
Office & Other Furniture	100.9	102.0	103.2	103.7	103.8	104.2	104.6	105.2	105.9	106.5	107.1
Paper & Products	103.2	105.0	106.5	107.9	109.1	110.3	111.4	112.8	114.4	116.0	117.7
Pulp & Paper Mills	104.0	105.7	107.1	108.4	109.4	110.4	111.5	112.8	114.2	115.7	117.2
Converted Paper Products	102.4	104.4	106.1	107.7	109.1	110.5	111.8	113.3	115.1	117.0	118.7
Paperboard Containers	106.4	108.6	110.5	112.2	113.8	115.3	116.7	118.4	120.4	122.3	124.3
Bags, Coated & Treated Paper	95.6	97.3	98.9	100.5	101.8	103.2	104.5	105.9	107.7	109.5	111.2
Residual Paper Products	102.3	103.9	105.5	106.9	108.2	109.4	110.5	111.9	113.5	115.2	116.7
Newspapers, Periodicals, Books*	79.9	81.0	82.1	83.5	85.0	86.7	88.6	90.6	92.8	95.2	97.5
Newspaper Publishers*	50.6	50.4	50.6	50.9	51.4	52.0	52.7	53.4	54.1	54.9	55.7
Periodical, Book & Misc. Publishers*	95.5	97.1	98.7	100.6	102.8	105.0	107.5	110.1	113.1	116.4	119.6
Printing Support Activities	74.5	74.8	75.3	75.9	76.6	77.3	78.0	78.8	79.4	80.2	81.1
Petroleum & Coal Products	118.1	119.3	120.5	121.9	123.3	124.4	125.8	126.9	128.0	128.8	129.4
Chemicals	147.8	153.5	159.6	165.6	171.7	177.5	183.3	189.4	195.8	202.7	209.6
Basic Chemicals	118.1	117.6	117.1	116.1	115.0	114.0	112.8	111.5	110.2	109.0	107.8
Basis Organic Chemicals	133.5	133.8	133.9	133.3	132.7	132.0	131.1	130.0	128.8	127.7	126.5
Basic Inorganic Chemicals	100.4	99.4	98.2	96.8	95.3	93.9	92.5	91.1	89.8	88.5	87.3
Resins & Synthetic Materials	110.2	110.7	110.9	110.7	110.4	110.1	109.6	108.9	108.1	107.3	106.5
Agricultural Chemicals	107.8	109.0	109.8	109.7	108.3	106.4	104.3	102.4	100.6	98.9	97.4
Pharmaceuticals & Medicines	196.4	208.4	221.0	233.7	246.8	259.3	271.5	284.4	298.0	312.7	327.2
Paints, Soaps, Toiletries & Misc.	110.7	111.8	112.7	113.7	114.6	115.1	116.2	117.2	117.6	117.7	117.7
Paints & Misc. Products	98.0	99.4	100.5	102.1	103.4	104.3	106.3	108.2	109.1	109.3	109.7
Soaps, Cleaners & Toiletries	125.7	126.5	127.1	127.6	128.0	128.2	128.3	128.3	128.1	128.2	127.7
Rubber & Plastics Products	114.6	117.0	119.4	121.8	123.9	126.0	128.0	130.1	132.1	134.1	136.0
Tires	99.0	100.1	100.9	101.7	102.2	102.9	104.1	105.2	106.4	107.7	108.7
Other Rubber Products	105.9	107.8	109.6	111.2	112.7	114.2	115.5	116.6	117.4	118.0	118.4
Plastic Products	117.2	119.8	122.5	125.1	127.5	129.7	131.9	134.2	136.4	138.6	140.8
Leather & Allied Products	60.1	58.2	56.4	54.7	53.1	51.6	50.1	48.7	47.4	46.1	44.8

TABLE 41  
Industrial Production Indexes

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Levels (2002=100.0)											
Total	179.2	182.9	186.5	190.3	194.2	198.2	202.4	206.7	211.0	215.5	220.0
Mining	93.9	93.5	93.2	93.0	92.7	92.4	92.1	91.8	91.5	91.3	91.0
Mining except Oil & Gas	99.1	99.4	99.8	100.1	100.6	101.1	101.7	102.3	103.1	103.8	104.5
Metal Ores	80.6	80.0	79.1	78.1	77.1	76.1	75.1	74.0	73.1	72.1	71.3
Coal	99.3	99.1	98.9	98.7	98.6	98.5	98.4	98.4	98.5	98.6	98.5
Nonmetallic Minerals	111.1	112.7	114.5	116.4	118.4	120.6	122.9	125.5	128.0	130.6	133.2
Oil & Gas Extraction & Drilling	91.8	91.3	90.8	90.4	89.9	89.3	88.8	88.3	87.7	87.2	86.6
Oil & Gas Extraction	95.1	94.5	93.9	93.4	92.8	92.2	91.6	91.0	90.4	89.8	89.2
Support Activities for Mining	93.1	93.4	93.5	93.8	93.9	93.7	93.7	94.0	94.1	94.3	94.2
Utilities	132.9	133.7	134.5	135.3	136.3	137.3	138.6	140.0	141.4	142.9	144.5
Manufacturing - SIC Basis	200.9	206.2	211.5	217.0	222.8	228.6	234.7	240.9	247.3	253.8	260.4
Factory Operating Rate - SIC Basis	80.1	80.1	80.1	80.1	80.1	80.1	80.2	80.1	80.2	80.3	80.2
Food	157.8	160.1	162.4	164.7	167.2	169.8	172.4	175.0	177.7	180.4	183.1
Beverages & Tobacco	98.6	99.2	99.9	100.6	101.4	102.3	103.2	104.2	105.3	106.3	107.5
Beverages	162.7	165.4	168.1	170.8	173.7	176.7	179.8	182.9	186.1	189.3	192.6
Tobacco Products	31.2	29.6	28.1	26.5	25.1	23.6	22.3	20.9	19.6	18.4	17.2
Textile Mills	38.1	37.6	37.0	36.4	35.9	35.3	34.8	34.2	33.7	33.2	32.7
Fabric Mills	40.2	39.6	39.0	38.4	37.8	37.2	36.6	36.0	35.4	34.8	34.1
Fiber, Yarn & Textile Finishing	35.5	35.0	34.4	33.9	33.4	32.9	32.4	32.0	31.5	31.1	30.9
Textile Product Mills	55.8	56.0	55.9	55.9	56.4	56.9	57.5	58.0	58.3	58.7	59.2
Textile Furnishings & Carpets	64.0	64.5	64.5	64.7	65.4	66.4	67.3	68.1	68.7	69.5	70.3
Textile Furnishings Mills	45.0	44.4	43.8	43.1	42.5	41.9	41.3	40.7	40.1	39.4	38.8
Carpet & Rug Mills	98.5	99.9	100.3	101.0	102.9	105.0	107.3	109.2	110.7	112.5	114.4
Other Textile Product Mills	40.6	40.2	39.8	39.4	39.3	38.9	38.7	38.4	38.1	37.8	37.5
Apparel	23.2	22.4	21.6	20.8	20.1	19.4	18.8	18.1	17.5	16.9	16.2
Logging*	85.2	85.2	83.7	83.0	83.6	84.3	84.9	84.9	84.4	84.3	84.3
Wood Products	86.8	87.2	86.2	85.7	86.3	87.0	87.7	87.7	87.1	87.0	87.0
Furniture & Related Products	95.7	96.6	97.1	97.7	98.6	99.6	100.8	101.7	102.3	103.1	103.8
Hhld. & Institutional Furniture	86.8	88.0	88.6	89.2	90.8	92.5	94.2	95.7	97.0	98.4	100.0
Office & Other Furniture	107.6	108.1	108.5	108.9	109.1	109.1	109.4	109.4	109.3	109.1	108.8
Paper & Products	119.4	121.3	123.2	125.1	127.1	129.1	131.1	133.2	135.2	137.4	139.6
Pulp & Paper Mills	118.9	120.8	122.7	124.6	126.6	128.6	130.6	132.6	134.5	136.8	139.3
Converted Paper Products	120.5	122.4	124.3	126.2	128.3	130.4	132.4	134.6	136.7	138.7	140.6
Paperboard Containers	126.2	128.3	130.4	132.5	134.9	137.2	139.5	141.9	144.3	146.5	148.6
Bags, Coated & Treated Paper	112.9	114.8	116.6	118.4	120.3	122.3	124.2	126.2	128.3	130.2	132.0
Residual Paper Products	118.3	120.0	121.7	123.3	125.0	126.8	128.6	130.3	132.3	134.0	135.6
Newspapers, Periodicals, Books*	99.8	102.2	104.5	107.0	109.4	111.8	114.3	116.9	119.6	122.2	124.9
Newspaper Publishers*	56.5	57.2	58.0	58.8	59.6	60.5	61.3	62.1	62.9	63.8	64.7
Periodical, Book & Misc. Publishers*	122.7	125.9	129.1	132.4	135.8	139.0	142.4	146.0	149.7	153.4	157.1
Printing Support Activities	82.1	83.2	84.3	85.4	86.5	87.7	88.8	90.0	91.3	92.9	94.7
Petroleum & Coal Products	130.2	130.8	131.3	131.8	132.4	133.1	133.9	134.7	135.5	136.3	137.0
Chemicals	216.5	223.8	231.0	238.6	246.2	253.4	261.0	268.7	276.8	285.2	294.0
Basic Chemicals	106.5	105.3	104.2	103.0	101.7	100.5	99.3	98.1	96.9	95.6	94.3
Basic Organic Chemicals	125.3	124.1	123.0	121.8	120.5	119.3	118.0	116.7	115.5	114.1	112.7
Basic Inorganic Chemicals	86.0	84.7	83.5	82.3	81.1	79.9	78.7	77.5	76.3	75.1	73.9
Resins & Synthetic Materials	105.7	105.0	104.2	103.4	102.5	101.7	100.8	99.9	99.1	98.1	97.1
Agricultural Chemicals	96.0	94.6	93.4	92.4	91.4	90.6	89.9	89.3	88.8	88.4	88.1
Pharmaceuticals & Medicines	341.6	356.8	371.7	387.5	402.7	417.3	432.4	447.9	464.0	480.7	497.9
Paints, Soaps, Toiletries & Misc.	118.0	118.1	117.7	117.6	118.0	118.4	118.9	119.2	119.3	119.6	120.0
Paints & Misc. Products	111.1	112.2	112.6	113.5	115.4	117.5	119.7	121.6	123.0	124.7	126.5
Soaps, Cleaners & Toiletries	126.7	125.6	124.2	123.0	121.5	119.8	118.2	116.5	114.9	113.3	111.7
Rubber & Plastics Products	138.0	140.0	141.9	143.8	145.9	147.8	149.9	151.9	153.9	155.9	158.0
Tires	110.0	111.2	112.1	113.1	114.1	115.2	116.4	117.6	118.7	120.0	121.2
Other Rubber Products	118.7	119.1	119.5	119.8	120.2	120.6	120.9	121.3	121.7	122.1	122.5
Plastic Products	143.1	145.3	147.5	149.6	152.0	154.2	156.6	158.8	161.0	163.4	165.7
Leather & Allied Products	43.6	42.3	41.1	40.0	38.8	37.7	36.6	35.5	34.4	33.3	32.3

TABLE 41  
Industrial Production Indexes (Cont'd.)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Levels (2002=100.0)										
Nonmetallic Mineral Products	83.4	82.2	88.3	95.8	100.9	103.1	104.1	105.0	105.8	107.0
Glass & Glass Products	87.4	88.9	92.9	96.0	97.9	99.3	100.5	102.4	104.2	105.5
Cement	80.7	76.5	78.2	85.4	92.9	96.5	97.5	97.9	99.1	100.3
Concrete & Products	82.2	78.2	82.8	91.3	99.1	103.2	104.5	104.8	105.8	107.1
Clay, Lime, Gypsum & Misc.	83.1	84.4	94.9	104.0	107.1	107.1	107.6	108.7	108.6	109.5
Primary Metals	68.0	80.7	88.3	95.3	97.9	98.3	99.4	100.7	102.5	104.1
Iron & Steel Products	61.0	84.2	92.9	101.1	103.9	103.6	104.3	105.4	107.6	109.6
Nonferrous Metals	83.0	86.9	91.6	96.2	97.8	98.5	99.7	101.0	102.2	103.3
Alumina & Aluminum Products	79.3	81.5	85.2	90.1	92.3	93.3	94.4	95.5	96.7	97.9
Nonferrous exc. Aluminum	86.6	91.9	97.7	101.7	102.5	103.0	104.2	105.7	106.8	107.9
Foundries	70.4	73.7	82.7	90.8	94.4	96.0	97.6	99.4	101.2	103.1
Fabricated Metal Products	89.7	89.8	94.1	100.4	104.9	107.2	109.0	110.3	111.7	113.2
Forging & Stamping	93.8	96.9	105.8	117.8	122.8	123.0	121.4	120.6	121.6	123.6
Cutlery & Handtools	60.3	62.4	63.7	64.8	65.5	65.9	66.5	67.2	68.0	68.7
Architec. & Structural Metals	94.6	87.9	88.4	96.2	103.8	107.2	108.3	108.2	108.7	109.4
Hardware	56.8	58.4	60.2	61.8	63.0	63.5	64.0	64.3	64.5	64.8
Spring & Wire Products	64.5	65.7	69.5	73.1	74.4	75.8	77.9	79.7	81.2	82.7
Turned Products; Screws, Etc.	104.3	108.3	112.9	116.7	117.9	118.2	120.7	122.6	124.0	125.6
Coating, Engraving, Heat-Treating	90.3	93.2	98.3	102.7	104.5	105.4	106.7	108.1	109.6	111.1
Misc. incl. Cans & Ordnance	87.0	87.6	94.1	101.7	107.9	112.4	115.7	118.5	121.2	123.6
Machinery	86.3	88.0	97.1	107.5	112.3	113.1	112.1	113.6	116.2	118.8
Engines & Turbines	56.9	61.1	77.5	94.9	99.9	98.0	91.6	90.4	93.2	96.4
Agricultural & Construction Equip.	112.8	104.8	108.8	117.1	124.0	128.2	131.1	133.2	135.6	138.0
Agricultural Equipment	99.3	95.8	97.8	101.1	103.5	105.0	106.6	109.1	112.3	115.3
Construction Machinery	98.4	89.6	96.5	109.4	120.2	126.1	129.8	131.2	132.7	134.3
Drilling Equipment	168.4	151.4	153.9	163.7	173.0	179.6	183.9	186.4	188.9	191.4
Metalworking Machinery	82.8	86.2	95.4	105.2	109.3	109.9	107.6	108.6	111.7	114.6
Commercial, Service & Other	96.8	98.3	105.9	112.7	116.4	118.1	117.8	120.0	122.9	125.5
Industrial Machinery	67.4	75.4	86.9	104.0	111.3	110.7	109.1	113.5	117.5	120.6
HVAC Equipment	76.1	79.8	87.4	94.4	97.3	96.9	96.9	97.3	97.6	98.6
Computers & Electronic Products	173.0	198.8	232.3	272.1	316.8	359.1	407.8	471.1	540.4	618.1
Computer & Peripheral Equip.	171.5	184.0	208.3	233.8	260.3	286.7	312.5	337.2	362.7	390.3
Communications Equipment	166.3	176.2	201.3	227.6	248.9	268.8	289.2	313.7	339.2	364.9
Semicond. & Other Components	231.9	282.4	378.8	526.9	686.4	846.0	1022.4	1233.7	1476.4	1757.5
Nav., Measuring, Control Eq.	130.3	133.9	142.0	149.1	154.8	159.5	163.8	168.7	173.7	178.3
Audio & Video Equip. & Disks	64.7	65.6	80.6	101.5	119.6	134.6	149.7	166.1	183.3	202.0
Elec. Eq., Appliances, & Components	92.0	92.1	98.1	105.7	110.7	113.0	114.0	115.9	118.1	120.3
Household Appliances	81.9	84.1	89.8	95.7	99.0	99.5	100.4	101.7	102.4	103.4
Elec. Equip. except Appliances	93.8	93.5	99.5	107.4	112.7	115.3	116.4	118.3	120.9	123.3
Electric Lighting Equipment	83.9	80.3	84.4	95.9	103.0	105.5	104.8	104.8	105.9	107.1
Electrical Equipment	108.3	107.8	114.9	122.9	125.9	125.5	124.4	126.1	128.7	131.1
Other Elec. Eq. & Components	85.2	86.0	91.9	98.5	104.9	110.0	113.4	116.3	119.3	122.1
Transportation Equipment	79.8	86.3	94.7	107.3	116.9	123.6	124.5	119.3	116.9	117.6
Motor Vehicles & Parts	60.0	69.1	78.4	88.8	93.4	95.0	93.8	91.1	88.3	86.8
Automobiles	52.5	64.4	74.9	89.0	95.7	99.4	100.7	99.4	96.1	94.5
Light Truck & Utility Vehicles	52.7	65.8	72.9	78.1	80.7	82.2	82.4	80.7	77.9	75.9
Heavy Duty Trucks	52.9	66.5	89.6	126.3	145.6	147.1	130.0	121.2	133.4	148.7
Bodies & Trailers	56.0	69.5	82.3	97.7	105.2	107.9	106.1	103.3	102.7	103.3
Motor Vehicle Parts	66.9	72.3	81.6	92.5	96.8	97.6	95.4	91.9	88.6	86.5
Aerospace Products & Parts	124.0	127.0	136.0	156.6	179.7	199.5	204.5	191.2	187.9	193.1
Rrd. Eq., Ships, Boats, & Other	90.8	87.9	90.3	94.0	96.6	98.5	100.7	103.4	105.7	107.7
Ship & Boat Building	80.3	75.7	72.3	71.9	73.2	74.7	76.2	77.6	78.8	79.7
Railroad Equipment & Other	107.3	107.1	118.0	127.9	132.7	134.9	138.4	143.1	147.4	151.0
Miscellaneous	113.9	119.0	125.6	132.5	137.5	141.7	146.5	152.1	158.0	163.9
Medical Equipment & Supplies	131.8	139.0	146.2	154.2	160.9	166.6	172.8	180.6	188.7	196.9
Other	83.2	85.0	90.3	95.2	97.8	99.7	102.3	104.7	107.1	109.5
All Manufacturing - NAICS	98.2	104.0	109.8	116.2	121.6	125.6	129.4	133.6	138.4	144.0
Durable Goods	97.1	104.1	114.5	126.9	137.2	144.8	150.8	157.2	165.0	174.3
Nondurable Goods	98.1	102.0	103.9	105.6	106.9	108.1	110.0	112.5	114.8	117.3
All Less Comp., Commun., & Chips	92.0	95.4	99.6	104.6	108.0	110.2	111.8	113.1	114.8	117.0

\* Included in SIC but not NAICS classification

TABLE 41

## Industrial Production Indexes (Cont'd.)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Levels (2002=100.0)											
Nonmetallic Mineral Products	108.3	109.6	110.7	111.6	112.5	113.7	115.6	117.4	118.7	119.8	120.8
Glass & Glass Products	106.8	108.0	109.4	110.7	111.6	112.3	114.3	116.0	116.9	117.2	117.5
Cement	101.6	102.9	103.9	104.9	105.8	106.9	108.0	109.2	110.5	111.7	112.7
Concrete & Products	109.1	111.2	113.2	115.5	117.6	120.0	122.5	125.1	127.7	130.4	132.9
Clay, Lime, Gypsum & Misc.	110.0	110.4	110.2	108.9	108.2	108.2	109.4	110.4	110.2	109.5	108.8
Primary Metals	105.6	107.1	107.9	107.6	106.8	106.3	105.7	105.3	105.0	104.6	104.1
Iron & Steel Products	111.2	112.9	114.0	113.7	113.0	112.5	111.9	111.5	111.2	110.8	110.4
Nonferrous Metals	104.4	105.5	106.0	105.7	104.7	104.1	103.5	103.2	102.9	102.4	102.0
Alumina & Aluminum Products	99.1	100.4	100.9	100.7	99.8	99.3	98.8	98.5	98.3	97.9	97.5
Nonferrous exc. Aluminum	108.8	109.7	110.1	109.7	108.6	107.9	107.2	106.8	106.4	105.9	105.4
Foundries	105.0	107.0	108.2	107.9	107.2	106.7	106.1	105.8	105.4	104.9	104.3
Fabricated Metal Products	114.7	116.2	117.8	119.2	120.2	121.0	122.1	123.3	124.6	125.9	127.0
Forging & Stamping	125.9	128.2	130.6	133.1	135.0	137.2	140.0	142.6	145.5	148.7	151.5
Cutlery & Handtools	69.2	69.7	69.8	69.2	68.4	67.7	67.2	66.7	66.3	65.9	65.5
Architec. & Structural Metals	110.0	110.5	111.8	113.7	115.4	117.4	119.5	121.6	123.9	126.1	128.2
Hardware	65.0	65.2	65.4	65.6	65.7	65.7	65.2	64.8	64.4	63.9	63.3
Spring & Wire Products	84.1	85.5	86.8	87.8	88.5	89.4	90.2	91.2	92.3	93.5	94.6
Turned Products; Screws, Etc.	127.2	128.8	130.5	132.4	133.6	134.7	136.0	137.6	139.1	140.5	142.1
Coating, Engraving, Heat-Treating	112.6	114.1	115.4	116.6	117.9	119.5	121.2	123.1	125.0	126.8	128.7
Misc. incl. Cans & Ordnance	126.1	128.5	130.6	131.7	131.7	130.9	130.6	130.7	130.8	130.8	130.7
Machinery	121.0	123.3	125.6	127.7	129.4	131.0	133.1	135.6	138.0	140.2	142.6
Engines & Turbines	98.5	100.3	102.3	104.5	106.8	109.5	112.4	115.4	118.6	122.0	125.4
Agricultural & Construction Equip.	140.6	143.2	145.4	146.4	146.6	147.2	148.7	151.0	152.4	153.5	154.7
Agricultural Equipment	118.2	121.0	123.4	124.9	125.9	127.8	130.1	132.6	135.2	137.5	139.8
Construction Machinery	136.5	139.0	141.3	144.2	146.7	149.0	152.2	155.3	157.4	159.1	160.9
Drilling Equipment	193.8	196.2	197.7	193.2	186.4	180.4	176.8	176.5	173.4	170.4	167.7
Metalworking Machinery	117.5	120.4	123.2	126.1	128.3	129.6	131.1	133.2	135.8	138.5	141.3
Commercial, Service & Other	127.7	130.0	132.6	134.8	136.6	138.9	141.3	144.1	147.1	150.1	153.2
Industrial Machinery	123.4	126.2	129.1	132.2	134.7	136.3	138.2	140.6	143.3	146.1	149.2
HVAC Equipment	99.6	100.6	101.2	102.7	103.7	104.2	105.8	107.3	107.7	107.4	107.2
Computers & Electronic Products	705.0	801.4	897.9	995.0	1104.5	1226.9	1366.2	1497.8	1608.2	1730.1	1852.8
Computer & Peripheral Equip.	419.9	451.8	477.9	501.7	526.8	551.9	578.4	597.0	613.8	632.2	650.2
Communications Equipment	391.6	419.9	449.1	475.5	502.5	530.7	560.4	585.7	608.0	630.0	652.9
Semicond. & Other Components	2083.9	2467.3	2871.1	3297.5	3789.4	4352.8	4996.7	5621.4	6167.8	6788.1	7424.2
Nav., Measuring, Control Eq.	182.6	186.9	192.4	198.4	204.7	211.0	217.1	223.3	229.5	235.1	240.6
Audio & Video Equip. & Disks	222.6	245.3	259.7	268.4	277.5	286.6	295.5	304.8	314.0	322.7	331.1
Elec. Eq., Appliances, & Components	122.5	124.9	127.2	129.4	131.4	133.4	135.9	138.7	141.3	143.6	146.1
Household Appliances	104.4	105.6	107.0	108.5	110.0	111.3	113.6	115.9	117.6	118.9	120.4
Elec. Equip. except Appliances	125.7	128.2	130.7	133.1	135.1	137.2	139.8	142.7	145.4	147.9	150.6
Electric Lighting Equipment	108.6	110.1	110.9	112.3	112.9	113.5	115.5	117.4	117.7	117.1	116.7
Electrical Equipment	133.5	136.0	138.7	141.1	143.3	145.9	148.7	151.8	155.1	158.4	161.9
Other Elec. Eq. & Components	124.9	127.8	130.7	133.4	135.7	138.0	140.7	143.7	146.7	149.6	152.6
Transportation Equipment	119.7	122.1	124.5	127.3	130.1	133.6	138.0	142.4	147.1	151.8	156.5
Motor Vehicles & Parts	87.6	89.0	90.4	91.8	92.8	94.1	96.0	97.7	99.6	101.7	103.4
Automobiles	96.2	98.7	100.5	102.0	103.0	104.5	106.8	108.8	111.0	113.4	115.3
Light Truck & Utility Vehicles	76.5	77.8	79.0	80.3	81.2	82.5	84.4	86.1	88.0	90.0	91.7
Heavy Duty Trucks	157.7	165.6	171.5	176.1	180.0	182.6	185.3	188.1	190.9	193.7	197.0
Bodies & Trailers	105.7	108.6	110.8	112.6	114.0	115.6	117.9	119.9	122.2	124.6	126.7
Motor Vehicle Parts	86.7	87.5	88.5	89.7	90.5	91.7	93.4	95.0	96.7	98.5	100.0
Aerospace Products & Parts	198.2	203.2	208.5	215.4	223.5	232.9	243.9	255.6	267.6	279.8	292.3
Rrd. Eq., Ships, Boats, & Other	109.4	111.0	111.6	110.6	109.7	109.5	110.2	110.8	111.2	111.5	112.2
Ship & Boat Building	80.3	80.8	80.6	79.8	79.7	79.9	79.8	79.4	78.8	78.4	78.1
Railroad Equipment & Other	154.5	158.0	160.1	158.8	156.6	155.5	157.6	160.2	162.6	164.5	167.0
Miscellaneous	169.6	175.4	181.6	188.3	195.5	203.3	211.9	221.3	231.4	242.1	253.5
Medical Equipment & Supplies	204.6	212.5	221.0	230.3	240.3	251.3	263.3	276.4	290.8	306.0	322.1
Other	111.8	114.3	116.8	119.2	121.5	124.0	126.7	129.6	132.3	134.9	137.7
All Manufacturing - NAICS	150.1	156.1	161.8	167.0	172.3	177.7	183.9	189.9	195.3	200.9	206.4
Durable Goods	184.5	195.2	205.4	215.1	225.2	236.3	249.0	261.1	271.5	282.4	293.1
Nondurable Goods	120.1	122.8	125.6	128.2	130.6	133.0	135.5	138.2	141.0	144.0	146.9
All Less Comp., Commun., & Chips	119.5	122.0	124.5	126.8	129.1	131.3	133.9	136.7	139.5	142.5	145.4

\* Included in SIC but not NAICS classification

TABLE 41  
Industrial Production Indexes (Cont'd.)

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Levels (2002=100.0)											
Nonmetallic Mineral Products	122.4	123.8	125.0	126.6	128.6	130.9	133.3	135.7	137.9	140.3	142.8
Glass & Glass Products	118.8	119.9	120.2	121.0	122.7	124.7	126.8	128.6	129.9	131.5	133.2
Cement	113.9	114.9	116.1	117.3	118.8	120.4	122.1	123.9	125.7	127.6	129.5
Concrete & Products	135.6	138.1	141.0	143.9	147.1	150.6	154.2	158.1	162.0	166.1	170.2
Clay, Lime, Gypsum & Misc.	109.3	109.4	108.8	108.7	109.7	110.8	112.0	112.8	113.2	113.8	114.4
Primary Metals	103.5	102.9	102.2	101.5	100.5	99.5	98.6	97.6	96.5	95.4	94.2
Iron & Steel Products	109.7	108.9	108.0	107.2	106.3	105.3	104.2	103.1	102.0	100.8	99.6
Nonferrous Metals	101.5	101.0	100.5	99.9	99.1	98.3	97.6	96.7	95.8	94.7	93.6
Alumina & Aluminum Products	97.1	96.7	96.2	95.7	95.0	94.2	93.5	92.7	91.8	90.8	89.8
Nonferrous exc. Aluminum	104.8	104.3	103.6	103.0	102.2	101.3	100.5	99.6	98.7	97.6	96.5
Foundries	103.7	103.1	102.3	101.2	99.9	98.5	97.2	96.0	94.7	93.4	92.1
Fabricated Metal Products	128.4	129.7	131.0	132.3	133.7	135.1	136.7	138.3	139.7	141.2	142.7
Forging & Stamping	154.8	157.8	160.7	164.0	167.6	171.3	175.2	179.2	183.1	187.3	191.5
Cutlery & Handtools	65.0	64.5	64.0	63.5	63.0	62.5	62.1	61.6	61.1	60.6	60.1
Architect. & Structural Metals	130.4	132.4	134.7	137.1	139.8	142.6	145.6	148.9	152.1	155.5	158.9
Hardware	62.9	62.4	61.9	61.4	61.0	60.6	60.2	59.8	59.5	59.1	58.7
Spring & Wire Products	95.8	97.3	98.6	99.8	101.2	102.6	104.1	105.6	107.2	108.8	110.5
Turned Products; Screws, Etc.	144.0	146.0	147.9	150.0	152.0	154.1	156.2	158.5	160.6	162.6	164.8
Coating, Engraving, Heat-Treating	130.7	132.7	134.7	136.7	138.7	140.8	142.9	145.2	147.6	149.8	151.8
Misc. incl. Cans & Ordnance	130.6	130.5	130.3	130.0	129.5	128.9	128.5	127.8	127.0	126.2	125.5
Machinery	145.5	148.3	151.2	154.2	157.6	161.0	164.8	168.6	172.4	176.5	180.6
Engines & Turbines	129.1	132.9	136.8	141.1	145.3	149.8	154.6	159.5	164.5	169.8	175.4
Agricultural & Construction Equip.	156.6	158.3	159.8	161.6	163.8	166.1	168.7	171.2	173.5	176.0	178.7
Agricultural Equipment	142.6	145.3	148.0	150.8	153.6	156.4	159.5	162.6	165.8	168.9	172.1
Construction Machinery	163.8	166.5	168.7	171.4	175.1	179.1	183.3	187.2	190.9	195.0	199.2
Drilling Equipment	165.1	162.7	159.9	157.7	155.2	152.7	150.6	148.3	146.1	143.9	141.7
Metalworking Machinery	144.3	147.4	150.6	154.0	157.5	161.2	165.5	170.0	174.6	179.4	184.1
Commercial, Service & Other	156.3	159.5	162.9	166.3	169.8	173.3	176.9	180.6	184.4	188.3	192.3
Industrial Machinery	153.0	157.2	161.4	165.8	170.4	175.2	180.8	186.5	192.6	198.8	205.0
HVAC Equipment	108.1	108.6	108.5	108.9	110.3	112.0	113.7	115.1	116.0	117.1	118.3
Computers & Electronic Products	1971.4	2071.1	2168.8	2270.5	2382.0	2494.8	2608.1	2727.3	2855.2	2983.2	3112.0
Computer & Peripheral Equip.	667.3	681.7	694.1	706.8	718.7	731.9	745.8	759.3	773.1	786.8	800.4
Communications Equipment	677.2	699.2	721.2	742.6	764.8	787.7	810.8	835.3	862.2	889.4	917.5
Semicond. & Other Components	8050.8	8572.3	9085.0	9630.2	10228.4	10841.4	11470.8	12160.7	12920.8	13698.2	14506.4
Nav., Measuring, Control Eq.	245.6	250.7	255.6	260.4	265.3	270.4	275.6	280.2	285.2	290.6	295.8
Audio & Video Equip. & Disks	339.2	348.3	356.6	363.7	370.5	376.8	382.4	387.4	391.3	393.8	395.9
Elec. Eq., Appliances, & Components	148.9	151.8	154.5	157.3	160.4	163.7	167.2	170.7	174.1	177.4	180.7
Household Appliances	122.7	125.3	127.2	129.2	132.4	135.8	139.3	142.6	145.6	148.8	152.2
Elec. Equip. except Appliances	153.5	156.4	159.2	162.1	165.3	168.6	172.0	175.6	179.1	182.4	185.7
Electric Lighting Equipment	117.8	118.5	118.2	118.6	120.3	122.3	124.3	125.9	126.8	128.1	129.5
Electrical Equipment	165.4	169.0	172.6	176.2	179.7	183.5	187.5	191.6	195.9	199.8	203.5
Other Elec. Eq. & Components	155.7	158.8	162.0	165.2	168.5	171.9	175.3	179.0	182.7	186.3	189.8
Transportation Equipment	161.6	166.6	171.6	176.6	181.9	187.3	192.8	198.4	203.9	209.7	215.6
Motor Vehicles & Parts	105.5	107.6	109.5	111.4	113.5	115.6	118.2	120.7	123.0	125.7	128.4
Automobiles	117.7	120.1	122.2	124.3	126.7	129.2	132.1	135.0	137.8	140.9	144.0
Light Truck & Utility Vehicles	93.8	95.8	97.6	99.4	101.4	103.5	105.9	108.4	110.6	113.1	115.6
Heavy Duty Trucks	201.2	205.3	209.4	213.8	218.5	222.8	227.5	232.4	237.4	242.5	247.7
Bodies & Trailers	129.3	131.8	134.1	136.5	139.1	141.7	144.8	147.9	150.7	154.0	157.2
Motor Vehicle Parts	101.9	103.8	105.4	107.1	108.9	110.9	113.1	115.3	117.4	119.8	122.1
Aerospace Products & Parts	305.1	318.2	331.4	344.8	358.5	372.4	386.4	400.5	414.7	429.1	443.8
Rrd. Eq., Ships, Boats, & Other	113.2	114.2	115.2	116.4	117.6	118.6	119.5	120.4	121.1	121.9	122.9
Ship & Boat Building	78.0	78.0	78.2	78.4	78.4	78.2	77.8	77.5	77.2	76.8	76.4
Railroad Equipment & Other	170.3	173.5	176.3	179.2	183.0	186.9	190.6	194.0	197.2	201.1	205.3
Miscellaneous	265.6	278.2	291.6	305.7	320.5	336.1	352.5	369.9	387.9	406.6	426.2
Medical Equipment & Supplies	339.0	356.8	375.6	395.3	416.0	437.9	460.9	485.0	510.2	536.3	563.6
Other	140.8	144.0	147.2	150.4	153.9	157.3	160.7	164.4	168.0	171.8	175.6
All Manufacturing - NAICS	212.0	217.7	223.3	229.2	235.3	241.6	248.1	254.7	261.4	268.3	275.4
Durable Goods	303.8	313.5	323.0	332.7	342.3	354.0	365.0	376.3	387.7	399.4	411.2
Nondurable Goods	149.9	153.2	156.5	160.0	163.6	167.3	171.1	175.0	179.1	183.3	187.8
All Less Comp., Commun., & Chips	148.5	151.8	155.0	158.5	162.0	165.7	169.6	173.5	177.5	181.7	186.1

\* Included in SIC but not NAICS classification



TABLE 42  
Industrial Production Indexes

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Percent Change										
Total	-9.7	4.3	3.9	4.5	3.8	2.8	2.5	2.7	2.8	3.2
Mining	-6.4	-3.3	-1.9	1.3	1.1	0.8	0.5	0.7	-0.1	-0.4
Mining except Oil & Gas	-10.8	-2.5	2.0	3.5	2.6	1.1	0.1	-0.5	-0.4	-0.4
Metal Ores	-10.0	10.0	3.1	1.2	-0.6	-2.3	-2.7	-2.9	-3.1	-3.1
Coal	-7.7	-2.5	2.0	2.1	1.3	0.9	0.0	-0.2	-0.1	-0.2
Nonmetallic Minerals	-15.7	-10.7	0.9	8.3	7.9	4.6	2.6	1.0	1.2	1.1
Oil & Gas Extraction & Drilling	-5.3	-3.2	-3.0	0.6	0.7	0.6	0.5	1.0	0.0	-0.3
Oil & Gas Extraction	4.7	-4.8	-2.2	0.3	0.8	0.7	0.2	0.8	-0.1	-0.2
Support Activities for Mining	-36.2	12.4	-9.4	4.7	-1.1	-0.1	4.7	4.2	0.5	-1.3
Utilities	-2.6	0.9	1.3	1.6	1.4	1.1	0.9	0.8	0.7	1.1
Manufacturing - SIC Basis	-11.2	5.8	4.9	5.3	4.4	3.2	2.9	3.2	3.5	3.9
Food	-0.4	2.7	2.4	2.7	1.7	1.7	1.6	1.4	1.3	1.4
Beverages & Tobacco	-6.4	-0.3	-0.4	-0.3	-0.7	-0.4	-0.3	-0.3	-0.2	-0.1
Beverages	-2.6	5.4	2.1	2.0	1.4	1.6	1.5	1.3	1.2	1.3
Tobacco Products	-11.6	-8.9	-4.3	-4.1	-4.4	-4.3	-4.2	-3.9	-3.7	-3.7
Textile Mills	-17.5	0.7	-3.5	-3.3	-3.1	-2.8	-2.5	-2.0	-1.7	-1.6
Fabric Mills	-12.9	0.1	-4.1	-3.8	-3.6	-3.3	-3.0	-2.5	-2.1	-1.8
Fiber, Yarn & Textile Finishing	-23.2	1.4	-2.8	-2.6	-2.5	-2.3	-1.9	-1.5	-1.2	-1.3
Textile Product Mills	-16.1	0.1	-0.2	-0.3	-1.8	-2.4	-2.1	-1.7	-1.6	-1.6
Textile Furnishings & Carpets	-18.9	-1.4	5.1	4.6	1.4	0.2	0.5	0.7	0.7	0.3
Textile Furnishings Mills	-15.1	0.9	-3.7	-3.8	-3.8	-3.7	-3.3	-3.0	-3.0	-3.0
Carpet & Rug Mills	-17.3	0.8	12.3	10.5	4.6	2.4	2.4	2.5	2.3	1.7
Other Textile Product Mills	-12.3	2.1	-5.9	-6.1	-6.2	-6.2	-6.2	-6.1	-5.9	-5.6
Apparel	-14.1	-4.4	-6.8	-6.2	-5.8	-5.7	-5.7	-5.4	-5.2	-4.8
Logging*	-11.5	-2.4	9.1	4.8	-1.8	-1.6	0.6	0.2	-0.4	-0.6
Wood Products	-21.0	5.4	14.0	10.3	2.7	-0.7	0.0	0.8	-0.2	0.4
Furniture & Related Products	-20.3	-0.8	8.2	7.1	2.4	0.6	0.8	1.0	0.9	1.1
Hhld. & Institutional Furniture	-24.7	0.3	12.3	9.9	2.7	-0.5	-0.1	0.4	0.5	1.1
Office & Other Furniture	-15.3	-1.9	4.0	4.0	2.2	1.9	1.7	1.7	1.3	1.2
Paper & Products	-10.8	4.0	4.4	3.4	1.7	1.0	1.5	1.7	1.8	1.8
Pulp & Paper Mills	-11.4	4.5	4.7	3.4	1.4	0.6	1.4	1.6	1.7	1.7
Converted Paper Products	-10.1	3.5	4.1	3.4	2.1	1.6	1.6	1.8	1.8	1.9
Paperboard Containers	-9.0	3.4	4.8	3.5	2.3	1.9	1.8	2.0	2.2	2.1
Bags, Coated & Treated Paper	-20.0	6.2	3.9	3.6	1.7	1.3	1.5	1.5	1.5	1.8
Residual Paper Products	-3.7	2.4	3.3	3.2	2.1	1.2	1.4	1.6	1.5	1.6
Newspapers, Periodicals, Books*	-16.1	-2.7	0.0	0.9	1.1	1.1	1.1	1.1	1.2	1.2
Newspaper Publishers*	-24.8	-3.0	-1.9	-1.8	-1.5	-1.3	-1.0	-0.8	-0.6	-0.5
Periodical, Book & Misc. Publishers*	-12.5	-2.6	0.7	1.8	1.9	1.9	1.7	1.7	1.7	1.7
Printing Support Activities	-14.3	-3.5	-2.1	-1.8	-1.3	-0.7	0.1	0.6	0.5	0.4
Petroleum & Coal Products	-2.1	0.1	1.3	1.4	1.0	0.7	0.9	1.0	0.9	1.0
Chemicals	-4.2	6.8	2.9	3.1	2.3	2.4	3.2	3.7	3.6	3.8
Basic Chemicals	-5.3	11.0	1.6	1.1	0.3	-0.2	-0.2	-0.1	-0.1	-0.2
Basis Organic Chemicals	-3.7	13.4	1.9	1.4	0.7	0.3	0.3	0.7	0.4	0.3
Basic Inorganic Chemicals	-6.5	7.2	1.2	0.6	-0.2	-0.9	-1.0	-1.1	-0.9	-0.9
Resins & Synthetic Materials	-2.2	7.3	2.4	1.7	0.9	0.5	0.5	0.9	0.6	0.5
Agricultural Chemicals	-9.0	1.7	0.6	1.7	1.7	1.5	1.5	1.5	1.2	1.0
Pharmaceuticals & Medicines	0.8	7.2	3.8	4.4	3.6	4.3	5.8	6.5	6.1	6.2
Paints, Soaps, Toiletries & Misc.	-10.4	1.4	3.1	3.0	1.8	1.1	1.1	1.1	1.1	1.1
Paints & Misc. Products	-15.6	2.5	5.3	4.5	2.3	1.2	1.4	1.6	1.6	1.6
Soaps, Cleaners & Toiletries	-5.3	0.8	1.6	2.0	1.5	1.0	0.8	0.6	0.8	0.8
Rubber & Plastics Products	-14.7	4.7	5.1	4.8	3.1	2.2	2.5	2.4	2.1	1.9
Tires	-12.6	17.6	1.8	2.4	1.6	0.7	1.5	1.7	1.3	1.1
Other Rubber Products	-18.5	3.1	5.0	3.6	1.8	1.1	1.3	1.8	1.8	1.8
Plastic Products	-14.4	4.0	5.5	5.2	3.4	2.5	2.7	2.5	2.3	2.0
Leather & Allied Products	-17.6	-3.2	-3.2	-2.5	-2.9	-3.2	-3.1	-3.2	-3.0	-3.1

TABLE 42  
Industrial Production Indexes

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Percent Change											
Total	3.4	3.2	2.8	2.4	2.3	2.3	2.7	2.4	2.2	2.3	2.1
Mining	0.6	-0.5	-0.9	-0.9	-1.0	-0.8	2.2	-0.1	-0.2	-0.3	-0.3
Mining except Oil & Gas	-0.3	-0.2	0.1	-0.1	0.1	0.3	0.4	0.5	0.5	0.5	0.4
Metal Ores	-3.1	-3.1	-3.1	-2.9	-2.1	-1.4	-0.9	-0.7	-0.5	-0.3	-0.4
Coal	-0.1	-0.1	-0.3	-0.3	-0.2	-0.2	-0.1	0.0	-0.1	-0.1	-0.1
Nonmetallic Minerals	1.4	1.5	2.6	1.8	1.8	1.7	1.7	1.7	1.7	1.6	1.5
Oil & Gas Extraction & Drilling	0.9	-0.6	-1.2	-1.1	-1.2	-1.1	2.7	-0.2	-0.4	-0.5	-0.5
Oil & Gas Extraction	1.2	-0.3	-1.0	-0.9	-1.0	-1.1	2.9	-0.3	-0.4	-0.5	-0.5
Support Activities for Mining	-2.2	-2.9	-4.0	-3.2	-3.8	-2.1	-0.7	0.7	-0.3	0.1	0.3
Utilities	1.4	1.8	1.5	1.3	1.2	1.0	1.0	0.9	0.9	0.7	0.7
Manufacturing - SIC Basis	4.0	3.8	3.4	2.9	2.8	2.9	3.2	3.0	2.7	2.9	2.7
Food	1.6	1.6	1.7	1.7	1.6	1.5	1.6	1.5	1.5	1.5	1.5
Beverages & Tobacco	0.0	0.1	0.4	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.6
Beverages	1.4	1.5	1.8	1.9	1.8	1.7	1.8	1.7	1.7	1.7	1.7
Tobacco Products	-3.6	-3.6	-3.4	-3.6	-4.1	-4.1	-4.2	-4.4	-4.5	-4.6	-4.8
Textile Mills	-1.5	-1.5	-1.3	-1.2	-1.1	-1.1	-1.1	-1.1	-1.2	-1.3	-1.3
Fabric Mills	-1.5	-1.5	-1.2	-0.9	-0.8	-0.8	-0.8	-0.9	-1.0	-1.2	-1.2
Fiber, Yarn & Textile Finishing	-1.4	-1.5	-1.5	-1.5	-1.4	-1.4	-1.4	-1.3	-1.3	-1.5	-1.5
Textile Product Mills	-1.6	-1.5	-1.6	-1.3	-1.0	-1.0	-0.1	0.0	-0.5	-0.7	-0.6
Textile Furnishings & Carpets	-0.1	-0.1	-0.4	-0.4	-0.3	-0.5	0.6	0.6	0.0	-0.4	-0.3
Textile Furnishings Mills	-2.9	-2.8	-2.7	-2.3	-2.1	-1.7	-1.4	-1.4	-1.4	-1.5	-1.4
Carpet & Rug Mills	1.0	1.0	0.5	0.3	0.3	-0.1	1.3	1.2	0.4	0.0	0.0
Other Textile Product Mills	-4.9	-4.8	-4.6	-3.8	-2.8	-2.4	-2.2	-2.1	-1.9	-1.7	-1.4
Apparel	-4.7	-4.7	-4.3	-3.9	-3.9	-3.6	-3.6	-3.6	-3.6	-3.7	-3.5
Logging*	-0.6	-0.6	-0.8	-1.5	-0.5	-0.6	1.0	0.6	-1.3	-2.3	-1.8
Wood Products	0.4	0.4	-0.3	-1.4	-0.5	-0.6	1.0	0.6	-1.3	-2.3	-1.6
Furniture & Related Products	0.9	0.9	0.8	0.4	0.2	0.3	0.9	0.9	0.6	0.4	0.4
Hhld. & Institutional Furniture	0.8	0.7	0.6	0.3	0.4	0.3	1.3	1.3	0.6	0.2	0.3
Office & Other Furniture	1.0	1.0	1.2	0.6	0.1	0.4	0.4	0.6	0.7	0.5	0.5
Paper & Products	1.7	1.7	1.5	1.3	1.1	1.1	1.1	1.2	1.4	1.4	1.4
Pulp & Paper Mills	1.6	1.6	1.4	1.2	1.0	0.9	1.0	1.2	1.3	1.3	1.3
Converted Paper Products	1.9	1.9	1.7	1.5	1.3	1.3	1.2	1.4	1.6	1.6	1.5
Paperboard Containers	2.1	2.1	1.8	1.6	1.4	1.3	1.3	1.4	1.7	1.7	1.6
Bags, Coated & Treated Paper	1.8	1.7	1.7	1.6	1.4	1.3	1.3	1.4	1.7	1.7	1.6
Residual Paper Products	1.6	1.6	1.5	1.4	1.2	1.1	1.1	1.2	1.5	1.5	1.4
Newspapers, Periodicals, Books*	1.2	1.3	1.4	1.7	1.9	2.0	2.1	2.3	2.4	2.6	2.5
Newspaper Publishers*	-0.4	-0.3	0.3	0.7	1.0	1.1	1.3	1.3	1.4	1.5	1.4
Periodical, Book & Misc. Publishers*	1.7	1.7	1.7	1.9	2.1	2.2	2.3	2.5	2.7	2.9	2.8
Printing Support Activities	0.4	0.4	0.6	0.9	1.0	0.9	0.9	1.0	0.8	1.0	1.2
Petroleum & Coal Products	1.0	1.1	1.0	1.1	1.1	0.9	1.1	0.9	0.9	0.7	0.5
Chemicals	3.8	3.9	3.9	3.8	3.7	3.4	3.3	3.3	3.4	3.6	3.4
Basic Chemicals	-0.3	-0.4	-0.5	-0.9	-0.9	-0.9	-1.0	-1.1	-1.1	-1.1	-1.1
Basis Organic Chemicals	0.2	0.2	0.1	-0.4	-0.5	-0.5	-0.7	-0.8	-0.9	-0.9	-0.9
Basic Inorganic Chemicals	-1.0	-1.1	-1.2	-1.4	-1.5	-1.5	-1.5	-1.5	-1.4	-1.4	-1.4
Resins & Synthetic Materials	0.4	0.4	0.3	-0.2	-0.3	-0.3	-0.5	-0.6	-0.7	-0.7	-0.7
Agricultural Chemicals	1.1	1.1	0.8	-0.1	-1.3	-1.8	-1.9	-1.9	-1.8	-1.6	-1.5
Pharmaceuticals & Medicines	6.1	6.1	6.1	5.8	5.6	5.1	4.7	4.7	4.8	4.9	4.6
Paints, Soaps, Toiletries & Misc.	1.0	1.0	0.8	0.9	0.7	0.5	0.9	0.8	0.3	0.1	0.0
Paints & Misc. Products	1.5	1.4	1.1	1.6	1.2	0.9	2.0	1.8	0.8	0.2	0.3
Soaps, Cleaners & Toiletries	0.7	0.7	0.5	0.4	0.3	0.2	0.0	0.0	-0.1	0.1	-0.4
Rubber & Plastics Products	2.0	2.1	2.1	2.0	1.8	1.7	1.6	1.6	1.5	1.5	1.5
Tires	1.1	1.1	0.8	0.8	0.5	0.7	1.2	1.0	1.1	1.3	0.9
Other Rubber Products	1.8	1.8	1.7	1.5	1.4	1.3	1.2	0.9	0.7	0.5	0.3
Plastic Products	2.1	2.2	2.2	2.1	1.9	1.8	1.7	1.7	1.6	1.6	1.6
Leather & Allied Products	-3.2	-3.2	-3.1	-3.0	-2.9	-2.8	-2.9	-2.8	-2.8	-2.7	-2.7

TABLE 42

## Industrial Production Indexes

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Percent Change											
Total	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Mining	-0.2	-0.4	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
Mining except Oil & Gas	0.4	0.3	0.4	0.3	0.5	0.5	0.5	0.7	0.7	0.7	0.6
Metal Ores	-0.5	-0.8	-1.1	-1.3	-1.3	-1.3	-1.3	-1.5	-1.3	-1.3	-1.2
Coal	-0.2	-0.2	-0.1	-0.3	-0.1	-0.1	-0.1	0.0	0.1	0.2	-0.1
Nonmetallic Minerals	1.5	1.5	1.6	1.7	1.7	1.9	1.9	2.1	2.0	2.0	2.0
Oil & Gas Extraction & Drilling	-0.4	-0.6	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
Oil & Gas Extraction	-0.5	-0.7	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7
Support Activities for Mining	0.2	0.3	0.1	0.3	0.2	-0.3	0.1	0.2	0.2	0.1	0.0
Utilities	0.7	0.7	0.6	0.6	0.7	0.8	0.9	1.0	1.0	1.1	1.1
Manufacturing - SIC Basis	2.7	2.7	2.6	2.6	2.7	2.6	2.7	2.6	2.6	2.6	2.6
Food	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Beverages & Tobacco	0.6	0.7	0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.0	1.1
Beverages	1.7	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Tobacco Products	-5.0	-5.2	-5.3	-5.4	-5.6	-5.6	-5.8	-6.0	-6.2	-6.4	-6.5
Textile Mills	-1.4	-1.4	-1.5	-1.5	-1.5	-1.6	-1.5	-1.5	-1.5	-1.6	-1.4
Fabric Mills	-1.3	-1.4	-1.5	-1.5	-1.6	-1.7	-1.6	-1.6	-1.6	-1.9	-2.0
Fiber, Yarn & Textile Finishing	-1.6	-1.5	-1.5	-1.5	-1.5	-1.5	-1.4	-1.4	-1.4	-1.3	-0.7
Textile Product Mills	0.2	0.4	-0.1	0.0	0.9	1.0	1.0	0.8	0.6	0.7	0.8
Textile Furnishings & Carpets	0.6	0.8	0.1	0.2	1.2	1.4	1.5	1.2	0.9	1.1	1.1
Textile Furnishings Mills	-1.4	-1.4	-1.4	-1.4	-1.4	-1.5	-1.5	-1.4	-1.5	-1.6	-1.6
Carpet & Rug Mills	1.2	1.4	0.5	0.7	1.9	2.1	2.1	1.8	1.4	1.6	1.7
Other Textile Product Mills	-1.2	-1.1	-0.9	-0.9	-0.4	-0.8	-0.7	-0.8	-0.8	-0.7	-0.7
Apparel	-3.4	-3.6	-3.5	-3.5	-3.5	-3.4	-3.4	-3.3	-3.4	-3.8	-4.0
Logging*	0.1	-0.1	-1.7	-0.9	0.7	0.9	0.7	0.0	-0.6	-0.2	0.0
Wood Products	0.6	0.4	-1.2	-0.6	0.7	0.9	0.7	0.0	-0.6	-0.2	0.0
Furniture & Related Products	0.8	0.9	0.5	0.6	1.0	1.0	1.1	0.9	0.7	0.7	0.7
Hhld. & Institutional Furniture	1.2	1.3	0.6	0.8	1.7	1.9	1.9	1.6	1.3	1.5	1.6
Office & Other Furniture	0.5	0.5	0.4	0.3	0.2	0.1	0.2	0.1	-0.1	-0.2	-0.3
Paper & Products	1.5	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.6
Pulp & Paper Mills	1.5	1.6	1.6	1.6	1.6	1.5	1.6	1.5	1.5	1.7	1.8
Converted Paper Products	1.5	1.6	1.5	1.6	1.6	1.6	1.5	1.6	1.6	1.4	1.4
Paperboard Containers	1.6	1.6	1.6	1.7	1.8	1.7	1.6	1.7	1.7	1.5	1.4
Bags, Coated & Treated Paper	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.5	1.4
Residual Paper Products	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.3	1.2
Newspapers, Periodicals, Books*	2.3	2.4	2.3	2.3	2.3	2.2	2.2	2.3	2.3	2.2	2.2
Newspaper Publishers*	1.4	1.3	1.4	1.4	1.4	1.4	1.3	1.3	1.4	1.4	1.4
Periodical, Book & Misc. Publishers*	2.6	2.6	2.5	2.6	2.5	2.4	2.4	2.5	2.5	2.4	2.4
Printing Support Activities	1.2	1.3	1.3	1.3	1.4	1.3	1.3	1.3	1.4	1.8	1.9
Petroleum & Coal Products	0.5	0.5	0.4	0.3	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Chemicals	3.3	3.4	3.2	3.3	3.1	3.0	3.0	3.0	3.0	3.0	3.1
Basic Chemicals	-1.2	-1.1	-1.1	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.3	-1.4
Basis Organic Chemicals	-0.9	-0.9	-0.9	-1.0	-1.0	-1.0	-1.1	-1.0	-1.1	-1.2	-1.2
Basic Inorganic Chemicals	-1.5	-1.5	-1.4	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	-1.6	-1.6
Resins & Synthetic Materials	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8	-0.9	-0.8	-0.9	-1.0	-1.0
Agricultural Chemicals	-1.5	-1.4	-1.3	-1.1	-1.0	-0.9	-0.8	-0.7	-0.5	-0.4	-0.4
Pharmaceuticals & Medicines	4.4	4.5	4.2	4.2	3.9	3.6	3.6	3.6	3.6	3.6	3.6
Paints, Soaps, Toiletries & Misc.	0.2	0.1	-0.3	-0.1	0.3	0.4	0.4	0.3	0.1	0.3	0.3
Paints & Misc. Products	1.3	1.0	0.3	0.8	1.6	1.8	1.9	1.6	1.1	1.4	1.5
Soaps, Cleaners & Toiletries	-0.8	-0.9	-1.1	-1.0	-1.2	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4
Rubber & Plastics Products	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.4	1.3
Tires	1.2	1.1	0.8	0.9	0.9	0.9	1.1	1.1	0.9	1.1	1.0
Other Rubber Products	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Plastic Products	1.6	1.5	1.5	1.5	1.6	1.5	1.5	1.4	1.4	1.5	1.5
Leather & Allied Products	-2.9	-2.8	-2.9	-2.8	-2.8	-2.9	-2.9	-3.0	-3.0	-3.2	-3.2

TABLE 42  
Industrial Production Indexes (Cont'd.)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Percent Change										
Nonmetallic Mineral Products	-17.2	-1.4	7.4	8.5	5.3	2.2	1.0	0.8	0.8	1.1
Glass & Glass Products	-17.1	1.8	4.4	3.4	1.9	1.4	1.2	1.9	1.8	1.2
Cement	-21.0	-5.3	2.2	9.3	8.8	3.8	1.1	0.4	1.2	1.2
Concrete & Products	-17.5	-4.9	5.9	10.3	8.5	4.1	1.3	0.2	1.0	1.3
Clay, Lime, Gypsum & Misc.	-15.7	1.6	12.5	9.6	2.9	0.0	0.5	1.0	-0.1	0.9
Primary Metals	-33.5	18.6	9.4	8.0	2.7	0.5	1.1	1.3	1.7	1.6
Iron & Steel Products	-42.0	38.1	10.3	8.8	2.7	-0.3	0.7	1.1	2.1	1.8
Nonferrous Metals	-16.4	4.8	5.4	5.0	1.7	0.8	1.2	1.3	1.2	1.1
Alumina & Aluminum Products	-20.9	2.7	4.6	5.8	2.5	1.0	1.2	1.2	1.3	1.2
Nonferrous exc. Aluminum	-12.2	6.1	6.3	4.0	0.8	0.5	1.2	1.4	1.1	1.0
Foundries	-31.5	4.7	12.2	9.9	4.0	1.6	1.7	1.8	1.8	1.9
Fabricated Metal Products	-18.5	0.1	4.9	6.7	4.4	2.2	1.7	1.2	1.3	1.3
Forging & Stamping	-19.8	3.3	9.2	11.4	4.2	0.2	-1.4	-0.6	0.8	1.7
Cutlery & Handtools	-13.7	3.6	2.1	1.7	1.0	0.6	0.9	1.1	1.1	1.0
Architec. & Structural Metals	-17.9	-7.1	0.6	8.8	8.0	3.3	1.0	-0.1	0.5	0.6
Hardware	-16.8	2.9	3.1	2.7	1.8	0.9	0.7	0.6	0.3	0.3
Spring & Wire Products	-23.6	1.8	5.9	5.1	1.9	1.9	2.7	2.3	1.9	1.8
Turned Products; Screws, Etc.	-19.1	3.8	4.3	3.3	1.1	0.3	2.1	1.6	1.1	1.3
Coating, Engraving, Heat-Treating	-22.4	3.2	5.5	4.4	1.8	0.9	1.2	1.3	1.3	1.4
Misc. incl. Cans & Ordnance	-17.2	0.7	7.5	8.1	6.1	4.1	2.9	2.4	2.3	2.0
Machinery	-21.1	2.0	10.4	10.7	4.5	0.8	-0.9	1.4	2.3	2.2
Engines & Turbines	-28.8	7.3	26.8	22.5	5.3	-1.9	-6.6	-1.3	3.1	3.4
Agricultural & Construction Equip.	-20.1	-7.1	3.8	7.6	5.9	3.4	2.3	1.6	1.8	1.8
Agricultural Equipment	-8.3	-3.5	2.1	3.4	2.4	1.4	1.6	2.3	2.9	2.7
Construction Machinery	-31.4	-9.0	7.7	13.5	9.8	4.9	2.9	1.1	1.1	1.2
Drilling Equipment	-20.8	-10.0	1.6	6.4	5.7	3.8	2.4	1.4	1.3	1.4
Metalworking Machinery	-21.4	4.1	10.7	10.3	3.9	0.5	-2.1	0.9	2.9	2.6
Commercial, Service & Other	-17.3	1.6	7.8	6.4	3.2	1.5	-0.3	1.9	2.4	2.1
Industrial Machinery	-33.3	11.9	15.3	19.6	7.1	-0.6	-1.4	4.0	3.6	2.6
HVAC Equipment	-15.8	4.9	9.5	8.0	3.1	-0.5	0.1	0.4	0.3	1.0
Computers & Electronic Products	-10.3	14.9	16.8	17.2	16.4	13.3	13.5	15.5	14.7	14.4
Computer & Peripheral Equip.	-21.0	7.3	13.2	12.3	11.3	10.1	9.0	7.9	7.6	7.6
Communications Equipment	-1.9	5.9	14.2	13.1	9.4	8.0	7.6	8.5	8.1	7.6
Semicond. & Other Components	-19.3	21.7	34.2	39.1	30.3	23.2	20.8	20.7	19.7	19.0
Nav., Measuring, Control Eq.	-2.6	2.8	6.0	5.0	3.8	3.0	2.7	3.0	3.0	2.6
Audio & Video Equip. & Disks	-23.5	1.3	22.8	25.9	17.9	12.5	11.3	10.9	10.4	10.2
Elec. Eq., Appliances, & Components	-12.0	0.1	6.5	7.8	4.7	2.1	0.9	1.6	2.0	1.9
Household Appliances	-9.5	2.7	6.7	6.6	3.4	0.5	0.9	1.2	0.7	0.9
Elec. Equip. except Appliances	-12.4	-0.4	6.5	8.0	4.9	2.3	0.9	1.7	2.1	2.0
Electric Lighting Equipment	-14.3	-4.2	5.1	13.5	7.5	2.4	-0.7	0.0	1.1	1.1
Electrical Equipment	-10.3	-0.5	6.6	7.0	2.4	-0.3	-0.9	1.4	2.1	1.8
Other Elec. Eq. & Components	-14.0	1.0	6.8	7.2	6.5	4.8	3.1	2.6	2.6	2.4
Transportation Equipment	-16.9	8.0	9.8	13.3	9.0	5.7	0.7	-4.2	-2.0	0.6
Motor Vehicles & Parts	-28.0	15.2	13.4	13.3	5.2	1.6	-1.3	-2.8	-3.0	-1.7
Automobiles	-40.6	22.7	16.4	18.8	7.5	3.9	1.2	-1.2	-3.3	-1.7
Light Truck & Utility Vehicles	-30.1	24.9	10.8	7.1	3.4	1.9	0.2	-2.0	-3.5	-2.6
Heavy Duty Trucks	-39.5	25.8	34.9	40.9	15.3	1.0	-11.6	-6.8	10.1	11.4
Bodies & Trailers	-32.6	24.2	18.3	18.8	7.6	2.6	-1.7	-2.6	-0.7	0.6
Motor Vehicle Parts	-22.4	8.1	12.9	13.4	4.7	0.8	-2.2	-3.7	-3.6	-2.3
Aerospace Products & Parts	1.2	2.4	7.1	15.1	14.8	11.0	2.5	-6.5	-1.7	2.7
Rrd. Eq., Ships, Boats, & Other	-16.5	-3.2	2.7	4.0	2.8	1.9	2.3	2.6	2.3	1.8
Ship & Boat Building	-14.3	-5.8	-4.4	-0.6	1.8	2.1	2.0	1.8	1.5	1.2
Railroad Equipment & Other	-19.5	-0.2	10.2	8.4	3.8	1.7	2.6	3.4	3.0	2.4
Miscellaneous	-3.2	4.5	5.6	5.5	3.8	3.0	3.4	3.9	3.9	3.7
Medical Equipment & Supplies	3.4	5.5	5.2	5.5	4.4	3.5	3.7	4.5	4.5	4.3
Other	-6.6	2.1	6.3	5.4	2.7	2.0	2.6	2.3	2.3	2.2
All Manufacturing - NAICS	-11.0	6.0	5.5	5.8	4.7	3.3	3.0	3.3	3.6	4.0
Durable Goods	-16.5	7.2	9.9	10.8	8.2	5.5	4.2	4.2	4.9	5.6
Nondurable Goods	-5.3	4.0	1.8	1.7	1.2	1.2	1.8	2.2	2.0	2.2
All Less Comp., Commun., & Chips	-11.0	3.7	4.5	5.0	3.2	2.0	1.5	1.2	1.5	1.9

TABLE 42

## Industrial Production Indexes (Cont'd.)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Percent Change											
Nonmetallic Mineral Products	1.2	1.2	1.0	0.8	0.8	1.1	1.6	1.6	1.1	0.9	0.8
Glass & Glass Products	1.2	1.2	1.2	1.2	0.8	0.7	1.8	1.5	0.7	0.2	0.2
Cement	1.3	1.3	1.0	1.0	0.8	1.0	1.0	1.1	1.1	1.1	0.9
Concrete & Products	1.8	1.9	1.8	2.0	1.8	2.0	2.0	2.1	2.1	2.1	1.9
Clay, Lime, Gypsum & Misc.	0.5	0.3	-0.2	-1.2	-0.7	0.1	1.1	0.9	-0.1	-0.7	-0.6
Primary Metals	1.4	1.4	0.8	-0.2	-0.8	-0.5	-0.5	-0.3	-0.3	-0.4	-0.5
Iron & Steel Products	1.5	1.5	0.9	-0.2	-0.7	-0.4	-0.5	-0.3	-0.3	-0.3	-0.4
Nonferrous Metals	1.1	1.1	0.4	-0.3	-0.9	-0.6	-0.6	-0.4	-0.3	-0.4	-0.5
Alumina & Aluminum Products	1.2	1.3	0.5	-0.3	-0.8	-0.5	-0.5	-0.3	-0.2	-0.4	-0.4
Nonferrous exc. Aluminum	0.9	0.8	0.3	-0.4	-0.9	-0.6	-0.7	-0.4	-0.4	-0.5	-0.5
Foundries	1.9	1.9	1.1	-0.2	-0.7	-0.5	-0.5	-0.3	-0.3	-0.5	-0.6
Fabricated Metal Products	1.3	1.3	1.3	1.2	0.8	0.7	0.9	1.0	1.1	1.0	0.9
Forging & Stamping	1.8	1.8	1.9	1.9	1.5	1.6	2.0	1.9	2.1	2.2	1.9
Cutlery & Handtools	0.8	0.7	0.1	-0.9	-1.3	-0.9	-0.9	-0.6	-0.6	-0.7	-0.6
Architec. & Structural Metals	0.5	0.5	1.1	1.7	1.5	1.7	1.7	1.8	1.8	1.8	1.6
Hardware	0.3	0.3	0.3	0.3	0.2	-0.1	-0.7	-0.7	-0.6	-0.7	-0.9
Spring & Wire Products	1.7	1.7	1.6	1.2	0.8	1.0	0.9	1.1	1.2	1.2	1.2
Turned Products; Screws, Etc.	1.3	1.2	1.4	1.4	0.8	0.9	1.0	1.1	1.1	1.0	1.1
Coating, Engraving, Heat-Treating	1.4	1.3	1.2	1.0	1.2	1.3	1.5	1.5	1.5	1.5	1.5
Misc. incl. Cans & Ordnance	2.0	1.9	1.6	0.9	0.0	-0.6	-0.2	0.0	0.1	0.0	-0.1
Machinery	1.9	1.9	1.8	1.7	1.3	1.3	1.6	1.9	1.8	1.6	1.7
Engines & Turbines	2.2	1.9	2.0	2.1	2.2	2.5	2.6	2.7	2.8	2.8	2.8
Agricultural & Construction Equip.	1.9	1.9	1.6	0.7	0.1	0.4	1.1	1.5	0.9	0.7	0.8
Agricultural Equipment	2.5	2.3	2.0	1.3	0.8	1.5	1.8	2.0	2.0	1.7	1.7
Construction Machinery	1.7	1.8	1.7	2.1	1.8	1.6	2.1	2.0	1.4	1.1	1.1
Drilling Equipment	1.2	1.2	0.8	-2.3	-3.5	-3.2	-2.0	-0.1	-1.8	-1.7	-1.6
Metalworking Machinery	2.5	2.5	2.3	2.3	1.7	1.0	1.2	1.6	2.0	2.0	2.0
Commercial, Service & Other	1.8	1.8	2.0	1.6	1.3	1.7	1.7	2.0	2.1	2.0	2.1
Industrial Machinery	2.3	2.3	2.3	2.4	1.9	1.2	1.4	1.8	1.9	1.9	2.1
HVAC Equipment	1.0	1.0	0.6	1.5	1.0	0.4	1.6	1.4	0.4	-0.3	-0.2
Computers & Electronic Products	14.1	13.7	12.0	10.8	11.0	11.1	11.4	9.6	7.4	7.6	7.1
Computer & Peripheral Equip.	7.6	7.6	5.8	5.0	5.0	4.8	4.8	3.2	2.8	3.0	2.8
Communications Equipment	7.3	7.3	6.9	5.9	5.7	5.6	5.6	4.5	3.8	3.6	3.6
Semicond. & Other Components	18.6	18.4	16.4	14.8	14.9	14.9	14.8	12.5	9.7	10.1	9.4
Nav., Measuring, Control Eq.	2.4	2.3	2.9	3.1	3.2	3.0	2.9	2.9	2.7	2.5	2.3
Audio & Video Equip. & Disks	10.2	10.2	5.9	3.3	3.4	3.3	3.1	3.1	3.0	2.8	2.6
Elec. Eq., Appliances, & Components	1.8	1.9	1.9	1.8	1.5	1.6	1.9	2.0	1.9	1.7	1.7
Household Appliances	1.0	1.2	1.3	1.4	1.4	1.2	2.1	2.0	1.5	1.2	1.2
Elec. Equip. except Appliances	2.0	2.0	1.9	1.8	1.5	1.6	1.9	2.0	1.9	1.7	1.8
Electric Lighting Equipment	1.3	1.4	0.7	1.3	0.5	0.5	1.8	1.6	0.3	-0.5	-0.3
Electrical Equipment	1.8	1.8	2.0	1.8	1.5	1.8	1.9	2.1	2.2	2.1	2.2
Other Elec. Eq. & Components	2.3	2.3	2.3	2.1	1.7	1.7	1.9	2.1	2.1	2.0	2.0
Transportation Equipment	1.8	2.0	2.0	2.2	2.2	2.7	3.3	3.2	3.3	3.2	3.1
Motor Vehicles & Parts	0.9	1.6	1.5	1.5	1.1	1.4	2.1	1.8	1.9	2.0	1.7
Automobiles	1.7	2.6	1.8	1.5	1.0	1.5	2.2	1.9	2.0	2.1	1.7
Light Truck & Utility Vehicles	0.8	1.6	1.6	1.6	1.2	1.6	2.3	2.0	2.2	2.3	1.9
Heavy Duty Trucks	6.1	5.0	3.6	2.7	2.2	1.5	1.4	1.5	1.5	1.5	1.7
Bodies & Trailers	2.3	2.7	2.0	1.7	1.2	1.4	2.0	1.8	1.9	2.0	1.7
Motor Vehicle Parts	0.2	0.9	1.2	1.4	0.9	1.3	1.9	1.6	1.8	1.9	1.5
Aerospace Products & Parts	2.7	2.5	2.6	3.3	3.8	4.2	4.7	4.8	4.7	4.6	4.5
Rrd. Eq., Ships, Boats, & Other	1.5	1.5	0.6	-0.9	-0.8	-0.2	0.6	0.5	0.3	0.3	0.6
Ship & Boat Building	0.7	0.6	-0.2	-1.0	-0.2	0.3	-0.1	-0.5	-0.7	-0.6	-0.3
Railroad Equipment & Other	2.3	2.3	1.3	-0.8	-1.4	-0.7	1.3	1.7	1.5	1.2	1.5
Miscellaneous	3.4	3.4	3.5	3.7	3.8	4.0	4.2	4.4	4.6	4.6	4.7
Medical Equipment & Supplies	3.9	3.9	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.2	5.2
Other	2.2	2.2	2.1	2.1	1.9	2.0	2.2	2.3	2.1	1.9	2.1
All Manufacturing - NAICS	4.2	4.0	3.6	3.2	3.1	3.2	3.5	3.3	2.8	2.9	2.7
Durable Goods	5.9	5.8	5.2	4.7	4.7	4.9	5.4	4.9	4.0	4.0	3.8
Nondurable Goods	2.3	2.3	2.2	2.0	1.9	1.8	1.9	2.0	2.0	2.1	2.0
All Less Comp., Commun., & Chips	2.1	2.1	2.0	1.9	1.8	1.8	2.0	2.1	2.1	2.1	2.1

TABLE 42  
Industrial Production Indexes (Cont'd.)

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Percent Change											
Nonmetallic Mineral Products	1.4	1.1	1.0	1.2	1.6	1.8	1.8	1.8	1.6	1.7	1.8
Glass & Glass Products	1.2	0.9	0.3	0.7	1.4	1.6	1.7	1.4	1.0	1.3	1.3
Cement	1.0	0.9	1.1	1.1	1.2	1.3	1.4	1.5	1.5	1.5	1.5
Concrete & Products	2.0	1.9	2.1	2.1	2.2	2.3	2.4	2.5	2.5	2.5	2.5
Clay, Lime, Gypsum & Misc.	0.5	0.1	-0.5	-0.1	0.9	1.0	1.1	0.7	0.3	0.5	0.6
Primary Metals	-0.6	-0.6	-0.7	-0.8	-0.9	-1.0	-0.9	-1.0	-1.1	-1.2	-1.2
Iron & Steel Products	-0.6	-0.7	-0.8	-0.7	-0.9	-0.9	-1.0	-1.0	-1.1	-1.2	-1.2
Nonferrous Metals	-0.5	-0.5	-0.5	-0.6	-0.7	-0.9	-0.7	-0.9	-1.0	-1.1	-1.2
Alumina & Aluminum Products	-0.4	-0.4	-0.5	-0.6	-0.7	-0.8	-0.7	-0.8	-1.0	-1.1	-1.2
Nonferrous exc. Aluminum	-0.5	-0.5	-0.6	-0.6	-0.8	-0.9	-0.7	-0.9	-1.0	-1.1	-1.2
Foundries	-0.6	-0.5	-0.8	-1.1	-1.3	-1.4	-1.3	-1.2	-1.3	-1.4	-1.4
Fabricated Metal Products	1.0	1.0	1.0	1.0	1.1	1.0	1.1	1.2	1.0	1.1	1.0
Forging & Stamping	2.1	2.0	1.9	2.0	2.2	2.2	2.3	2.3	2.2	2.3	2.3
Cutlery & Handtools	-0.7	-0.8	-0.8	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
Architec. & Structural Metals	1.7	1.6	1.8	1.8	1.9	2.0	2.1	2.2	2.2	2.2	2.2
Hardware	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.7
Spring & Wire Products	1.3	1.5	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.5
Turned Products; Screws, Etc.	1.3	1.4	1.4	1.4	1.3	1.3	1.4	1.4	1.3	1.3	1.3
Coating, Engraving, Heat-Treating	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.7	1.4	1.4
Misc. incl. Cans & Ordnance	-0.1	-0.1	-0.2	-0.2	-0.4	-0.5	-0.3	-0.5	-0.9	-0.9	-0.9
Machinery	2.0	2.0	1.9	2.0	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Engines & Turbines	2.9	2.9	3.0	3.1	3.0	3.1	3.2	3.2	3.1	3.2	3.3
Agricultural & Construction Equip.	1.2	1.1	1.0	1.1	1.4	1.4	1.5	1.5	1.4	1.5	1.5
Agricultural Equipment	2.0	1.9	1.9	1.9	1.9	1.8	2.0	1.9	1.9	1.9	1.9
Construction Machinery	1.8	1.7	1.3	1.6	2.2	2.3	2.3	2.2	2.0	2.1	2.2
Drilling Equipment	-1.5	-1.5	-1.7	-1.4	-1.6	-1.6	-1.4	-1.5	-1.5	-1.5	-1.5
Metalworking Machinery	2.1	2.2	2.2	2.2	2.3	2.4	2.7	2.7	2.8	2.7	2.6
Commercial, Service & Other	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Industrial Machinery	2.6	2.7	2.7	2.7	2.8	2.9	3.2	3.2	3.3	3.2	3.1
HVAC Equipment	0.8	0.5	-0.1	0.4	1.3	1.5	1.5	1.2	0.8	1.0	1.1
Computers & Electronic Products	6.4	5.1	4.7	4.7	4.9	4.7	4.5	4.6	4.7	4.5	4.3
Computer & Peripheral Equip.	2.6	2.1	1.8	1.8	1.7	1.8	1.9	1.8	1.8	1.8	1.7
Communications Equipment	3.7	3.2	3.1	3.0	3.0	3.0	2.9	3.0	3.2	3.2	3.2
Semicond. & Other Components	8.4	6.5	6.0	6.0	6.2	6.0	5.8	6.0	6.3	6.0	5.9
Nav., Measuring, Control Eq.	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.7	1.8	1.9	1.8
Audio & Video Equip. & Disks	2.4	2.7	2.4	2.0	1.9	1.7	1.5	1.3	1.0	0.6	0.5
Elec. Eq., Appliances, & Components	1.9	1.9	1.8	1.8	2.0	2.1	2.1	2.1	2.0	1.9	1.9
Household Appliances	2.0	2.1	1.5	1.6	2.4	2.6	2.6	2.3	2.1	2.2	2.3
Elec. Equip. except Appliances	1.9	1.9	1.8	1.8	1.9	2.0	2.0	2.1	2.0	1.9	1.8
Electric Lighting Equipment	0.9	0.6	-0.2	0.3	1.4	1.7	1.7	1.3	0.7	1.0	1.1
Electrical Equipment	2.2	2.2	2.1	2.1	2.0	2.2	2.2	2.2	2.2	2.0	1.9
Other Elec. Eq. & Components	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	1.9	1.9
Transportation Equipment	3.2	3.1	3.0	2.9	3.0	2.9	3.0	2.9	2.8	2.8	2.8
Motor Vehicles & Parts	2.1	2.0	1.7	1.7	1.9	1.9	2.2	2.1	1.9	2.2	2.1
Automobiles	2.1	2.0	1.7	1.7	1.9	2.0	2.2	2.2	2.0	2.3	2.2
Light Truck & Utility Vehicles	2.3	2.1	1.9	1.9	2.0	2.1	2.3	2.3	2.0	2.3	2.2
Heavy Duty Trucks	2.1	2.1	2.0	2.1	2.2	2.0	2.1	2.1	2.2	2.2	2.1
Bodies & Trailers	2.1	2.0	1.7	1.8	1.9	1.9	2.1	2.1	2.0	2.2	2.1
Motor Vehicle Parts	1.9	1.8	1.6	1.6	1.7	1.8	2.0	2.0	1.8	2.0	1.9
Aerospace Products & Parts	4.4	4.3	4.1	4.0	4.0	3.9	3.8	3.6	3.6	3.5	3.4
Rrd. Eq., Ships, Boats, & Other	0.9	0.9	0.9	1.0	1.0	0.9	0.8	0.7	0.6	0.7	0.8
Ship & Boat Building	-0.2	0.0	0.3	0.3	0.0	-0.3	-0.4	-0.4	-0.5	-0.5	-0.4
Railroad Equipment & Other	2.0	1.9	1.6	1.7	2.1	2.1	2.0	1.8	1.7	2.0	2.1
Miscellaneous	4.8	4.8	4.8	4.8	4.9	4.9	4.9	4.9	4.9	4.8	4.8
Medical Equipment & Supplies	5.3	5.2	5.2	5.3	5.3	5.2	5.2	5.2	5.2	5.1	5.1
Other	2.3	2.2	2.2	2.2	2.3	2.2	2.1	2.3	2.2	2.2	2.2
All Manufacturing - NAICS	2.7	2.7	2.6	2.6	2.7	2.7	2.7	2.7	2.6	2.7	2.7
Durable Goods	3.7	3.2	3.0	3.0	3.2	3.1	3.1	3.1	3.0	3.0	3.0
Nondurable Goods	2.0	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4
All Less Comp., Commun., & Chips	2.1	2.2	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.4	2.4

TABLE 43

## Payroll Employment

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Millions of Persons										
Total Nonfarm Payrolls	130 901	129 958	131 940	135 650	138 855	140 994	142 350	143 479	144 601	145 847
Private Nonfarm Establishments	108 357	107 469	109 796	113 316	116 124	117 960	119 152	120 190	121 214	122 331
Natural Resources & Mining	0 700	0 663	0 644	0 648	0 635	0 619	0 608	0 598	0 582	0 563
Logging	0 050	0 047	0 050	0 055	0 057	0 056	0 055	0 054	0 054	0 053
Mining	0 651	0 616	0 593	0 592	0 579	0 563	0 553	0 544	0 529	0 510
Construction	6 036	5 462	5 529	5 926	6 393	6 702	6 894	7 006	7 114	7 253
Trade, Transportation & Utilities	24 947	24 672	24 900	25 664	26 252	26 647	26 889	26 978	27 045	27 117
Wholesale Trade	5 624	5 538	5 632	5 881	6 031	6 136	6 213	6 278	6 338	6 397
Retail Trade	14 529	14 452	14 448	14 690	14 940	15 091	15 143	15 063	14 972	14 904
Motor Vehicles & Parts	1 640	1 592	1 587	1 657	1 714	1 742	1 755	1 741	1 690	1 646
Gasoline	0 827	0 808	0 763	0 738	0 720	0 701	0 675	0 647	0 625	0 604
Food & Beverage Stores	2 831	2 836	2 790	2 793	2 824	2 840	2 820	2 769	2 736	2 709
Other Retail	9 232	9 217	9 308	9 502	9 682	9 808	9 893	9 907	9 922	9 946
Transportation & Warehousing	4 232	4 128	4 271	4 546	4 745	4 894	5 018	5 130	5 237	5 329
Utilities	0 561	0 554	0 549	0 546	0 537	0 526	0 516	0 507	0 497	0 486
Information	2 808	2 677	2 762	2 802	2 821	2 846	2 879	2 911	2 952	2 982
Publishing Industries	0 797	0 732	0 727	0 733	0 738	0 743	0 746	0 746	0 749	0 749
Other Information	2 011	1 945	2 034	2 069	2 082	2 103	2 133	2 165	2 203	2 232
Financial Activities	7 758	7 606	7 639	7 775	7 794	7 732	7 693	7 638	7 570	7 492
Finance & Insurance	5 762	5 650	5 647	5 708	5 695	5 627	5 588	5 539	5 478	5 409
Real Estate, Rental & Leasing	1 996	1 956	1 992	2 067	2 100	2 106	2 105	2 100	2 092	2 083
Professional & Business Services	16 575	16 925	18 069	19 153	19 961	20 526	20 972	21 609	22 254	22 963
Professional, Scientific & Technical	7 509	7 454	7 843	8 202	8 436	8 556	8 583	8 615	8 680	8 797
Mgmt. of Companies & Enterprises	1 856	1 804	1 786	1 781	1 769	1 748	1 719	1 694	1 673	1 648
Admin., Support, Waste Mgmt., Etc.	7 209	7 668	8 440	9 170	9 755	10 221	10 671	11 299	11 902	12 518
Employment Services	2 493	2 922	3 401	3 745	4 012	4 218	4 395	4 672	4 975	5 308
Other Support	4 716	4 746	5 039	5 425	5 744	6 003	6 275	6 627	6 927	7 210
Education & Health Services	19 187	19 530	19 921	20 300	20 490	20 726	21 005	21 336	21 661	21 993
Educational Services	3 088	3 106	3 160	3 134	3 083	3 045	3 005	2 965	2 946	2 931
Health Care & Social Assistance	16 099	16 424	16 761	17 166	17 407	17 681	18 000	18 371	18 715	19 062
Leisure & Hospitality	13 100	13 050	13 092	13 272	13 575	13 754	13 822	13 849	13 864	13 850
Arts, Entertainment & Recreation	1 913	1 910	1 971	1 993	2 001	2 011	2 017	2 010	2 003	1 998
Accommodation & Food Services	11 187	11 140	11 120	11 279	11 575	11 743	11 805	11 839	11 861	11 851
Other Services	5 363	5 332	5 386	5 391	5 412	5 464	5 470	5 447	5 423	5 398
Manufacturing	11 883	11 552	11 855	12 386	12 790	12 944	12 919	12 819	12 749	12 721
Durable Manufacturing	7 309	7 080	7 380	7 871	8 280	8 461	8 463	8 369	8 292	8 263
Wood Products	0 361	0 362	0 420	0 482	0 506	0 509	0 503	0 506	0 502	0 500
Nonmetallic Mineral Products	0 398	0 386	0 405	0 427	0 441	0 443	0 438	0 432	0 430	0 431
Primary Metals	0 365	0 361	0 394	0 420	0 435	0 435	0 431	0 426	0 425	0 426
Fabricated Metal Products	1 317	1 242	1 233	1 315	1 423	1 511	1 559	1 577	1 581	1 576
Machinery	1 031	0 964	1 011	1 095	1 141	1 146	1 123	1 113	1 115	1 118
Computer & Electronic Products	1 136	1 113	1 140	1 146	1 186	1 183	1 189	1 205	1 201	1 202
Electrical Equipment & Appliances	0 377	0 361	0 369	0 382	0 389	0 387	0 379	0 371	0 366	0 362
Transportation Equipment	1 353	1 340	1 413	1 564	1 698	1 777	1 768	1 667	1 592	1 558
Furniture & Related Products	0 385	0 368	0 393	0 421	0 432	0 434	0 432	0 429	0 431	0 436
Miscellaneous Durable Manufacturing	0 587	0 583	0 601	0 618	0 629	0 635	0 640	0 644	0 650	0 655
Nondurable Manufacturing	4 574	4 472	4 476	4 515	4 510	4 483	4 456	4 450	4 457	4 458
Food Manufacturing	1 459	1 447	1 465	1 501	1 518	1 532	1 541	1 557	1 574	1 587
Beverages & Tobacco Products	0 188	0 180	0 178	0 178	0 176	0 174	0 172	0 170	0 169	0 169
Textile Mills	0 125	0 119	0 114	0 108	0 101	0 095	0 090	0 086	0 082	0 079
Textile Products	0 127	0 119	0 118	0 118	0 116	0 112	0 109	0 106	0 106	0 106
Apparel	0 170	0 168	0 160	0 154	0 149	0 145	0 142	0 140	0 136	0 130
Leather & Allied Products	0 029	0 028	0 027	0 026	0 024	0 023	0 022	0 022	0 020	0 018
Paper & Paper Products	0 407	0 396	0 401	0 412	0 417	0 416	0 414	0 414	0 417	0 419
Printing & Related Support Activities	0 524	0 492	0 479	0 467	0 454	0 441	0 431	0 425	0 423	0 422
Petroleum & Coal Products	0 115	0 112	0 110	0 109	0 107	0 105	0 103	0 101	0 099	0 098
Chemicals	0 803	0 791	0 804	0 812	0 813	0 809	0 808	0 809	0 811	0 814
Plastics & Rubber Products	0 627	0 620	0 619	0 632	0 635	0 630	0 625	0 621	0 619	0 616
Government	22 545	22 489	22 144	22 333	22 731	23 034	23 199	23 289	23 388	23 516
Federal	2 822	3 011	2 810	2 768	2 745	2 734	2 727	2 722	2 719	2 718
State & Local	19 723	19 478	19 334	19 565	19 985	20 300	20 472	20 567	20 669	20 798

TABLE 43  
Payroll Employment

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Millions of Persons											
Total Nonfarm Payrolls	147.217	148.590	149.888	151.263	152.639	154.020	155.469	156.931	158.385	159.854	161.360
Private Nonfarm Establishments	123.559	124.731	125.992	127.230	128.470	129.730	131.047	132.374	133.703	135.055	136.452
Natural Resources & Mining	0.555	0.548	0.540	0.534	0.528	0.523	0.524	0.524	0.523	0.524	0.526
Logging	0.052	0.052	0.051	0.050	0.048	0.048	0.047	0.047	0.047	0.045	0.044
Mining	0.503	0.497	0.489	0.484	0.479	0.476	0.476	0.477	0.476	0.479	0.482
Construction	7.384	7.547	7.689	7.826	7.970	8.106	8.262	8.434	8.587	8.710	8.820
Trade, Transportation & Utilities	27.191	27.285	27.490	27.789	28.087	28.341	28.550	28.741	28.921	29.097	29.267
Wholesale Trade	6.462	6.517	6.633	6.779	6.913	7.007	7.074	7.138	7.204	7.269	7.332
Retail Trade	14.880	14.894	14.900	14.944	15.008	15.069	15.113	15.149	15.220	15.299	15.378
Motor Vehicles & Parts	1.619	1.618	1.623	1.630	1.636	1.640	1.644	1.648	1.653	1.660	1.668
Gasoline	0.595	0.588	0.578	0.567	0.557	0.547	0.536	0.526	0.522	0.519	0.515
Food & Beverage Stores	2.700	2.698	2.689	2.689	2.690	2.690	2.687	2.678	2.675	2.672	2.667
Other Retail	9.966	9.990	10.010	10.058	10.125	10.192	10.246	10.297	10.370	10.447	10.527
Transportation & Warehousing	5.372	5.406	5.497	5.615	5.724	5.831	5.938	6.038	6.089	6.128	6.164
Utilities	0.478	0.468	0.459	0.451	0.442	0.434	0.425	0.416	0.409	0.401	0.394
Information	3.004	3.016	3.035	3.058	3.080	3.105	3.135	3.171	3.213	3.265	3.316
Publishing Industries	0.747	0.742	0.736	0.729	0.724	0.722	0.720	0.721	0.724	0.729	0.737
Other Information	2.256	2.274	2.299	2.328	2.356	2.384	2.415	2.450	2.489	2.536	2.579
Financial Activities	7.455	7.440	7.432	7.439	7.441	7.451	7.489	7.529	7.560	7.596	7.645
Finance & Insurance	5.379	5.374	5.375	5.388	5.398	5.415	5.455	5.497	5.532	5.573	5.625
Real Estate, Rental & Leasing	2.076	2.066	2.057	2.051	2.043	2.036	2.035	2.032	2.028	2.023	2.020
Professional & Business Services	23.760	24.545	25.257	25.867	26.530	27.203	27.898	28.584	29.238	29.919	30.616
Professional, Scientific & Technical	9.075	9.440	9.912	10.391	10.876	11.359	11.834	12.304	12.759	13.206	13.641
Mgmt. of Companies & Enterprises	1.633	1.609	1.579	1.552	1.534	1.521	1.507	1.495	1.484	1.472	1.462
Admin., Support, Waste Mgmt., Etc.	13.052	13.495	13.766	13.924	14.120	14.323	14.556	14.784	14.996	15.241	15.514
Employment Services	5.566	5.753	5.841	5.875	5.950	6.036	6.131	6.213	6.262	6.295	6.337
Other Support	7.486	7.743	7.925	8.049	8.170	8.288	8.425	8.572	8.734	8.946	9.177
Education & Health Services	22.284	22.503	22.757	23.009	23.235	23.475	23.705	23.926	24.174	24.437	24.707
Educational Services	2.919	2.924	2.956	2.972	2.968	2.962	2.964	2.961	2.962	2.964	2.967
Health Care & Social Assistance	19.364	19.578	19.801	20.036	20.267	20.513	20.741	20.965	21.213	21.473	21.740
Leisure & Hospitality	13.878	13.913	13.996	14.101	14.196	14.283	14.363	14.455	14.573	14.694	14.833
Arts, Entertainment & Recreation	2.009	2.026	2.084	2.142	2.196	2.247	2.294	2.341	2.390	2.439	2.488
Accommodation & Food Services	11.869	11.886	11.913	11.959	12.000	12.036	12.068	12.114	12.183	12.254	12.345
Other Services	5.382	5.382	5.432	5.482	5.515	5.546	5.581	5.608	5.637	5.666	5.696
Manufacturing	12.667	12.553	12.364	12.125	11.888	11.697	11.541	11.402	11.277	11.147	11.027
Durable Manufacturing	8.230	8.150	8.005	7.823	7.638	7.494	7.388	7.295	7.207	7.111	7.022
Wood Products	0.499	0.496	0.489	0.478	0.471	0.464	0.464	0.464	0.455	0.440	0.428
Nonmetallic Mineral Products	0.430	0.424	0.415	0.402	0.391	0.384	0.381	0.379	0.376	0.372	0.368
Primary Metals	0.426	0.425	0.420	0.410	0.399	0.390	0.381	0.373	0.365	0.358	0.351
Fabricated Metal Products	1.580	1.579	1.569	1.552	1.526	1.500	1.473	1.453	1.439	1.422	1.405
Machinery	1.117	1.109	1.095	1.077	1.053	1.031	1.012	0.995	0.980	0.962	0.946
Computer & Electronic Products	1.193	1.180	1.143	1.095	1.057	1.034	1.023	1.000	0.975	0.961	0.950
Electrical Equipment & Appliances	0.359	0.356	0.352	0.348	0.341	0.335	0.331	0.327	0.324	0.320	0.317
Transportation Equipment	1.535	1.500	1.445	1.388	1.337	1.298	1.275	1.261	1.252	1.240	1.227
Furniture & Related Products	0.439	0.438	0.436	0.432	0.427	0.422	0.418	0.415	0.412	0.407	0.402
Miscellaneous Durable Manufacturing	0.651	0.643	0.643	0.642	0.637	0.635	0.631	0.629	0.629	0.628	0.629
Nondurable Manufacturing	4.437	4.403	4.359	4.302	4.249	4.203	4.153	4.107	4.070	4.036	4.005
Food Manufacturing	1.588	1.585	1.586	1.584	1.578	1.573	1.567	1.559	1.556	1.553	1.551
Beverages & Tobacco Products	0.167	0.164	0.161	0.157	0.154	0.152	0.149	0.146	0.143	0.140	0.137
Textile Mills	0.076	0.074	0.071	0.069	0.066	0.065	0.063	0.062	0.062	0.061	0.061
Textile Products	0.105	0.104	0.102	0.101	0.099	0.098	0.098	0.099	0.099	0.098	0.096
Apparel	0.124	0.117	0.108	0.101	0.095	0.090	0.087	0.085	0.082	0.080	0.078
Leather & Allied Products	0.017	0.016	0.016	0.015	0.014	0.014	0.013	0.013	0.012	0.012	0.011
Paper & Paper Products	0.419	0.419	0.412	0.402	0.396	0.392	0.387	0.383	0.380	0.378	0.377
Printing & Related Support Activities	0.423	0.424	0.420	0.414	0.409	0.405	0.401	0.398	0.395	0.392	0.390
Petroleum & Coal Products	0.096	0.094	0.092	0.090	0.088	0.086	0.084	0.083	0.081	0.080	0.078
Chemicals	0.813	0.809	0.803	0.795	0.788	0.779	0.768	0.758	0.751	0.745	0.739
Plastics & Rubber Products	0.608	0.597	0.587	0.575	0.561	0.548	0.535	0.522	0.510	0.498	0.487
Government	23.658	23.860	23.896	24.033	24.169	24.289	24.422	24.557	24.682	24.800	24.907
Federal	2.717	2.762	2.654	2.660	2.660	2.659	2.659	2.659	2.659	2.658	2.658
State & Local	20.941	21.098	21.242	21.373	21.509	21.630	21.763	21.898	22.023	22.142	22.249



TABLE 43  
Payroll Employment

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Millions of Persons											
Total Nonfarm Payrolls	162 928	164 233	165 603	166 927	168 336	169 763	171 218	172 718	174 244	175 820	177 416
Private Nonfarm Establishments	137 821	139 125	140 403	141 630	142 946	144 274	145 628	147 025	148 457	149 928	151 295
Natural Resources & Mining	0 527	0 529	0 530	0 531	0 532	0 534	0 536	0 538	0 539	0 541	0 542
Logging	0 043	0 043	0 042	0 041	0 041	0 041	0 041	0 041	0 040	0 040	0 039
Mining	0 484	0 486	0 488	0 490	0 492	0 493	0 495	0 497	0 499	0 501	0 503
Construction	8 957	9 118	9 257	9 394	9 567	9 771	9 983	10 198	10 401	10 604	10 816
Trade, Transportation & Utilities	29 379	29 369	29 311	29 264	29 219	29 160	29 109	29 067	29 027	28 991	28 925
Wholesale Trade	7 395	7 353	7 259	7 163	7 074	6 980	6 891	6 799	6 712	6 624	6 533
Retail Trade	15 435	15 501	15 566	15 649	15 719	15 785	15 852	15 933	16 009	16 091	16 150
Motor Vehicles & Parts	1 683	1 696	1 711	1 722	1 737	1 748	1 762	1 775	1 789	1 802	1 813
Gasoline	0 512	0 507	0 504	0 500	0 497	0 493	0 490	0 487	0 485	0 482	0 479
Food & Beverage Stores	2 665	2 657	2 653	2 651	2 651	2 649	2 651	2 652	2 656	2 657	2 657
Other Retail	10 576	10 640	10 698	10 775	10 835	10 895	10 948	11 018	11 079	11 150	11 200
Transportation & Warehousing	6 163	6 134	6 107	6 076	6 052	6 022	5 995	5 966	5 938	5 910	5 877
Utilities	0 386	0 381	0 378	0 376	0 374	0 372	0 370	0 369	0 368	0 367	0 365
Information	3 364	3 422	3 488	3 545	3 605	3 665	3 733	3 809	3 895	3 984	4 070
Publishing Industries	0 744	0 752	0 762	0 773	0 784	0 793	0 804	0 815	0 828	0 840	0 851
Other Information	2 620	2 669	2 726	2 773	2 821	2 871	2 929	2 993	3 067	3 144	3 218
Financial Activities	7 712	7 778	7 836	7 896	7 973	8 052	8 131	8 199	8 268	8 333	8 394
Finance & Insurance	5 693	5 761	5 822	5 884	5 961	6 041	6 120	6 190	6 260	6 327	6 391
Real Estate, Rental & Leasing	2 019	2 018	2 014	2 011	2 012	2 011	2 011	2 009	2 008	2 006	2 003
Professional & Business Services	31 309	31 992	32 708	33 395	34 118	34 888	35 667	36 455	37 264	38 092	38 930
Professional, Scientific & Technical	14 073	14 530	15 003	15 463	15 947	16 424	16 905	17 387	17 876	18 392	18 936
Mgmt. of Companies & Enterprises	1 450	1 437	1 426	1 415	1 406	1 396	1 386	1 376	1 367	1 357	1 348
Admin., Support, Waste Mgmt., Etc.	15 785	16 025	16 279	16 517	16 766	17 069	17 376	17 692	18 021	18 342	18 646
Employment Services	6 383	6 406	6 442	6 476	6 512	6 548	6 598	6 647	6 708	6 771	6 830
Other Support	9 402	9 618	9 837	10 041	10 254	10 521	10 778	11 045	11 313	11 572	11 816
Education & Health Services	24 976	25 227	25 499	25 761	26 025	26 254	26 491	26 721	26 963	27 189	27 370
Educational Services	2 977	2 980	2 984	2 997	3 020	3 042	3 067	3 095	3 120	3 150	3 171
Health Care & Social Assistance	22 000	22 248	22 515	22 763	23 005	23 212	23 424	23 626	23 843	24 039	24 199
Leisure & Hospitality	14 945	15 093	15 235	15 380	15 509	15 623	15 705	15 811	15 916	16 041	16 137
Arts, Entertainment & Recreation	2 534	2 585	2 638	2 684	2 729	2 742	2 731	2 715	2 699	2 681	2 661
Accommodation & Food Services	12 411	12 508	12 597	12 696	12 780	12 882	12 974	13 097	13 216	13 360	13 475
Other Services	5 728	5 749	5 772	5 794	5 821	5 844	5 869	5 891	5 912	5 934	5 948
Manufacturing	10 924	10 849	10 767	10 670	10 578	10 484	10 404	10 335	10 273	10 219	10 164
Durable Manufacturing	6 953	6 905	6 848	6 780	6 720	6 661	6 615	6 580	6 549	6 523	6 498
Wood Products	0 425	0 425	0 419	0 411	0 410	0 410	0 410	0 408	0 404	0 402	0 400
Nonmetallic Mineral Products	0 365	0 363	0 361	0 359	0 358	0 356	0 356	0 355	0 355	0 356	0 356
Primary Metals	0 341	0 331	0 321	0 310	0 300	0 289	0 279	0 270	0 261	0 253	0 245
Fabricated Metal Products	1 392	1 383	1 374	1 363	1 351	1 338	1 328	1 321	1 315	1 311	1 306
Machinery	0 931	0 919	0 907	0 893	0 880	0 867	0 856	0 847	0 840	0 834	0 828
Computer & Electronic Products	0 939	0 929	0 923	0 922	0 923	0 925	0 929	0 936	0 944	0 953	0 963
Electrical Equipment & Appliances	0 313	0 311	0 309	0 306	0 303	0 301	0 299	0 297	0 296	0 295	0 294
Transportation Equipment	1 217	1 212	1 204	1 193	1 181	1 169	1 158	1 151	1 143	1 137	1 131
Furniture & Related Products	0 399	0 397	0 394	0 389	0 382	0 376	0 371	0 365	0 360	0 355	0 350
Miscellaneous Durable Manufacturing	0 630	0 634	0 636	0 635	0 633	0 631	0 630	0 629	0 630	0 628	0 625
Nondurable Manufacturing	3 971	3 944	3 919	3 890	3 858	3 823	3 789	3 755	3 724	3 695	3 666
Food Manufacturing	1 549	1 547	1 547	1 545	1 542	1 537	1 533	1 529	1 525	1 520	1 513
Beverages & Tobacco Products	0 134	0 132	0 129	0 127	0 124	0 122	0 119	0 117	0 114	0 112	0 109
Textile Mills	0 061	0 061	0 061	0 061	0 061	0 061	0 061	0 062	0 062	0 063	0 063
Textile Products	0 093	0 090	0 088	0 085	0 082	0 079	0 076	0 073	0 069	0 066	0 063
Apparel	0 076	0 075	0 074	0 073	0 073	0 072	0 072	0 072	0 072	0 072	0 071
Leather & Allied Products	0 011	0 011	0 011	0 011	0 010	0 010	0 010	0 010	0 010	0 010	0 010
Paper & Paper Products	0 375	0 374	0 374	0 373	0 372	0 370	0 369	0 368	0 366	0 365	0 363
Printing & Related Support Activities	0 388	0 387	0 386	0 384	0 383	0 382	0 381	0 379	0 379	0 378	0 379
Petroleum & Coal Products	0 077	0 076	0 075	0 073	0 072	0 070	0 069	0 067	0 066	0 065	0 064
Chemicals	0 731	0 726	0 720	0 713	0 705	0 695	0 685	0 676	0 668	0 664	0 659
Plastics & Rubber Products	0 476	0 465	0 455	0 445	0 434	0 424	0 413	0 403	0 392	0 382	0 372
Government	25 107	25 109	25 200	25 297	25 389	25 489	25 590	25 693	25 788	25 893	26 121
Federal	2 765	2 676	2 676	2 676	2 675	2 675	2 675	2 674	2 674	2 674	2 782
State & Local	22 342	22 433	22 524	22 622	22 714	22 814	22 916	23 019	23 114	23 219	23 339

TABLE 44  
Payroll Employment Growth

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Percent Change										
Total Nonfarm Payrolls	-4.3	-0.7	1.5	2.8	2.4	1.5	1.0	0.8	0.8	0.9
Private Nonfarm Establishments	-5.2	-0.8	2.2	3.2	2.5	1.6	1.0	0.9	0.9	0.9
Natural Resources & Mining	-8.5	-5.3	-2.9	0.6	-1.9	-2.6	-1.8	-1.6	-2.6	-3.3
Logging	-11.9	-5.5	6.8	10.3	2.3	-2.1	-1.7	-0.8	-1.0	-1.8
Mining	-8.3	-5.3	-3.7	-0.2	-2.3	-2.6	-1.8	-1.7	-2.8	-3.5
Construction	-15.7	-9.5	1.2	7.2	7.9	4.8	2.9	1.6	1.5	2.0
Trade, Transportation & Utilities	-5.1	-1.1	0.9	3.1	2.3	1.5	0.9	0.3	0.2	0.3
Wholesale Trade	-5.4	-1.5	1.7	4.4	2.5	1.7	1.2	1.0	1.0	0.9
Retail Trade	-4.9	-0.5	0.0	1.7	1.7	1.0	0.3	-0.5	-0.6	-0.5
Motor Vehicles & Parts	-10.4	-2.9	-0.3	4.4	3.4	1.7	0.7	-0.8	-2.9	-2.6
Gasoline	-1.9	-2.4	-5.5	-3.3	-2.5	-2.7	-3.7	-4.1	-3.4	-3.4
Food & Beverage Stores	-1.1	0.2	-1.6	0.1	1.1	0.6	-0.7	-1.8	-1.2	-1.0
Other Retail	-5.3	-0.2	1.0	2.1	1.9	1.3	0.9	0.1	0.1	0.2
Transportation & Warehousing	-6.1	-2.5	3.5	6.5	4.4	3.1	2.5	2.2	2.1	1.8
Utilities	0.4	-1.2	-0.9	-0.7	-1.7	-2.0	-1.9	-1.8	-1.9	-2.3
Information	-5.9	-4.7	3.2	1.5	0.7	0.9	1.2	1.1	1.4	1.0
Publishing Industries	-9.5	-8.1	-0.6	0.7	0.8	0.6	0.5	0.1	0.3	0.1
Other Information	-4.4	-3.3	4.6	1.7	0.6	1.0	1.4	1.5	1.8	1.3
Financial Activities	-4.7	-2.0	0.4	1.8	0.2	-0.8	-0.5	-0.7	-0.9	-1.0
Finance & Insurance	-4.2	-1.9	-0.1	1.1	-0.2	-1.2	-0.7	-0.9	-1.1	-1.3
Real Estate, Rental & Leasing	-6.2	-2.0	1.9	3.8	1.6	0.3	0.0	-0.2	-0.4	-0.4
Professional & Business Services	-6.5	2.1	6.8	6.0	4.2	2.8	2.2	3.0	3.0	3.2
Professional, Scientific & Technical	-3.7	-0.7	5.2	4.6	2.9	1.4	0.3	0.4	0.7	1.4
Mgmt. of Companies & Enterprises	-2.6	-2.8	-1.0	-0.3	-0.7	-1.2	-1.7	-1.4	-1.3	-1.5
Admin., Support, Waste Mgmt., Etc.	-10.2	6.4	10.1	8.7	6.4	4.8	4.4	5.9	5.3	5.2
Employment Services	-20.5	17.2	16.4	10.1	7.1	5.2	4.2	6.3	6.5	6.7
Other Support	-3.7	0.6	6.2	7.7	5.9	4.5	4.5	5.6	4.5	4.1
Education & Health Services	1.8	1.8	2.0	1.9	0.9	1.2	1.3	1.6	1.5	1.5
Educational Services	1.5	0.6	1.7	-0.8	-1.6	-1.2	-1.3	-1.4	-0.6	-0.5
Health Care & Social Assistance	1.9	2.0	2.1	2.4	1.4	1.6	1.8	2.1	1.9	1.9
Leisure & Hospitality	-2.5	-0.4	0.3	1.4	2.3	1.3	0.5	0.2	0.1	-0.1
Arts, Entertainment & Recreation	-3.0	-0.2	3.2	1.1	0.4	0.5	0.3	-0.4	-0.3	-0.2
Accommodation & Food Services	-2.4	-0.4	-0.2	1.4	2.6	1.5	0.5	0.3	0.2	-0.1
Other Services	-2.8	-0.6	1.0	0.1	0.4	1.0	0.1	-0.4	-0.4	-0.5
Manufacturing	-11.3	-2.8	2.6	4.5	3.3	1.2	-0.2	-0.8	-0.5	-0.2
Durable Manufacturing	-13.6	-3.1	4.2	6.7	5.2	2.2	0.0	-1.1	-0.9	-0.4
Wood Products	-20.9	0.4	16.0	14.7	5.0	0.7	-1.1	0.5	-0.9	-0.3
Nonmetallic Mineral Products	-14.5	-2.9	4.9	5.5	3.1	0.5	-1.0	-1.5	-0.5	0.4
Primary Metals	-17.4	-1.0	9.2	6.5	3.5	0.2	-1.0	-1.1	-0.3	0.0
Fabricated Metal Products	-13.8	-5.7	-0.7	6.6	8.3	6.1	3.2	1.1	0.3	-0.3
Machinery	-13.1	-6.5	4.9	8.3	4.2	0.4	-2.0	-0.9	0.2	0.2
Computer & Electronic Products	-8.7	-2.0	2.4	0.6	3.5	-0.3	0.5	1.3	-0.3	0.1
Electrical Equipment & Appliances	-11.2	-4.1	2.2	3.6	1.8	-0.5	-2.2	-2.1	-1.2	-1.2
Transportation Equipment	-15.8	-1.0	5.4	10.7	8.6	4.7	-0.5	-5.7	-4.5	-2.1
Furniture & Related Products	-19.8	-4.5	7.0	7.0	2.7	0.4	-0.4	-0.7	0.4	1.2
Miscellaneous Durable Manufacturing	-6.6	-0.7	3.1	2.9	1.7	1.0	0.9	0.6	1.0	0.8
Nondurable Manufacturing	-7.4	-2.2	0.1	0.9	-0.1	-0.6	-0.6	-0.1	0.2	0.0
Food Manufacturing	-1.4	-0.9	1.3	2.4	1.1	0.9	0.6	1.0	1.1	0.8
Beverages & Tobacco Products	-5.2	-4.4	-0.7	-0.4	-1.0	-1.3	-1.2	-0.9	-0.4	-0.4
Textile Mills	-17.1	-4.8	-4.7	-5.4	-5.7	-5.8	-5.6	-4.9	-4.0	-3.9
Textile Products	-13.9	-6.0	-0.7	-0.3	-2.0	-3.0	-2.9	-2.3	-0.5	0.2
Apparel	-14.6	-1.3	-4.8	-3.7	-3.1	-2.6	-2.0	-1.2	-3.2	-4.4
Leather & Allied Products	-11.2	-4.5	-4.6	-4.4	-4.4	-4.5	-4.3	-3.9	-6.3	-8.3
Paper & Paper Products	-8.4	-2.9	1.4	2.7	1.2	-0.2	-0.5	0.0	0.6	0.6
Printing & Related Support Activities	-11.8	-6.1	-2.7	-2.4	-2.9	-2.8	-2.2	-1.5	-0.4	-0.1
Petroleum & Coal Products	-1.7	-2.6	-1.8	-1.1	-1.6	-2.2	-2.2	-1.8	-1.5	-1.5
Chemicals	-5.2	-1.4	1.7	0.9	0.2	-0.5	-0.2	0.1	0.3	0.3
Plastics & Rubber Products	-14.0	-1.1	-0.2	2.1	0.5	-0.7	-0.8	-0.6	-0.4	-0.6
Government	0.2	-0.2	-1.5	0.9	1.8	1.3	0.7	0.4	0.4	0.5
Federal	2.2	6.7	-6.7	-1.5	-0.8	-0.4	-0.3	-0.2	-0.1	-0.1
State & Local	-0.1	-1.2	-0.7	1.2	2.1	1.6	0.8	0.5	0.5	0.6

TABLE 44

## Payroll Employment Growth

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Percent Change											
Total Nonfarm Payrolls	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Private Nonfarm Establishments	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Natural Resources & Mining	-1.5	-1.2	-1.4	-1.2	-1.1	-0.9	0.1	0.1	-0.2	0.2	0.3
Logging	-1.1	-1.0	-1.3	-2.5	-2.3	-1.7	-0.8	-0.1	-1.3	-2.9	-3.1
Mining	-1.5	-1.2	-1.4	-1.1	-1.0	-0.8	0.1	0.1	-0.1	0.5	0.6
Construction	1.8	2.2	1.9	1.8	1.8	1.7	1.9	2.1	1.8	1.4	1.3
Trade, Transportation & Utilities	0.3	0.3	0.8	1.1	1.1	0.9	0.7	0.7	0.6	0.6	0.6
Wholesale Trade	1.0	0.9	1.8	2.2	2.0	1.4	1.0	0.9	0.9	0.9	0.9
Retail Trade	-0.2	0.1	0.0	0.3	0.4	0.4	0.3	0.2	0.5	0.5	0.5
Motor Vehicles & Parts	-1.6	0.0	0.3	0.4	0.4	0.2	0.3	0.2	0.3	0.5	0.5
Gasoline	-1.5	-1.1	-1.7	-1.8	-1.8	-1.8	-1.9	-1.9	-0.8	-0.6	-0.8
Food & Beverage Stores	-0.3	-0.1	-0.4	0.0	0.0	0.0	-0.1	-0.3	-0.1	-0.1	-0.2
Other Retail	0.2	0.2	0.2	0.5	0.7	0.7	0.5	0.5	0.7	0.7	0.8
Transportation & Warehousing	0.8	0.6	1.7	2.1	1.9	1.9	1.8	1.7	0.8	0.6	0.6
Utilities	-1.6	-2.0	-1.9	-1.9	-1.9	-1.9	-2.0	-2.0	-1.9	-1.8	-1.8
Information	0.7	0.4	0.6	0.7	0.7	0.8	0.9	1.2	1.3	1.6	1.6
Publishing Industries	-0.3	-0.7	-0.8	-0.9	-0.7	-0.4	-0.3	0.1	0.5	0.7	1.1
Other Information	1.1	0.8	1.1	1.3	1.2	1.2	1.3	1.5	1.6	1.9	1.7
Financial Activities	-0.5	-0.2	-0.1	0.1	0.0	0.1	0.5	0.5	0.4	0.5	0.6
Finance & Insurance	-0.6	-0.1	0.0	0.3	0.2	0.3	0.7	0.8	0.6	0.7	0.9
Real Estate, Rental & Leasing	-0.3	-0.5	-0.4	-0.3	-0.4	-0.3	-0.1	-0.1	-0.2	-0.3	-0.2
Professional & Business Services	3.5	3.3	2.9	2.4	2.6	2.5	2.6	2.5	2.3	2.3	2.3
Professional, Scientific & Technical	3.2	4.0	5.0	4.8	4.7	4.4	4.2	4.0	3.7	3.5	3.3
Mgmt. of Companies & Enterprises	-0.9	-1.5	-1.8	-1.7	-1.2	-0.9	-0.9	-0.8	-0.8	-0.8	-0.7
Admin., Support, Waste Mgmt., Etc.	4.3	3.4	2.0	1.1	1.4	1.4	1.6	1.6	1.4	1.6	1.8
Employment Services	4.9	3.4	1.5	0.6	1.3	1.4	1.6	1.3	0.8	0.5	0.7
Other Support	3.8	3.4	2.3	1.6	1.5	1.4	1.7	1.7	1.9	2.4	2.6
Education & Health Services	1.3	1.0	1.1	1.1	1.0	1.0	1.0	0.9	1.0	1.1	1.1
Educational Services	-0.4	0.2	1.1	0.6	-0.1	-0.2	0.1	-0.1	0.0	0.1	0.1
Health Care & Social Assistance	1.6	1.1	1.1	1.2	1.1	1.2	1.1	1.1	1.2	1.2	1.2
Leisure & Hospitality	0.2	0.2	0.6	0.7	0.7	0.6	0.6	0.6	0.8	0.8	0.9
Arts, Entertainment & Recreation	0.5	0.9	2.8	2.8	2.5	2.3	2.1	2.0	2.1	2.1	2.0
Accommodation & Food Services	0.2	0.1	0.2	0.4	0.3	0.3	0.3	0.4	0.6	0.6	0.7
Other Services	-0.3	0.0	0.9	0.9	0.6	0.6	0.6	0.5	0.5	0.5	0.5
Manufacturing	-0.4	-0.9	-1.5	-1.9	-2.0	-1.6	-1.3	-1.2	-1.1	-1.1	-1.1
Durable Manufacturing	-0.4	-1.0	-1.8	-2.3	-2.4	-1.9	-1.4	-1.3	-1.2	-1.3	-1.2
Wood Products	-0.2	-0.6	-1.4	-2.3	-1.4	-1.4	-0.1	0.0	-1.8	-3.2	-2.9
Nonmetallic Mineral Products	-0.2	-1.4	-2.3	-2.9	-2.8	-1.8	-0.9	-0.5	-0.8	-1.1	-1.0
Primary Metals	0.1	-0.2	-1.2	-2.4	-2.6	-2.2	-2.3	-2.2	-1.9	-2.0	-1.9
Fabricated Metal Products	0.2	0.0	-0.7	-1.1	-1.7	-1.7	-1.8	-1.4	-1.0	-1.2	-1.2
Machinery	0.0	-0.7	-1.3	-1.6	-2.2	-2.1	-1.9	-1.6	-1.5	-1.8	-1.7
Computer & Electronic Products	-0.7	-1.1	-3.1	-4.2	-3.5	-2.1	-1.1	-2.2	-2.6	-1.4	-1.2
Electrical Equipment & Appliances	-0.9	-0.9	-1.1	-1.1	-2.1	-1.7	-1.2	-1.0	-1.0	-1.2	-1.1
Transportation Equipment	-1.5	-2.3	-3.7	-3.9	-3.7	-2.9	-1.8	-1.1	-0.7	-0.9	-1.0
Furniture & Related Products	0.7	-0.2	-0.5	-0.9	-1.2	-1.1	-0.9	-0.7	-0.8	-1.2	-1.1
Miscellaneous Durable Manufacturing	-0.6	-1.3	0.1	-0.2	-0.8	-0.4	-0.5	-0.4	0.0	-0.2	0.1
Nondurable Manufacturing	-0.5	-0.8	-1.0	-1.3	-1.2	-1.1	-1.2	-1.1	-0.9	-0.8	-0.8
Food Manufacturing	0.0	-0.2	0.1	-0.1	-0.4	-0.3	-0.4	-0.5	-0.2	-0.2	-0.1
Beverages & Tobacco Products	-1.2	-1.7	-2.0	-2.3	-1.8	-1.6	-1.8	-2.2	-2.0	-2.0	-2.0
Textile Mills	-3.6	-3.2	-3.4	-3.4	-3.3	-3.0	-2.1	-1.7	-0.9	-0.6	-0.4
Textile Products	-0.5	-1.3	-1.6	-1.6	-1.4	-1.0	0.1	0.4	0.4	-0.7	-2.8
Apparel	-4.8	-5.4	-7.6	-6.7	-6.2	-4.5	-3.3	-3.1	-3.0	-2.6	-2.2
Leather & Allied Products	-6.4	-4.6	-4.5	-4.5	-4.4	-4.2	-4.1	-4.6	-5.5	-3.4	-2.0
Paper & Paper Products	0.1	-0.1	-1.5	-2.6	-1.4	-1.0	-1.2	-1.1	-0.7	-0.6	-0.4
Printing & Related Support Activities	0.2	0.2	-0.9	-1.5	-1.1	-0.9	-1.0	-0.9	-0.8	-0.7	-0.5
Petroleum & Coal Products	-1.7	-1.9	-2.1	-2.2	-2.2	-2.2	-2.3	-2.2	-1.8	-1.6	-1.6
Chemicals	-0.1	-0.6	-0.7	-1.0	-0.9	-1.1	-1.5	-1.2	-1.0	-0.8	-0.8
Plastics & Rubber Products	-1.3	-1.7	-1.8	-2.0	-2.3	-2.3	-2.4	-2.4	-2.4	-2.3	-2.2
Government	0.6	0.9	0.2	0.6	0.6	0.5	0.5	0.6	0.5	0.5	0.4
Federal	0.0	1.7	-3.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
State & Local	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5

TABLE 44  
Payroll Employment Growth

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Percent Change											
Total Nonfarm Payrolls	1.0	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9
Private Nonfarm Establishments	1.0	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9
Natural Resources & Mining	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.2
Logging	-1.8	-0.9	-1.7	-2.2	-0.9	-0.1	0.0	-0.5	-1.1	-1.4	-1.4
Mining	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3
Construction	1.6	1.8	1.5	1.5	1.8	2.1	2.2	2.2	2.0	2.0	2.0
Trade, Transportation & Utilities	0.4	0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.2
Wholesale Trade	0.9	-0.6	-1.3	-1.3	-1.2	-1.3	-1.3	-1.3	-1.3	-1.3	-1.4
Retail Trade	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.4
Motor Vehicles & Parts	0.9	0.8	0.8	0.7	0.8	0.6	0.8	0.8	0.8	0.7	0.6
Gasoline	-0.7	-0.8	-0.6	-0.8	-0.6	-0.8	-0.5	-0.7	-0.5	-0.6	-0.5
Food & Beverage Stores	-0.1	-0.3	-0.2	-0.1	0.0	-0.1	0.1	0.0	0.1	0.1	0.0
Other Retail	0.5	0.6	0.5	0.7	0.6	0.6	0.5	0.6	0.6	0.6	0.4
Transportation & Warehousing	0.0	-0.5	-0.4	-0.5	-0.4	-0.5	-0.4	-0.5	-0.5	-0.5	-0.6
Utilities	-1.9	-1.3	-0.8	-0.6	-0.5	-0.6	-0.4	-0.4	-0.3	-0.3	-0.3
Information	1.4	1.7	1.9	1.7	1.7	1.7	1.9	2.0	2.3	2.3	2.1
Publishing Industries	0.9	1.1	1.3	1.4	1.5	1.2	1.3	1.4	1.5	1.5	1.3
Other Information	1.6	1.9	2.1	1.7	1.7	1.8	2.0	2.2	2.4	2.5	2.4
Financial Activities	0.9	0.9	0.7	0.8	1.0	1.0	1.0	0.8	0.8	0.8	0.7
Finance & Insurance	1.2	1.2	1.1	1.1	1.3	1.3	1.3	1.1	1.1	1.1	1.0
Real Estate, Rental & Leasing	0.0	-0.1	-0.2	-0.2	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2
Professional & Business Services	2.3	2.2	2.2	2.1	2.2	2.3	2.2	2.2	2.2	2.2	2.2
Professional, Scientific & Technical	3.2	3.3	3.3	3.1	3.1	3.0	2.9	2.9	2.8	2.9	3.0
Mgmt. of Companies & Enterprises	-0.8	-0.9	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7
Admin., Support, Waste Mgmt., Etc.	1.8	1.5	1.6	1.5	1.5	1.8	1.8	1.8	1.9	1.8	1.7
Employment Services	0.7	0.4	0.6	0.5	0.6	0.5	0.8	0.7	0.9	0.9	0.9
Other Support	2.5	2.3	2.3	2.1	2.1	2.6	2.4	2.5	2.4	2.3	2.1
Education & Health Services	1.1	1.0	1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.7
Educational Services	0.3	0.1	0.1	0.4	0.8	0.7	0.8	0.9	0.8	1.0	0.7
Health Care & Social Assistance	1.2	1.1	1.2	1.1	1.1	0.9	0.9	0.9	0.9	0.8	0.7
Leisure & Hospitality	0.8	1.0	0.9	1.0	0.8	0.7	0.5	0.7	0.7	0.8	0.6
Arts, Entertainment & Recreation	1.8	2.0	2.0	1.7	1.7	0.5	-0.4	-0.6	-0.6	-0.7	-0.7
Accommodation & Food Services	0.5	0.8	0.7	0.8	0.7	0.8	0.7	0.9	0.9	1.1	0.9
Other Services	0.6	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.2
Manufacturing	-0.9	-0.7	-0.8	-0.9	-0.9	-0.9	-0.8	-0.7	-0.6	-0.5	-0.5
Durable Manufacturing	-1.0	-0.7	-0.8	-1.0	-0.9	-0.9	-0.7	-0.5	-0.5	-0.4	-0.4
Wood Products	-0.6	0.0	-1.6	-1.7	-0.3	-0.1	0.0	-0.4	-1.0	-0.6	-0.4
Nonmetallic Mineral Products	-0.7	-0.6	-0.7	-0.5	-0.4	-0.3	-0.2	0.0	-0.1	0.1	0.1
Primary Metals	-2.8	-3.0	-3.1	-3.3	-3.5	-3.6	-3.5	-3.3	-3.2	-3.2	-3.2
Fabricated Metal Products	-1.0	-0.6	-0.6	-0.8	-0.9	-0.9	-0.7	-0.5	-0.4	-0.4	-0.4
Machinery	-1.6	-1.3	-1.3	-1.5	-1.5	-1.5	-1.2	-1.0	-0.8	-0.7	-0.7
Computer & Electronic Products	-1.1	-1.1	-0.6	-0.2	0.1	0.3	0.5	0.7	0.9	1.0	1.0
Electrical Equipment & Appliances	-1.0	-0.7	-0.8	-0.9	-0.8	-0.8	-0.6	-0.5	-0.4	-0.3	-0.4
Transportation Equipment	-0.8	-0.4	-0.6	-0.9	-1.0	-1.0	-0.9	-0.7	-0.6	-0.5	-0.6
Furniture & Related Products	-0.8	-0.4	-0.7	-1.4	-1.7	-1.7	-1.5	-1.4	-1.5	-1.4	-1.4
Miscellaneous Durable Manufacturing	0.1	0.7	0.3	-0.2	-0.3	-0.3	-0.1	-0.1	0.1	-0.3	-0.3
Nondurable Manufacturing	-0.8	-0.7	-0.6	-0.7	-0.8	-0.9	-0.9	-0.9	-0.8	-0.8	-0.8
Food Manufacturing	-0.2	-0.1	0.0	-0.1	-0.2	-0.3	-0.2	-0.3	-0.3	-0.3	-0.4
Beverages & Tobacco Products	-2.0	-1.9	-1.9	-2.0	-2.0	-2.1	-2.1	-2.1	-2.1	-2.2	-2.3
Textile Mills	-0.3	-0.1	0.1	0.1	0.2	0.3	0.5	0.6	0.8	0.8	1.0
Textile Products	-3.0	-2.7	-3.1	-3.2	-3.4	-3.8	-3.8	-4.2	-4.6	-4.8	-5.0
Apparel	-2.5	-1.7	-1.0	-1.0	-0.9	-0.7	-0.6	-0.4	-0.1	-0.1	-0.2
Leather & Allied Products	-1.8	-1.7	-1.5	-1.4	-1.3	-1.2	-1.0	-0.9	-0.9	-0.8	-0.7
Paper & Paper Products	-0.4	-0.2	-0.1	-0.2	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4	-0.5
Printing & Related Support Activities	-0.5	-0.3	-0.3	-0.3	-0.3	-0.4	-0.3	-0.3	-0.2	-0.1	0.2
Petroleum & Coal Products	-1.7	-1.5	-1.5	-2.0	-2.1	-2.1	-2.0	-2.0	-2.0	-2.0	-2.0
Chemicals	-1.1	-0.7	-0.8	-0.9	-1.1	-1.4	-1.5	-1.4	-1.1	-0.7	-0.7
Plastics & Rubber Products	-2.2	-2.2	-2.2	-2.3	-2.3	-2.5	-2.4	-2.5	-2.6	-2.6	-2.7
Government	0.8	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9
Federal	4.0	-3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
State & Local	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5

TABLE 45  
Productivity and Costs

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Index										
Nonfarm Business Productivity & Costs (1992=1.000)										
Output per Hour	1.468	1.519	1.527	1.537	1.550	1.571	1.599	1.631	1.664	1.700
Compensation per Hour	1.846	1.900	1.949	2.000	2.063	2.135	2.210	2.287	2.367	2.450
Unit Labor Costs	1.257	1.250	1.276	1.301	1.331	1.359	1.382	1.402	1.422	1.441
Manufacturing Output per Hour	1.832	1.945	1.997	2.040	2.093	2.156	2.227	2.299	2.369	2.440
Durable Goods Industries	2.058	2.213	2.293	2.369	2.449	2.542	2.650	2.765	2.885	3.005
Nondurable Goods Industries	1.568	1.636	1.662	1.674	1.701	1.735	1.773	1.806	1.833	1.862
Employment Cost Index (Dec 2005=1.000)										
Total Compensation	1.098	1.118	1.139	1.160	1.189	1.223	1.258	1.295	1.333	1.373
Wages	1.103	1.123	1.140	1.158	1.184	1.212	1.241	1.271	1.303	1.335
Benefits	1.085	1.107	1.135	1.166	1.203	1.250	1.300	1.352	1.407	1.464
Health Insurance	1.168	1.220	1.281	1.351	1.423	1.498	1.576	1.655	1.738	1.832
Percent Change										
Nonfarm Business Productivity & Costs										
Output per Hour	3.0	3.5	0.5	0.6	0.8	1.4	1.8	2.0	2.0	2.1
Compensation per Hour	2.0	2.9	2.6	2.6	3.2	3.5	3.5	3.5	3.5	3.5
Unit Labor Costs	-0.9	-0.6	2.0	2.0	2.3	2.1	1.7	1.4	1.4	1.4
Manufacturing Output per Hour	1.4	6.2	2.7	2.1	2.6	3.0	3.3	3.3	3.0	3.0
Durable Goods Industries	-2.1	7.5	3.6	3.3	3.4	3.8	4.2	4.4	4.3	4.2
Nondurable Goods Industries	2.7	4.3	1.6	0.7	1.6	2.0	2.2	1.9	1.5	1.6
Employment Cost Index										
Total Compensation	1.5	1.8	1.9	1.9	2.5	2.9	2.9	2.9	3.0	3.0
Wages	1.5	1.8	1.6	1.6	2.2	2.4	2.4	2.4	2.5	2.5
Benefits	1.2	2.0	2.6	2.7	3.2	3.9	4.0	4.0	4.0	4.1
Health Insurance	4.5	4.4	5.0	5.4	5.4	5.3	5.2	5.0	5.0	5.4

TABLE 45L  
Productivity and Costs

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<i>Index</i>											
Nonfarm Business Productivity & Costs (1992=1,000)											
Output per Hour	1,738	1,778	1,821	1,865	1,908	1,951	1,997	2,040	2,082	2,124	2,168
Compensation per Hour	2,535	2,624	2,716	2,811	2,909	3,012	3,120	3,233	3,352	3,476	3,604
Unit Labor Costs	1,459	1,475	1,492	1,507	1,525	1,544	1,562	1,585	1,610	1,636	1,663
Manufacturing Output per Hour	2,526	2,627	2,732	2,841	2,958	3,080	3,211	3,348	3,483	3,626	3,771
Durable Goods Industries	3,144	3,307	3,479	3,656	3,850	4,054	4,280	4,517	4,755	5,011	5,278
Nondurable Goods Industries	1,902	1,950	2,000	2,052	2,108	2,162	2,221	2,281	2,339	2,397	2,455
Employment Cost Index (Dec 2005=1,000)											
Total Compensation	1,413	1,452	1,493	1,534	1,577	1,621	1,668	1,716	1,766	1,817	1,870
Wages	1,367	1,400	1,434	1,468	1,504	1,541	1,580	1,621	1,663	1,707	1,751
Benefits	1,522	1,578	1,634	1,692	1,751	1,813	1,877	1,943	2,011	2,082	2,155
Health Insurance	1,925	2,025	2,130	2,239	2,356	2,477	2,607	2,743	2,889	3,041	3,201
<i>Percent Change</i>											
Nonfarm Business Productivity & Costs											
Output per Hour	2.2	2.3	2.4	2.4	2.3	2.3	2.4	2.2	2.0	2.0	2.0
Compensation per Hour	3.5	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.7	3.7	3.7
Unit Labor Costs	1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.4	1.6	1.6	1.6
Manufacturing Output per Hour	3.5	4.0	4.0	4.0	4.1	4.1	4.3	4.3	4.0	4.1	4.0
Durable Goods Industries	4.6	5.2	5.2	5.1	5.3	5.3	5.6	5.6	5.3	5.4	5.3
Nondurable Goods Industries	2.2	2.5	2.5	2.6	2.7	2.6	2.7	2.7	2.5	2.5	2.4
Employment Cost Index											
Total Compensation	2.9	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9
Wages	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.6	2.6	2.6	2.6
Benefits	3.9	3.7	3.5	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Health Insurance	5.1	5.2	5.2	5.1	5.2	5.2	5.2	5.2	5.3	5.3	5.3

TABLE 45  
Productivity and Costs

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Index											
Nonfarm Business Productivity & Costs (1992=1,000)											
Output per Hour	2.213	2.256	2.298	2.344	2.393	2.443	2.494	2.544	2.594	2.645	2.698
Compensation per Hour	3.736	3.871	4.009	4.152	4.299	4.453	4.612	4.774	4.941	5.112	5.288
Unit Labor Costs	1.688	1.716	1.744	1.771	1.797	1.823	1.849	1.877	1.905	1.933	1.960
Manufacturing Output per Hour	3.923	4.072	4.228	4.397	4.576	4.766	4.959	5.156	5.355	5.562	5.778
Durable Goods Industries	5.557	5.833	6.127	6.449	6.792	7.155	7.528	7.904	8.287	8.682	9.098
Nondurable Goods Industries	2.515	2.576	2.636	2.701	2.770	2.844	2.919	2.998	3.079	3.162	3.251
Employment Cost Index (Dec 2005=1,000)											
Total Compensation	1.924	1.979	2.036	2.093	2.153	2.214	2.278	2.342	2.408	2.475	2.544
Wages	1.797	1.842	1.888	1.934	1.982	2.032	2.083	2.134	2.185	2.237	2.290
Benefits	2.230	2.309	2.390	2.474	2.561	2.651	2.744	2.840	2.940	3.044	3.151
Health Insurance	3.369	3.545	3.730	3.922	4.122	4.332	4.551	4.781	5.023	5.273	5.531
Percent Change											
Nonfarm Business Productivity & Costs											
Output per Hour	2.1	1.9	1.9	2.0	2.1	2.1	2.1	2.0	1.9	2.0	2.0
Compensation per Hour	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.4
Unit Labor Costs	1.5	1.7	1.7	1.5	1.5	1.4	1.4	1.5	1.5	1.4	1.4
Manufacturing Output per Hour	4.0	3.8	3.8	4.0	4.1	4.1	4.1	4.0	3.9	3.9	3.9
Durable Goods Industries	5.3	5.0	5.0	5.3	5.3	5.3	5.2	5.0	4.8	4.8	4.8
Nondurable Goods Industries	2.5	2.4	2.4	2.5	2.5	2.7	2.6	2.7	2.7	2.7	2.8
Employment Cost Index											
Total Compensation	2.9	2.9	2.8	2.8	2.8	2.9	2.9	2.8	2.8	2.8	2.8
Wages	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4
Benefits	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Health Insurance	5.3	5.2	5.2	5.1	5.1	5.1	5.1	5.0	5.1	5.0	4.9

**Technical Appendix**

**KU & LG&E**

**Hourly Demand Forecast Methodology**

**2011 IRP**



## **Hourly Demand Forecast**

The Generation Planning department uses the hourly demand forecast to develop capacity expansion plans and a forecast of generation production costs. The hourly demand forecast is created in four steps. First, the monthly calendar sales forecasts for each class are allocated to hours using class-specific load shapes. These load shapes were created using load research data. Second, Energy Independence and Security Act (“EISA”) reductions are “layered” in using MetrixLT. Third, DSM reductions are “layered” in using MetrixLT. Fourth, losses are calculated and added to the forecast in Excel. After these steps are completed, the hourly load data is imported into Access to convert it into the proper format for Generation Planning.

### **Hourly Demand Forecast – Part 1**

In the first part of the hourly demand forecast process, the monthly calendar sales forecasts are allocated to hours in MetrixLT using class-specific load shapes. There are 10 forecast classes for KU (including ODP, which is modeled as one class) and 6 forecast classes for LG&E.

The General Service and Residential class load shapes are developed in MetrixND. The process used to develop the remaining load shapes is summarized below:

1. Compute average hourly class profiles by month and day type using hourly class profile data.
2. For each month and class, specify daily average load models as a function of weather and day type.
3. Using the average class profiles from step 1, the weather and day type parameters from step 2, and a daily normal weather forecast, develop class load shapes for each forecast class.

Several large commercial and industrial customers are served on time-of-day rates. The time-of-day rates give customers an incentive to shift usage (and peak demand) from peak to off-peak periods. The impact of these rates is implicitly included in the hourly load shapes since the historical load profile data (upon which these shapes are based) reflects the impact of these rates.

### **Hourly Demand Forecast – Part 2**

In the second part of the process, EISA-related reductions are layered into the hourly forecast (from part one) using MetrixLT. Each of the class-specific reductions that were made in this part of the process is discussed below.

#### **EISA-Related Lighting Reductions**

The EISA was signed into law by President Bush in December 2007. The provisions in EISA are primarily designed to increase energy efficiency and the availability of renewable energy. LG&E and KU electricity sales will be impacted primarily by provisions in the act that tighten lighting and appliance efficiency standards as well as foster the development of new building and commercial equipment standards. The impact of the new lighting efficiency standards is factored into the forecast in this part of

the hourly demand forecasting process, as well as in the Residential and General Service SAE models. This means that existing incandescent bulbs will eventually be phased out as a result of these reductions, which are scheduled to take place between 2012 and 2014.

Residential, commercial, industrial, and municipal sales classes are expected to be impacted by the new lighting standards. For the large commercial, industrial, and municipal classes, energy reductions reflecting EISA from EIA are incorporated through MetrixLT. The impact of the new efficiency, building, and commercial equipment standards is captured by the residential and general service end-use models.

### Hourly Demand Forecast – Part 3

In the third part of the hourly demand forecast process, the company’s DSM programs are ‘layered’ into the hourly demand forecast (from part two) using MetrixLT. For the 2011 MTP forecast, estimates of annual energy reductions were provided by the Energy Efficiency group. For forecasting purposes, each program is assigned to one of six categories: Residential, Residential Lighting, General Service, Commercial Lighting, Refrigerator, and Appliances (which includes multiple different appliance end-use shapes). Table 1 contains a list of the DSM programs and their associated categories.

**Table 1 – DSM Programs and DSM Categories**

<b>DSM Program</b>	<b>Forecast Category</b>
Residential Conservation (HEPP)	Residential
Residential Low Income Weatherization	Residential
Residential Lighting	Residential Lighting
Residential HVAC Tune Up	Residential
Residential New Construction	Residential
Residential Demand Conservation	Dispatchable
Residential Smart Energy Profile	Residential
Residential Refrigerator Removal	Refrigerator
Residential Rebates	Appliances
Commercial Conservation/Rebates	Commercial Lighting
Commercial HVAC Tune Up	General Service
Commercial Demand Conservation	Dispatchable

The forecast category determines how each DSM program is layered into the hourly demand forecast. The annual energy reduction for ‘Lighting’ programs, for example, is allocated to hours based on a residential or commercial lighting usage profile. Since the variability in total residential and commercial sales is driven largely by heating and cooling usage, the annual energy reductions for programs associated with heating and cooling are allocated to hours based on a residential or general service usage profile.

The ‘Dispatchable’ programs are unique in the fact that the Generation Dispatch group can call upon these programs to reduce demand during peak periods. The ‘Dispatchable’ programs are layered into the hourly demand forecast in a way that is consistent with the way the Generation Dispatch group utilizes these programs in practice.

## **Hourly Demand Forecast – Part 4**

In the fourth part of the hourly demand forecast process, losses are added to the hourly demand forecast (from part 3) to determine energy requirements.



## 2009 Commercial Electric Statistically Adjusted End-Use (SAE) Spreadsheets

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The 2009 Commercial SAE spreadsheets and models have been updated to reflect the Energy Information Agency's (EIA) most recent Annual Energy Outlook (AEO). This forecast reflects both the expected impacts of the 2007 Energy Independence and Security Act (EISA) and 2009 American Recovery and Reinvestment Act (ARRA). Elements that have been updated include:

- \* End-use energy intensity projections
- \* End-use efficiency projections
- \* End-use saturation projections
- \* Census division commercial SAE project files (MetrixND)

### 1.1 Energy Intensity Forecast Update

The primary factor driving the commercial indices are the long-term end-use energy intensity projections. Commercial energy intensity is measured in terms of energy use per square foot. The end-use energy intensities incorporate end-use efficiency trends, increase in end-use saturation, and change in long-term term usage driven by price, and economic conditions. Commercial energy intensities are calculated for each of the primary end-uses:

- \* Heating
- \* Cooling
- \* Ventilation
- \* Water Heating
- \* Cooking
- \* Refrigeration
- \* Outdoor Lighting
- \* Indoor Lighting
- \* Office Equipment (PCs)
- \* Miscellaneous

## Appendix A: Commercial Statistically Adjusted End-Use Model

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The traditional approach to forecasting monthly sales for a customer class is to develop an econometric model that relates monthly sales to weather, seasonal variables, and economic conditions. From a forecasting perspective, the strength of econometric models is that they are well suited to identifying historical trends and to projecting these trends into the future. In contrast, the strength of the end-use modeling approach is the ability to identify the end-use factors that are driving energy use. By incorporating end-use structure into an econometric model, the statistically adjusted end-use (SAE) modeling framework exploits the strengths of both approaches.

There are several advantages to this approach.

- The equipment efficiency trends and saturation changes embodied in the long-run end-use forecasts are introduced explicitly into the short-term monthly sales forecast. This provides a strong bridge between the two forecasts.
- By explicitly introducing trends in equipment saturations and equipment efficiency levels, it is easier to explain changes in usage levels and changes in weather-sensitivity over time.
- Data for short-term models are often not sufficiently robust to support estimation of a full set of price, economic, and demographic effects. By bundling these factors with equipment-oriented drivers, a rich set of elasticities can be built into the final model.

This document describes this approach, the associated supporting Commercial SAE spreadsheets, and *MetriXND* project files that are used in the implementation. The source for the commercial SAE spreadsheets is the 2009 Annual Energy Outlook (AEO) database provided by the Energy Information Administration (EIA).

### 1.5 Commercial Statistically Adjusted End-Use Model Framework

The commercial statistically adjusted end-use model framework begins by defining energy use ( $USE_{y,m}$ ) in year ( $y$ ) and month ( $m$ ) as the sum of energy used by heating equipment ( $Heat_{y,m}$ ), cooling equipment ( $Cool_{y,m}$ ) and other equipment ( $Other_{y,m}$ ). Formally,



$$USE_{y,m} = Heat_{y,m} + Cool_{y,m} + Other_{y,m} \quad (1)$$

Although monthly sales are measured for individual customers, the end-use components are not. Substituting estimates for the end-use elements gives the following econometric equation.

$$USE_m = a + b_1 \times XHeat_m + b_2 \times XCool_m + b_3 \times XOther_m + \varepsilon_m \quad (2)$$

Here,  $XHeat_m$ ,  $XCool_m$ , and  $XOther_m$  are explanatory variables constructed from end-use information, weather data, and market data. As will be shown below, the equations used to construct these X-variables are simplified end-use models, and the X-variables are the estimated usage levels for each of the major end uses based on these models. The estimated model can then be thought of as a statistically adjusted end-use model, where the estimated slopes are the adjustment factors.

### Constructing XHeat

As represented in the Commercial SAE spreadsheets, energy use by space heating systems depends on the following types of variables.

- Heating degree days,
- Heating equipment saturation levels,
- Heating equipment operating efficiencies,
- Average number of days in the billing cycle for each month, and
- Commercial output and energy price.

The heating variable is represented as the product of an annual equipment index and a monthly usage multiplier. That is,

$$XHeat_{y,m} = HeatIndex_y \times HeatUse_{y,m} \quad (3)$$

where,  $XHeat_{y,m}$  is estimated heating energy use in year (y) and month (m),  
 $HeatIndex_y$  is the annual index of heating equipment, and  
 $HeatUse_{y,m}$  is the monthly usage multiplier.

The heating equipment index is composed of electric space heating equipment saturation levels normalized by operating efficiency levels. The index will change over time with changes in heating equipment saturations (*HeatShare*) and operating efficiencies (*Eff*). Formally, the equipment index is defined as:

$$HeatIndex_y = HeatSales_{04} \times \frac{\left( \frac{HeatShare_y}{Eff_y} \right)}{\left( \frac{HeatShare_{04}}{Eff_{04}} \right)} \quad (4)$$

In this expression, 2004 is used as a base year for normalizing the index. The ratio on the right is equal to 1.0 in 2004. In other years, it will be greater than one if equipment saturation levels are above their 2004 level. This will be counteracted by higher efficiency levels, which will drive the index downward. Base year space heating sales are defined as follows.

$$HeatSales_{04} = \left( \frac{kWh}{Sqft} \right)_{Heating} \times \left( \frac{CommercialSales_{04}}{\sum_i kWh/Sqft_i} \right) \quad (5)$$

Here, base-year sales for space heating is the product of the average space heating intensity value and the ratio of total commercial sales in the base year over the sum of the end-use intensity values. In the Commercial SAE Spreadsheets, the space heating sales value is defined on the *BaseYrInput* tab. The resulting *HeatIndex<sub>y</sub>* value in 2004 will be equal to the estimated annual heating sales in that year. Variations from this value in other years will be proportional to saturation and efficiency variations around their base values.

Heating system usage levels are impacted on a monthly basis by several factors, including weather, commercial level economic activity, prices and billing days. Using the COMMEND default elasticity parameters, the estimates for space heating equipment usage levels are computed as follows:

$$HeatUse_{y,m} = \left( \frac{BDays_{y,m}}{30.5} \right) \times \left( \frac{WgtHDD_{y,m}}{HDD_{04}} \right) \times \left( \frac{Output_y}{Output_{04}} \right)^{0.20} \times \left( \frac{Price_{y,m}}{Price_{04}} \right)^{-0.18} \quad (6)$$

where, *BDays* is the number of billing days in year (y) and month (m), these values are normalized by 30.5 which is the average number of billing days  
*WgtHDD* is the weighted number of heating degree days in year (y) and month (m). This is constructed as the weighted sum of the current month's HDD and the prior month's HDD. The weights are 75% on the current month and 25% on the prior month.  
*HDD* is the annual heating degree days for 2004.



*Output* is a real commercial output driver in year (y),

*Price* is the average real price of electricity in month (m) and year (y),

By construction, the  $HeatUse_{y,m}$  variable has an annual sum that is close to one in the base year (2004). The first two terms, which involve billing days and heating degree days, serve to allocate annual values to months of the year. The remaining terms average to one in the base year. In other years, the values will reflect changes in commercial output and prices, as transformed through the end-use elasticity parameters. For example, if the real price of electricity goes up 10% relative to the base year value, the price term will contribute a multiplier of about .98 (computed as 1.10 to the  $-0.18$  power).

### Constructing XCool

The explanatory variable for cooling loads is constructed in a similar manner. The amount of energy used by cooling systems depends on the following types of variables.

- Cooling degree days,
- Cooling equipment saturation levels,
- Cooling equipment operating efficiencies,
- Average number of days in the billing cycle for each month, and
- Commercial output and energy price.

The cooling variable is represented as the product of an equipment-based index and monthly usage multiplier. That is,

$$XCool_{y,m} = CoolIndex_y \times CoolUse_{y,m} \quad (7)$$

where,  $XCool_{y,m}$  is estimated cooling energy use in year (y) and month (m),

$CoolIndex_y$  is an index of cooling equipment, and

$CoolUse_{y,m}$  is the monthly usage multiplier.

As with heating, the cooling equipment index depends on equipment saturation levels ( $CoolShare$ ) normalized by operating efficiency levels ( $Eff$ ). Formally, the cooling equipment index is defined as:

$$CoolIndex_y = CoolSales_{04} \times \frac{\left( \frac{CoolShare_y}{Eff_y} \right)}{\left( \frac{CoolShare_{04}}{Eff_{04}} \right)} \quad (8)$$



Data values in 2004 are used as a base year for normalizing the index, and the ratio on the right is equal to 1.0 in 2004. In other years, it will be greater than one if equipment saturation levels are above their 2004 level. This will be counteracted by higher efficiency levels, which will drive the index downward. Estimates of base year cooling sales are defined as follows.

$$CoolSales_{04} = \left( \frac{kWh}{Sqft} \right)_{Cooling} \times \left( \frac{CommercialSales_{04}}{\sum_i kWh/Sqft_i} \right) \quad (9)$$

Here, base-year sales for space cooling is the product of the average space cooling intensity value and the ratio of total commercial sales in the base year over the sum of the end-use intensity values. In the Commercial SAE Spreadsheets, the space cooling sales value is defined on the *BaseYrInput* tab. The resulting *CoolIndex* value in 2004 will be equal to the estimated annual cooling sales in that year. Variations from this value in other years will be proportional to saturation and efficiency variations around their base values.

Cooling system usage levels are impacted on a monthly basis by several factors, including weather, economic activity levels and prices. Using the *COMMENT* default parameters, the estimates of cooling equipment usage levels are computed as follows:

$$CoolUse_{y,m} = \left( \frac{BDays_{y,m}}{30.5} \right) \times \left( \frac{WgtCDD_{y,m}}{CDD_{04}} \right) \times \left( \frac{Output_y}{Output_{04}} \right)^{0.20} \times \left( \frac{Price_{y,m}}{Price_{04}} \right)^{-0.18} \quad (10)$$

where, *WgtCDD* is the weighted number of cooling degree days in year (y) and month (m).

This is constructed as the weighted sum of the current month's CDD and the prior month's CDD. The weights are 75% on the current month and 25% on the prior month.

*CDD* is the annual cooling degree days for 2004.

By construction, the *CoolUse* variable has an annual sum that is close to one in the base year (2004). The first two terms, which involve billing days and cooling degree days, serve to allocate annual values to months of the year. The remaining terms average to one in the base year. In other years, the values will change to reflect changes in commercial output and prices.

### Constructing XOther

Monthly estimates of non-weather sensitive sales can be derived in a similar fashion to space heating and cooling. Based on end-use concepts, other sales are driven by:

- Equipment saturation levels,
- Equipment efficiency levels,
- Average number of days in the billing cycle for each month, and
- Real commercial output and real prices.

The explanatory variable for other uses is defined as follows:

$$XOther_{y,m} = OtherIndex_{y,m} \times OtherUse_{y,m} \quad (11)$$

The second term on the right hand side of this expression embodies information about equipment saturation levels and efficiency levels. The equipment index for other uses is defined as follows:

$$OtherIndex_{y,m} = \sum_{Type} Weight_{Type}^{Other} \times \left( \frac{Share_y^{Type} / Eff_y^{Type}}{Share_{04}^{Type} / Eff_{04}^{Type}} \right) \quad (12)$$

where, *Weight* is the weight for each equipment type,

*Share* represents the fraction of floor stock with an equipment type, and

*Eff* is the average operating efficiency.

This index combines information about trends in saturation levels and efficiency levels for the main equipment categories. The weights are defined as follows.

$$Weight_{Type}^{Other} = \left( \frac{kWh}{Sqft} \right)_{Type} \times \left( \frac{CommercialSales_{04}}{\sum_r kWh/Sqft_r} \right) \quad (13)$$

Further monthly variation is introduced by multiplying by usage factors that cut across all end uses, constructed as follows:

$$OtherUse_{y,m} = \left( \frac{BDays_{y,m}}{30.5} \right) \times \left( \frac{Output_y}{Output_{04}} \right)^{0.20} \times \left( \frac{Price_{y,m}}{Price_{04}} \right)^{-0.18} \quad (14)$$

**Technical Appendix**

**KU, LG&E, & ODP**

**Residential Use-per-Customer Forecast Models**

**2011 IRP**

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## Residential Use-per-Customer Forecast

The following sections summarize the design of the companies' residential use-per-customer model and key input data sources. Average monthly use per customer is forecast for LG&E, KU and ODP under the assumption of normal weather.

### Model Design

Average use per customer is forecasted using a Statistically-Adjusted End-Use (SAE) Model. Such a model combines an econometric model – that relates monthly sales to various explanatory variables such as weather and economic conditions – with traditional end-use modeling. The SAE approach defines energy use as a function of energy used by heating equipment, cooling equipment, and other equipment.

$$\text{Use-per-Customer} = a_1 * X_{\text{Heat}} + a_2 * X_{\text{Cool}} + a_3 * X_{\text{Other}}$$

The heating, cooling and other components (the X variables) are based on various input variables like appliance saturations, efficiencies, and economic and demographic variables such as income, population, member per household and electricity prices. Once these components have been computed, a regression model is specified to forecast use-per-customer as a function of these components. Each of these components is discussed in more detail in the following paragraphs.

#### X Variables: XHeat

Heating use is dependent upon heating degree days, heating equipment saturation levels, heating equipment operation efficiencies, thermal integrity of homes, average household size, average household income, and electric price. The heating variable is represented as the product of an annual equipment index and a usage multiplier as illustrated below:

$$X_{\text{Heat}_{y,m}} = \text{HeatIndex}_y * \text{HeatUse}_y,$$

Where:

$X_{\text{Heat}_y}$  = Estimated heating energy use for the year

$\text{HeatIndex}_y$  = Annual index of heating equipment

$\text{HeatUse}_y$  = Annual usage multiplier

The Heating Index variable above is defined as a weighted average across equipment type of equipment saturation levels normalized by operating efficiency levels. Heating equipment modeled include heat pumps, electric space heating, and electric furnaces. Formally, this heating equipment index is:

$$\text{HeatIndex}_y = \sum_{\text{Type}} \text{Wgt}^{\text{Type}} * \frac{\left[ \text{HeatShare}^{\text{Type}}_y / \text{Eff}^{\text{Type}}_y \right]}{\left[ \text{HeatShare}^{\text{Type}}_{\text{by}} / \text{Eff}^{\text{Type}}_{\text{by}} \right]}$$

Where:

$\text{HeatShare}^{\text{Type}}_y$  = Share of heating appliance for each year  
 $\text{HeatShare}^{\text{Type}}_{\text{by}}$  = Share of heating appliance in base year  
 $\text{Eff}^{\text{Type}}_y$  = Efficiency of heating appliance for each year  
 $\text{Eff}^{\text{Type}}_{\text{by}}$  = Efficiency of heating appliance in base year  
 $\text{Wgt}^{\text{Type}}$  = Base year heating appliance energy divided by total households in base year

The HeatUse variable defined above is impacted by the following exogenous variables: heating degree-days, household size, household income, and electric price. The heating degree-days are derived using daily high/low temperature observations (from the Lexington and Louisville weather stations for KU and LG&E, respectively) and a 65-degree base. The HeatUse variable is defined as:

$$\text{HeatUse}_{y,m} = \left[ \frac{\text{HDD}_y}{\text{NormHDD}} \right] \left[ \frac{\text{HHSize}_y}{\text{HHSize}_{\text{by}}} \right]^{0.35} \left[ \frac{\text{Income}_y}{\text{Income}_{\text{by}}} \right]^{0.20} \left[ \frac{\text{Price}_y}{\text{Price}_{y-1,2,3}} \right]^{-e}$$

Where:

$\text{HDD}_y$  = Heating Degree days in a given year  
 $\text{NormHDD}$  = Normal value of annual heating degree days  
 $\text{HHSize}_y$  = Average household size in a year  
 $\text{HHSize}_{\text{by}}$  = Average household size in a base year  
 $\text{Income}_y$  = Average real income per household in a year  
 $\text{Income}_{\text{by}}$  = Average real income per household in base year  
 $\text{Price}_y$  = Average real price of electricity in base year  
 $\text{Price}_{y-1,2,3}$  = Average real price of electricity in previous years  
 $e$  = Price elasticity

### X Variables: XCool

The construction of the cooling use component is similar to that of the heating use component in that it is dependent upon cooling degree-days, cooling equipment

saturations, cooling equipment operation efficiencies, and average household size, average household income, and electric energy prices. The cooling variable is represented as the product of an annual equipment index and a usage multiplier as illustrated below:

$$XCool_{y,m} = CoolIndex_y * CoolUse_y$$

Where:

- $XCool_y$  = Estimated cooling energy use for the year
- $CoolIndex_y$  = Annual index of cooling equipment
- $CoolUse_y$  = Annual usage multiplier

The Cooling Index variable above is defined as a weighted average across equipment type of equipment saturation levels normalized by operating efficiency levels. Cooling equipment modeled includes heat pumps, room air conditioners, and central air conditioners. Formally, this Cooling equipment index is:

$$CoolIndex_y = \sum_{Type} Wgt^{Type} * \frac{\left[ \frac{CoolShare^{Type}_y}{Eff^{Type}_y} \right]}{\left[ \frac{CoolShare^{Type}_{by}}{Eff^{Type}_{by}} \right]}$$

Where:

- $CoolShare^{Type}_y$  = Share of cooling appliance for each year
- $CoolShare^{Type}_{by}$  = Share of cooling appliance in base year
- $Eff^{Type}_y$  = Efficiency of cooling appliance for each year
- $Eff^{Type}_{by}$  = Efficiency of cooling appliance in base year
- $Wgt^{Type}$  = Base year cooling appliance energy divided by total households in base year

The CoolUse variable defined above is impacted by the following exogenous variables: cooling degree-days, household size, household income, and electric price. As for the HDDs, the cooling degree-days are derived using daily high/low temperature observations against a 65-degree base. The CoolUse variable is defined as:

$$CoolUse_y = \left( \frac{CDD_y}{NormCDD} \right) \left( \frac{HHSize_y}{HHSize_{by}} \right)^{0.35} \left( \frac{Income_y}{Income_{by}} \right)^{0.20} \left( \frac{Price_y}{Price_{y-1,2,3}} \right)^{-e}$$

Where:

- $CDD_y$  = Cooling Degree days in year and month
- $NormCDD$  = Normal value of annual cooling degree days
- $HHSize_y$  = Average household size in a year

HHSize <sub>b</sub>	= Average household size in base year
Income <sub>y</sub>	= Average real income per household in a year
Income <sub>by</sub>	= Average real price of electricity in base year
Price <sub>y-1,2,3</sub>	= Average real price of electricity in previous years
e	= Price elasticity

### X Variables: XOther

The “Other” use component is a monthly estimate of non-weather sales and is derived from appliance and equipment saturation levels, appliance efficiency levels, average number of billing days per month, average household size, average household income, and electric prices. The explanatory variable for Other use is defined as follows:

$$XOther_y = OtherIndex_y * OtherUse_y$$

Where:

XOther <sub>y</sub>	= Estimated heating energy use for the year
OtherIndex <sub>y</sub>	= Annual index of non heating or cooling equipment
OtherUse <sub>y</sub>	= Annual usage multiplier

The OtherIndex variable embodies information about appliance saturation levels and efficiency levels. The appliances modeled include electric water heaters, refrigerators, freezers, electric cooking stoves, electric dryers, dishwashers, washing machines, and miscellaneous appliances. The equation is defined as follows:

$$OtherIndex_{y,m} = \sum_{Type} Wgt^{Type} * \frac{\left[ \frac{Sat^{Type}_y}{Eff^{Type}_y} \right]}{\left[ \frac{Sat^{Type}_{by}}{Eff^{Type}_{by}} \right]}$$

Where:

Sat <sup>Type</sup> <sub>y</sub>	= Share of appliance type per year
Sat <sup>Type</sup> <sub>b</sub>	= Share of appliance type in base year
Eff <sup>Type</sup> <sub>y</sub>	= Efficiency of appliance per year
Eff <sup>Type</sup> <sub>by</sub>	= Efficiency of appliance in base year

The OtherUse variable is impacted by the following exogenous variables: billing days, household size, household income and electric price. Billing days are defined as the number of billing days for the year. The OtherUse variable is defined as:

$$OtherUse_{y,m} = \left[ \frac{BillingDays_y}{365} \right] \left[ \frac{HHSize_y}{HHSize_{by}} \right]^{0.46} \left[ \frac{Income_y}{Income_{by}} \right]^{0.10} \left[ \frac{Price_y}{Price_{y-1,2,3}} \right]^{-e}$$

Where:



BillingDays <sub>y</sub>	= Billing days for the year
HHSize <sub>y</sub>	= Average household size in a year
HHSize <sub>by</sub>	= Average household size in base year
Income <sub>y</sub>	= Average real income per household in a year
Income <sub>by</sub>	= Average real income per household in base year
Price <sub>y</sub>	= Average real price of electricity for the year
Price <sub>y-1,2,3</sub>	= Average real price of electricity in previous years
e	= Price elasticity

## Input Data Sources

Developing the ‘X’ variables for the SAE model is data intensive, employing inputs from a number of sources. The 2011 IRP residential forecast models relied on inputs from the Energy Information Administration (EIA) for forecasts of saturations and efficiencies, which are inputs into the Index variables mentioned above. The results of an appliance saturation survey conducted in 2003 provided base-year saturations, as well as demographic variables such as the number of people per household, and structural variables such as dwelling size, age and type (single-family, multi-family, mobile home). Unit Energy Consumption (UEC) values were obtained from the EIA (also an input into the aforementioned Index variables).

Use variables are predominantly functions of weather, demographics, and economics. In the 2011 IRP forecast, data sources include the National Oceanic & Atmospheric Association (NOAA) and Global Insight. The elasticities of demand (i.e., the exponents of each of the components in the Use equations) were derived by Itron.