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February 25, 2015

Dear Colleagues:

I am pleased to provide you with the New York State Assembly Ways and Means Committee's Economic Report for 2015. This report continues our commitment to providing clear and accurate information to the public by offering complete and detailed overviews of outlooks for the national and State economies.

Though strengthening, economic growth remains modest. The Committee staff forecasts steady improvement in both employment and personal income in both 2015 and 2016 for the nation and the State. While personal income growth is forecast to further improve, the rates of growth will remain below the historical trend; this is in part due to the curtailing of bonus payments on Wall Street compared to the period leading up to the recent recession.

The Ways and Means Committee staff's assessments and projections presented in this report are reviewed by an independent panel of economists. Assembly Speaker Carl E. Heastie and I would like to express our appreciation to the members of this Board of Economic Advisors. Their dedication and expert judgment continue to be invaluable in helping to refine and improve our forecasts. While they have served to make the work of our staff the best in the State, they are not responsible for the numbers or views expressed in this document.

I wish to also acknowledge the dedicated and talented staff of the Assembly Ways and Means Committee and the many hours of work that went into producing this report. They play a vital role in our State's budget process.

As we continue our efforts toward enacting an on-time budget that is fair and equitable for all New Yorkers, I look forward to working with each of you.

Sincerely,

Herman D. Farrell, Jr.
Chairman

NEW YORK STATE

ECONOMIC REPORT

February 2015

Carl E. Heastie
Speaker
New York State Assembly

Herman D. Farrell, Jr.
Chairman
Assembly Ways and Means Committee

Prepared By
New York State Assembly
Ways and Means Committee Staff

Table of Contents

Executive Summary i
United States i
New York State iii
United States Forecast 1
Consumption 6
Investment 15
Nonresidential Fixed Investment Spending 18
Residential Investment 21
Government Spending 24
Federal Government Spending 25
State and Local Government Spending 27
Exports and Imports 28
Details of U.S. Trade 32
Employment 34
Personal Income 40
Prices 43
Energy Prices 45
Corporate Profits 47
Stock Market 49
Interest Rates 51
Income and Wealth Inequality 53
United States Forecast Comparison 57
New York State Forecast 59
Employment 61
Sectoral Employment 66
Regional Employment 69
Personal Income and Wages 71
Variable Compensation 75
Finance and Insurance Sector 76

Real Estate Market 80

Capital Gains 85

NYS Forecast Comparison 87

Risks to the Forecast 89

Appendix A: U.S. Economic Outlook (SFY basis) 91

Appendix B: NYS Employment and Wages Levels in NAICS Sectors 92

Appendix C: NYS Employment and Wage Growth in NAICS Sectors 93

Appendix D: New York State Economic Outlook (SFY Basis) 94

Appendix E: The North American Industry Classification System (NAICS) 95

Executive Summary

EXECUTIVE SUMMARY

United States

- The NYS Assembly Ways and Means Committee staff's forecast for **overall national economic growth in 2015** is 2.9 percent, a rate above trend growth. The staff's forecast is the same as the Division of the Budget's forecast; it is 0.2 percentage point below Macroeconomic Advisers, 0.7 percentage point below Moody's Economy.com, 0.1 percentage point below IHS Global Insight, and 0.3 percentage point below the Blue Chip Consensus.

- The Assembly Ways and Means Committee staff's forecast for **overall national economic growth in 2016** is 2.8 percent. The staff's forecast is the same as the Division of the Budget, 0.1 percentage point below Blue Chip Consensus forecasts, 0.2 percentage point below Macroeconomic Advisers, 0.7 percentage point below Moody's Economy.com, and 0.1 percentage point above IHS Global Insight.

U.S. Real GDP Forecast Comparison
(Percent Change)

	Actual 2013	Estimate 2014	Forecast 2015	Forecast 2016
Ways and Means	2.2	2.4	2.9	2.8
Division of the Budget	2.2	2.4	2.9	2.8
Blue Chip Consensus	N/A	N/A	3.2	2.9
Moody's Economy.com	2.2	2.4	3.6	3.5
Macroeconomic Advisers	2.2	2.4	3.1	3.0
IHS Global Insight	2.2	2.4	3.0	2.7

Sources: NYS Assembly Ways and Means Committee staff; NYS Division of Budget, FY 2015 Executive Budget Financial Plan, February 2015; Blue Chip Economic Indicators, February 2015; Moody's Economy.com, February 2015; Macroeconomic Advisers LLC, February 2015; IHS Global Insight, February 2015.

- In 2014, **personal consumption spending**, adjusted for inflation, grew an estimated 2.5 percent due to employment gains, markedly strong motor vehicles sales, rising household wealth, and less stringent credit conditions. As many of the factors affecting consumers improve, overall consumer spending is projected to grow 3.3 percent in 2015 and 3.0 percent in 2016.

- While residential construction spending is still hampered by several factors, nonresidential investment spending has been recovering relatively well and is poised to continue

recovering. Despite recent weakness in new orders, there are some positive factors that indicate overall **investment** spending will continue to grow, including the Institute for Supply Management (ISM) indices, and capacity utilization (use of productive capacity). Overall investment spending is forecast to increase 6.0 percent in 2015 and 5.9 percent in 2016.

- Following three consecutive years of decline, **total government spending** is estimated to have fallen a mere 0.2 percent in 2014 as the gain in state and local government spending partially mitigated the decline in federal government spending. Over the forecast period as state coffers expand, state and local government spending will continue to increase, outweighing further declines in federal government spending. Total government spending is forecast to increase 0.8 percent in 2015 and 0.5 percent in 2016.

- Although the world economy and U.S. trade are anticipated to continue to grow throughout the forecast period, U.S. net exports will likely be a bigger drag to national economic growth as the global economy slows and the dollar continues to appreciate. **Exports** are forecast to grow by 3.2 percent in 2015 and another 3.9 percent in 2016. **Imports** are forecast to increase by 5.5 percent in 2015 and in 2016.

- **Total nonfarm payroll employment** finally surpassed its pre-recession peak in May 2014, almost five years since the end of the Great Recession. Employment is expected to grow throughout the forecast period at a steady pace. After growing an estimated 1.9 percent in 2014, growth is expected to be 2.2 percent in 2015 and 1.8 percent in 2016. This is healthier growth than seen since the Great Recession, but is still below what the growth rates were during the late 1990s.

- As the labor market improved and the effect of higher taxes abated, **personal income** grew an estimated 3.9 percent in 2014. In 2015, personal income is projected to grow 4.4 percent as receipts on assets, employee compensation, proprietors' income, transfer income, and rental income increase. As the economy continues to improve into 2016, continued gains in employment, higher interest rates, upward pressure on wages, and higher profits will contribute to projected growth in personal income of 4.7 percent in 2016.

- Growth in **consumer prices** continues to remain under 2.0 percent. Consumer prices are expected to rise, by only 0.5 percent in 2015 due to the recent substantial decline in oil prices. Prices are expected to increase 2.2 percent in 2016. Throughout the forecast period, it is likely that downward pressure from slack in the labor market and relatively slow growth

in unit labor costs will prevail, keeping inflation relatively low and outweighing upward pressure from the expanding economy.

- The stock market is anticipated to continue to improve throughout the forecast period. The Standard and Poor's 500 Stock Price Index **(S&P 500)** averaged 1,642.5 points in 2013, a growth of 19.1 percent from 2012, and averaged 1,930.7 points for 2014, a growth of 17.5 percent. The S&P 500 hit a record-high close of 2110.3 on February 20, 2015. As the economy continues to improve, the Index is forecast to grow further by 6.4 percent in 2015 and another 2.8 percent in 2016.

- As the unemployment rate continues its gradual downward movement, and current and longer-term inflation expectations remain stable, the current forecast assumes that the Federal Reserve will maintain the federal funds rate within the current 0-0.25 percent target range through mid-2015. After averaging near zero percent in the past four years, the **federal funds rate** is forecast to start rising in mid-2015, averaging 0.3 percent in 2015 and 1.7 percent in 2016. Similarly, the **three-month Treasury bill yield** is forecast to average 0.3 percent in 2015 and 1.7 percent in 2016. The **ten-year Treasury rate** is forecast to average 2.3 percent in 2015, and then rise to 3.4 percent in 2016 as short-term rates increase.

- In general, the pace of the recovery has been slower than expected, and the **risks to the economic outlook** remain on the downside. The health of the global economy, including the European debt crisis, the recent weakening in economic growth outlooks for China and other emerging markets, pose downside risks to the economic forecast for the U.S. and world economies. In addition to unanticipated risks, problems that were central to the Great Recession continue — although with less severity. These issues include weaknesses in the housing market, uncertainty in the financial markets, and lack of robust growth in wages and employment. If these areas were to worsen, the adverse impact on the outlook would be significant.

New York State

- As the economy improves, employment in both New York State and the nation is forecast to continue to grow. However, as states that lost significant numbers of jobs regain employment, New York State lags the nation once again in total nonfarm payroll **employment growth**. Total nonfarm employment in the State is estimated to have grown 1.7 percent in 2014, compared to 1.9 percent nationwide. Total nonfarm employment in

the State is forecast to grow at 1.6 percent in 2015 and 1.4 percent in 2016, while national employment is forecast to grow 2.2 percent in 2015 and 1.8 percent in 2016.

- **Personal income** in New York State is forecast to grow 4.7 percent in 2015 and 5.0 percent in 2016. The increase in personal income will be driven mainly by wage growth.

- Total **wages** in New York State are forecast to grow 4.8 percent in 2015 and another 4.9 percent in 2016. These numbers represent solid growth, but they are still below the growth rates achieved leading up to the Great Recession, primarily due to the behavior of variable wages. Variable wage growth is not forecast to reach the high levels attained in 2006 and 2007 when securities industry firms had huge profits and bestowed large bonuses on employees. Variable wage growth is forecast to be 8.3 percent in 2015 and 9.3 percent in 2016. Base wages are forecast to grow by 4.3 percent in both 2015 and 2016, reflecting an expectation of continued growth in employment. As employment grows steadily, even in those industries with a relatively lower average wage, base wages will continue on a slow and steady upward trend.

- The Assembly Ways and Means Committee staff estimates that **total variable compensation** in New York State, which was $62.8 billion or 11.2 percent of total wages in State Fiscal Year (SFY) 2013-14, will increase by 9.9 percent to $69.0 billion in SFY 2014-15. Growth in variable wages during the forecast period will be 7.9 percent year-over-year during SFY 2015-16 and 9.1 percent in SFY 2016-17.

- **Taxable capital gains** are estimated to have grown by 21.8 percent to $77.8 billion in 2014. In 2015 and in 2016, steady increases in home prices will likely contribute more to capital gains than in the past few years. Furthermore, the stock market performance is expected to positively impact capital gains. Therefore, net gains are projected to increase 4.5 percent to $81.3 billion in 2015 and 2.1 percent to $83.0 billion in 2016.

- The NYS Assembly Ways and Means Committee staff's forecast for **total nonfarm payroll employment growth** in SFY 2014-15 is 1.6 percent. This forecast is 0.1 percentage point below the Division of the Budget's forecast. The staff's forecast for **wage growth** in SFY 2014-15 is 4.7 percent. This forecast is 0.2 percentage point above the Division of Budget's forecast.

New York State Forecast Comparison (Percent change from prior State Fiscal Year)			
	Actual SFY 2013-14	Estimate SFY 2014-15	Forecast SFY 2015-16
Employment			
Ways and Means	1.6	1.6	1.6
Division of the Budget	1.6	1.7	1.4
Wages			
Ways and Means	4.2	4.7	4.8
Division of the Budget	4.2	4.5	4.5

Sources: NYS Assembly Ways and Means Committee staff; NYS Division of Budget, FY 2015 Executive Budget Financial Plan, February 2015.

- The NYS Assembly Ways and Means Committee staff's forecast for **total nonfarm payroll employment growth** in SFY 2015-16 is 1.6 percent and is 0.2 percentage point above the Division of the Budget's forecast. The staff's forecast for **wage growth** in SFY 2015-16 is 4.8 percent, which is 0.3 percentage point above the Division of the Budget's forecast.

- The current economic climate presents particular challenges and **risks to the New York State forecast**. Wall Street and the financial markets play a central role in the State economy, and drastic cuts to or changes in the composition of Wall Street compensation (including bonuses) and the resulting reductions in Wall Street tax revenues have critical implications for the economic health of New York State. However, faster growth than expected for Wall Street activities would offer some upside potential for the forecast.

United States Forecast

UNITED STATES FORECAST

After a sharp decline in the first quarter of 2014 which was due in large part to inclement weather, the U.S. economy has since rebounded strongly, not just reversing the loss in the first quarter, but building momentum for further improvement in 2015. At the same time, risks are increasing, especially in the rest of the world, putting the U.S. economic outlook on a more uncertain path.

Steady improvement in employment and the accompanying increase in household income have been helping continued recovery in personal consumption spending. Payroll employment has gained strongly since the first quarter of 2014 with an average monthly increase of about 279,000 jobs. In May 2014, the number of nonfarm payroll jobs finally surpassed the pre-recession peak, almost five years after the last recession ended in June 2009. Improving financial conditions of households also have been helping recovery in household spending. The Federal Reserve's recently released triennial Survey of Consumer Finances (SCF) report found that the percent of families with any form of debt fell to 74.5 percent in 2013, the lowest since 1998 and down 2.5 percentage points from its 2007 peak. According to the SCF report, since 2007 the average family debt level has fallen sharply while the average family income has risen steadily. With interest rates at record low levels, it is estimated that average family debt payments per dollar of their income plunged in 2013 to its lowest level since 1989.[1] This indicates a bigger share of household income is available for purchases of goods and services. The household debt to disposable income ratio has also steadily been coming down after peaking in 2007. As of the third quarter of 2012, household net worth exceeded the 2007 pre-recession peak level and is poised to have further positive wealth effects on consumer spending. With the delinquency rates on consumer loans at the lowest in 25 years, more banks have been reporting increased willingness to make loans to consumers. As oil prices have plummeted since June 2014, the general price level has also fallen, helping support household purchasing power.[2]

[1] This trend is consistent with the recent trend in the household financial obligation ratio, a similar measure published by the Federal Reserve, which is at its lowest in more than 30 years.

[2] The recent sharp decline in oil prices results in a significant amount of savings to households in energy-related expenditures. If oil prices stay at $50 per barrel throughout 2015 with gasoline prices one dollar per gallon lower than the 2014 level, the aggregate saving amounts to roughly $100 billion for U.S. households since there are 116 million households in the U.S and the typical household drives 23,500 miles per year. For data on average annual miles driven per household vehicle, see Stacey C. Davis, Susan W. Diegel, and Robert G. Bundy, Transportation Energy Data Book, Edition 33, 2014, produced by Oak Ridge Laboratory for the U.S. Department of Energy,

Corporate profit margins remain close to record highs and financial conditions also remain favorable to businesses, helping facilitate business capital spending. Efforts by businesses to keep ahead of global competition also help drive business capital spending. Outside the energy sector, leading indicators of business construction, including architectural billings and starts, suggest nonresidential construction activity is poised to improve further. Recharged sentiment among homebuilders, accelerating household formation, falling rental vacancy rates, and less tightening in loan standards are all expected to drive continued recovery in residential construction activity. The federal government continues to tighten its expenditures, but recent improvement in state and local government finances has been helping to support a gradual gain in state and local government spending. This trend will likely continue in the next few years with the public sector as a whole starting to make a positive contribution to national economic growth.

Weaknesses still remain in the U.S. economy, however. Two recent surveys show that despite gains in jobs, there is still some disconnect between jobs data and household incomes. According to the U.S. Census Bureau's recently released American Community Survey, median household income in 2013 was still 8 percent lower than in 2007, the last year before the 2007-09 recession. The Federal Reserve's SCF also reported that between 2010 and 2013, the median family income fell by 5 percent, with young families (headed by workers under age 35) having done especially badly.[3] One reason for this disconnect between jobs and incomes is that many of the jobs that have been created are part-time jobs. According to the U.S. Department of Labor, while the median earnings for full-time workers have not changed much since 2007, the number of full-time workers declined from 121.7 million in 2007 to 116.3 million in 2013. The number of Americans working part-time for economic reasons increased from 4.4 million to 7.9 million during the same period.

Another reason for the absence of solid income growth is that many of the jobs that have been created are concentrated in relatively lower-paying service-providing industries. Total employment in the goods-producing sector was still 2.4 million jobs below the January

http//www.cta.ornl.gov/data/index.shtml; and for data on the number of households in the U.S., see 2013 American Community Survey, U.S. Census Bureau.

[3] Although median family income fell between 2010 and 2013, average family income rose 4 percent during the same period. This is due in part to increasing income concentration toward the top 10 percent of families during the three-year period.

2008 peak level as of January 2015.[4] It is in sharp contrast with the service-providing sector that had 4.9 million more jobs in that month, compared to the pre-recession peak level (see Figure 1). Also, falling unemployment rates reflect in large part the fact that many workers decided to drop out of the labor force (the discouraged workers), and thus do not necessarily indicate a commensurate increase in the number of employed workers.

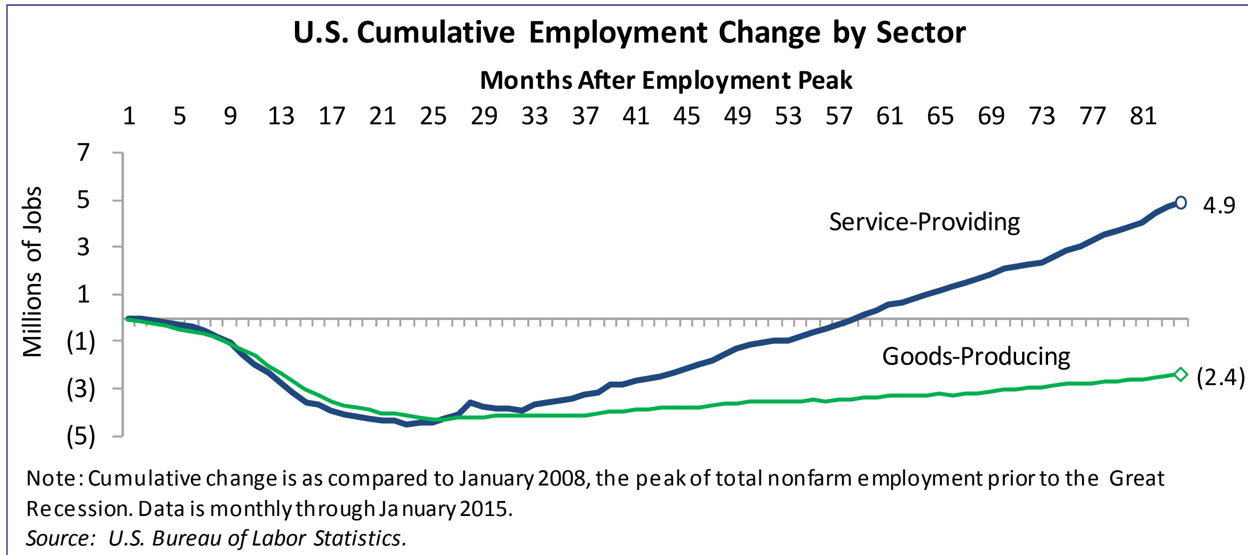


Figure 1

Although overall global economic growth is likely to continue for the next two years, economic conditions have weakened in several countries. Also in the midst of rising global economic and geopolitical uncertainties, investors have been fleeing to safe havens, driving the U.S. dollar value up. As a result, demand for U.S. exports has been softening lately, with the foreign sector likely to become a bigger drag to overall economic growth in the U.S. In addition, falling oil prices have not just positive but some negative effects on the economy. Among other things, the falling profitability in oil extraction operations will likely lead to many capital spending plans being shelved during 2015. Several other indicators also point to potential weakness in other areas of capital spending. Factory orders declined in December for the fifth month in a row, and manufacturing activity also cooled in January, in particular, the pricing and export components contracted. In addition, inventory buildup in the fourth quarter was much larger than expected, which may lead to some significant slowdown in inventory investment in the coming months.

[4] The goods-producing sector includes manufacturing, construction, and mining and natural resources. Manufacturing and construction are the two sectors that were hit hardest during the Great Recession and make up the majority of the goods-producing sector.

In the housing market, interest rates have remained at record low levels for several years, but activity has failed to build more solid, steady momentum. In addition to supply restraints such as the shortage of buildable lots, lack of stronger demand is also responsible for the slow pace of activity in the housing market. The rate of household formation among potential first-time home buyers remains weak, as the percent of young adults staying with parents has increased and the median age at first marriage has risen. With student loan burdens steadily rising and loan conditions remaining stringent, many potential first-time home buyers have been denied access to mortgage loans or are reluctant to purchase a home. Also, the risk of owning a house may still be perceived too great for many who remember the experiences during the recent housing crisis.

Not only the weakening economic outlook in many countries, but also the increased volatility in financial markets around the world, has caused a massive flight to safety as well as monetary easing by many countries.[5] As a result, bond market investors have been increasingly willing to price themselves out of the systemic uncertainties, so much so that the long end of the yield curve is being pressed down to record low levels. The 10-year Treasury yield in the U.S. has been below 2 percent since early January 2015, and short-term government yields in some European countries have fallen below zero. The low interest rate environment is expected to help consumers and businesses finance their spending, but it may not be as stimulating as it would be in other times. The reason is that with the yield curve compressed so much, bank lenders, who borrow short and lend long, have lower profit margins and are also exposed to more risk from the maturity mismatch. Hence, banks may not be willing to lend as much as borrowers like to borrow.

With the positive forces outweighing the negative drag, the Ways and Means Committee staff projects that the U.S. economy will grow at a faster pace during 2015 than in 2014. Real GDP will grow 2.9 percent in 2015, a rate above the trend growth rate. With fundamentals expected to improve further, the U.S. economy is expected to grow another 2.8 percent in 2016 (see Figure 2). This forecast assumes no major disruption to the U.S as well as the world economies, be it of a geopolitical, climatic, or financial nature. The economic performance of emerging market economies, especially China, is assumed to remain stable at least in the next two years, although somewhat slower economic growth is factored into the

[5] On February 4, 2015, China cut reserve requirements by 50 basis points in an attempt to stabilize the slowing economy. In January of this year, the European Central Bank unleashed its own Quantitative Easing plans to inject billions of euros into the troubled Eurozone economy.

current forecast. Instabilities in Europe are worrisome, but the current forecast assumes that conditions will not deteriorate any further. Also, it is assumed that the Federal Reserve will start unwinding its easy monetary policy stance in mid-2015, by gradually raising the federal funds rate target range and the interest rate on bank reserves. Although such policy changes by the Fed will inevitably lead to speculations, the market responses are assumed to be orderly and restrained with borrowers adapting quickly to the changing environment.

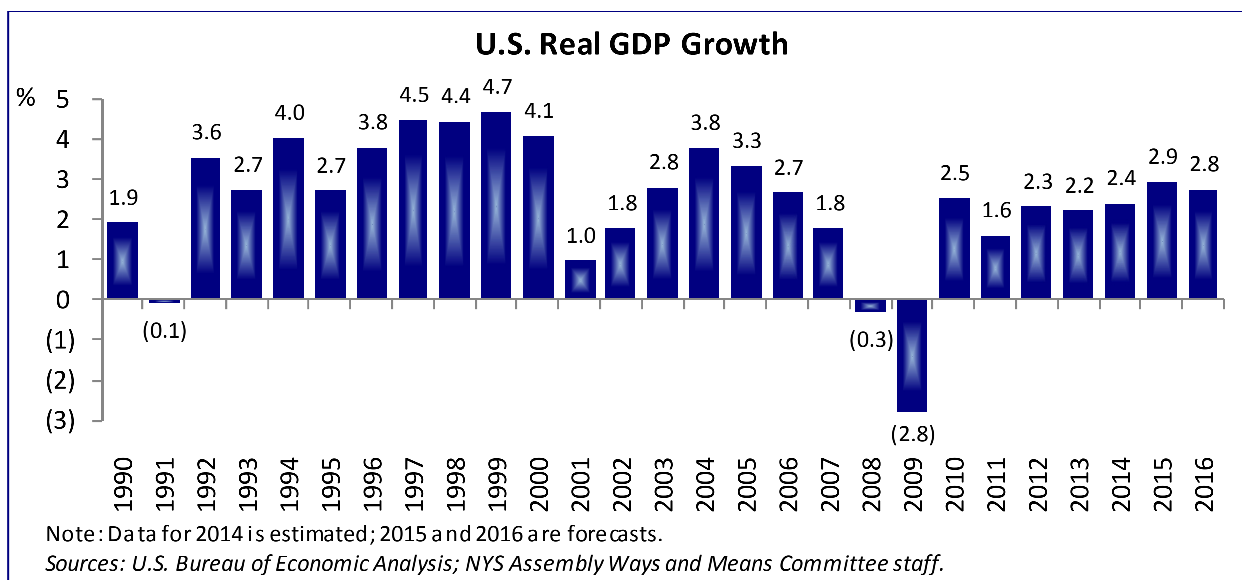


Figure 2

Faced with uncertain demand for their products and also with the intensifying global forces of competition, U.S. firms continue to look for ways to economize on costs, in particular, substituting capital input for labor input in the production processes. Given this cost-saving trend, the pace of recovery in U.S. payroll employment is likely to remain relatively slow compared to the pace of growth in output. This will result in labor productivity growing faster in the next two years. Nonfarm payroll jobs are forecast to grow 2.2 percent in 2015. With economic growth expected to continue further in 2016, another 1.8 percent growth is forecast during 2016.

Inflation rates remain below the Federal Reserve's target inflation rate of 2 percent. Crude oil prices have plummeted and prices of commodities including zinc, copper and metals point to downward trends in recent months. In addition, the slack in the labor market and the recent trend in labor costs indicate that inflationary pressures from the labor market are minimal. These inflation-stabilizing forces will largely remain in place in the next two years, helping to keep inflationary pressures in check. The Consumer Price Index (CPI-U) is forecast to

advance 0.5 percent in 2015 after rising 1.6 percent in 2014. As oil prices are expected to rebound gradually in the second half of 2015 and the economic growth rate is expected to remain above-trend in 2016, the CPI is forecast to increase 2.2 percent in 2016 (see Table 1).

Table 1

U.S. Economic Outlook (Percent Change)

	Actual 2012	Actual 2013	Estimate 2014	Forecast 2015	Forecast 2016
Real GDP	2.3	2.2	2.4	2.9	2.8
Consumption	1.8	2.4	2.5	3.3	3.0
Investment	9.2	4.9	6.0	6.0	5.9
Exports	3.3	3.0	3.1	3.2	3.9
Imports	2.3	1.1	3.9	5.5	5.5
Government	(1.4)	(2.0)	(0.2)	0.8	0.5
Federal	(1.8)	(5.7)	(1.9)	(0.3)	(0.7)
State and Local	(1.2)	0.5	0.9	1.4	1.2
Personal Income	5.2	2.0	3.9	4.4	4.7
Wages & Salaries	4.5	2.8	4.3	4.7	4.9
Corporate Profits	11.4	4.2	(0.6)	5.5	3.6
Productivity	1.0	0.9	0.8	1.4	1.9
Employment	1.7	1.7	1.9	2.2	1.8
Unemployment Rate*	8.1	7.4	6.1	5.6	5.3
CPI-Urban	2.1	1.5	1.6	0.5	2.2
S&P 500 Stock Price	8.7	19.1	17.5	6.4	2.8
Treasury Bill Rate (3-month)*	0.1	0.1	0.0	0.3	1.7
Treasury Note Rate (10-year)*	1.8	2.4	2.5	2.3	3.4

* Annual average rate.

Note: Personal income and corporate profits growth rates are based on nominal values.

Sources: U.S. Bureau of Economic Analysis; U.S. Bureau of Labor Statistics; Federal Reserve; Standard & Poor's; NYS Assembly Ways and Means Committee staff.

Consumption

Personal consumption spending adjusted for inflation was constrained in 2013 mainly by tax policies that became effective in that year. The impact of sequestration on employment, and the continued debt reduction by households further impeded growth. Despite these impediments, personal consumption grew 2.4 percent in 2013 as accelerated spending on automobiles, relatively low inflation, low interest rates, and rising household net worth supported consumer spending growth and mitigated the adverse impact of fiscal policies.

More than five years into the current economic recovery, consumer spending growth has been below the pre-crisis expansion rate. Overall personal consumption spending is

estimated to have grown 2.5 percent in 2014 due to employment gains, markedly strong motor vehicles sales, rising household wealth, and less stringent credit conditions. Spending on health-related services associated with the implementation of the Affordable Care Act was less than expected. While low interest rates boosted spending for motor vehicles, spending on services and nondurable goods was lackluster. Furthermore, higher disposable income, as a result of less slack in the labor market and lower energy prices, and increased consumer sentiment also promoted consumer spending.

Most of these factors are anticipated to become more favorable over the forecast period. The negative influence of rising long-term interest rates over the forecast period will likely be outweighed by the effect of further loosening of credit requirements. As a result, households that have delayed home purchasing are expected to enter the housing market. As the economy improves and the slack in the labor market tightens, employers will be compelled to increase wages. Consumers who sharply reduced their debt during the last recession and recovery now have more funds available for spending. In addition, significantly lower energy prices than in 2014 will bolster consumer spending. As a result, personal consumption spending is projected to grow a solid 3.3 percent in 2015 and 3.0 percent in 2016 (see Figure 3).

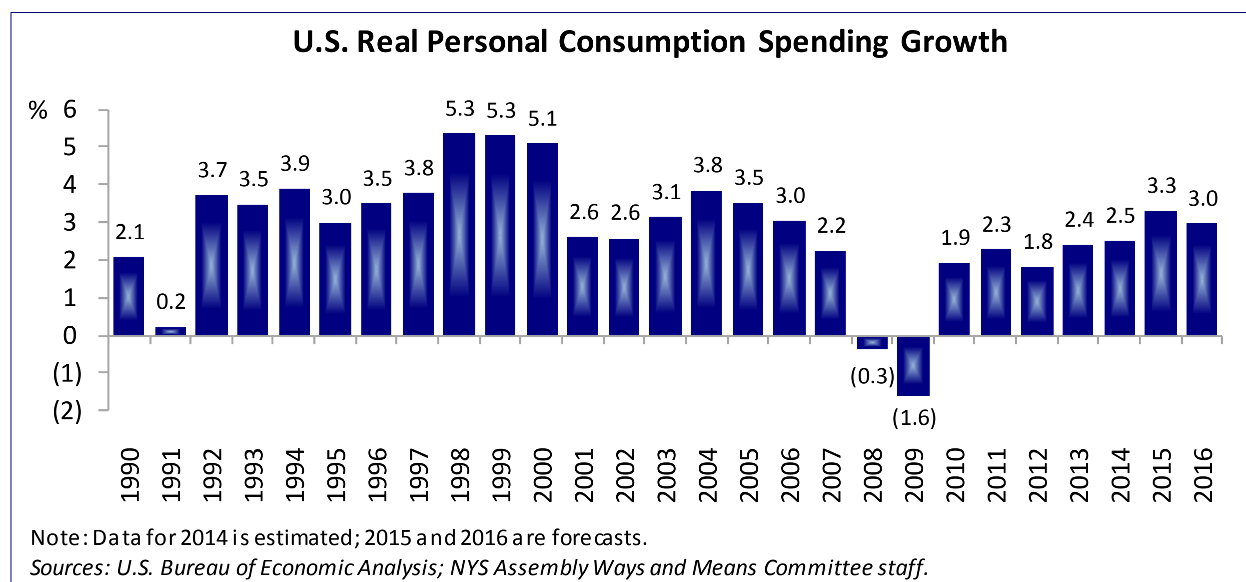
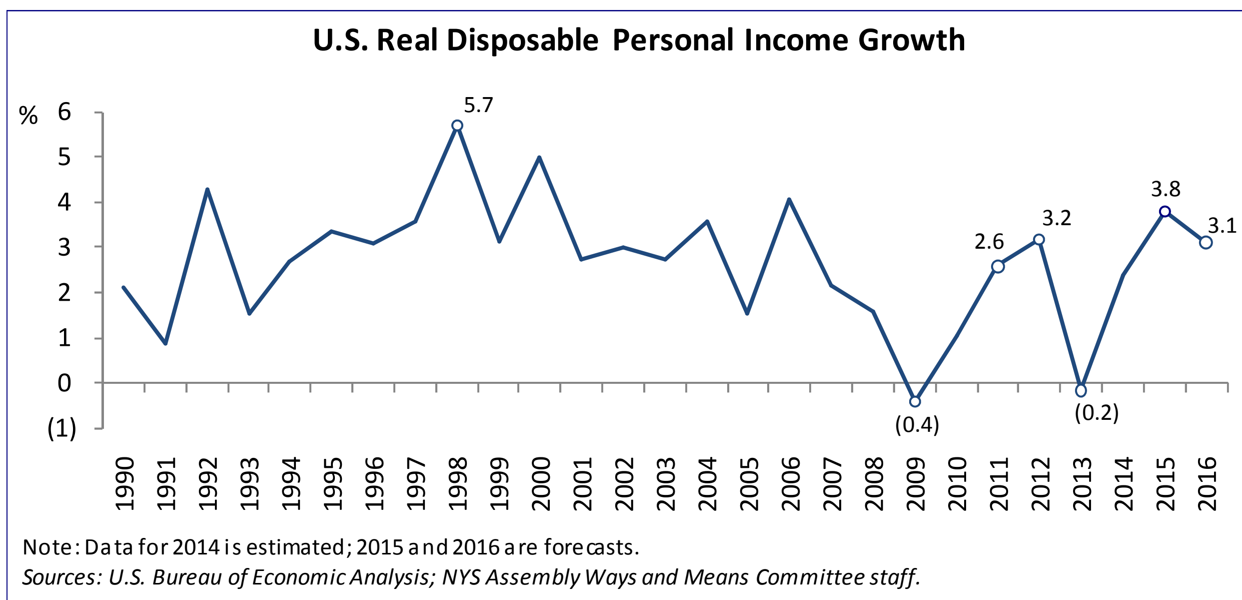


Figure 3

Disposable income growth was weak in 2013 as households faced higher taxes with the expiration of the Social Security payroll tax cuts, higher taxes on unearned income as a result of the Affordable Care Act, and higher taxes levied on high income households. In 2014, real disposable income increased gradually as payroll employment continued to improve (see Figure

4). In 2015 and in 2016, as the labor market tightens with continued employment growth, wages are anticipated to increase faster, and energy prices are predicted to be lower than in 2014, accelerating disposable income growth and strengthening consumer spending.

The recent sharp decline in energy prices bodes well for consumers, especially low- and middle-income households who spend a disproportionate amount of their income on energy. In 2013, approximately sixty percent of all households, with income under $58,000 annually, spent more than ten percent of their annual expenditures on energy. Lower energy prices increase the purchasing power of households through higher real disposable income. The savings from paying less on energy products imply that consumers have more to spend on other goods and services or to save. If crude oil prices were to remain at about $50 per barrel, each household would save approximately $1,375 this year on gasoline relative to 2014.[6]



Note: Data for 2014 is estimated; 2015 and 2016 are forecasts.
Sources: U.S. Bureau of Economic Analysis; NYS Assembly Ways and Means Committee staff.

Figure 4

After falling sharply during the Great Recession, households' total assets have grown steadily, driven predominantly by financial assets (see Figure 5).[7] Though holdings in nonfinancial assets have contributed somewhat to households' total assets, their largest component, real estate, remains below its pre-recession peak level mainly due to weak

[6]See Nick Timiraos, "As Gasoline Heads Toward $2, the Benefits Start to Trickle Down," Wall Street Journal, January 22, 2015, http://www.wsj.com/articles/gasoline-heads-to-2-breaking-records-along-the-way-1421939345.

[7]The total liabilities of households peaked in the third quarter of 2008, and remained below that level in the third quarter of 2014.

recovery in home prices. However, a more stable housing market with rising home prices and more projected gains in the equity markets will bolster household net worth, buttressing consumer spending.

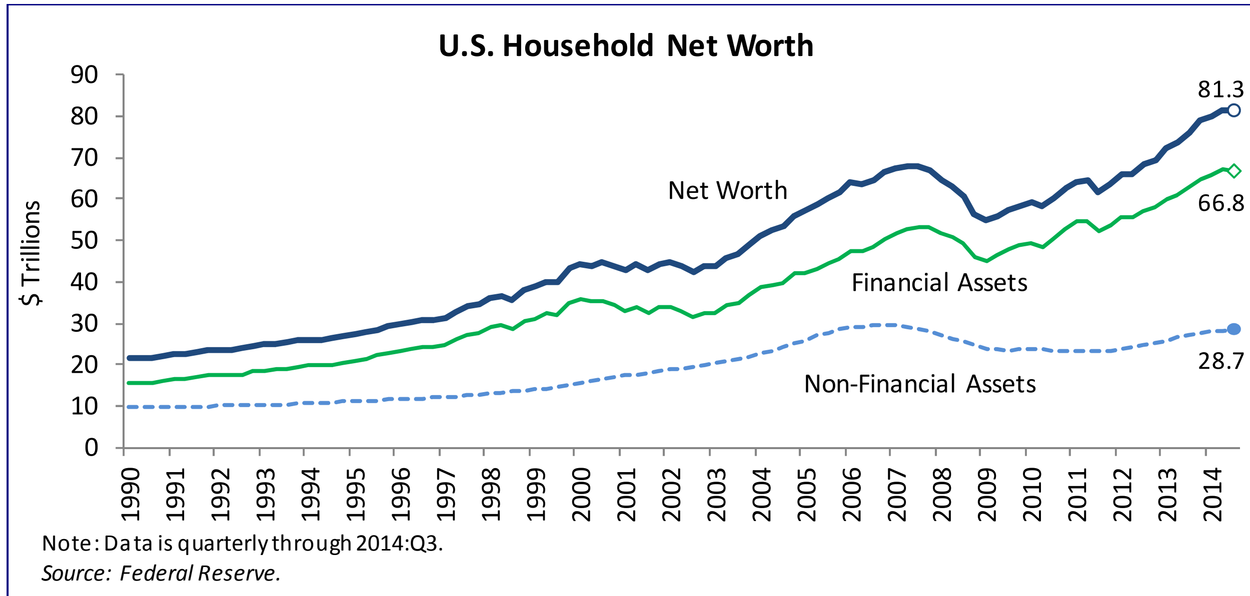


Figure 5

Consumers have benefited from an improving economy. As household financial situations have gotten healthier with better employment prospects, increasing wages, and gains from the stock market, consumers have become more optimistic about their current situation and future economic potential. In January 2015, the Reuters/University of Michigan consumer sentiment rose to its highest level in a decade (see Figure 6). When consumers have more favorable views about the economy and financial outlook, they are more likely to spend.

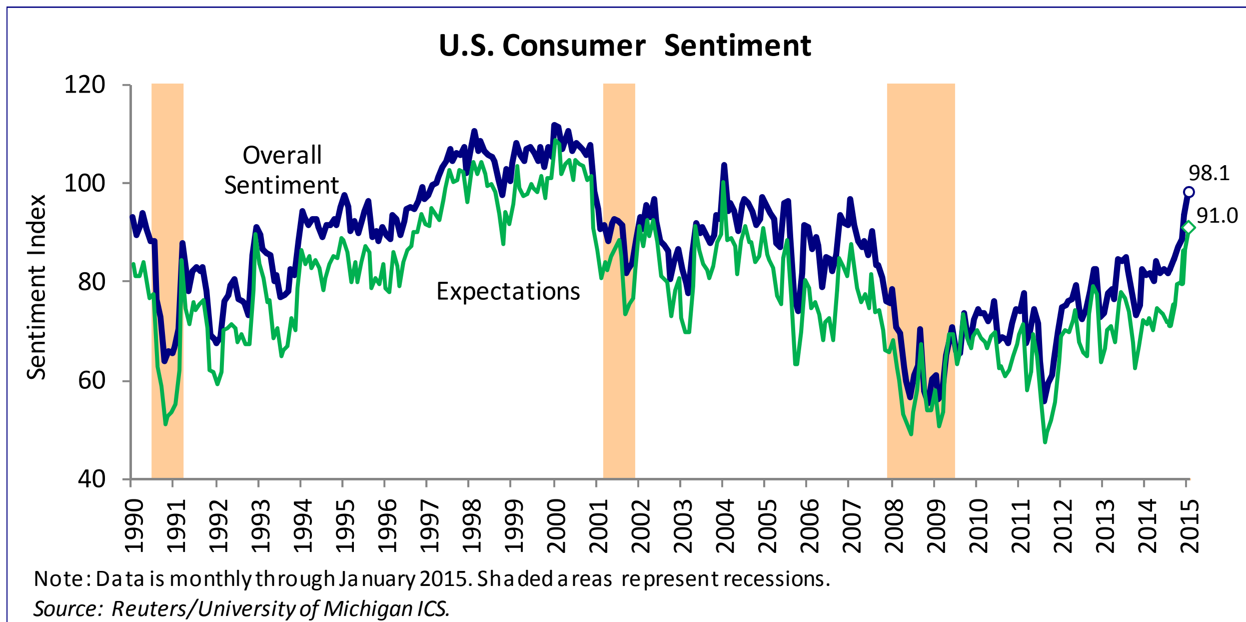
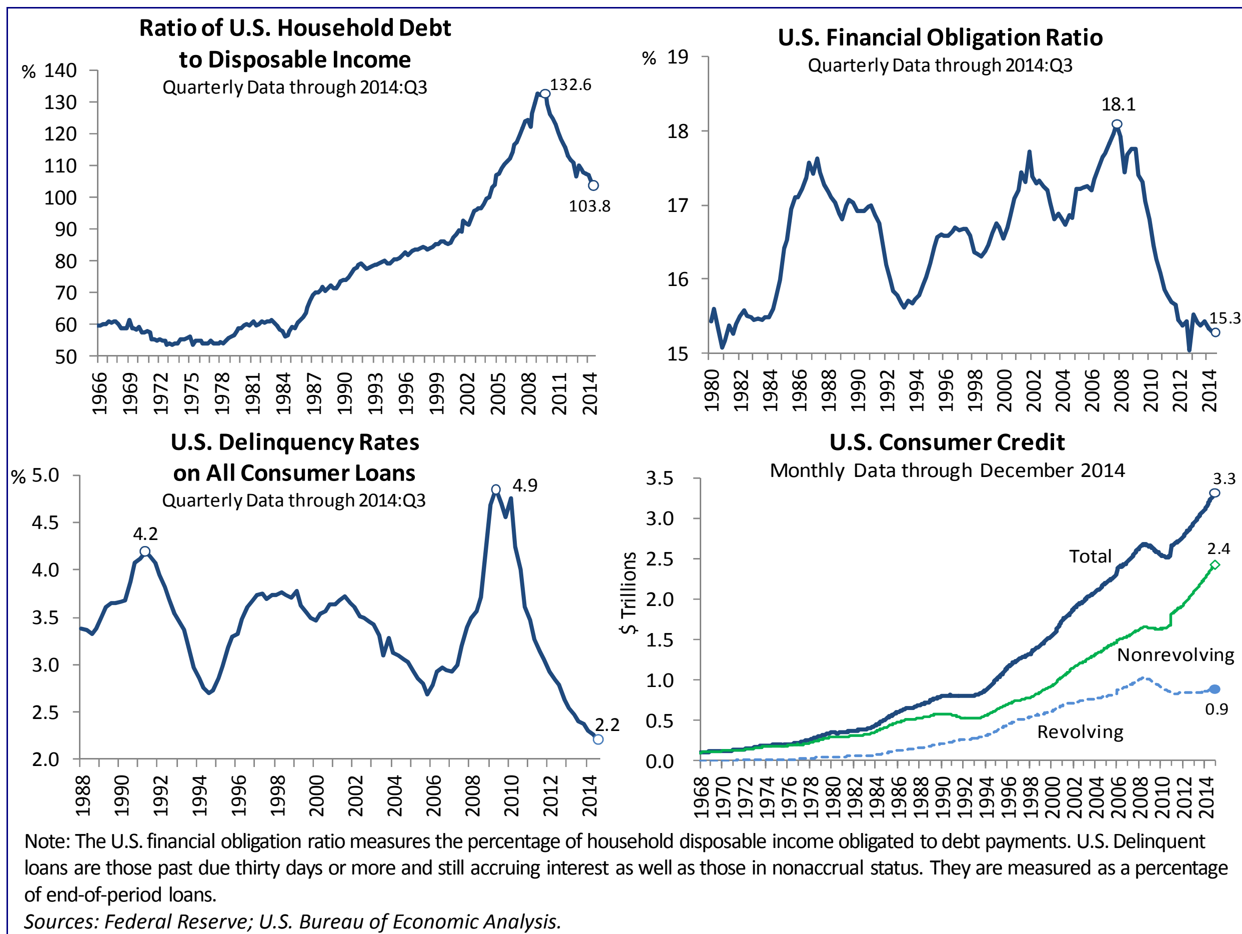


Figure 6

Several data sources suggest that the deleveraging by households that began in 2007 may be ending. Households have reduced their debt significantly after it peaked in 2009 (see Figure 7). The financial obligation ratio has fallen sharply, indicating that the risk is significantly lower that households will be unable to meet financial obligations; increasing the probability that they will be approved for new loans or lines of credit. Delinquency rates are also at a historical low. As households' debts fall, less disposable income is required to be set aside for debt payments. In addition, consumer credit has been increasing (see Figure 7). All these factors will aid consumer spending over the long term.



Note: The U.S. financial obligation ratio measures the percentage of household disposable income obligated to debt payments. U.S. Delinquent loans are those past due thirty days or more and still accruing interest as well as those in nonaccrual status. They are measured as a percentage of end-of-period loans.

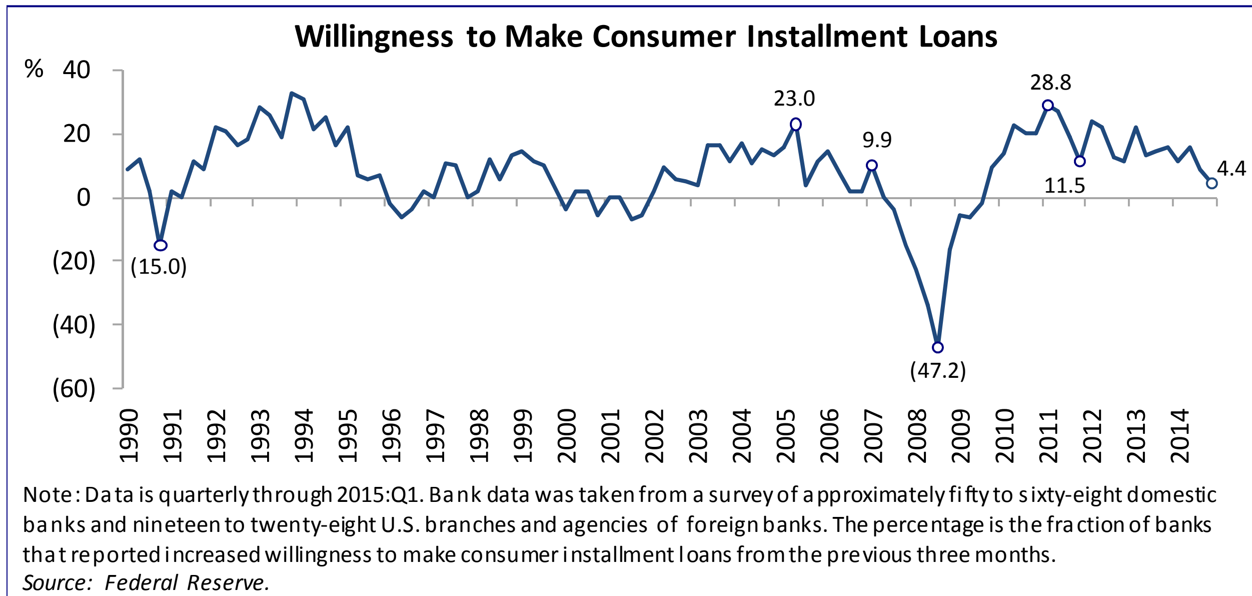
Sources: Federal Reserve; U.S. Bureau of Economic Analysis.

Figure 7

Even though credit requirements remain fairly stringent compared to the period leading up to the 2007-09 recession, the proportion on banks willing to make consumer loans to households has rebounded from the 2008 low (see Figure 8). As loan terms have eased, the demand for all consumer loans has risen.[8] The strength of consumer credit reflects this change

[8] In the July 2014 survey, banks reported experiencing stronger demand for prime residential mortgages, credit card loans, and auto loans. However, in the October survey, a moderate net fraction of banks reported stronger demand for auto loans and weaker demand for nontraditional closed-end mortgage loans, while demand for other loans was unchanged at most banks. In the January survey, banks reported weaker demand for consumer loans for home purchases loan. A small fraction of banks reported weaker demand for auto and credit card loans. However, most banks reported no change in lending standards and terms on consumer loans. See Board of Governors of the Federal Reserve System, *The July 2014 Senior Loan Officer Opinion Survey on Bank Lending Practices*, August 2014; *The October 2014 Senior Loan Officer Opinion Survey on Bank Lending Practices,* October 2014; and *The January 2015 Senior Loan Officer Opinion Survey on Bank Lending Practices,* January 2015, http://www.federalreserve.gov/BoardDocs/snloansurvey/.

especially in credit related to home and auto loans. Hence, consumer spending will benefit from the continued easing of loan standards by banks.



Note: Data is quarterly through 2015:Q1. Bank data was taken from a survey of approximately fifty to sixty-eight domestic banks and nineteen to twenty-eight U.S. branches and agencies of foreign banks. The percentage is the fraction of banks that reported increased willingness to make consumer installment loans from the previous three months.
Source: Federal Reserve.

Figure 8

In the past, high home prices spurred homeowners to make home equity withdrawals that were used to facilitate consumer spending. However, as home prices plummeted, this source of disposable income withered (see Figure 9). Now, with interest rates still low by historical standards and home prices slowly increasing, homeowners continue to refinance but with shorter loan terms instead of making home equity withdrawals.[9] From one perspective, reduced home equity withdrawal provides little support for consumer spending. However, for the homeowners who are able to pay lower interest rates on home loans, more funds may become available to purchase other goods and services or to save.

[9] In the second quarter of 2014, 40 percent of homeowners who refinanced took out shorter-term loans than on their previous loans. For 2014, borrowers who refinanced saved approximately $5 billion in interest over the first twelve months of the new loan compared to $20 billion in 2013. In addition, borrowers shortened their loan term and chose long-term fixed rate mortgages. See Freddie Mac, Office of the Chief Economist, “Cash out Refinancing Ticks Higher as Boom Ends,” 2014 Second Quarter Refinance Report, July 2014, http://www.freddiemac.com/finance/pdf/RefiReport2014Q2.pdf; and “Borrowers Who Refinanced in 2014 Save Approximately $5 Billion in Interest Payments,” 2014 Fourth Quarter Refinance Report, January 2015, http://www.freddiemac.com/finance/pdf/RefiReport2014Q4.pdf.

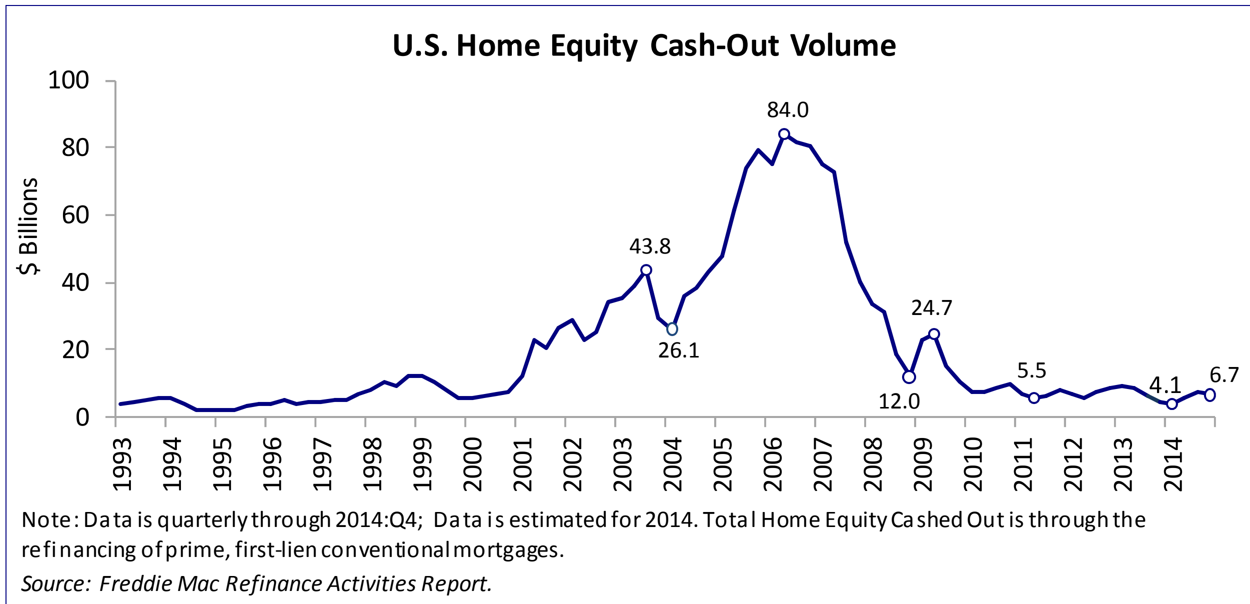


Figure 9

Higher personal savings rates, at least by U.S. standards, have deterred faster consumer spending growth. Many consumers are predisposed to be more thoughtful about how they spend after the 2007-09 recession experience, tending to save more compared to the pre-recession period (see Figure 10).

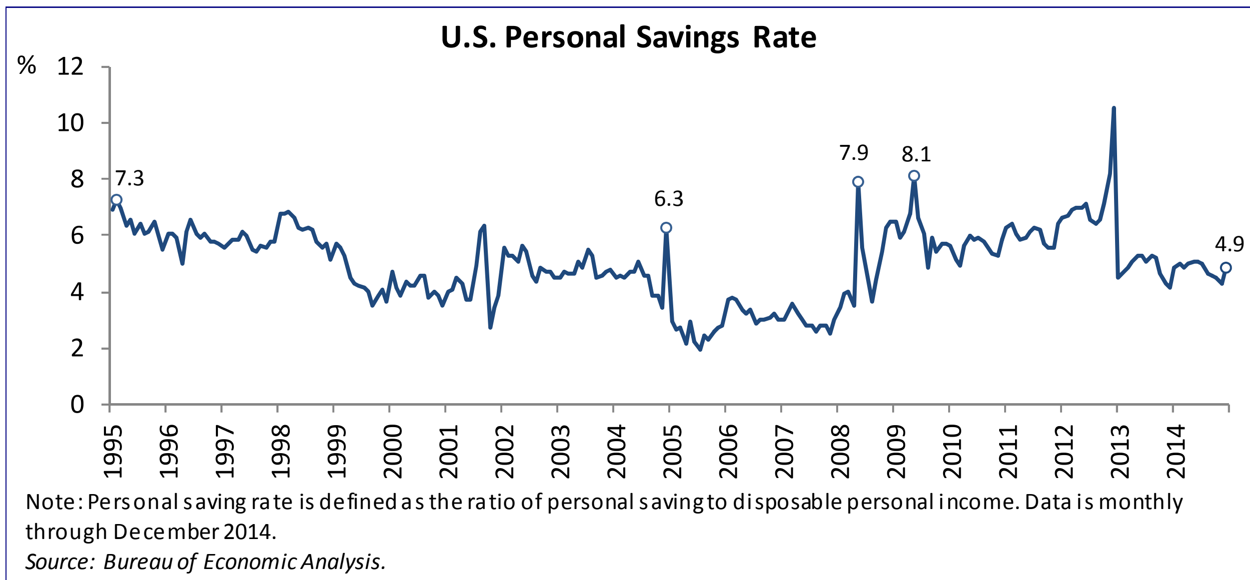


Figure 10

Moreover, the weak growth in personal consumption spending can partly be attributed to the rise in student loan debt. Since the first quarter of 2006, the first quarter for which data

is available, student loans have grown at an average rate of 11.8 percent per quarter (see Figure 11). The responsibility of loan payments is a significant part of the budgets of many college graduates who may be underemployed or unemployed. As a result, student loan payments may be discouraging these consumers from taking out other types of loans.[10] Consequently, many of these people have had to postpone purchasing a home, or renting a home and forming their own households. Hence, significant resources that would be spent on these endeavors have been stymied.

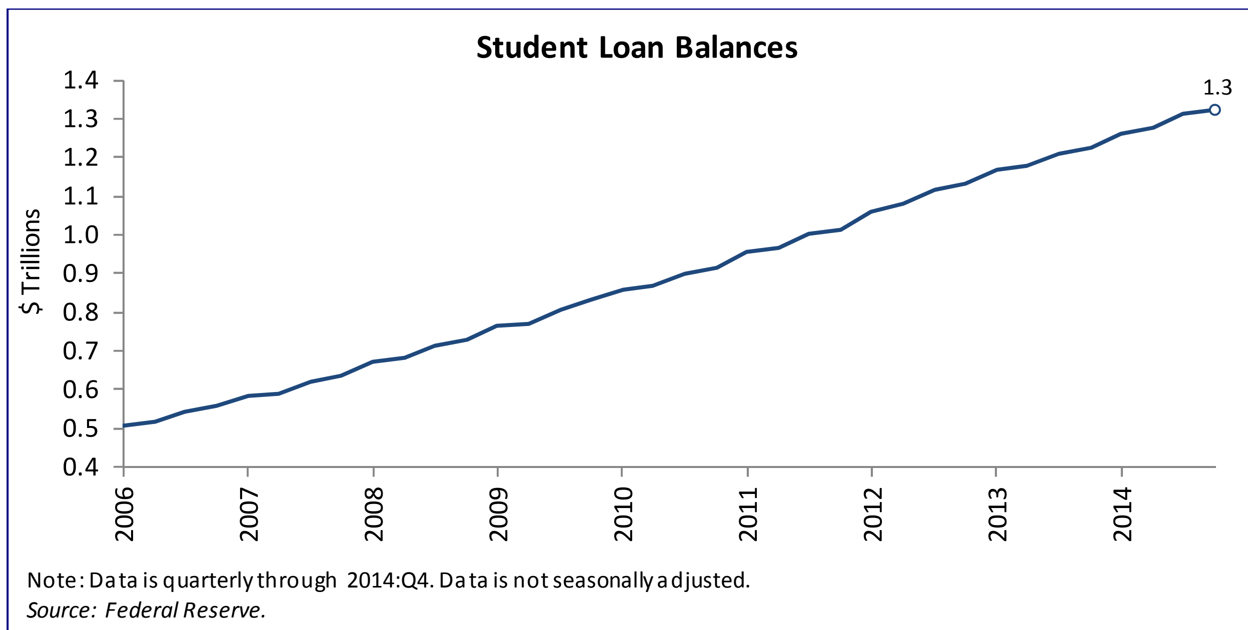


Figure 11

Personal consumer spending has mostly been sustained by spending on durable goods, particularly spending on motor vehicles and parts and recreational goods and vehicles. Pent-up demand for motor vehicles has led to robust spending on automobiles that has been supported by low interest rates. A slowdown in growth of spending on vehicles is anticipated over the forecast period, but strong retail sales of motor vehicles are expected to persist.

Spending on the other components of consumer spending (nondurable goods and services) has been subdued. Going forward, with the implementation of the Affordable Care

[10] For consumers between 20 and 29 years old, student loans increased by 186 percent between 2005 and 2014, while mortgages fell 32 percent over the same period. See Charlie Wise, "What Happens to Our Wallets When We Age," TransUnion Presentation, 2014, http://www.transunioninsights.com/wallet/files/consumer-wallet-2014.pdf.

Act, however, consumer spending on health care services is likely to increase as individuals begin to utilize their health insurance benefits. In addition, as the economy improves, housing market activities should increase aided by household formation, providing further support for overall consumer spending (see Figure 12).

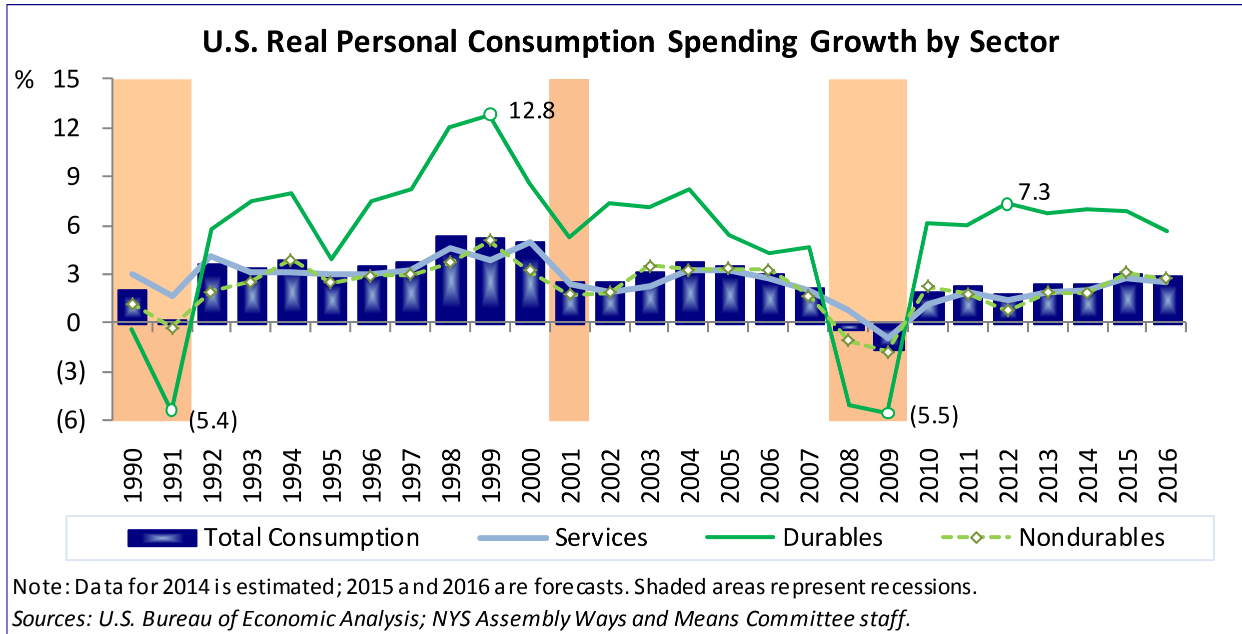


Figure 12

Investment

Investment spending overall tumbled during the Great Recession and the share of investment in total GDP remains below the pre-recession peak. Despite some bright spots, the overall investment sector has yet to fully recover. After falling in 2008 and 2009, equipment spending has grown each year since and has surpassed pre-recession levels. The growth in investment spending on structures has been more subdued (see Figure 13).

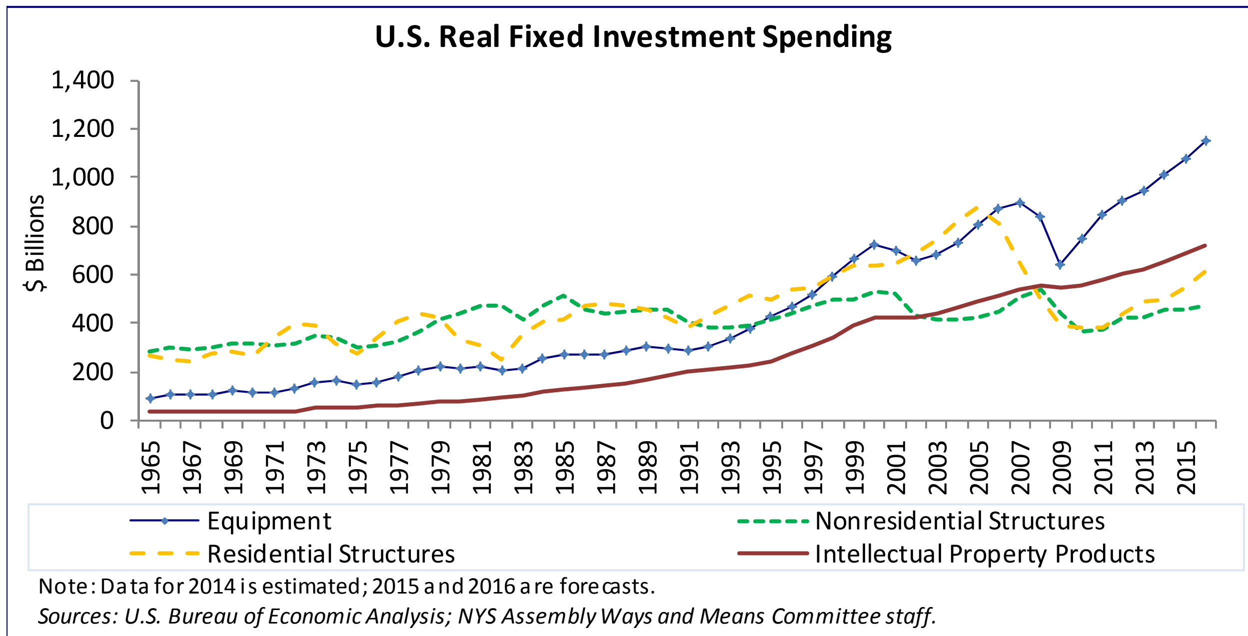


Figure 13

Negative factors that have impacted investment spending since the end of the 2007-09 recession include the government sequester, tight credit conditions, slow economic growth, and a slowdown in household formation. While residential building is still hampered by several factors, the nonresidential portion of investment has been recovering relatively well and is poised to continue recovering. There are some positive factors that indicate investment will continue to grow. Although new orders have slowed in recent months, industrial production excluding utilities increased in December, the ISM indices are above 50, and capacity utilization for the industrial sector is at a rate equal to the long-run average.[11] In addition, the Architectural Billings Index, a leading indicator of construction spending, was at 52.2 in December 2014.[12] Against this backdrop, overall investment spending is forecast to increase 6.0 percent in 2015 and 5.9 percent in 2016 (see Figure 14).

[11] The long-run average (1972 to 2013) is 80.1 percent. See Board of Governors of the Federal Reserve System, Industrial Production and Capacity Utilization - G.17, *Statistical Release*, February 18, 2015, http://www.federalreserve.gov/releases/g17/current/g17.pdf.

[12] A score of over 50 denotes billings growth. See The American Institute of Architects, *AIA Architecture Billings Index (ABI),* http://www.aia.org/practicing/economics/AIAB105309 (accessed: February 16, 2015).

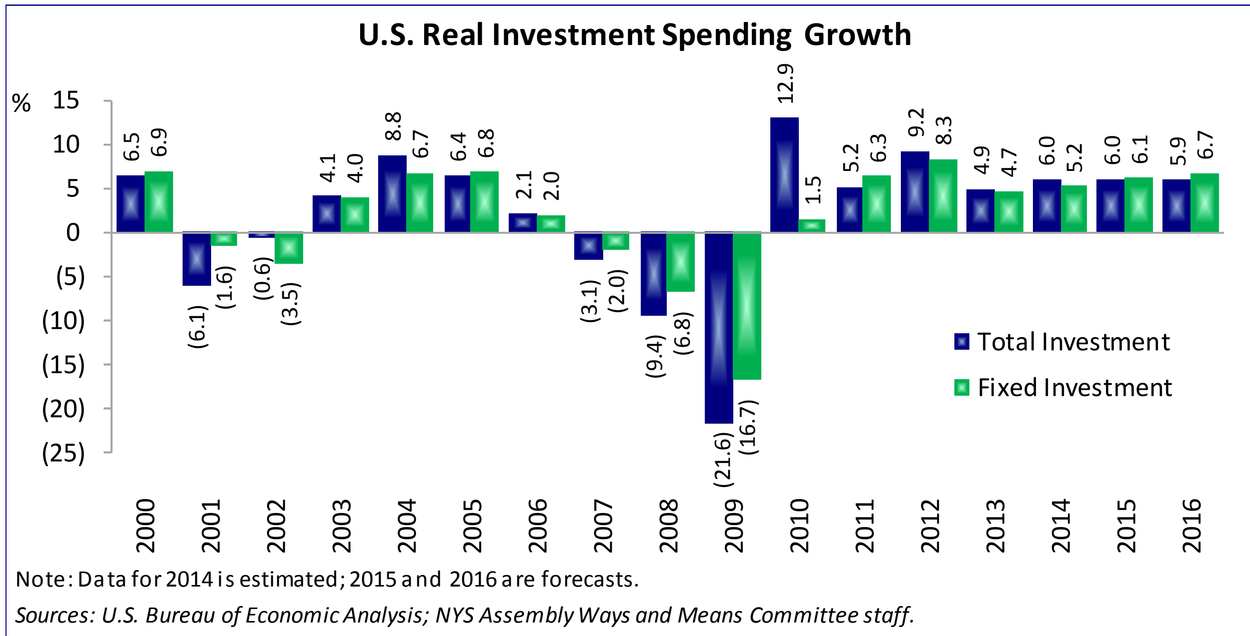


Figure 14

The composition of investment has changed over time as the economy responds to structural and cyclical changes. In 1990, structures accounted for the majority of investment spending. Currently, the largest share of investment spending is equipment, at 38 percent. The second largest share is intellectual property products with 25 percent (see Figure 15). In 1990, these two categories comprised less than 40 percent of investment spending.

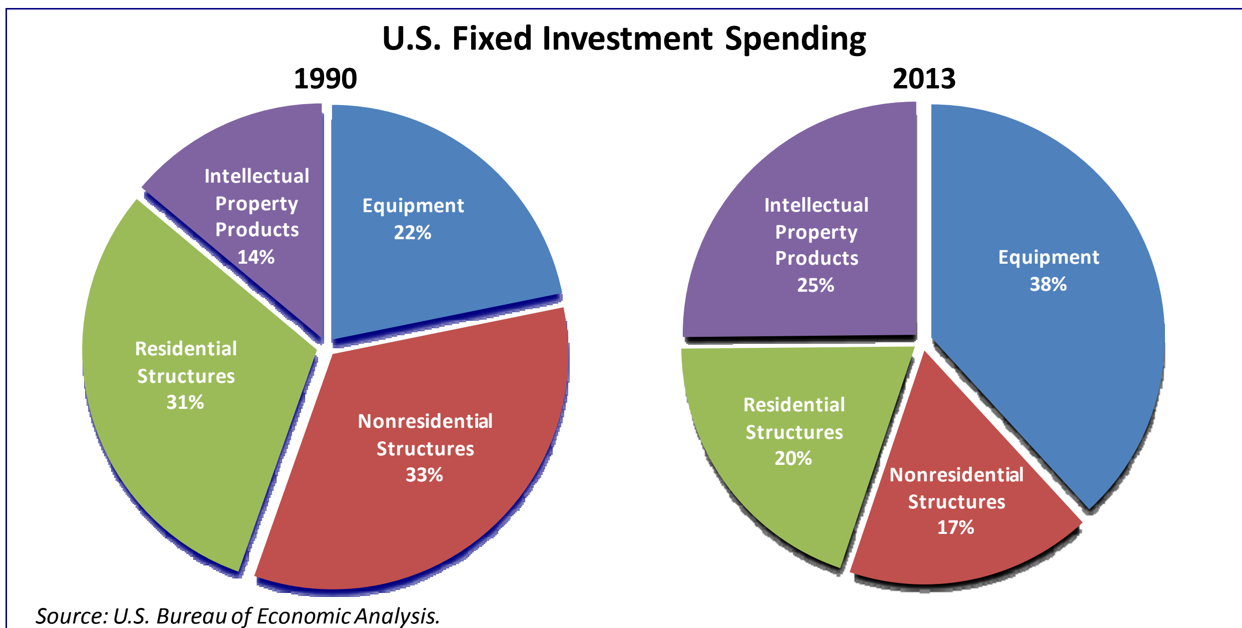


Figure 15

Although all four major categories of investment are expected to post growth in 2015 and in 2016, the strongest growth in investment during the forecast period is expected to come from residential structures, which should improve as the housing market continues to gain strength (see Figure 16). Equipment investment will be supported by businesses investment in new capital in order to meet rising demand as the broader economy expands.

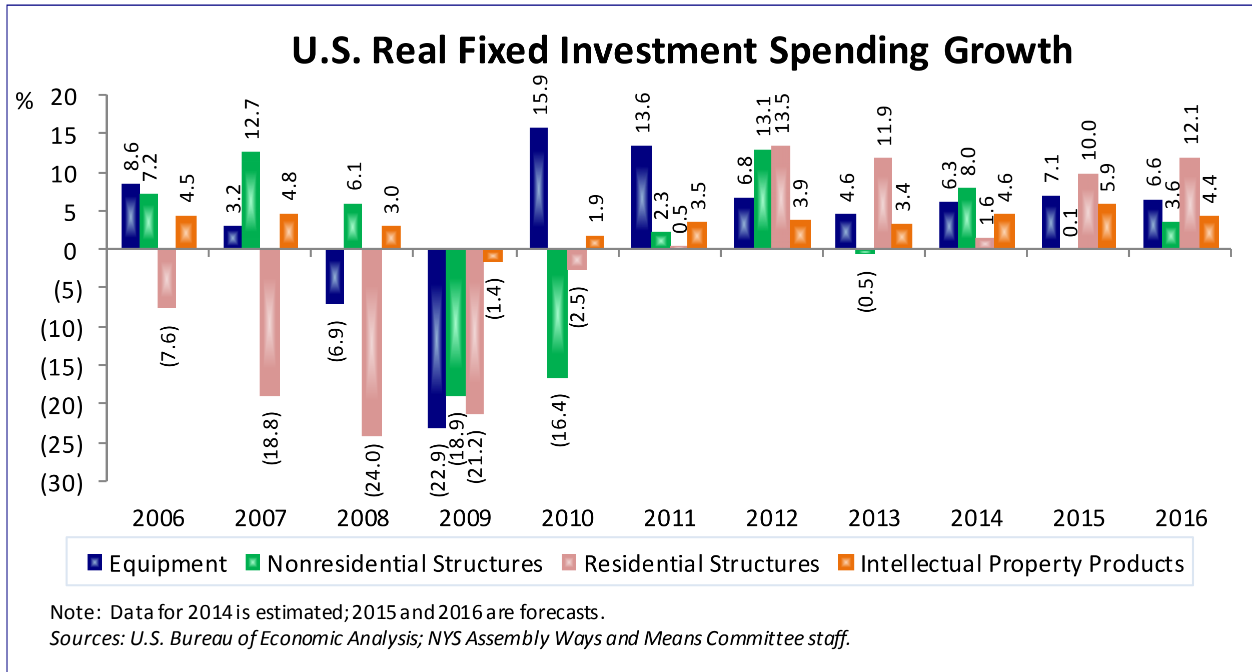


Figure 16

Nonresidential Fixed Investment Spending

Nonresidential structures investment is comprised of five main categories: commercial and health care; manufacturing; mining, shafts and wells; power and communication; and other structures. Leading up to the last recession, the bulk of spending was in the commercial and health care spending, but that spending fell substantially, and although stabilized, it remains well below its prerecession peak. Since 2011, the mining, shafts, and wells category has been the biggest of the five categories, as there was a substantial increase in the number of oil and gas wells drilled due to the oil boom in the upper Mid-western region of the United States. The category accounted for 29.7 percent of total structures investment in 2013. For comparison, the share in 1999 was 13.0 percent. The growth in this category may slow in the future as the total number of oil and gas rigs has steadied; however, these wells are becoming more productive as the industry shifts focus from finding new formations to concentrating on getting

more out of current wells.[13] In addition, the decline in oil prices has led oil companies to cut back on capital spending, which will have a negative impact on nonresidential spending going forward.[14]

The increase in mining output was further evidenced by the increase in the capacity utilization rate for mining, specifically for oil and gas extraction (see Figure 17). While overall capacity utilization has yet to return to its pre-recession peak, the Capacity Utilization Index for the oil and gas extraction sector showed a steady upward trend that started before the Great Recession, reaching 100.5 in June 2014. The series has shown a decline since then, another indicator that the sector has slowed.

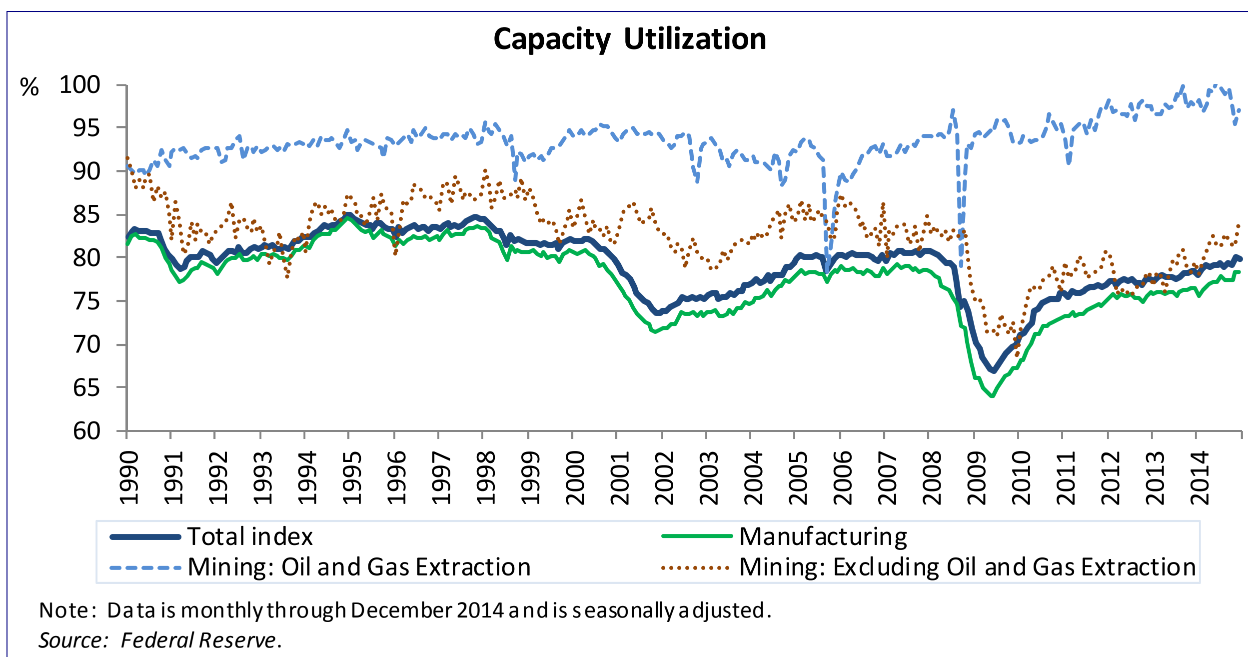


Figure 17

Among the positive indicators for nonresidential investment overall until recently was new orders for manufactured goods, a leading indicator of business investment spending. New orders of nondefense capital goods excluding aircraft and parts had been steadily improving until August 2014 (see Figure 18). The increase was driven by transportation orders. For the

[13] Russell Gold, "Fracking Gives U.S. Energy Boom Plenty of Room to Run," *Wall Street Journal*, September 14, 2014, http://online.wsj.com/articles/fracking-gives-u-s-energy-boom-plenty-of-room-to-run-1410728682.

[14] See Virginia Harrison, "Oil Shock: More Energy Firms Slash Spending, CNN Money, February 3, 2015, "http://money.cnn.com/2015/02/03/investing/bp-slashes-spending/ (accessed: February 19, 2015).

past several months, new orders have weakened somewhat as new orders in most sectors declined.

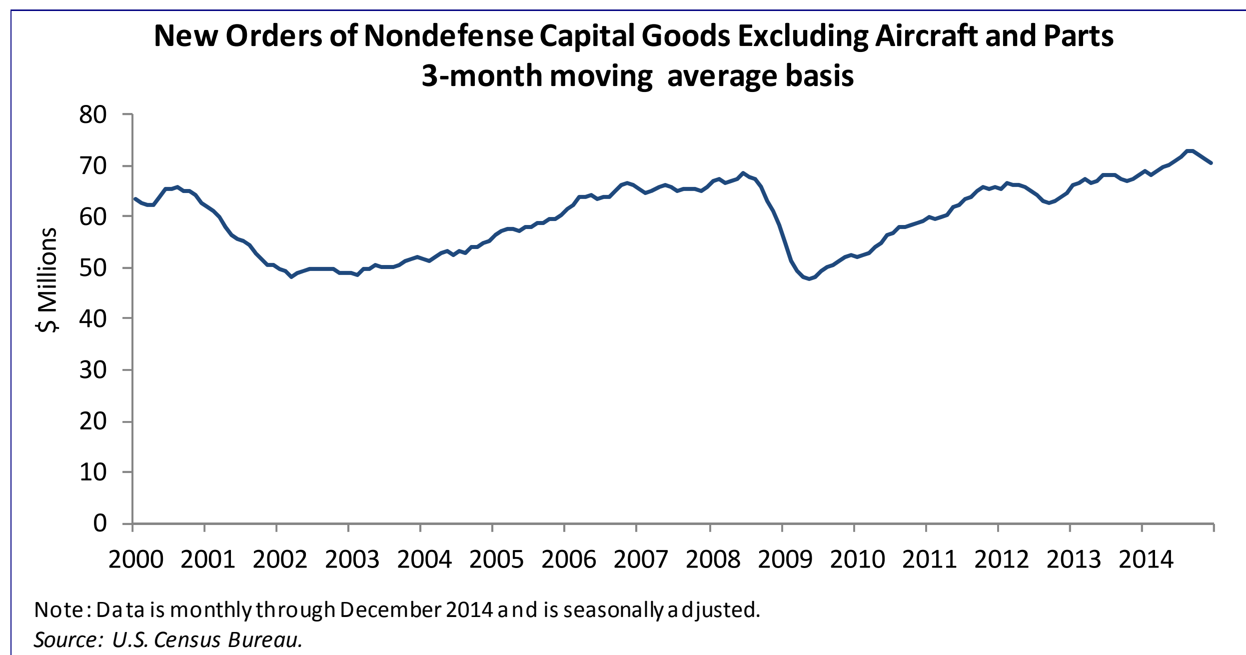


Figure 18

The Institute of Supply Management (ISM) indices remain above 50, suggesting that overall activity remains positive. The ISM Non-Manufacturing Index was 56.7 in January 2015, which was above 50 indicating that the economy is expanding. The ISM Manufacturing Index was also over 50.

Further, businesses still have large amounts of cash on hand, indicating they can afford to invest in capital. Liquid assets at nonfinancial corporate businesses grew substantially during and after the Great Recession, and remain at very high levels.[15] In addition, construction loans have been gaining slowly for the past year. This indicates a positive outlook for all categories of the sector, as banks become more comfortable granting loans, and demand for loans suggests that builders see opportunities to be profitable. Moreover, vacancy rates have been declining.[16]

[15] Based on Board of Governors of the Federal Reserve System, *Financial Accounts of the United States*, Nonfinancial Corporate Business; Liquid Assets, Table L. 102, Line 42, December 11, 2014, http://www.federalreserve.gov/releases/z1/Current/z1r-4.pdf.

[16] Kris Hudson, "Construction Loans are Gaining Strength," *Wall Street Journal*, page A2, August 29, 2014.

Residential Investment

Home sales, starts, and prices declined sharply from their peak in 2005-06 until 2009 when the housing market started to stabilize. The S&P/Case-Shiller Composite Index (Case-Shiller) for home prices dropped by over 25 percent from February 2007 to December 2011, while the Federal Housing Finance Agency (FHFA) Home Price Index fell over 20 percent from its peak in April 2007 to May 2011 (see Figure 19). Similarly, housing starts dropped from a record high of 2.3 million (annualized rate) in January 2006 to a mere 478,000 in April of 2009. Both new- and existing-home sales also fell sharply during this period.

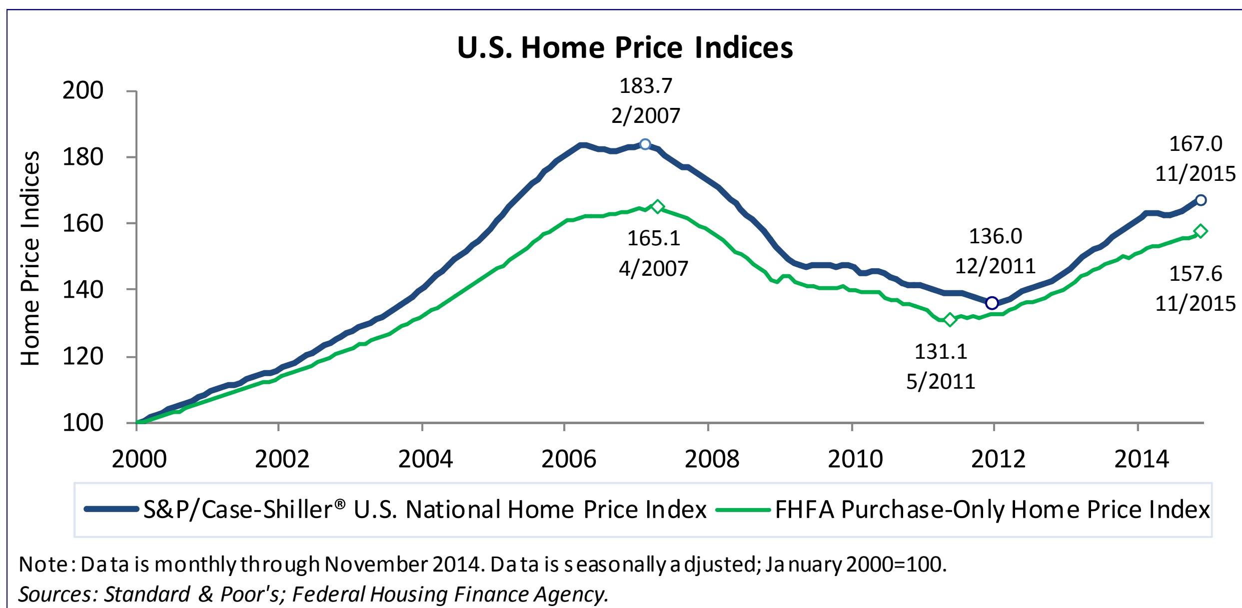


Figure 19

Many lost their homes to foreclosure during the last recession, while debt burden has deterred people from buying a home. As a result, the homeownership rate in the U.S. has been declining since the collapse of the housing market. After rising steadily from the mid-1990s to its peak of 69.2 percent in the second quarter of 2004, the homeownership rate has fallen steadily since then. It fell to 64.0 percent in the third quarter of 2014, the lowest level since the second quarter of 1994 (see Figure 20).

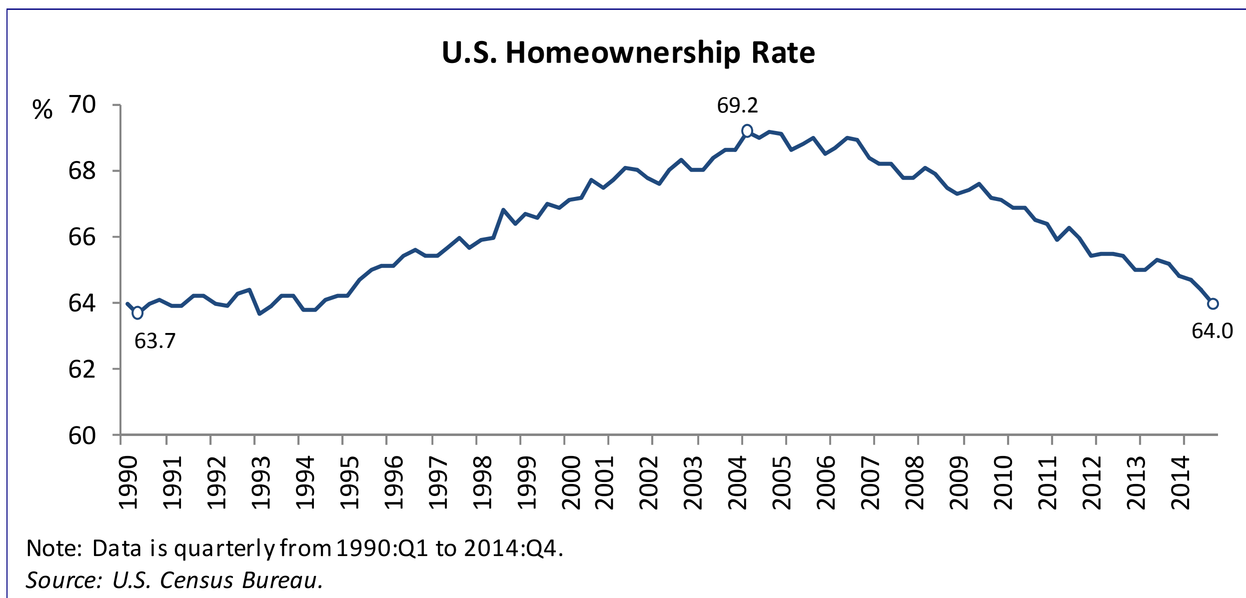


Figure 20

As both home prices and mortgage interest rates fell, housing affordability has continued to improve during the current housing recovery. The National Association of Home Builders/Wells Fargo Housing Opportunity Index (HOI) rose from the record low of 40.4 percent in the third quarter of 2006 to a record high of 77.5 in the first quarter of 2012. Despite high affordability, activity in the housing market remained slow from 2009 to 2011 as restricted lending standards, high student loan debt, and slow employment and wage growth impeded buyers from purchasing a home. Home prices continued to fall at a slower pace, while housing starts grew only 10 percent on an annual average basis from 2009 to 2011.

The housing market showed signs of improvement in 2012 and gained steadily in 2013 as consumers and investors took advantage of high affordability in anticipation of rising mortgage rates. After falling almost every quarter since 2006, home prices have gained consistently since 2012. From December 2011 to December 2013, the FHFA House Price Index gained 13.8 percent after falling over 20 percent during the housing market correction, while the Case-Shiller House Price Index gained 18.1 percent after falling more than 25 percent. Housing starts grew strongly by over 25 percent in 2012 and more than 18 percent in 2013 to an annual average of 925,000 homes, a growth driven mainly by multi-family construction. Similarly, after years of stagnant sales, both new- and existing-home sales have been on an upward trend. New-home sales gained over 40 percent from 2011 to 2013, while existing-home sales gained almost 20 percent during this period (see Figure 21).

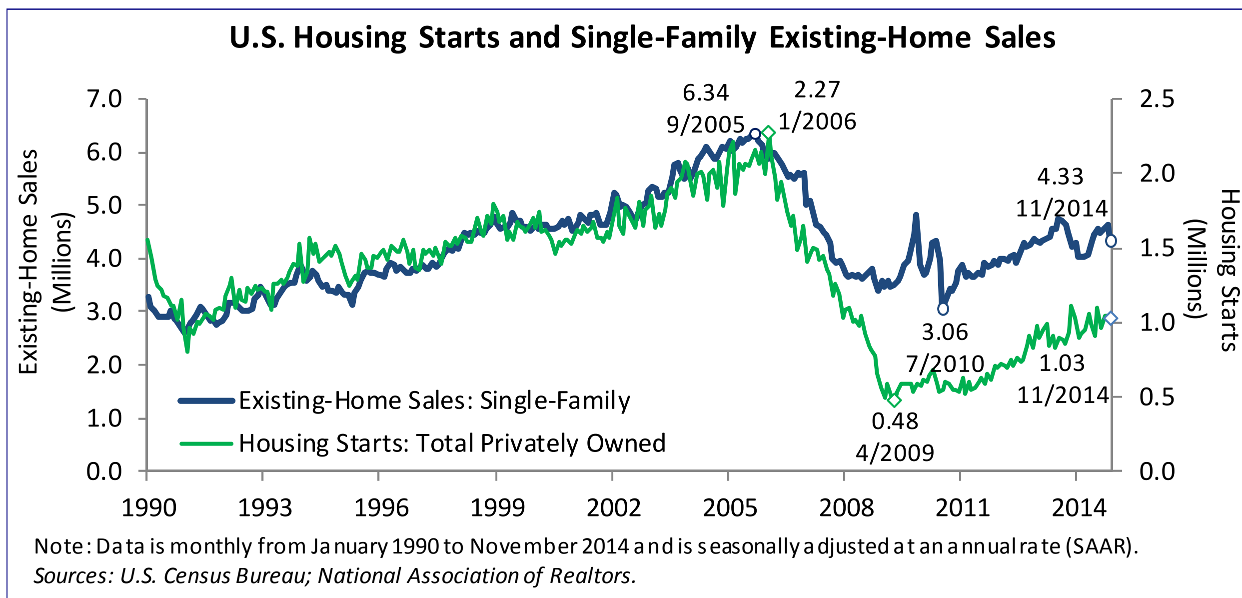


Figure 21

Despite the improvement, the housing market remains depressed. Although home prices have reached the levels seen in the mid-2000s, sales and starts remain well below their pre-2007 level. Activities in the housing market have softened since the end of 2013 due in part to sluggish demand, supply constraints, and inclement weather. Housing starts grew 8.8 percent in 2014, while both new- and existing-home sales were almost flat during this period.

Rising mortgage rates and rising home prices in recent months have led to a higher cost of owning a house. As a result, the HOI fell from its recent peak of 77.5 in the first quarter of 2012 to 61.8 in the third quarter of 2014. In addition, growing student loan debts coupled with slow wage growth have discouraged young workers from buying a home and establishing new households. The share of first-time home buyers dropped from its recent peak of 50 percent in 2010 to below the historical norm of 40 percent in 2011 to 2014.[17] Similarly, household formation has declined from its long-term average. From 1997 to 2007, an average of 1.5 million households were formed per year.[18] The rate fell to an average of 509,000 during the recession (2008 to 2010) and recovered to over one million households in 2011 through

[17] National Association of Realtors, "Profile of Homebuyers and Sellers," 2013 and 2014.

[18] Timothy Dunne, "Household Formation and the Great Recession," *Economic Commentary*, The Federal Reserve Bank of Cleveland, August 23, 2012, http://www.clevelandfed.org/research/commentary/2012/2012-12.cfm.

2013, before falling to 770,000 households in 2014.[19] If these factors deteriorate, it will likely have a negative impact on housing demand, and hence the current recovery in the housing market.

Although housing affordability will likely continue to fall, the housing market outlook remains positive. Activities in the housing market are expected to continue to improve, supported by household formation and continued economic recovery. However, the speed of improvement will rely heavily on income growth. As wages are expected to grow moderately, the housing market should improve gradually. As the overall economy continues to improve at a faster pace in 2015, activities in the housing market as well as home prices are anticipated to improve at a faster pace. However, while housing starts are expected to rise, they will remain below their previous peak throughout the forecast period.

Government Spending

Total government spending was less of a fiscal hindrance on economic growth in 2014 compared to 2013 as the impact of the Budget Control Act subsided. Adjusted for inflation, total government spending declined 2.0 percent in 2013. The decrease in government spending in 2013 was attributable mainly to spending cuts at the federal level, as the federal government reined in spending on goods and services, public investment spending, and compensation in order to adhere to sequestration legislation.

Following three consecutive years of decline, total government spending is estimated to have decreased by 0.2 percent in 2014 as spending of state and local governments almost outweighed the waning decline in federal government spending. Over the forecast period, as state coffers expand, state and local government spending will increase outweighing further declines in federal government spending. Total government spending is forecast to increase 0.8 percent in 2015 and 0.5 percent in 2016 (see Figure 22).

[19] U.S. Census Bureau, *People and Households - Data by Subject, Families and Living Arrangements Main*, Table HH-1. Households, by Type: 1940 to Present, https://www.census.gov/hhes/ families/data/households.html (accessed: September 18, 2014).

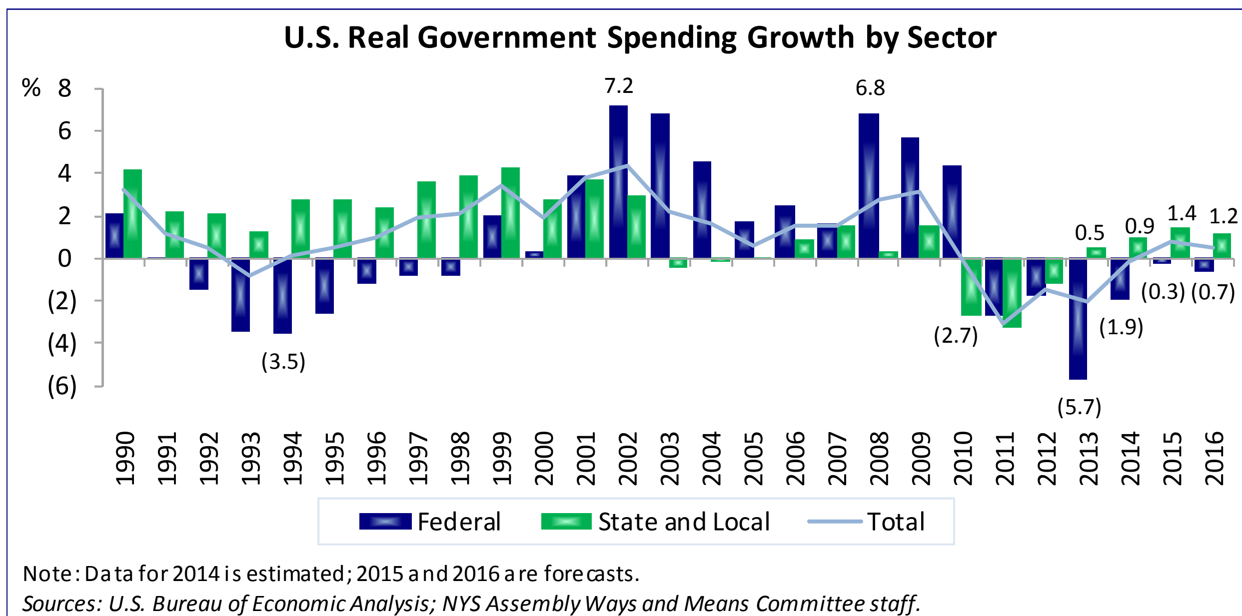


Figure 22

Risks to the government spending forecast stem mainly from political gridlock. Without the passage of a budget, the federal government maintains its funding by continuing resolutions. Also, the debt ceiling expiration in March 2015 is approaching. Expenditures related to emergency management, disaster relief, counterterrorism efforts, and overseas contingency remain a constant risk.

Federal Government Spending

Federal government spending was curtailed in 2013 by sequestration and spending caps. Consequently, federal government spending, adjusted for inflation, fell 5.7 percent following a falloff of 1.8 percent in 2012. The decline was broad-based, affecting compensation for the military and federal civilian labor force, purchases of goods and services, and public investment spending in both defense and nondefense.

Spending cuts associated with sequestration were modest in 2014, reducing the fiscal strain on the economy. The expansion of Medicaid due to provisions in the Affordable Care Act partly mitigated the impact of additional spending cuts from sequestration.[20] As such, federal government spending is estimated to have decreased 1.9 percent in 2014. As the impact of

[20] States were able to decide whether to expand eligibility for Medicaid to low income, non-elderly adults who meet 138 percent federal poverty guidelines. See, *The Patient Protection and Affordable Care Act*, Public Law 111-148, 111th Congress, March 23, 2010.

sequestration continues to taper over the forecast period, increases in federal government spending will be a result of rising outlays for entitlement programs because of the aging population and healthcare costs, the expansion of health insurance coverage, and higher interest payments associated with the national debt. Furthermore, the federal government is unlikely to increase its workforce. The U.S. continued counterterrorism efforts may provide added support to defense spending. Hence, federal government spending is forecast to fall only 0.3 percent in 2015 and another 0.7 percent in 2016 (see Figure 22).

The federal government has persistently amassed budget deficits. In fiscal year 2014, these budget gaps accumulated to more than $17 trillion in national debt. The federal government is expected to accrue further spending gaps in the future raising concerns about federal spending on interest payments and the impact on economic growth overtime. As more federal funds are steered toward interest payments, the federal government has less flexibility to address fiscal crises.

The federal deficit in fiscal year 2013 was $680 billion or 4.1 percent of GDP compared to fiscal year 2012 when the federal deficit was 6.8 percent of GDP.[21] The decline in the budget gap was directly related to the federal government restraining spending to meet caps and spending limitations set forth by sequestration legislation. The budget deficit was $483 billion or 2.8 percent of GDP in fiscal year 2014, and projected to be 2.6 percent of GDP in 2015 as spending restraints continue (see Figure 23).[22] Even though revenues were higher for the first four months of fiscal year 2015, the budget deficit was $195 billion, $12 billion more than the same period in 2014.[23]

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[21] U.S. Department of Treasury, Bureau of the Fiscal Service, *Final Monthly Treasury Statement of Receipts and Outlays of the United States Government for Fiscal Year 2013 through September 30, 2013, and Other Periods*, September 2013, http://www.fiscal.treasury.gov/fsreports/rpt/mthTreasStmt/mts0913.pdf.

[22] U.S. Congressional Budget Office, *An Update of the Budget and Economic Outlook: 2014 to 2024*, August 2014, http://www.cbo.gov/sites/default/files/45653-OutlookUpdate_2014_Aug.pdf; and U.S. Department of Treasury, Bureau of the Fiscal Service, *Final Monthly Treasury Statement of Receipts and Outlays of the United States Government for Fiscal Year 2014 through September 30, 2014, and Other Periods*, September 2014, http://www.fiscal.treasury.gov/fsreports/rpt/mthTreasStmt/mts0914.pdf.

[23] See David Rafferty and Joshua Shakin, *Monthly Budget Review for January 2015*, Congressional Budget Office, February, 6, 2015, https://www.cbo.gov/sites/default/cbofiles/attachments/49924-MBR-1.pdf.

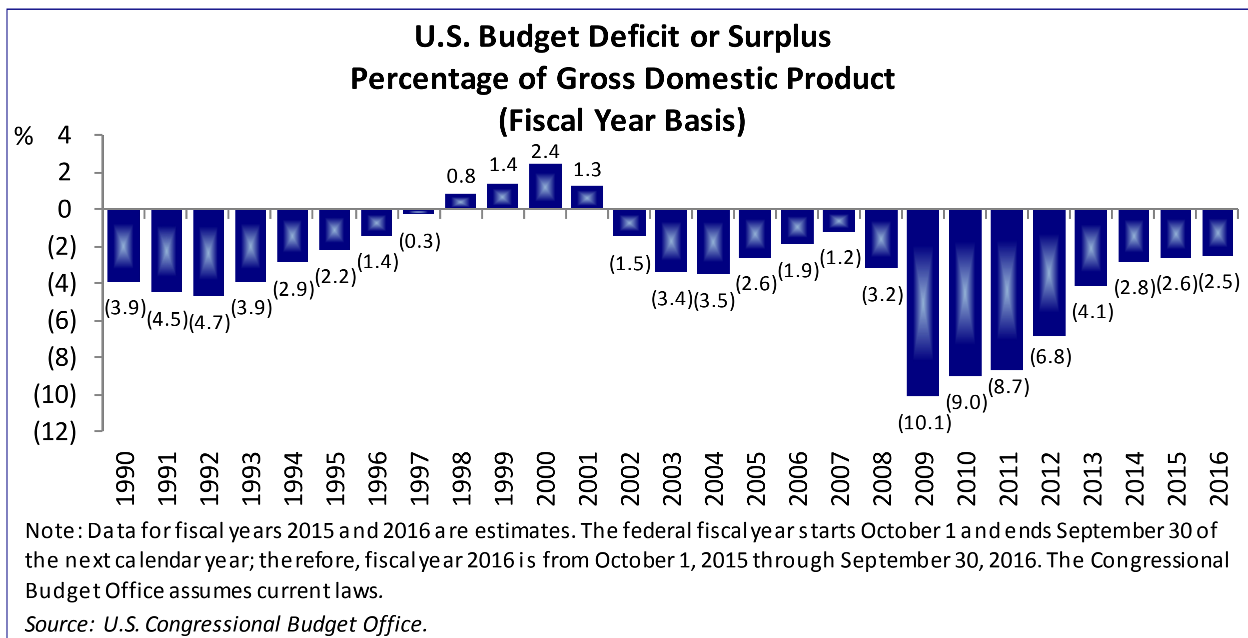

Figure 23

State and Local Government Spending

State and local government spending, adjusted for inflation, rose in 2013 after falling in the previous three years (see Figure 22). The growth in state and local government spending was driven by employee compensation and purchases of goods and services by state and local governments. State and local governments also increased spending on equipment and intellectual property products, though the decline in state and local government spending on structures persisted.

Spending at the state and local levels of government continued to be modest in 2014 growing an estimated 0.9 percent, as relatively slow income growth impeded tax collection, and spending was restrained as states and localities are prohibited from running budget deficits. Policymakers continue to keep budgets lean as they contend with the effects of the slow economic recovery of the past several years that have constrained revenue streams. State and local governments have been bolstering reserve funds that were insufficient during the Great Recession, instead of introducing new spending initiatives. Policymakers are more likely to boost funding for programs that were cut during the 2007-09 recession.

The expansion of health care by states due to the Affordable Care Act has offset cuts made by the federal government to state and local governments. While hiring at the state level has been subdued, local governments have increased their labor force. Local governments'

coffers have improved with the stabilization of the housing market, resulting in higher property tax collection as home prices have risen.[24] At the end of July 2014, the federal government injected funds into the Highway Trust Fund, alleviating the need for state and local governments to make cuts or seek alternative sources of revenue to support infrastructure spending.

In general, state and local government tax collections will benefit from an improving economy, particularly as corporate profits, personal income, and home prices increase. However, states and localities that rely on revenues from oil production faces fiscal challenges with the decline in oil prices. State and local government spending is forecast to increase by 1.4 percent in 2015 and 1.2 percent in 2016.

Exports and Imports

U.S. trade has continued to recover since the last recession; both exports and imports grew every year from 2010 to 2013. Exports were particularly strong in 2010 and 2011, due mainly to the weak U.S. dollar and the global economic recovery. U.S. export growth slowed markedly in 2012 and 2013 as the Eurozone was in recession. U.S. export growth slowed from 6.9 percent in 2011 to 3.3 percent in 2012, before slowing further to 3.0 percent in 2013. Similarly, U.S. imports grew only 2.3 percent in 2012 and 1.1 percent in 2013.

The world economy faced considerable downside risks in 2014 as several major economies experienced slower growth than expected. After slowing to 7.7 percent in 2012 and 2013 from an averaged of over 10 percent in the prior decade,[25] the Chinese economy is estimated to have slowed further to 7.3 percent in 2014. It was the slowest pace since 1999. China is the second largest economy in the world and contributed about one-third of world GDP growth in 2012.[26] A slowdown in China could have an adverse impact on global economic growth and on Asian economic growth in particular, as exports to China account for almost

[24] Though property tax collection has grown, by historical standards growth since the end of the last recession has been weak. See Lucy Dadayan and Donald J. Boyd, "After Weak Performance in the First Half of 2014, Tax Revenues Resume Growth in the Third ," *State Revenue Report*, The Nelson Rockefeller Institute of Government, February 2015, no. 98, http://www.rockinst.org/pdf/government_finance/state_revenue_report/2015-02-12-SRR_98.pdf.

[25] World Bank, World Development Indicators Database, http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG as of January 23, 2015.

[26] Wells Fargo Securities, Economics Group, "How Much Does Slower Chinese Growth Matter?" *Special Commentary*, July 10, 2013, Figure 2: Contributions to Global GDP Growth, page 2, http://www.realclear markets.com/docs/2013/07/Does_Slower_Chinese_Growth_Matter%20_%2007102013.pdf.

5 percent of Asian GDP.[27] However, the extent and severity of such an impact remains uncertain.

Other than China, several other countries have also experienced slower growth than anticipated. Brazil's economic growth became negative in the first and second quarters of 2014 before turning positive in the third quarter. Germany and Japan also reported that their economies contracted in the second quarter of 2014.[28] Germany's economy rebounded in the third quarter of 2014; however, the Japanese economy has continued to contract. As a result, U.S. trade remained weak in 2014. Exports are estimated to have increased by 3.1 percent in 2014, while imports are estimated to have grown by 3.9 percent.

Geopolitical tensions have increased in recent months. Conflict in the Ukraine has escalated and weighed heavily on the world economy. Severe sanctions by Europe and any retaliation by Russia could have adverse impacts on trade and corporate sentiment in those countries and other countries around the globe. The growing threat from the Islamic State in Iraq and Syria also poses downside risk to global growth. Thus, the outlook for global growth has weakened in recent months. However, it is expected that the world economy will continue to grow throughout the forecast period (see Figure 24).

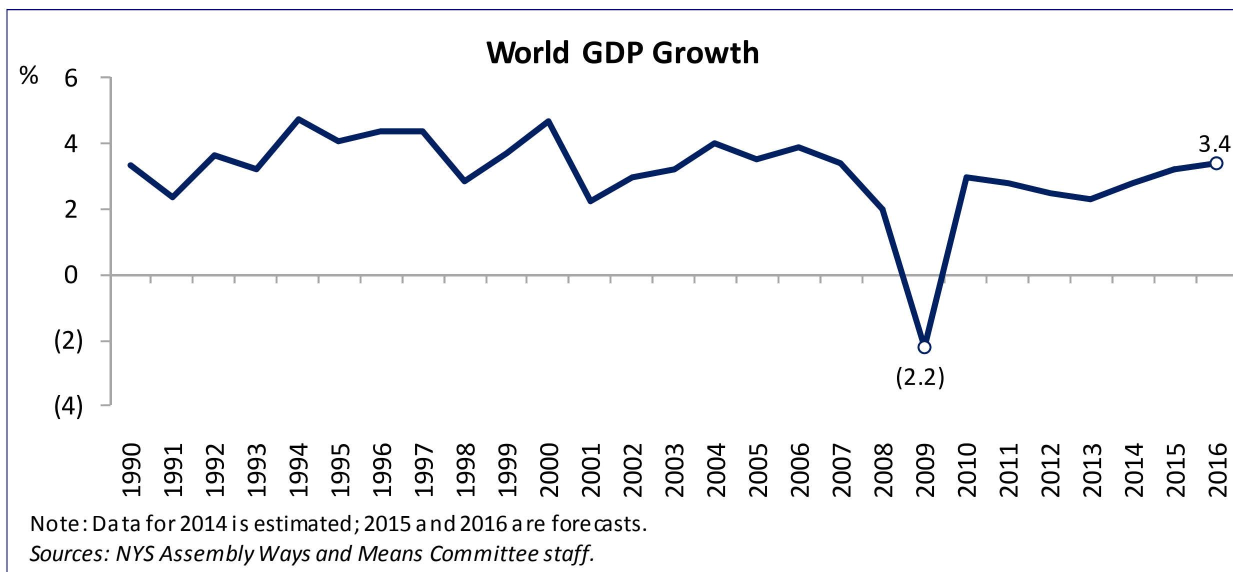

Figure 24

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[27] Ibid., Figure 3: Exports to China, page 3.

[28] The Organisation for Economic Co-operation and Development (OECD), "G20 GDP Growth Picks Up To 0.8% In Second Quarter of 2014," *News Release: G20 GDP growth, second quarter of 2014*, September 11, 2014, http://www.oecd.org/std/na/G20-GDP-Eng-Q214.pdf.

After appreciating sharply in 2009, when investors moved money toward the safe-haven currency amid global recession, downward pressure from increasing worries over mounting U.S. debt and the concern about the pace of U.S. recovery caused the dollar to depreciate in 2010 and 2011. As the situation in Europe deteriorated in 2012, leading the euro area into another recession, investors shifted their investments to dollar-denominated assets. As a result, the dollar appreciated 2.1 percent in 2012.

The debt crisis subsided in 2013 and the Euro gained strength against the dollar. On the other hand, concern over Japan's fiscal consolidation caused the yen to weaken relative to the U.S. dollar. As a result, the dollar appreciated slightly by 0.1 percent in 2013. As many global risks were present in 2014, investors shifted their investments to U.S. assets perceived as a safe-haven, which caused the U.S. dollar to appreciate (See Figure 25). The dollar is estimated to have appreciated by 2.2 percent in 2014 and is expected to continue to appreciate throughout the forecast period.

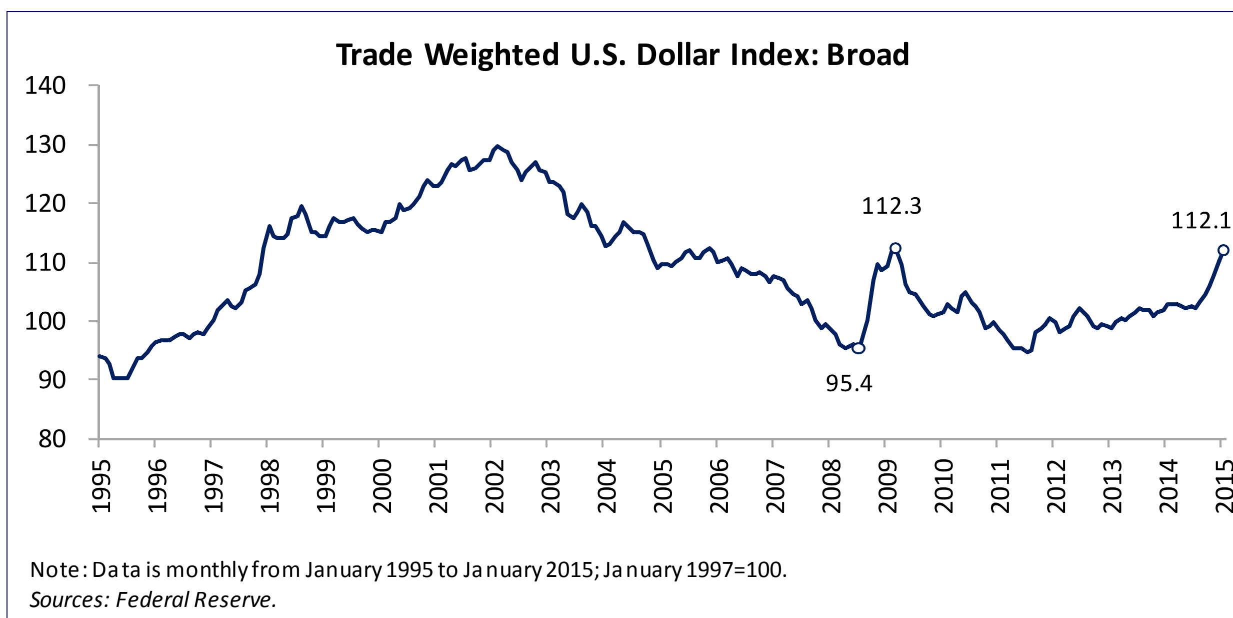


Figure 25

Although the world economy and U.S. trade are anticipated to grow throughout the forecast period, U.S. net exports will likely be a bigger drag to national economic growth. As the U.S. dollar is expected to continue to appreciate and U.S. economy is forecast to outperform several major trading partners, exports are expected to grow slower than imports during the forecast period. Exports are forecast to grow by 3.2 percent in 2015 and another 3.9 percent in 2016. Imports are forecast to increase by 5.5 percent in 2015 and in 2016 (see Figure 26).

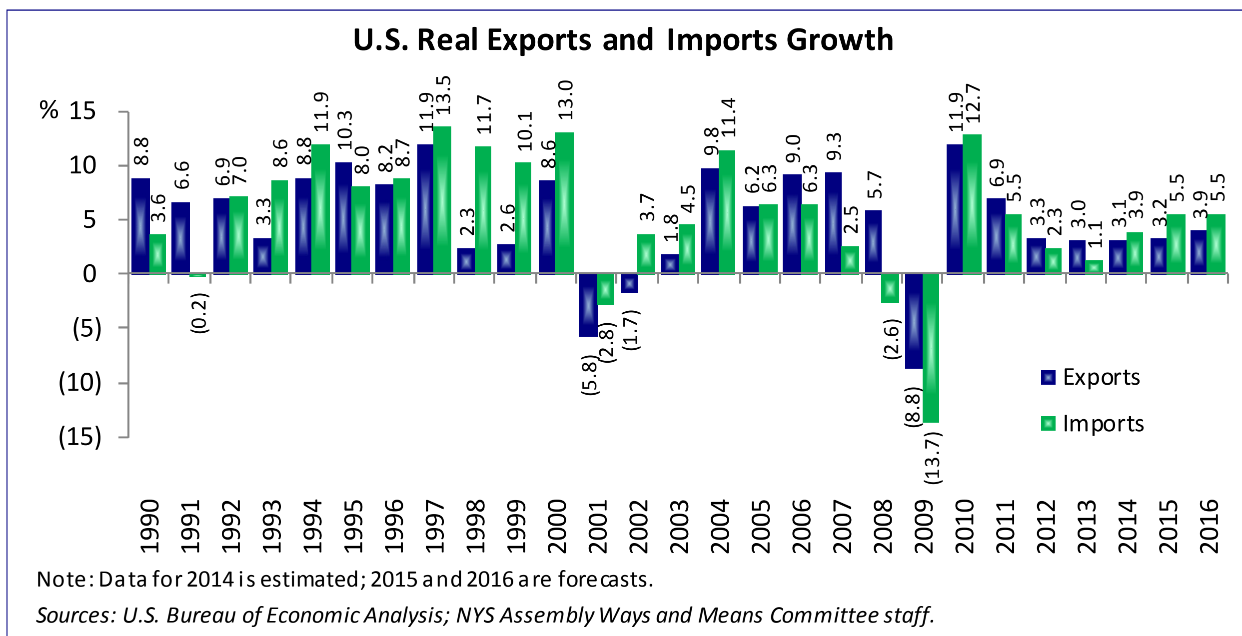


Figure 26

Most countries around the globe recovered steadily from the global recession and continued to grow in 2013. As several European countries were faced with high debt, as well as problems with local real estate and financial markets, however, the Eurozone slipped into recession in 2012 and 2013. As the global economy has improved, the Eurozone economy is estimated to have grown by 0.8 percent in 2014, and is forecast to grow further by 1.2 percent in 2015 and another 1.6 percent in 2016.

After going into recession in 2011, due mainly to the earthquake and tsunami that caused many factories to shut down for more than a month, Japan's economy grew in 2012 and 2013. As the nationwide consumption tax took effect in April 2014, in an attempt to lower its national debt to GDP ratio, Japan's economy contracted in the second quarter of 2014. Despite the contraction, the Japanese economy is expected to have rebounded in the second half of the year, and is estimated to have grown 0.6 percent in 2014, and is forecast to further grow by 1.0 percent in 2015 and 1.4 percent in 2016.

The Canadian economy, the largest trade partner of the United States, has been growing since the global recession of 2009 ended. Canada's economy grew an estimated 2.4 percent in 2014, and is expected to grow 2.3 percent in 2015 and in 2016.[29]

Developing economies rebounded strongly following the world recession in 2009 and have been the main drivers of global growth. After growing 9.3 percent in 2011, the Chinese economy, the largest U.S. trading partner in Asia and the largest developing economy, grew 7.7 percent in 2012 and 2013. The Chinese economy is estimated to have grown 7.3 percent in 2014. This is the slowest growth rate in more than ten years as Chinese authorities seek to rebalance the economy toward more domestic demand with less emphasis on exports. China's economy is expected to continue to slow, growing 6.9 percent in 2015 and 6.7 percent in 2016.

Many countries in South America have also experienced slower growth in 2014. The Brazilian economy, the largest economy in South America, grew 2.7 percent in 2011 and slowed to 1.1 percent in 2012. The Brazilian economy rebounded in 2013 and grew 2.3 percent. A sharp fall in investment caused the economy to contract in the first two quarters of 2014. As a result, the Brazilian economy grew only 0.2 percent in 2014, and is forecast to grow 0.3 percent in 2015 and another 1.7 percent in 2016.

Details of U.S. Trade

Since 1995, industrial supplies and high value-added capital goods such as aircrafts and computers have been the major categories of goods exported by the U.S. In 2014, industrial supplies and capital goods accounted for 64.4 percent of total exports. The U.S. had a trade surplus of $58.7 billion in capital goods and industrial supplies (excluding petroleum) in 2014 compared to $87.2 billion in 2013, while overall trade was in deficit (see Figure 27). The U.S. has recorded trade surpluses in these investment goods and production inputs every year since 1995, with the exception of 2004 to 2007, while overall trade has been in deficit every year. Trade of these goods and supplies appears to be relatively less sensitive to changes in the value of the U.S. dollar.

[29] All growth rates for other countries cited in this section are from Blue Chip International Consensus Forecasts, *Blue Chip Economic Indicators*, vol. 40, no. 2, February 10, 2015.

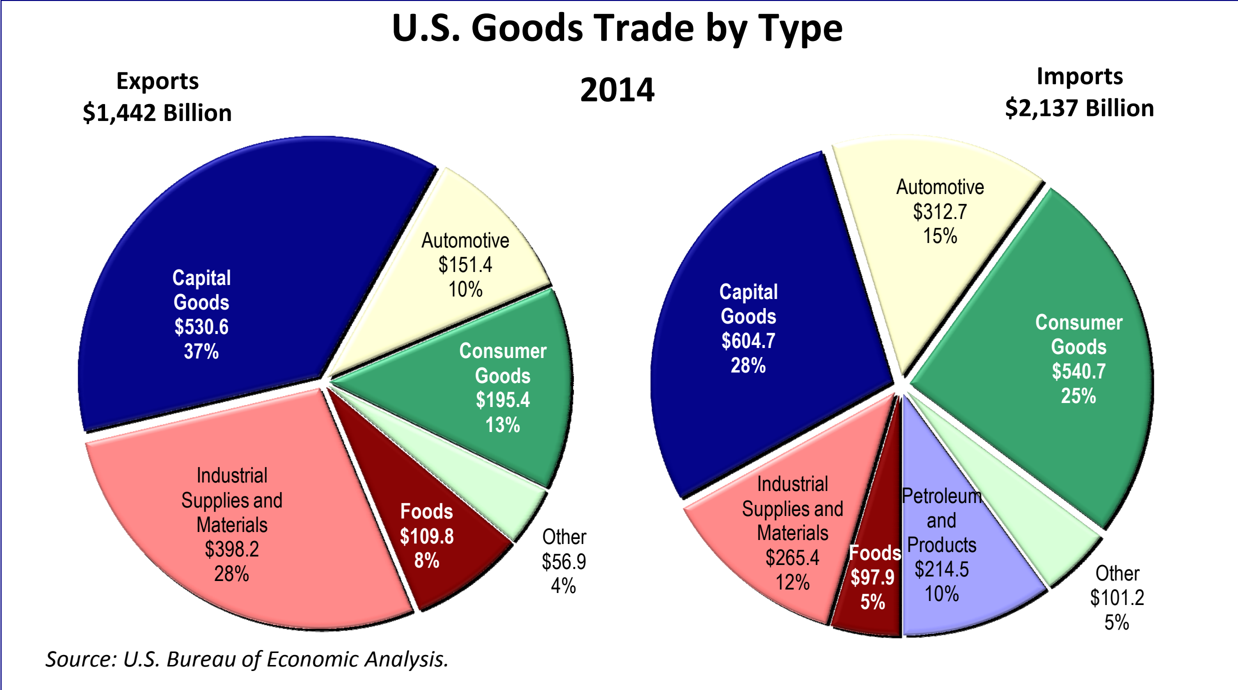


Figure 27

There have been significant changes in U.S. trade patterns. The U.S. has imported a significantly larger share of consumer and capital goods in recent years compared to 1995. Consumer goods accounted for 25 percent of U.S. total imports in 2014, compared to 19 percent in 1995. Similarly, imports of capital goods increased from 16 percent of total imports in 1995 to 28 percent in 2014. In contrast, U.S. imports of petroleum and products as a percentage of total imports dropped during this period. In 1995, U.S. imports of petroleum accounted for 21 percent of total U.S. imports; this share fell to 10 percent in 2014 (see Figure 28). This indicates that the U.S. has been relying less on imported oil in recent years.

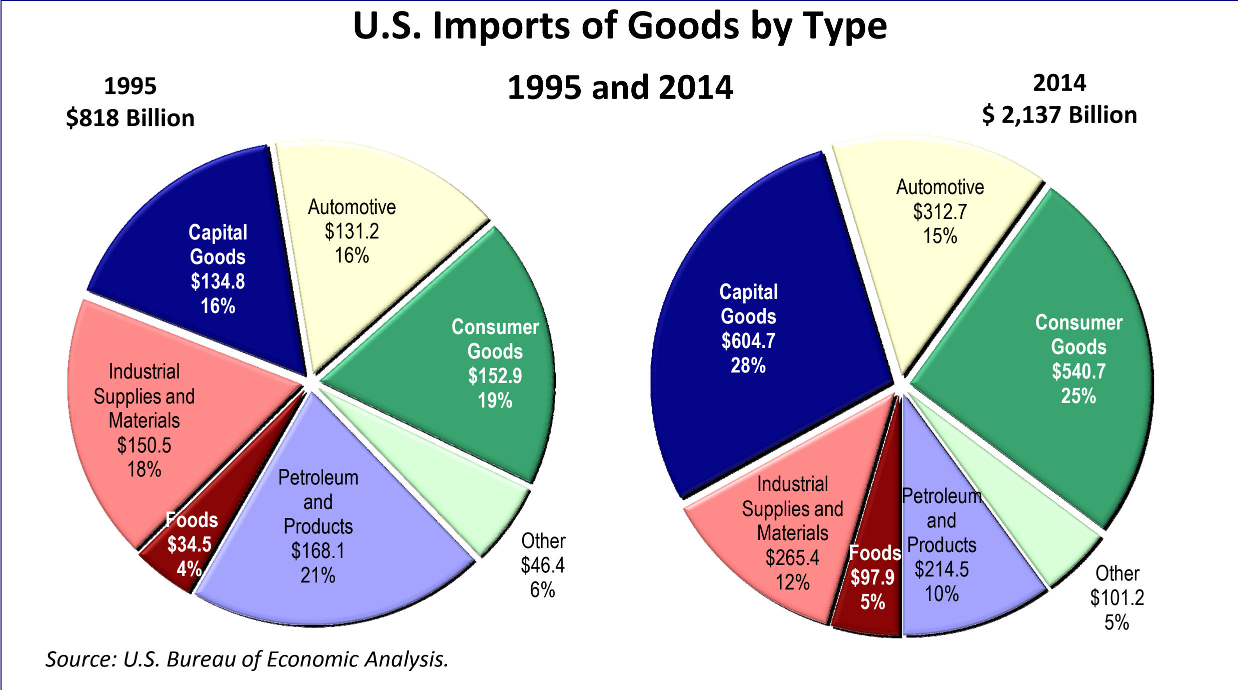


Figure 28

Employment

Total nonfarm payroll employment finally surpassed its pre-recession peak in May 2014, taking over five years from the trough. This is much longer than the time the return to peak level employment has taken in earlier recoveries. As of January 2015, total nonfarm employment in the United States was 140.8 million, 2.5 million above the peak level in January 2008. The gains in employment have been slow, but monthly gains have been relatively strong since February 2014.

Employment is expected to grow throughout the forecast period at a steady pace. After growing at an estimated 1.9 percent in 2014, growth is expected to accelerate to 2.2 percent in 2015. Employment is forecast to grow another 1.8 percent in 2016. This is healthier growth than has been seen since the 2007-09 recession, but still below what the growth rates were during the late 1990s (see Figure 29).

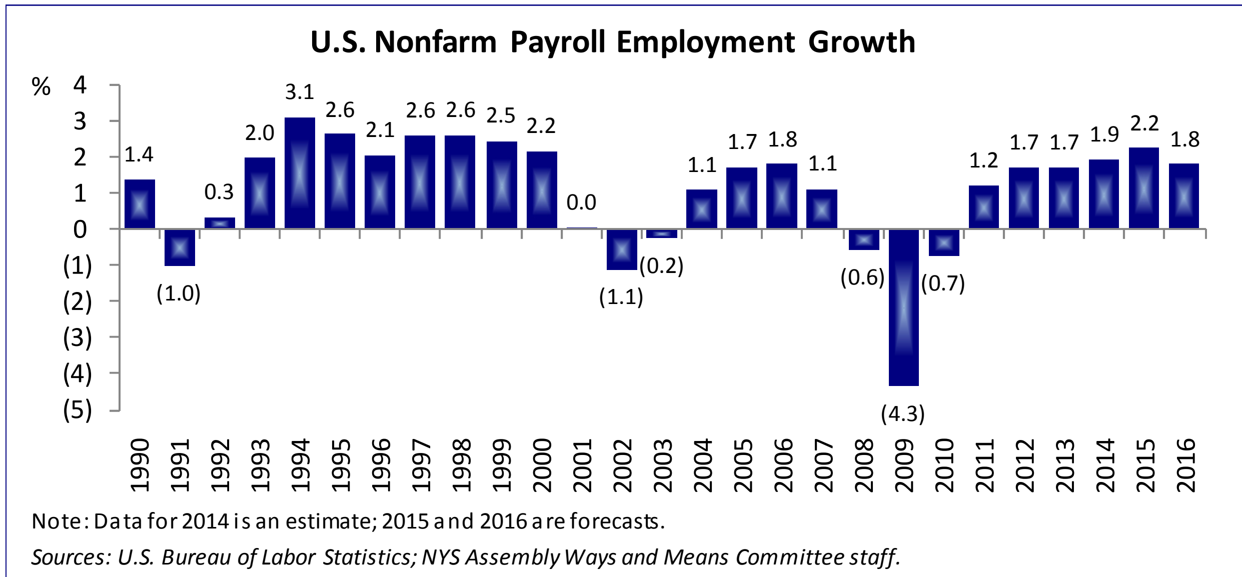


Figure 29

In addition to the increased monthly addition of jobs, there are other positive factors in the labor market that indicate growing strength. The Job Openings and Labor Turnover Survey (JOLTS) conducted by the Bureau of Labor Statistics shows that hires (additions to the payroll during the month) are trending upward. In addition, openings accelerated rather sharply in 2014 (see Figure 30). As of December 2014, openings were at their highest level since early

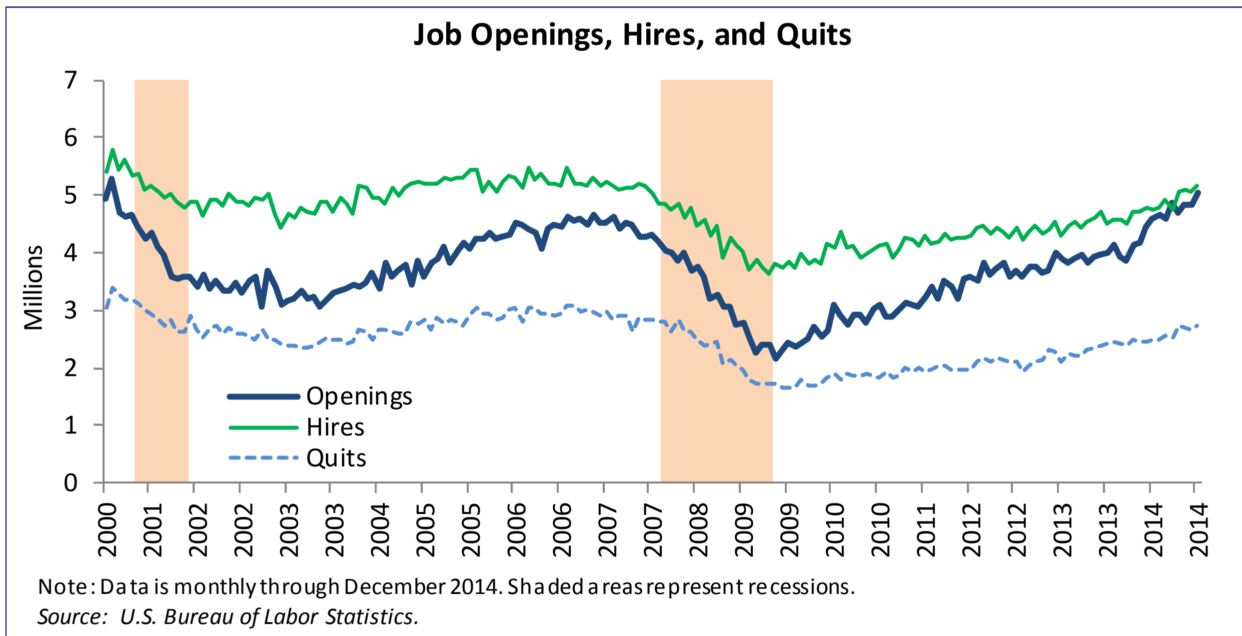


Figure 30

2001. Further, the level of quits (employees that left their job voluntarily) is also trending upward. This could be an indication that employees are feeling more confident in their ability to obtain a new job, therefore they feel more comfortable quitting a position.

Despite the positive signs in hiring, several unemployment measures indicate that the labor market still has room to recover. The unemployment rate remains elevated (see Figure 31), indicating that there is still slack in the labor market. After peaking at 10.0 percent in October 2009, the unemployment rate has fallen slowly, and stood at 5.7 percent as of January 2015. For comparison, the rate averaged 4.6 percent in 2007. The broader U-6 measure of unemployment also remains elevated.[30] A large percentage of those out of work (31.5 percent in January 2015) continued to be unemployed long-term—more than 27 weeks. However, initial weekly unemployment insurance claims have been consistently below the 400,000 benchmark level for a healthy economy for the past several months, signifying that the unemployment situation will continue to improve—albeit slowly.

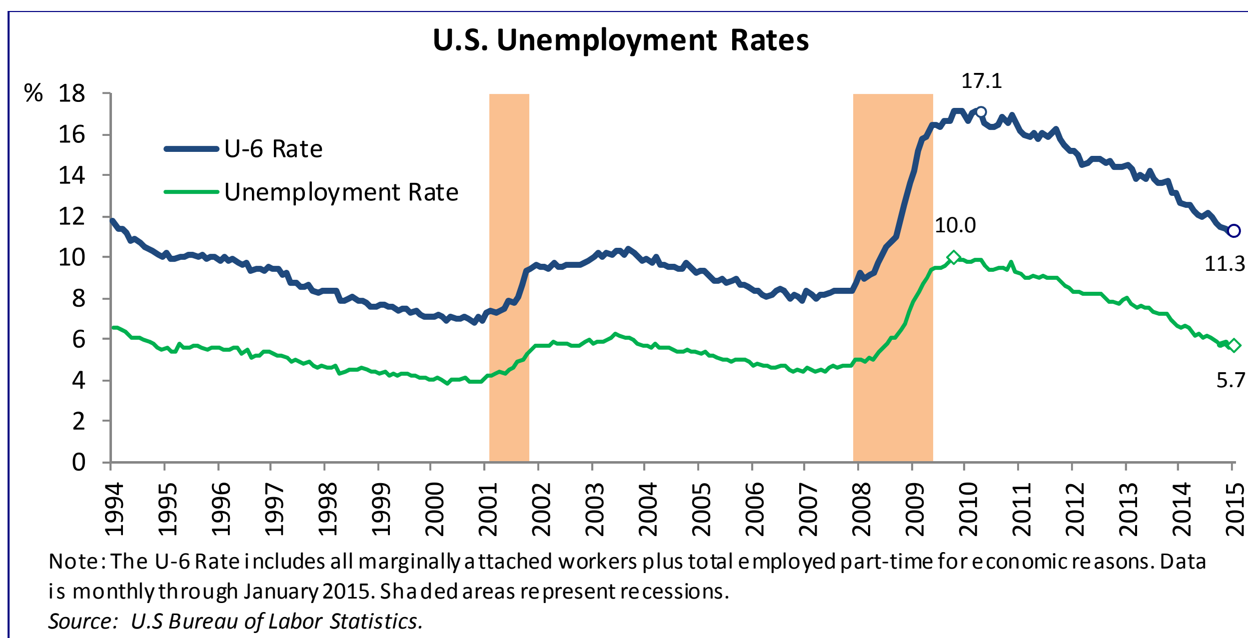
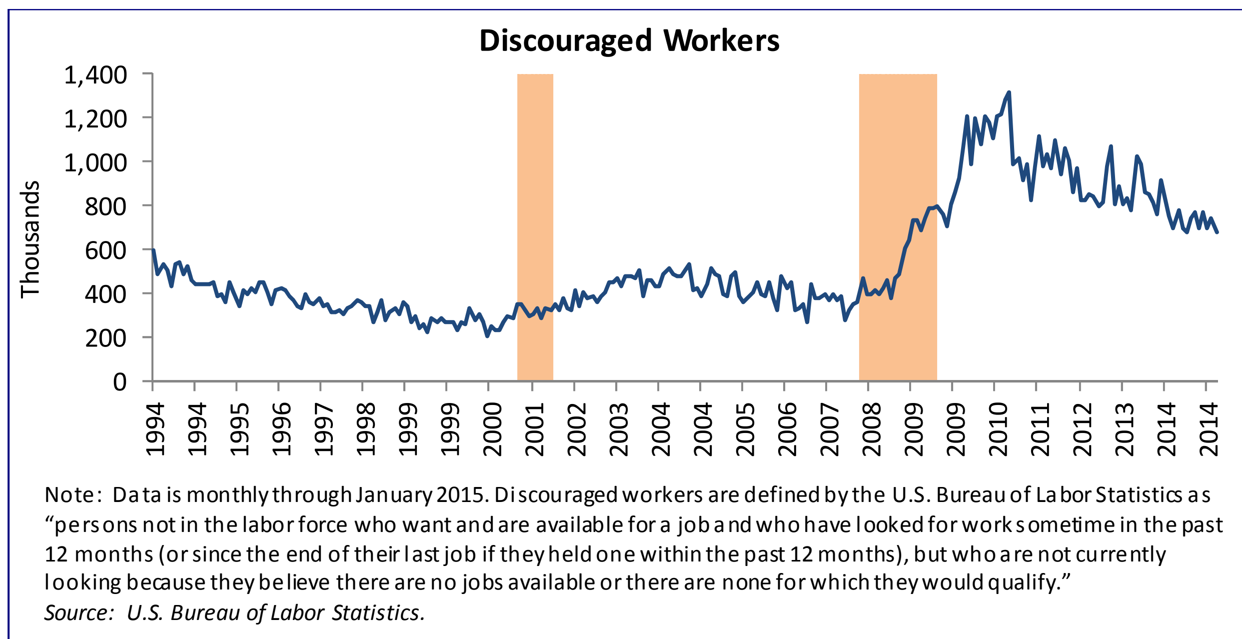


Figure 31

The unemployment rate has been responding to the dynamics of the labor force which may be both structural and cyclical. The labor force participation rate has been declining overall since the end of the previous century. While some of this drop is due to demographic factors,

[30] The U-6 measure is total unemployed, *plus* all marginally attached workers, *plus* total employed part-time for economic reasons.

such as the aging of the population, persons that are not in the labor force have dropped out because they are discouraged (see Figure 32). As the economy continues to improve and hiring continues, some of these discouraged workers may reenter the labor force, which would contribute to an increase in the labor force participation rate.



Note: Data is monthly through January 2015. Discouraged workers are defined by the U.S. Bureau of Labor Statistics as "persons not in the labor force who want and are available for a job and who have looked for work sometime in the past 12 months (or since the end of their last job if they held one within the past 12 months), but who are not currently looking because they believe there are no jobs available or there are none for which they would qualify."
Source: U.S. Bureau of Labor Statistics.

Figure 32

The recovery in employment has also not been shared evenly across all sectors. Most of the jobs gained during the recovery have been in the private sector. Government sector jobs started to decline in August 2008, and had declined in most months up until February 2014. The gains in the sector since February 2014 have been quite small, averaging less than 10,000 per month. As a result, the share of private sector jobs in the economy has risen from a recent low of 82.4 percent in May 2010, to 84.5 percent in January 2015 (see Figure 33).

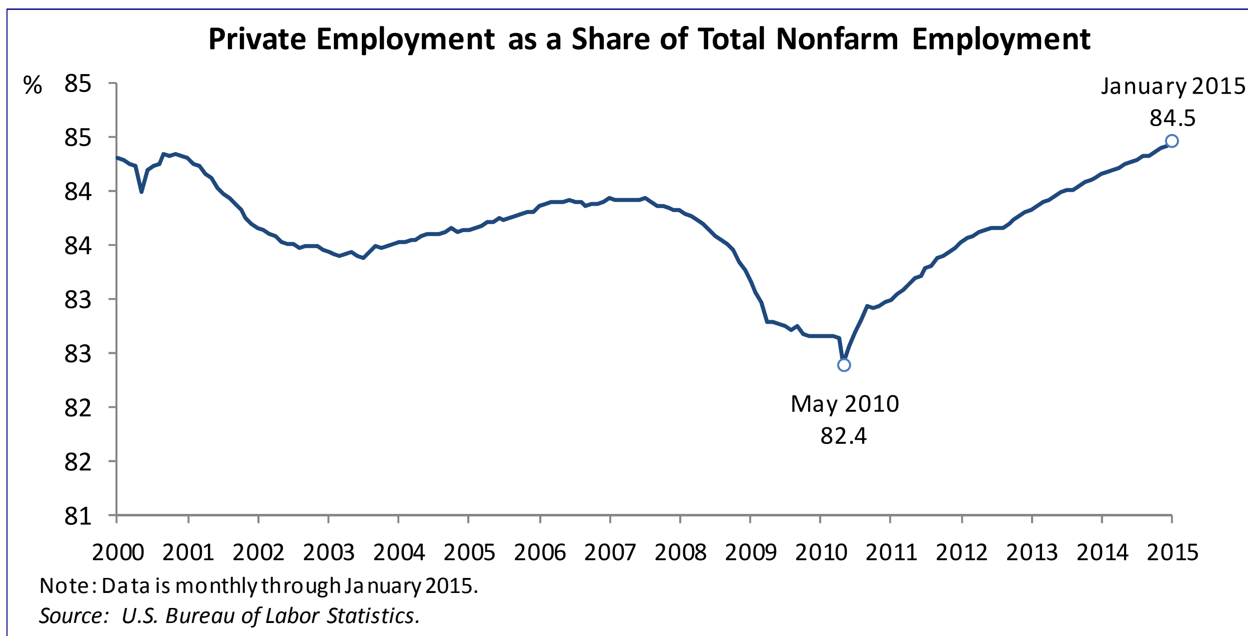


Figure 33

The distribution of job growth has broad implications for the economy. The employment recovery has been concentrated in low paying jobs. If the economy continues to add mostly low paying jobs, it will affect wages, consumption, and many other economic indicators. As had been the case in previous years, employment growth in 2014 was concentrated in the service sector. As of January 2015, the service sector had 4.9 million jobs more than in January 2008, the prerecession peak. The goods-producing sector was still 2.4 million below the January 2008 level.

Jobs classified as service-providing accounted for 86 percent of total employment in 2014. In the service sector, the industries that led the employment recovery were ambulatory health care services, food services and drinking places, social assistance, and administrative and support services.[31] The service sector is expected to continue to lead in job growth throughout the forecast period.

Government employment, which is included in the service sector, fell for four years in a row from 2010 to 2013. Historically, the only other times government employment fell was

[31] These are the four industries that gained the most jobs between January 2008 and January 2015 when industries are classified at the three digit NAICS level. Food services and drinking places gained 1.3 million jobs, ambulatory health care services gained 1.2 million jobs, social assistance added 639,000 jobs, and administrative and support services added 432,600 jobs.

from 1944 to 1947 and in 1981 and 1982. The sector currently has yet to show sustained growth, and federal government employment continues to struggle, while state and local government employment has grown slightly. Therefore, total growth in government employment will continue to be anemic (see Table 2).

Table 2

U.S. Employment by Sector (Percent Change)

	Actual 2012	Actual 2013	Estimate 2014	Forecast 2015	Forecast 2016
Total	**1.7**	**1.7**	**1.9**	**2.2**	**1.8**
Construction	2.1	3.7	4.8	4.9	4.1
Other Services[1]	2.7	2.5	2.7	3.0	2.3
Professional Services	3.0	2.9	2.8	3.6	2.9
Leisure & Hospitality	3.2	3.5	3.2	3.0	2.2
Transportation & Utilities[2]	2.3	1.6	2.7	3.1	2.2
Real Estate, Rental, & Leasing	1.4	2.3	2.3	2.8	2.4
Wholesale Trade	2.2	1.2	1.6	1.8	1.5
Management of Companies	4.7	3.9	3.1	1.8	1.6
Retail Trade	1.1	1.6	1.9	2.1	1.7
Education and Health Care[3]	2.3	1.9	1.8	2.2	1.7
Manufacturing[4]	2.1	0.8	1.6	2.0	1.4
Finance & Insurance	1.0	1.0	0.8	1.9	1.7
Government	(0.8)	(0.3)	0.0	0.4	0.5
State and Local	(0.7)	(0.1)	0.3	0.5	0.6
Federal	(1.3)	(1.8)	(1.6)	(0.4)	(0.4)
Information	0.1	1.2	1.3	1.8	1.4

[1] Including administrative, support, and waste management services.

[2] Transportation, warehousing, and utilities.

[3] Includes only private employment. Public education and health care employment is included in the government sector.

[4] Including mining and logging.

Sources: U.S. Bureau of Labor Statistics; NYS Assembly Ways and Means Committee staff.

Within the goods-producing sector, there are some industries that are doing relatively well, but the sector overall has lagged the service-providing sector during the recovery. The two major categories in the goods-producing sector, construction and manufacturing, both remain well below their January 2008 level. As of January 2015, construction remained down 1.2 million jobs, and the outlook remains relatively slow as residential construction activity has failed to resume expected growth. Manufacturing is down 1.4 million jobs. After declining for decades, manufacturing employment has shown some growth in the durable goods sector,

while it has remained relatively flat in the nondurable goods sector. Manufacturing has been helped by lower energy costs as well as rising wages in countries that are generally used for offshore manufacture of products sold in the United States. The sector has been helped by the addition of jobs for transportation equipment manufacturing and machinery manufacturing. Growth in manufacturing employment as a whole remains relatively tepid, however, and is expected to grow 2.0 percent in 2015 and 1.4 percent in 2016.

Personal Income

Personal income grew by 2.0 percent in 2013, after increasing 5.2 percent in 2012. Firms shifting bonus and dividend payouts into 2012 in expectation of higher taxes in 2013 contributed to weaker personal income growth in 2013 than in 2012. In addition, the expiration of Social Security payroll tax cuts on January 1, 2013, adversely affected personal income growth, as employees had to start making higher contributions to government social benefit programs.[32] As the labor market continued to improve and the effect of higher taxes abated, personal income grew an estimated 3.9 percent in 2014 (see Figure 34).

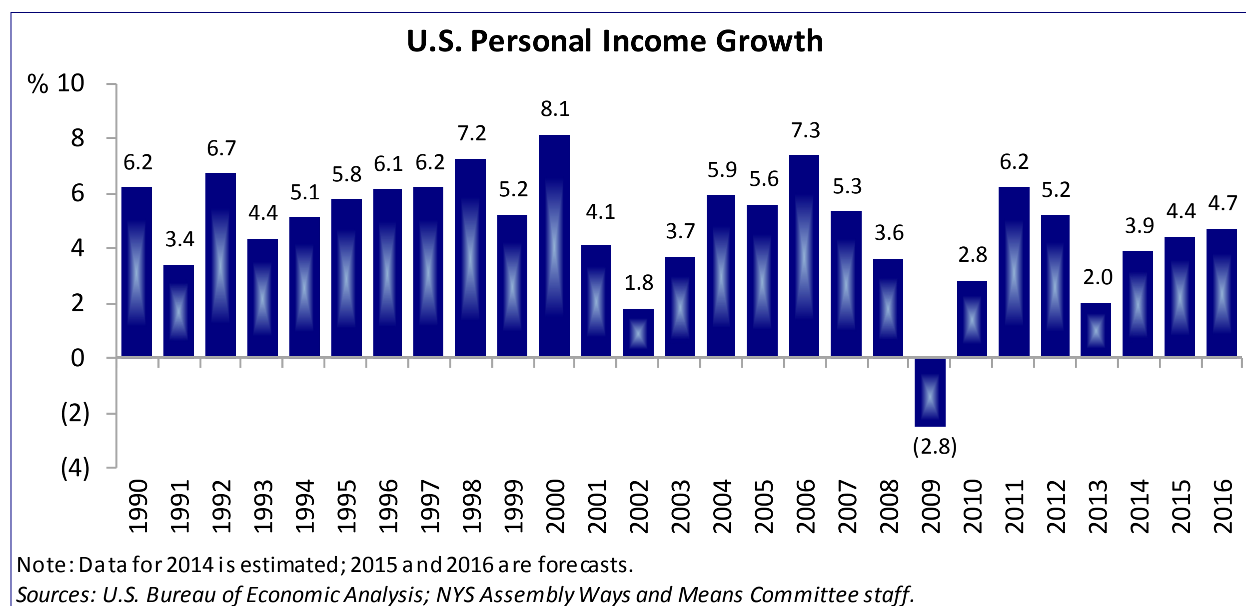


Figure 34

[32] Effective at the beginning of 2013, for individuals earning over the $400,000-$450,000 threshold, the marginal tax rate increased from 35 percent (2003-2012 marginal tax rate) to 39.6 percent. In addition, taxes on dividend income rose from 15 percent to 20 percent. See, *The American Tax Relief Act of 2012*, Public Law 112-240, 112th Congress, January 2, 2013.

In 2015, personal income is projected to grow 4.4 percent as receipts on assets, transfer income, employee compensation, proprietors' income, and rental income increase. As the economy continues to improve into 2016, continued gains in employment, higher interest rates, upward pressure on wages, and higher profits will contribute to projected growth in personal income of 4.7 percent in 2016.

Growth in wages and salaries, the largest component of personal income, slowed to 2.8 percent in 2013 from 4.5 percent in 2012. The slowdown in growth was attributed to bonus payments to employees being shifted to the fourth quarter of 2012 in anticipation of higher tax rates on high income individuals. In 2014, wages and salaries are estimated to have increased 4.3 percent as nonfarm hourly wages slowly grew, employment gains continued, and the impact of higher tax rates dissipated. These factors will contribute further to wages and salaries growth of 4.7 percent in 2015 and 4.9 percent in 2016 (see Figure 35). In part, the growth rates for wages and salaries remain below prerecession levels because the employment recovery has been one in which job gains in low-paying industries have outpaced those in high-paying industries. Also, many jobs that have been created are part-time jobs. Given the large pool of unemployed of workers, employers have had little pressure to increase wages, which has led to weak growth in average hourly earnings. However, as the labor market tightens, growth in wages and salaries will be less about employment gains and more focused on upward wage pressure.

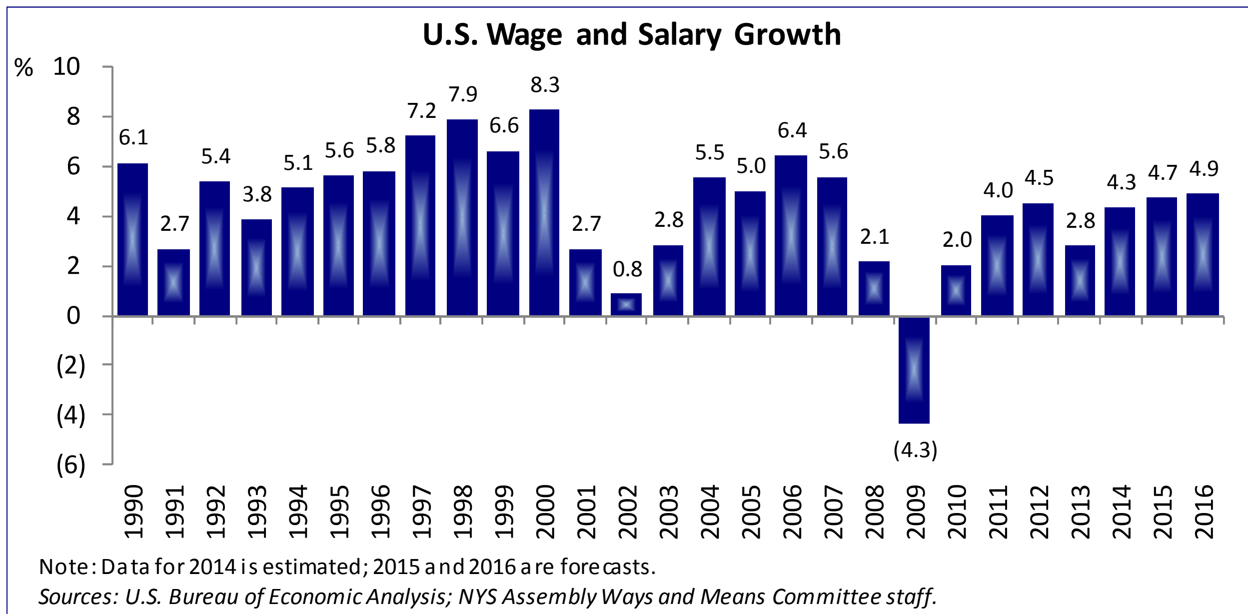


Figure 35

Unemployment insurance grew significantly as policymakers tried to ease the burden of workers that had become unemployed as the economy shed jobs throughout the Great Recession. Benefits peaked in January 2010 and have since sharply declined (see Figure 36). Total personal transfer income grew 2.7 percent in 2013 as the exhaustion of extended federal unemployment insurance benefits by many unemployed workers was mitigated by transfer payments for Medicare, Medicaid, Social Security, and veterans benefits. In 2014, personal transfer income is estimated to have accelerated 4.5 percent through the expansion of Medicaid coverage to adults who cannot afford health care premiums under the Affordable Care Act. As more people take advantage of health care benefits, and the aging baby boomers are added to Medicare and Social Security rolls, transfer payments will further augment. Personal transfer income is projected to increase 4.2 percent in 2015 and by another 4.2 percent in 2016.

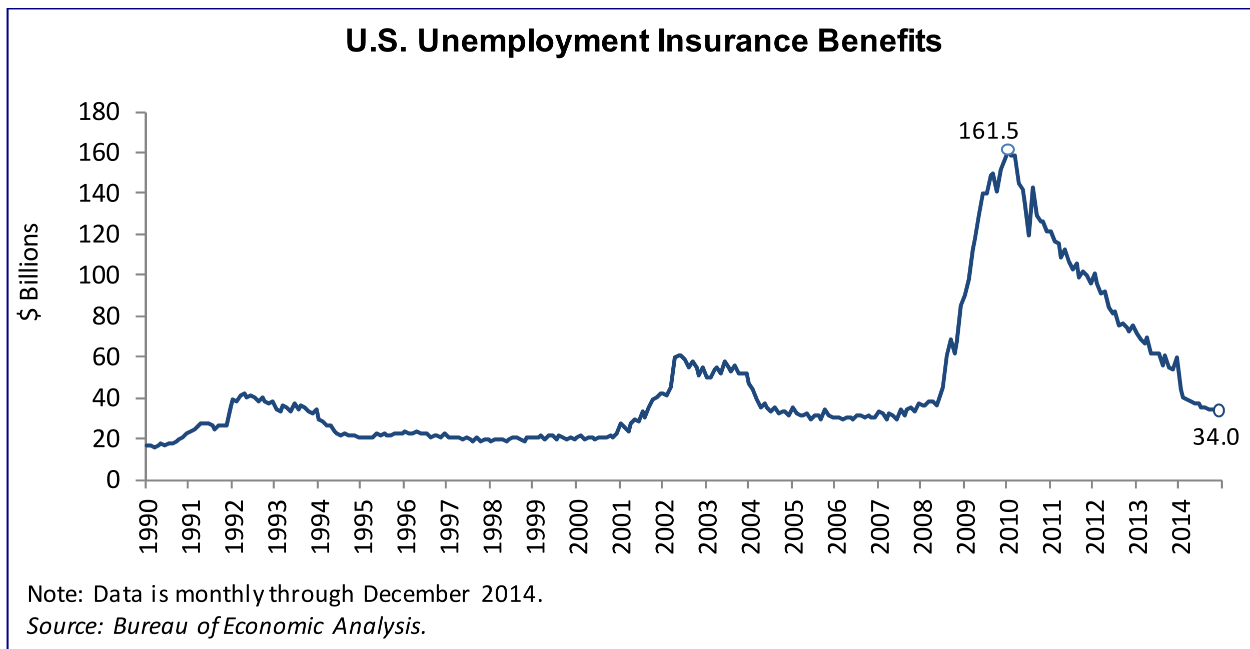


Figure 36

Dividend income fell 1.0 percent in 2013 as corporations shifted dividend payouts into 2012 in anticipation of the dividend income tax hike that went into effect at the beginning of 2013. In 2014, dividend income grew an estimated 4.4 percent as the impact of the shift moderated. Dividend income is projected to increase by 6.1 percent in 2015 as improvements in the economy persist and higher productivity heightens firms' profitability. In 2016, dividend income is projected to grow 4.2 percent as corporate profits growth slows.

Record low interest rates are primarily responsible for the subdued growth in interest income. "Operation Twist," implemented by the Federal Reserve in 2011, helped suppress long-term interest rates and consequently interest income was affected.[33] Interest income decreased 0.1 percent in 2013. However, interest income is estimated to have increased by 0.7 percent in 2014, since investors held a higher volume of Treasury securities in their portfolio as these securities became available, increasing their interest receipts. With interest rates expected to start rising in mid-2015, interest income is forecast to grow 1.3 percent in 2015 and 3.8 percent in 2016.

Prices

Growth in consumer prices remains under 2.0 percent. Consumer prices are expected to grow in 2015, but at a mere 0.5 percent due to the recent sharp decline in oil prices. With oil prices expected to rebound and economic growth to continue, consumer prices will grow 2.2 percent in 2016 (see Figure 37). Throughout the forecast period, downward pressure from

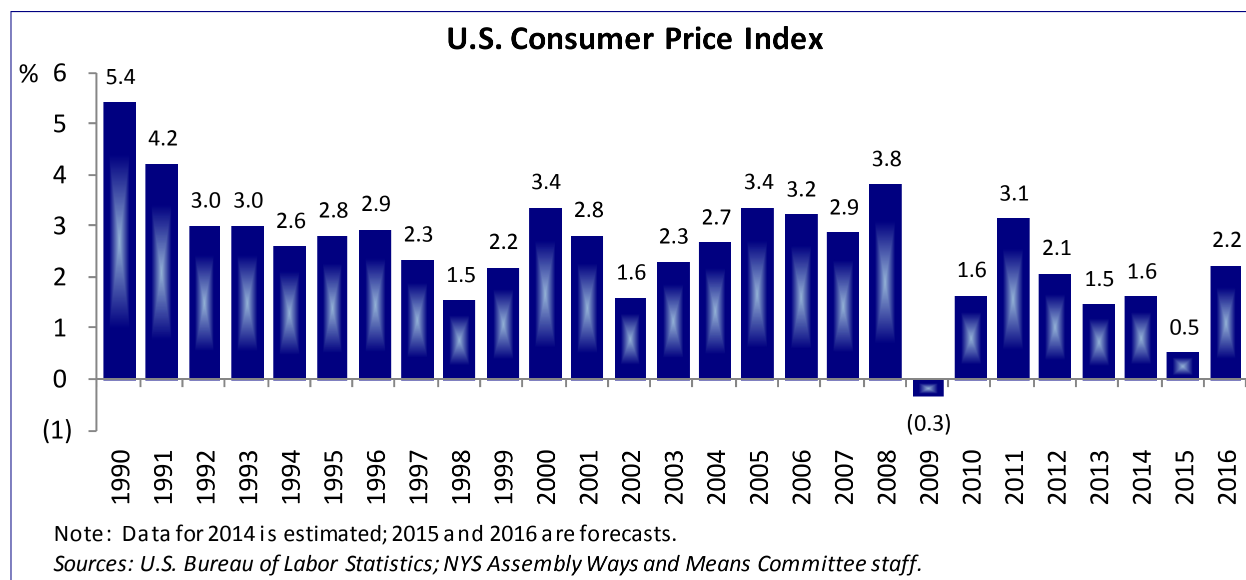


Figure 37

[33] The idea behind "Operation Twist" was that the Federal Reserve would buy long-term Treasury bonds and sell short-term (up to three-year) Treasury bonds, driving down long-term interest rates; in this case, the Fed sold $400 billion in short-term Treasuries and bought an equal amount in long-term Treasuries, beginning in October 2011 and ending in June 2012. The short-term Treasury securities will have maturities of three years or less, while the long-term Treasury securities have maturities of six years or more. Investors holding long-term bonds would see their interest income dip. See Board of Governors of the Federal Reserve System, *2011 Monetary Policy Releases,* Press Release, September 21, 2011, http://www.federalreserve.gov/newsevents/press/monetary/20110921a.htm.

slack in the labor market, relatively slow growth in unit labor costs will prevail, keeping inflation low and outweighing upward pressure from the expanding economy. Coupled with rising productivity, the slow growth in unit labor costs indicates that businesses may be able to continue earning profits without raising prices. The continuation of slow price growth will have implications for the broader economic outlook including wage growth, consumer spending growth, and the Fed's decision to keep rates low.

As overall inflation has remained moderate, most of the major categories have also shown little volatility and added little upward pricing pressure. Energy, often the most volatile component of the Consumer Price Index (CPI-U) and a significant source of pricing pressure, has seen both price increases and price decreases over the past year. Overall in 2014, energy prices decreased 0.5 percent, driven by a steep decline in oil prices in the fourth quarter (see Table 3). Food prices have seen a recent uptick, and although the overall yearly growth for the food and beverages category as a whole is just over two percent, increases in food prices can have an immediate adverse impact on consumers. Price increases on food affect consumers of all income groups but lower income groups are more sensitive to changes in food prices. Several products within the food category have shown substantial price growth over the past year, and these price increases have been passed through to consumers. For example, the increase in the meat expenditure category for the CPI between December 2013 and December 2014 was 12.7

Table 3

U.S. Consumer Price Index by Category (Percent Change)

	2008	2009	2010	2011	2012	2013	2014
All Items	**3.8**	**(0.3)**	**1.6**	**3.1**	**2.1**	**1.5**	**1.6**
Medical Care	3.7	3.2	3.4	3.0	3.7	2.5	2.4
Services	3.5	1.4	0.8	1.7	2.1	2.4	2.6
Housing	3.2	0.4	(0.4)	1.3	1.7	2.1	2.6
Other Goods & Services	3.6	6.7	3.4	1.6	1.9	1.7	1.8
Education and Communication	3.4	3.0	2.0	1.2	1.8	1.5	1.2
Food & Beverages	5.4	1.9	0.8	3.6	2.5	1.4	2.3
Apparel	(0.1)	1.0	(0.5)	2.2	3.4	0.9	0.1
Transportation	5.7	(8.1)	7.9	9.7	2.4	0.0	(0.7)
Recreation	1.6	0.9	(0.8)	0.0	1.2	0.5	0.2
Energy	13.7	(18.1)	9.5	15.2	0.9	(0.7)	(0.5)
All Items Less Food & Energy (Core)	2.3	1.7	1.0	1.7	2.1	1.8	1.7

Source: U.S. Bureau of Labor Statistics.

percent, with the subcategory of beef and veal up 18.7 percent.[34] Some of the price increases are a result of supply disruptions brought on by factors such as droughts and diseases.[35]

Energy Prices

Energy prices represent a critical issue for the U.S. economy, and remain one of the most volatile risk factors for the health of the economy. Current political and geographical considerations, as well as weather conditions (such as the possibility of hurricanes or an exceptionally cold winter) add uncertainty to future energy prices, including prices of oil, gasoline, and natural gas. Households face both a direct impact (such as changing gasoline and home heating oil prices) and an indirect impact (i.e., producers passing their higher energy costs to consumers in the form of higher prices on final products).

In both 2013 and the first six months of 2014, most energy prices were relatively flat compared to 2011 and 2012 (see Table 4). One notable exception was natural gas prices, which increased 35.6 percent in 2013. However, natural gas prices remain low compared to historical

Table 4

U.S. Energy Prices
Annual Average

		2007	2008	2009	2010	2011	2012	2013	2014
Crude Oil - RAC	Level ($)	67.04	92.77	59.17	75.86	102.63	101.09	98.11	89.56
	Percent Change	**13.6**	**38.4**	**(36.2)**	**28.2**	**35.3**	**(1.5)**	**(2.9)**	**(8.7)**
Crude Oil - WTI	Level ($)	72.34	99.67	61.95	79.48	94.88	94.05	97.98	93.26
	Percent Change	**9.5**	**37.8**	**(37.8)**	**28.3**	**19.4**	**(0.9)**	**4.2**	**(4.8)**
Crude Oil - Brent	Level ($)	72.44	96.94	61.74	79.61	111.26	111.63	108.56	99.02
	Percent Change	**11.2**	**33.8**	**(36.3)**	**28.9**	**39.8**	**0.3**	**(2.8)**	**(8.8)**
Natural Gas	Level ($)	6.97	8.86	3.94	4.37	4.00	2.75	3.73	4.39
	Percent Change	**3.3**	**27.1**	**(55.5)**	**10.9**	**(8.5)**	**(31.3)**	**35.6**	**17.7**
Heating Oil	Level ($)	2.03	2.86	1.65	2.13	2.95	3.02	2.92	2.70
	Percent Change	**12.8**	**40.6**	**(42.3)**	**29.2**	**38.6**	**2.4**	**(3.3)**	**(7.5)**
Gasoline	Level ($)	2.80	3.25	2.35	2.78	3.52	3.62	3.51	3.36
	Percent Change	**8.8**	**16.1**	**(27.5)**	**18.1**	**26.6**	**2.8**	**(3.0)**	**(4.3)**

Note: All price levels are nominal. Oil prices are dollars per barrel. The Refiner Acquisition Cost (RAC) of oil is a volume weighted average price of imported oils. Natural gas figures are average of monthly Henry Hub Spot Price, dollars per thousand cubic feet; heating oil figures are for No. 2 heating oil, NY Harbor Spot Price, dollars per gallon; gasoline prices are for retail, regular grade, dollars per gallon.
Source: U.S. Energy Information Administration.

[34] U.S. Bureau of Labor Statistics.

[35] Ben Leubsdorf, "Gas Prices Fuel Pickup in Inflation," *Wall Street Journal*, July 23, 2014, page A2.

levels. Gasoline prices were relatively flat compared to 2012. Gasoline consumption in the U.S. declined in 2013 relative to 2012. The Energy Information Administration (EIA) attributes the changes in gasoline use to several factors, including relatively lower gasoline prices being outweighed by downward pressure from slow economic growth, and vehicle efficiency. Currently, lower price levels that spur increased demand are being offset by increases in vehicle efficiency.[36]

Until the fourth quarter of 2014, oil prices in particular remained at high levels when compared to historical values; although oil prices are below the 2008 level and are down roughly fifty percent since June 2014, volatility in oil prices remains a concern (see Figure 38). However, during the most recent period of low price volatility, rising U.S. crude oil production and weaker-than-expected non-U.S. global demand have contributed to downward pressure on oil prices. In addition, rising U.S. oil production has helped offset supply disruptions in other parts of the world.[37]

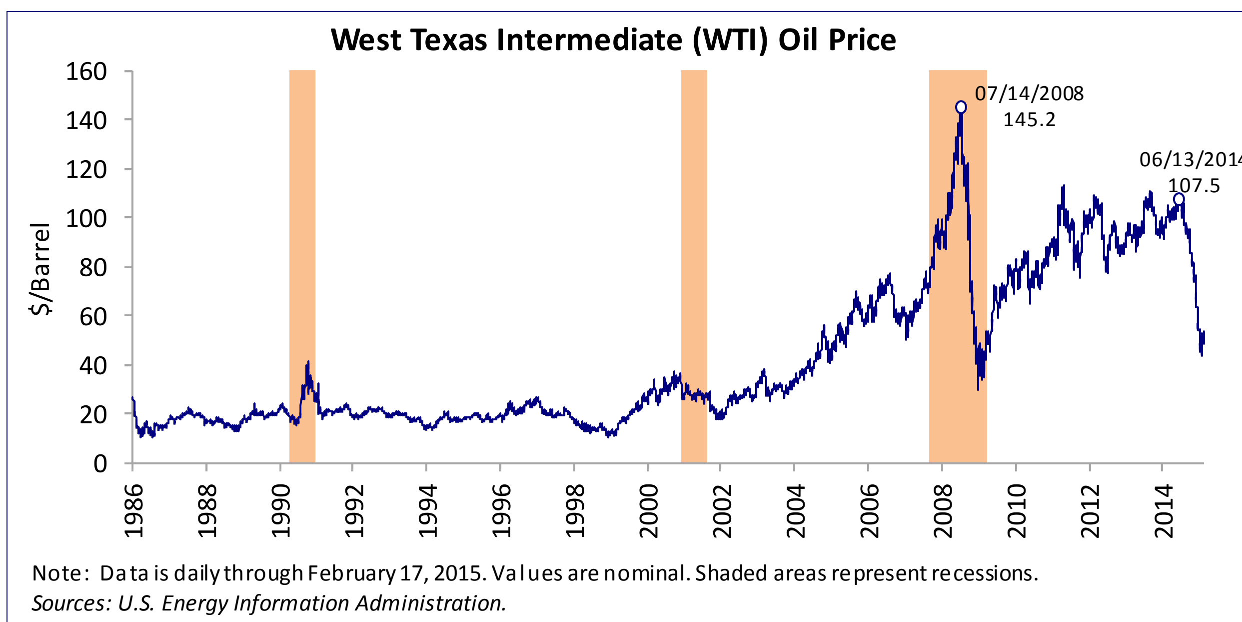


Figure 38

[36] U.S. Energy Information Administration, "What Is Driving the Declining U.S. Gasoline Consumption?" *This Week in Petroleum,* September 5, 2013, http://www.eia.gov/oog/info/twip/twiparch/2013/130905/twipprint.html.

[37] Keith Johnson and Russell Gold, "U.S. Oil Notches Record Growth," *Wall Street Journal*, updated June 12, 2013, Business Section, http://online.wsj.com. Also see: U.S. Energy Information Administration, Petroleum & Other Liquids, "Weak Demand, Plentiful Supply Drive Recent Decline In Oil Prices," *This Week in Petroleum*, September 24, 2014, http://www.eia.gov/petroleum/weekly/archive/2014/140924/includes/analysis_print.cfm.

According to the Energy Information Administration, total U.S. crude oil production is forecast to increase from an average of 8.7 million barrels per day in 2014, to 9.3 million barrels per day in 2015. If achieved, the 2015 forecast would be the highest annual average crude oil production since 1972. The growth in domestic liquids production has contributed to a significant decline in petroleum imports. The share of total U.S. petroleum and other liquids consumption met by net imports fell from 60 percent in 2005 to an estimated 27 percent in 2014. The U.S. Energy Information Administration (EIA) expects the net import share to decline to 20 percent in 2016, which would be the lowest level since 1968.[38]

Thus, the U.S. reliance on foreign imports to meet demand has been declining since 2005. Not only has U.S. oil production been increasing, but U.S. energy consumption has also been on the decline. Soft economic growth, reduced demand from relatively higher prices, and increased fuel efficiency may all be playing a role in lessening demand for oil in the U.S.

Corporate Profits

Corporate profits fell an estimated 0.6 percent in 2014, following increases of 4.2 percent in 2013, and 11.4 percent in 2012 (see Figure 39). Profit growth at domestic and U.S firms abroad slowed significantly in the fourth quarter of 2013 and first quarter of 2014, in part

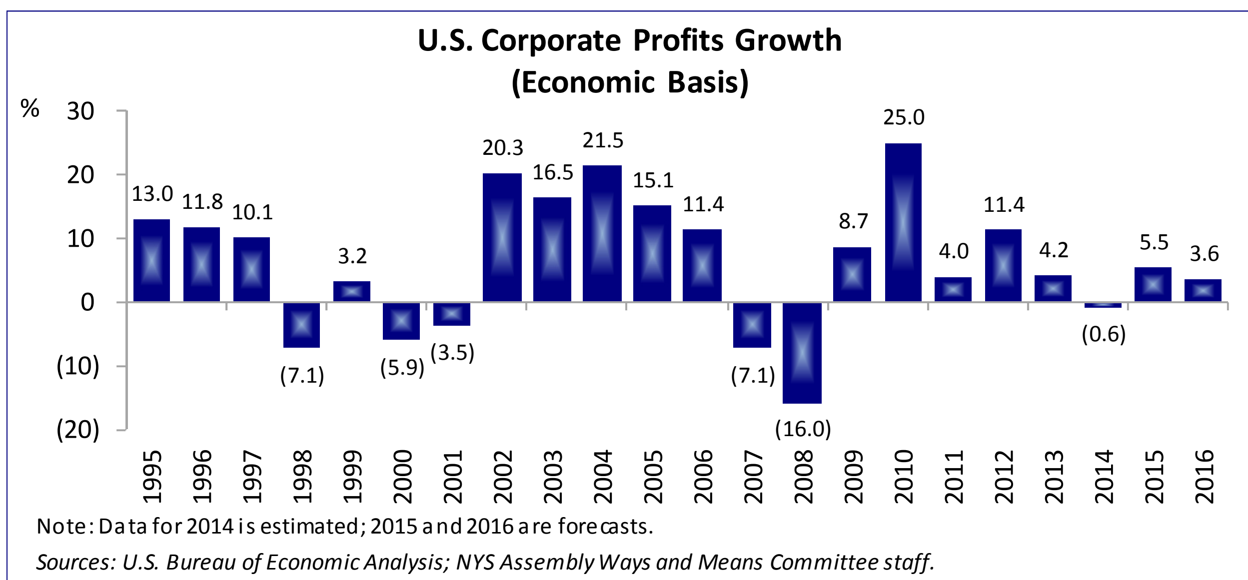


Figure 39

[38] U.S. Energy Information Administration, *Short-Term Energy Outlook*, September 9, 2014, November 12, 2014, December 9, 2014, and January 13, 2015.

reflecting a fall in productivity at domestic firms and a decline in overall economic growth in the U.S., compounded by adverse weather conditions. After suffering significant losses in the first quarter of 2014, domestic financial and nonfinancial firms have since become profitable. Profits at U.S. firms abroad returned to growth in the third quarter despite slow global economic growth in many parts of the world.

U.S. firms were increasingly profitable after 2001. The impact of the last recession was quickly erased by a surge in 2010 (see Figure 40). In contrast to the rise prior to the recession, however, corporate profit growth slowed consistently thereafter, remaining well below the average for the previous decade. Looking ahead, overall corporate profits are forecast to grow 5.5 percent in 2015, and 3.6 percent the following year.

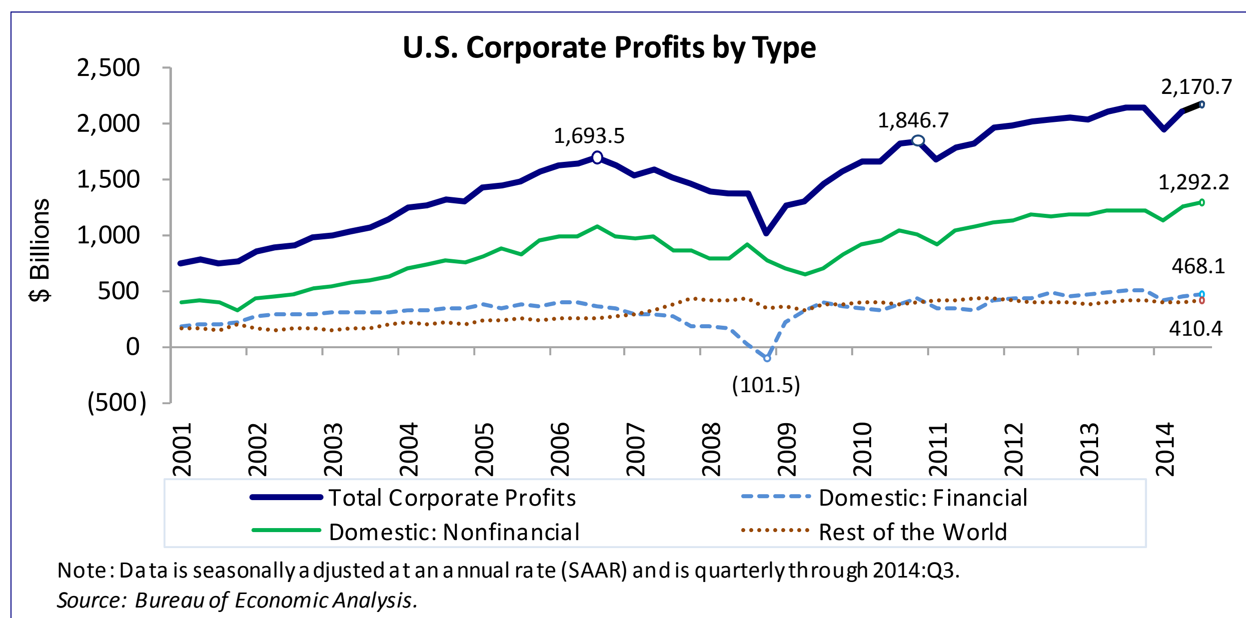


Figure 40

The share of corporate profits in national income has remained at historically high levels in recent years approaching 15 percent in 2013, before dropping in the first quarter of 2014 (see Figure 41). As employment improves and unemployment recedes, higher wages are likely, restraining profitability. The share of corporate profits in U.S. national income is expected to decrease slowly during the forecast period. This fall would accelerate if the pace of wage growth were to increase.

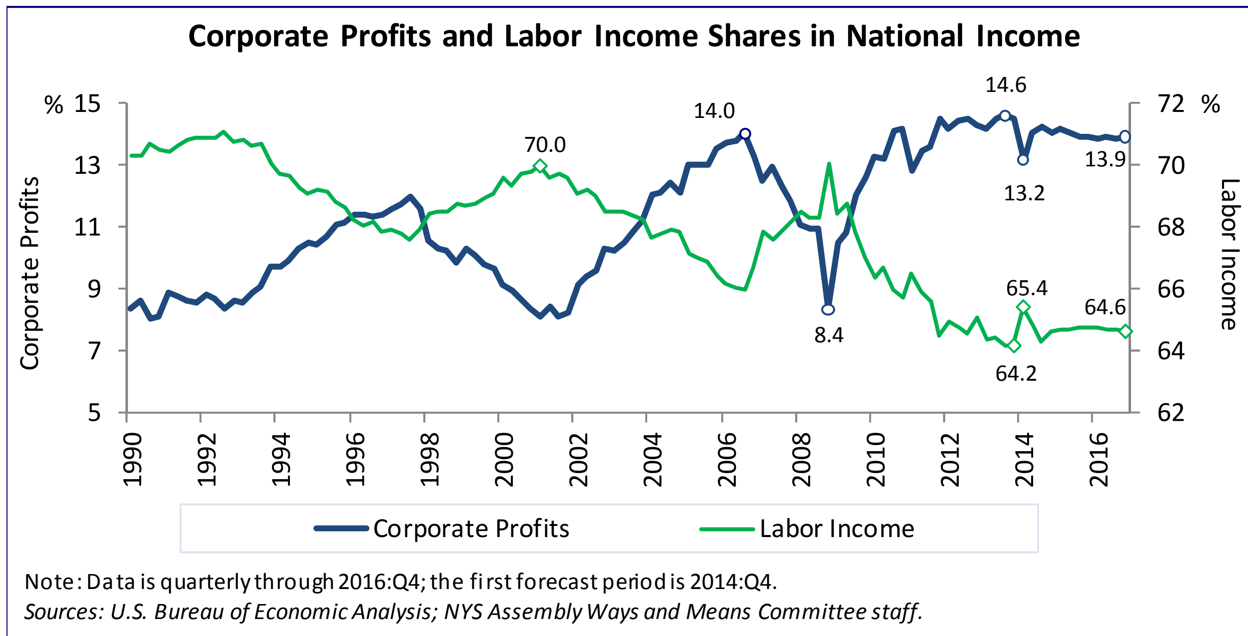
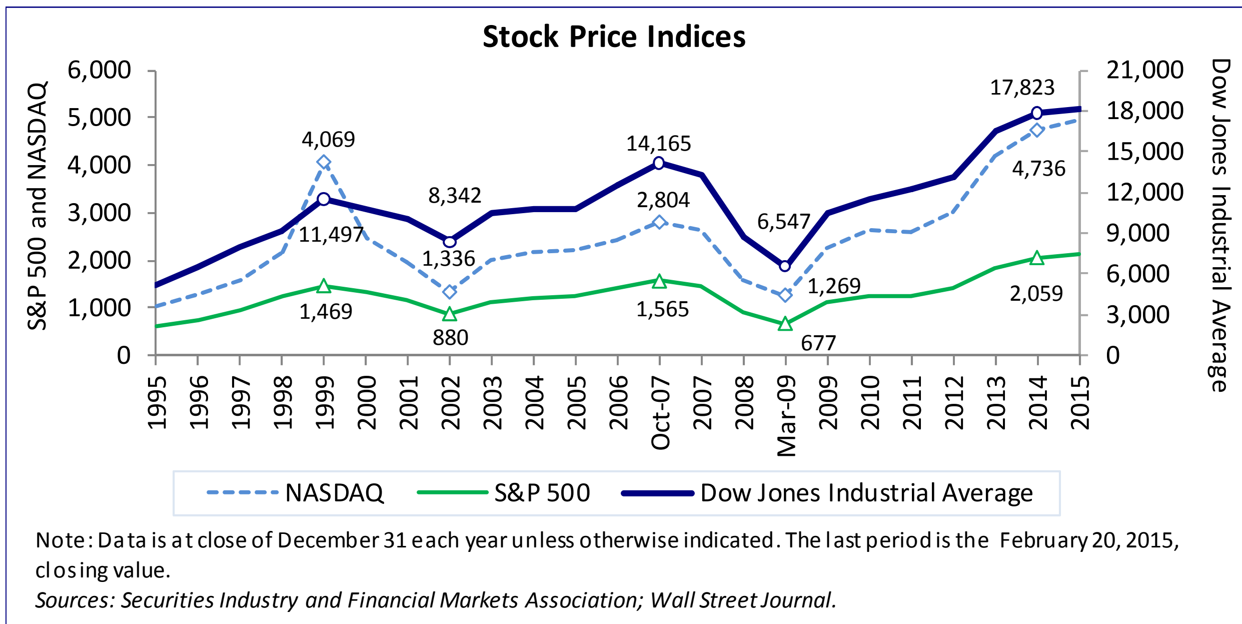


Figure 41

Stock Market

The stock market has rebounded strongly after plunging to its most recent trough during the Great Recession. Lower interest rates and improving economic conditions have helped boost equity markets as investors have moved into riskier investments that yield higher returns. In addition, corporate profits have gained for five consecutive years, further supporting equity gains.

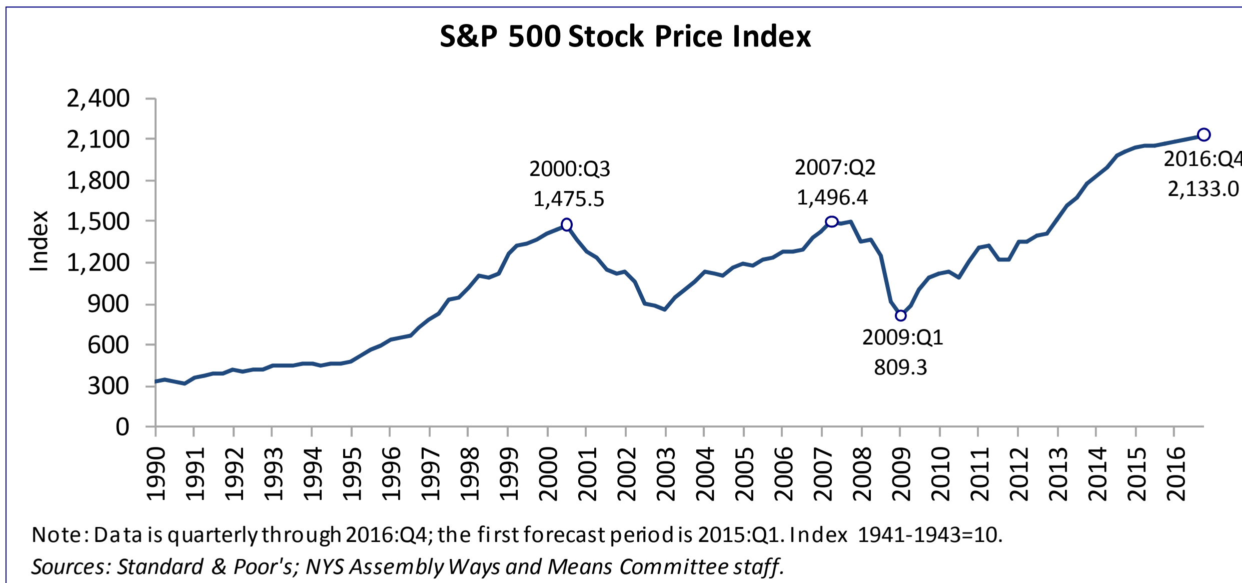
The market grew rapidly from its trough in March 2009, and by the end of 2009 the S&P 500 Stock Price Index (S&P 500) had increased almost 50 percent. Stock prices continued to rise moderately after 2009, while corporate profits increased strongly. By the end of 2010, corporate profits had already surpassed their pre-recession level. In addition, the S&P 500 price to earnings ratio (P/E ratio) had come down to below what it was during most of 1991 through 2010, signaling that equity was a good investment. Despite several corrections and setbacks as a result of global events that raised uncertainty (such as the European debt crisis, unrest in the Middle East and North Africa, and a natural disaster in Japan), the market continued to gain steadily. All stock market indices surpassed their previous peak in mid-2013 (see Figure 42), subsequently pushing the P/E ratio up in the second half of 2013.



Note: Data is at close of December 31 each year unless otherwise indicated. The last period is the February 20, 2015, closing value.
Sources: Securities Industry and Financial Markets Association; Wall Street Journal.

Figure 42

The stock market is expected to continue to improve throughout the forecast period (see Figure 43). The S&P 500 averaged 1,642.5 points in 2013, a growth of 19.1 percent from 2012, and averaged 1,930.7 for 2014, or grew by 17.5 percent. The S&P 500 hit an all-time high close of 2,110.3 on February 20, 2015. With interest rates expected to rise, more funds may flow from equity markets to bonds resulting in reduced demand and downward pressure on equity prices. However, since U.S. corporations are expected to be more profitable than foreign



Note: Data is quarterly through 2016:Q4; the first forecast period is 2015:Q1. Index 1941-1943=10.
Sources: Standard & Poor's; NYS Assembly Ways and Means Committee staff.

Figure 43

companies, the S&P 500 will continue to grow, albeit at a reduced rate. Hence, as the economy continues to improve, the Index is forecast to grow by 6.4 percent in 2015 and another 2.8 percent in 2016.

Looking forward, however, the market is facing several headwinds and high uncertainty remains. The recent challenges to and questions regarding the health of the global recovery; slowing corporate earnings; uncertainty related to U.S. fiscal policy; and the Federal Reserve's monetary policy pose risks to the stock market outlook (see the next section entitled "Interest Rates").

Interest Rates

The Federal Reserve has held the federal funds target rate at 0.0 to 0.25 percent since December 16, 2008, the lowest level on record. As a result, the federal funds rate, which averaged 5.0 percent in 2006 and 2007, averaged only 0.2 percent in 2009 and 2010, and fell to 0.1 percent in 2011, 2012 and 2013.

In December 2012, the Federal Reserve announced that they would link future rate changes to the threshold levels of unemployment and inflation.[39] In July 2013, the Federal Reserve indicated that they would start winding down the $85 billion per month bond-buying program (QE3), which has been in place since September 2012.[40] However, at the December 2013 and January 2014 meetings, the Federal Reserve decided to modestly scale back the pace of its asset purchase targets and continued to do so thereafter. The Federal Reserve announced the final reduction in QE3 in October 2014.

The exit road for short-term interest rates is not likely to be smooth or even well defined, like the mid-1990s or 2000s experience. The exit policy is starting from a position of zero interest rates and a set of financial assets priced off very low Treasury benchmark yields for several years running. Prominent analysts suspect that the upward move in the federal funds rate is likely to reflect a more "stop and go" path than a smooth, upward drift.[41]

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[39] The Federal Reserve will hold the rate unchanged until the unemployment rate falls to 6.5 percent or inflation is forecast to reach 2.5 percent. See Board of Governors of the Federal Reserve System and the Federal Open Market Committee, minutes of the Committee meeting held on December 11-12, 2012, release date January 3, 2013.

[40] The program originally included the Federal Reserve buying mortgage-backed securities at a pace of $40 billion per month and longer-term Treasury securities at a pace of $45 billion per month.

[41] Wells Fargo Economic Group, Charlotte, NC, cited in Blue Chip International Consensus Forecasts, *Blue Chip Economic Indicators*, vol. 39, no. 9, September 10, 2014.

As the unemployment rate continues its gradual downward movement, and current and longer-term inflation expectations remain stable, the current forecast assumes that the Federal Reserve will maintain the rate within the current target range through mid-2015 (see Figure 44). After averaging near zero percent in the past four years, the federal funds rate is forecast to start rising in mid-2015, averaging 0.3 percent in 2015 and 1.7 percent in 2016. Similarly, the three-month Treasury bill yield is forecast to average 0.3 percent in 2015 and 1.7 percent in 2016.

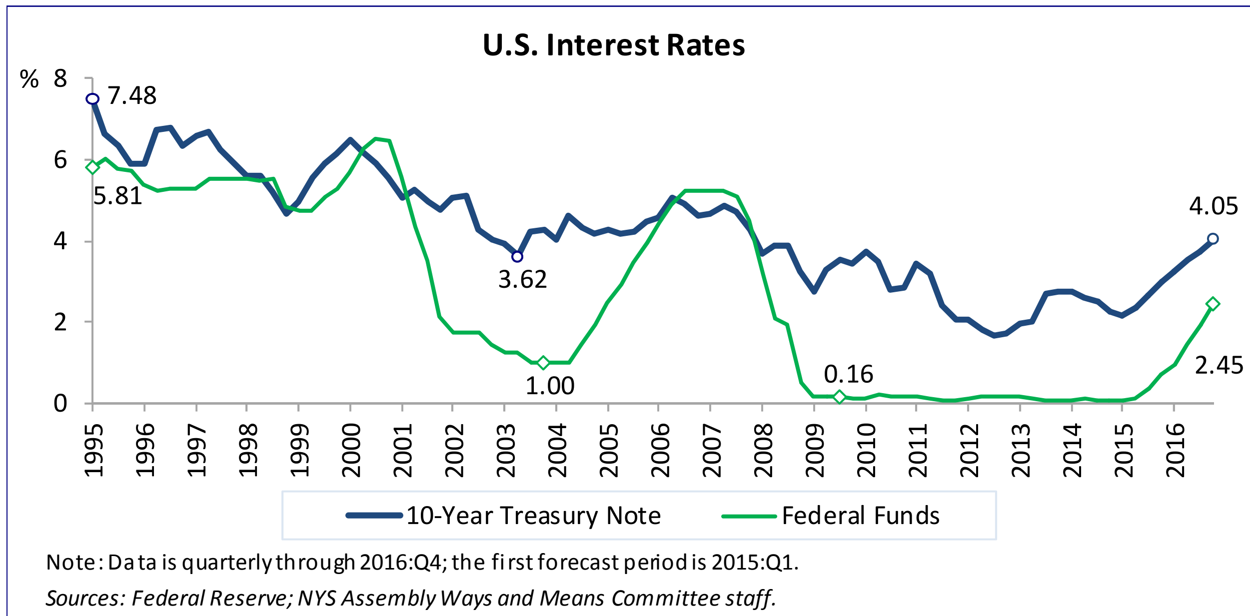


Figure 44

The global recession and the debt crisis in Europe that emerged in late 2009 caused investors to shift their investments to U.S. Treasury securities, which put downward pressure on bond yields.[42] The 10-year Treasury rate, which averaged almost 5 percent in 2006, averaged below 4 percent between 2008 and 2010. Additional domestic demand for long-term U.S. Treasuries under the quantitative easing policies continued to help maintain low long-term interest rates. As a result, Treasury security yields remained low in 2011, 2012, and 2013. The 10-year Treasury rate averaged 2.8 percent in 2011 and fell further to 1.8 percent in 2012; it rose to 2.4 percent in 2013. The 10-year Treasury rate averaged 2.5 percent in 2014. The ending of quantitative easing policies was expected to lead to higher interest rates but foreign investor demand kept rates lower.

[42] As interest rates had been so low, investors subsequently put relatively more money into the stock market as the economy improved, driving equity prices up.

In mid-2015, the federal funds rate is expected to increase, putting upward pressure on long-term interest rates. However, increased investor demand for U.S. securities due to global instabilities is anticipated to continue. As such, the 10-year Treasury rate is forecast to remain low at a yearly average of 2.3 percent in 2015, and then rise to 3.4 percent in 2016 as short-term rates increase.

The recent movement of long-term interest rates may indeed reflect a "flight to safety" by foreign investors, including those from Asia and Europe. These foreign buyers of large quantities of U.S. long-term bonds are seeking the safety and liquidity provided by U.S. securities. These global forces which are largely independent of the bond market expectations and returns, help keep the U.S. long-term interest rates relatively low. This has resulted in smaller spreads between short-term and long-term interest rates, reducing the profitability of the banks and their willingness to lend and extent credit.

Income and Wealth Inequality

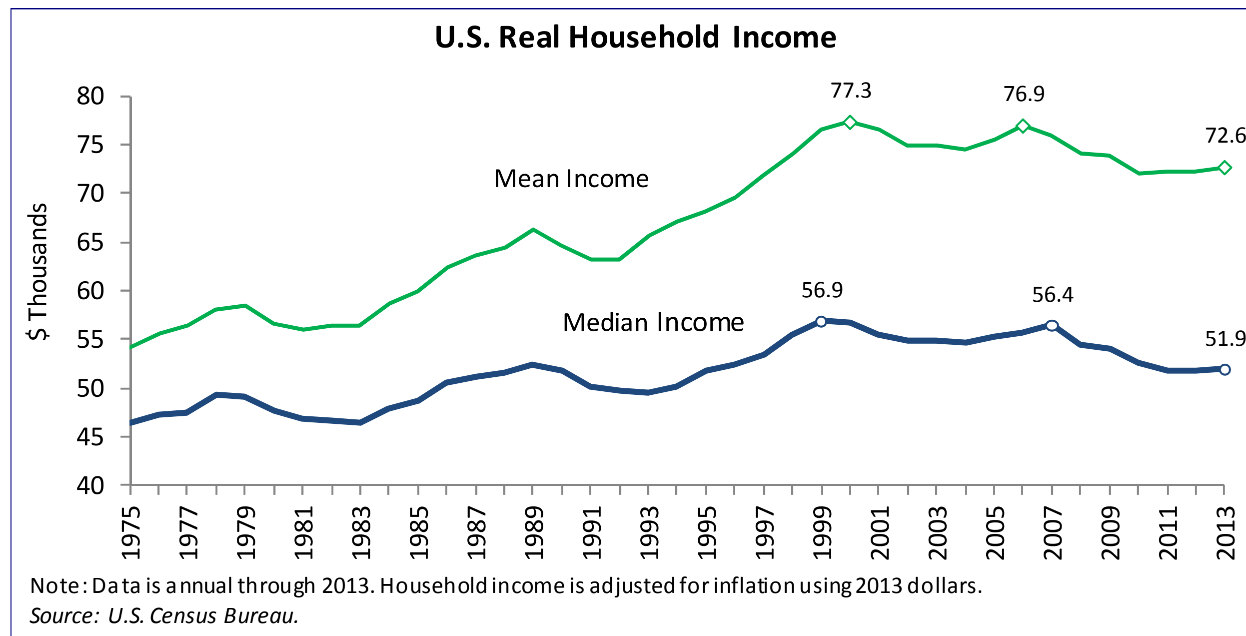
By 2013, the U.S. median household income had declined 8.7 percent to $51,939 from its 1999 peak, after adjusting for inflation.[43] This was the lowest level since 1995 (see Figure 45). Median household income stagnated after 1999 and decreased following the 2007-09 recession. However, recovery from the recession is not likely to change how income is distributed among households.

Income distribution in the U.S. has grown increasingly uneven after the 1970s.[44] Mean household income grew faster than the median until 1999 and the gap between the two measures of income remained approximately the same thereafter. This indicates that the distribution of income in the U.S. became increasingly skewed toward the higher income

[43] The Current Population Survey asks questions on the money income received by persons ages 15 and older in the preceding calendar year. Income information does not include items such as receipts from capital gains or in the form of non-cash benefits such as food stamps. Values are adjusted for inflation using the Bureau of Labor Statistics CPI-U-RS (Research Series), which estimates the CPI for all urban consumers while taking into account most of the improvements made to the CPI over the period covered by the series. See U.S. Department of Labor, Bureau of Labor Statistics, "Updated CPI-U-RS, All Items and All items less food and Energy, 1978-2010," March 2011, http://www.bls.gov/cpi/cpirsinfo.pdf.

[44] Emmanuel Saez, "Striking it Richer: The Evolution of Top Incomes in the United States", *UC Berkeley*, September 2013. On secular trends in income and wealth distribution in selected countries, see Thomas Piketty, "Capital in the Twenty-first Century," *The Belknap Press of Harvard University Press*, 2014.

categories for most of the period. After household income peaked in 1999, the persistent gap between mean income and median income suggests that the skewed shape of the income distribution changed little.



Note: Data is annual through 2013. Household income is adjusted for inflation using 2013 dollars.
Source: U.S. Census Bureau.

Figure 45

One measure of the degree of income inequality is the Gini coefficient. A value of zero for the coefficient implies total equality, where income is distributed equally between all households; and a value of one suggests maximal inequality, where one household has all the income while all others have none. Hence, a higher Gini coefficient value indicates a greater departure from equal distribution. Income inequality in the U.S. was at its highest point in 2011, with a coefficient value of 0.477, since hitting a low of 0.386 in 1968 (see Figure 46). The Index has changed little after 2011, standing at 0.476 in 2013.[45]

The Gini coefficient for New York State has consistently been higher than for the U.S. as a whole since 2006. It reached 0.510 in 2013. The measure of inequality of the income distribution declined slightly after 2007 and started to rise again in 2013.

[45] The abrupt change in measures of income distribution inequality series observable in 1992-1993 is attributable to changes in the data collection method which affected how households, particularly those at the upper end of the income distribution, reported income values in the Current Population Survey. This represents a break in the series. See Arthur F. Jones Jr. and Daniel H. Weinberg, "The Changing Shape of the Nation's Income Distribution, 1947-1998," *Current Population Reports*, U.S. Census Bureau, June 2000, pages 60-204, https://www.census.gov/prod/2000pubs/p60-204.pdf.

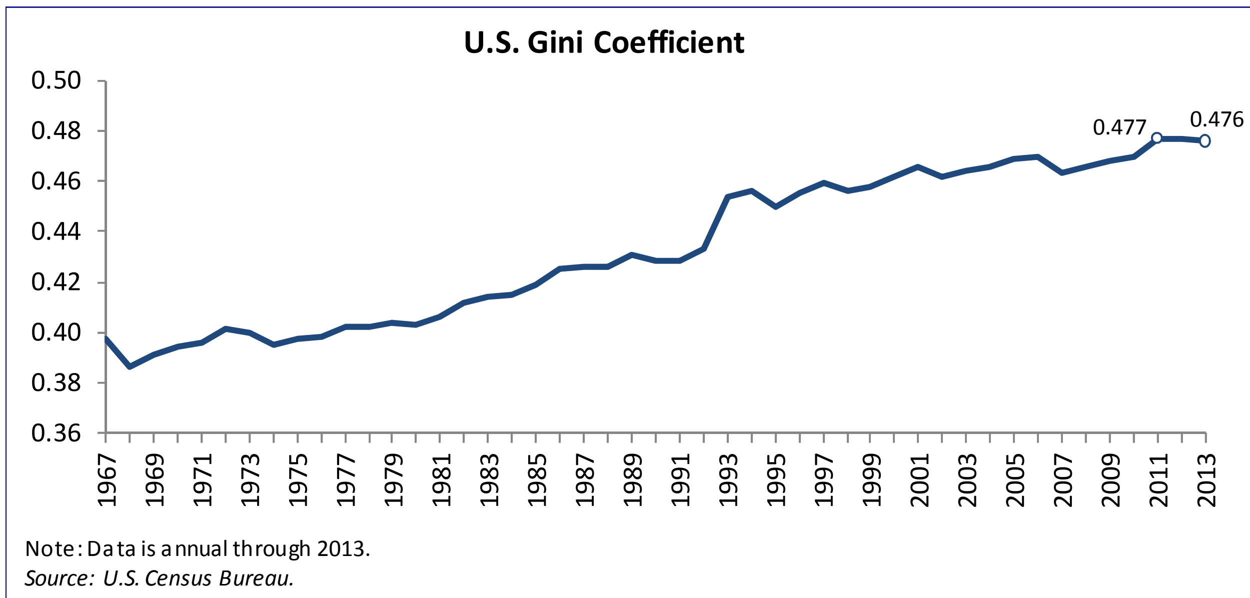


Figure 46

Income is not evenly distributed across all households and disparities have increased over time. Since 1968, the most affluent one-fifth of households has seen their share of aggregate income increase steadily. In particular, the average income of the top 5 percent of households in 1968 was over seventeen times that of the lowest quintile. By 2013, that ratio had risen to almost twenty-eight. The growing share of aggregate income accruing to the top 5 percent of households reflects that increase (see Figure 47). In contrast, the share of each of the four lowest quintiles of households has stagnated or decreased.

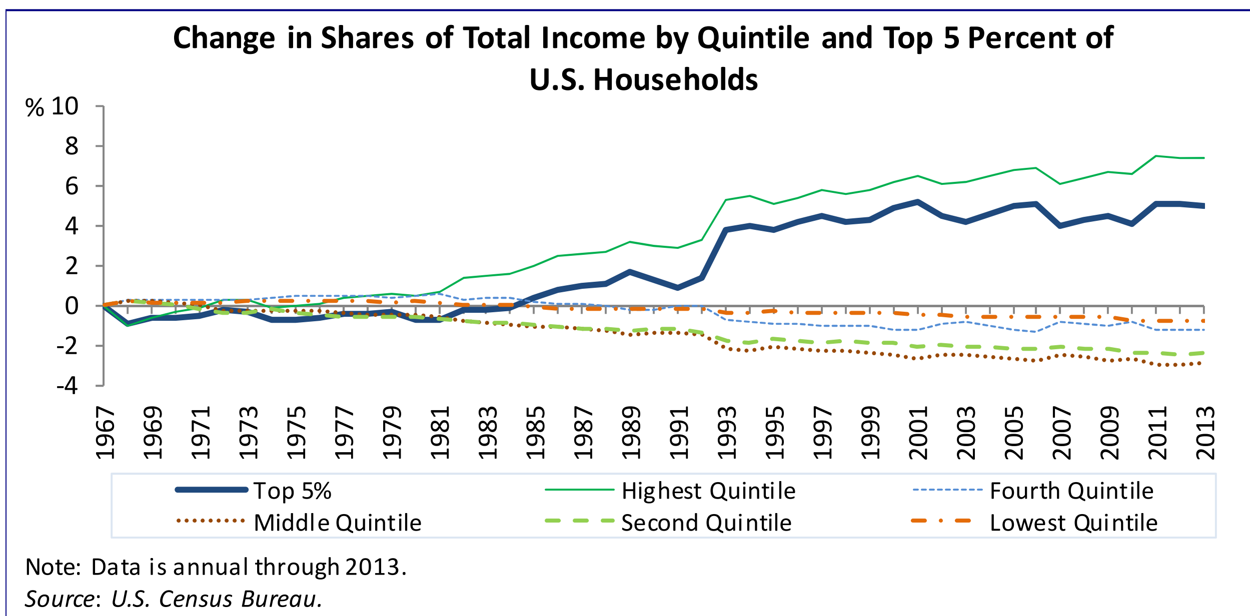


Figure 47

Another dimension of inequality involves the distribution of wealth among households in the U.S. In 2011, the median net worth of households was estimated at $68,828, about $5,000 less than in 2000 (see Figure 48). Yet, this decline did not affect households evenly during the intervening years. While the three lowest quintiles of households experienced a deterioration of their wealth status, with the bottom quintile sinking further into debt, the fourth and fifth quintiles of households saw their net worth rise, with faster growth for the top quintile. The decline of the net worth of the less affluent households is primarily attributable to the fall in the value of residential real estate after the 2007-09 recession.[46]

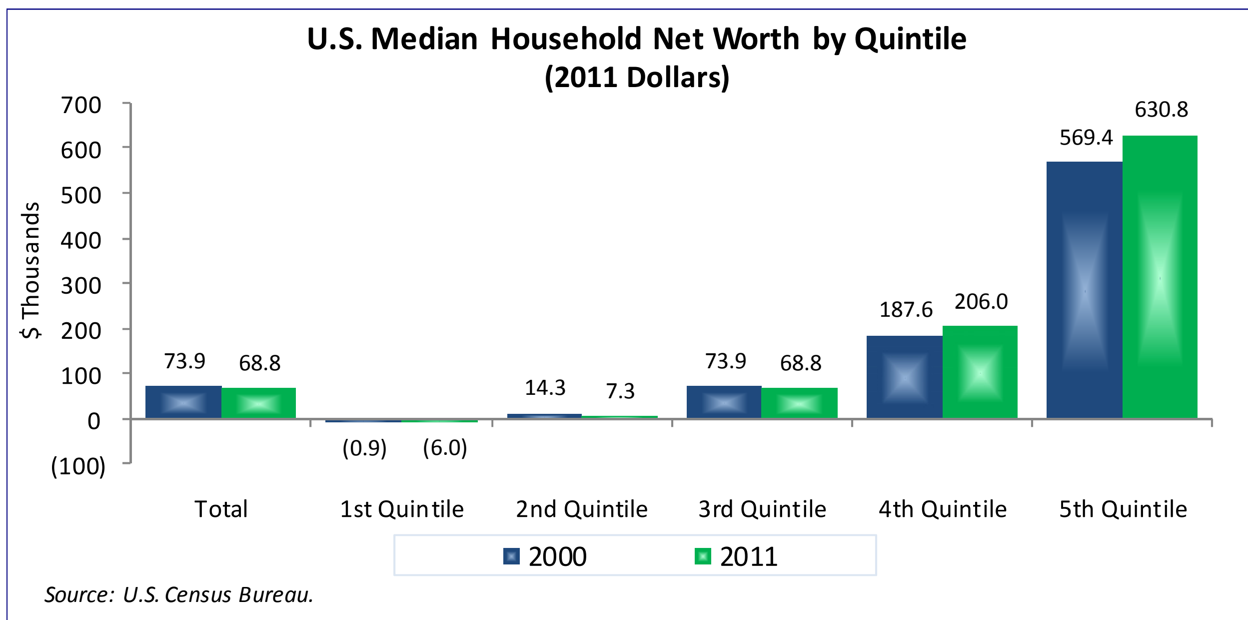


Figure 48

In sum, household income growth has benefited almost exclusively the most affluent households for a long period of time, an inequality compounded by the continued accumulation of wealth at the top with little or no wealth accumulation at the bottom. Households at the lower end of the income and wealth distributions have seen their economic wellbeing worsen, a trend underpinned by sluggish or absent wage growth and accelerated by income and asset

[46] Net worth is the sum of the market value of assets owned by every member of the household minus liabilities owed by household members. The major assets not covered here are equities in pension plans, the cash value of life insurance policies, and the value of home furnishing and jewelry. See Alfred Gottschalck, Marina Vornovitsky, and Adam Smith, "Household Wealth in the U.S.: 2000 to 2011," U.S. Census Bureau, http://www.census.gov/people/wealth/files/Wealth%20Highlights%202011.pdf.

losses during the last recession. This may partly explain why consumer spending remained subdued during the recovery from the Great Recession until recently.[47]

United States Forecast Comparison

The NYS Assembly Ways and Means Committee staff's forecast for overall national economic growth in 2015 is 2.9 percent (see Table 5). The staff's forecast is the same as the Division of the Budget's forecast, 0.7 percentage point below Moody's Economy.com, and 0.2 percentage point below Macroeconomic Advisers. The staff's forecast is 0.3 percentage point below the Blue Chip Consensus, and 0.1 percentage point below IHS Global Insight.

Table 5

U.S. Real GDP Forecast Comparison (Percent Change)

	Actual 2013	Estimate 2014	Forecast 2015	Forecast 2016
Ways and Means	2.2	2.4	2.9	2.8
Division of the Budget	2.2	2.4	2.9	2.8
Blue Chip Consensus	N/A	N/A	3.2	2.9
Moody's Economy.com	2.2	2.4	3.6	3.5
Macroeconomic Advisers	2.2	2.4	3.1	3.0
IHS Global Insight	2.2	2.4	3.0	2.7

Sources: NYS Assembly Ways and Means Committee staff; NYS Division of Budget, FY 2015 Executive Budget Financial Plan, February 2015; Blue Chip Economic Indicators, February 2015; Moody's Economy.com, February 2015; Macroeconomic Advisers LLC, February 2015; IHS Global Insight, February 2015.

The Assembly Ways and Means Committee staff's forecast for overall national economic growth in 2016 is 2.8 percent. The staff's forecast is the same as the Division of the Budget, 0.1 percentage point below Blue Chip Consensus forecasts, 0.2 percentage point below Macroeconomic Advisers, 0.7 percentage point below Moody's Economy.com, and 0.1 percentage point above IHS Global Insight.

[47] Ellen Zentner and Paula Campbell, "Inequality and Consumption," Morgan Stanley, Sept. 22, 2014, http://www.morganstanleyfa.com/public/projectfiles/02386f9f-409c-4cc9-bc6b-13574637ec1d.pdf

New York State Forecast

NEW YORK STATE FORECAST

New York State is the third largest state economy in the United States (behind California and Texas), with a Gross Domestic Product of $1.2 trillion in 2013.[48] The State's economy has total non-farm employment of over 8 million, spread over many sectors, with the highest concentrations in government, education and health, and finance and insurance. Regionally, New York State consists of two major economic development areas: upstate and downstate. Upstate New York consists of the northern most 48 of the 62 counties in New York. Economically, the two major regions are quite different, with downstate accounting for 69 percent of population in the State, 69 percent of employment, and 79 percent of wages (see Figure 49).

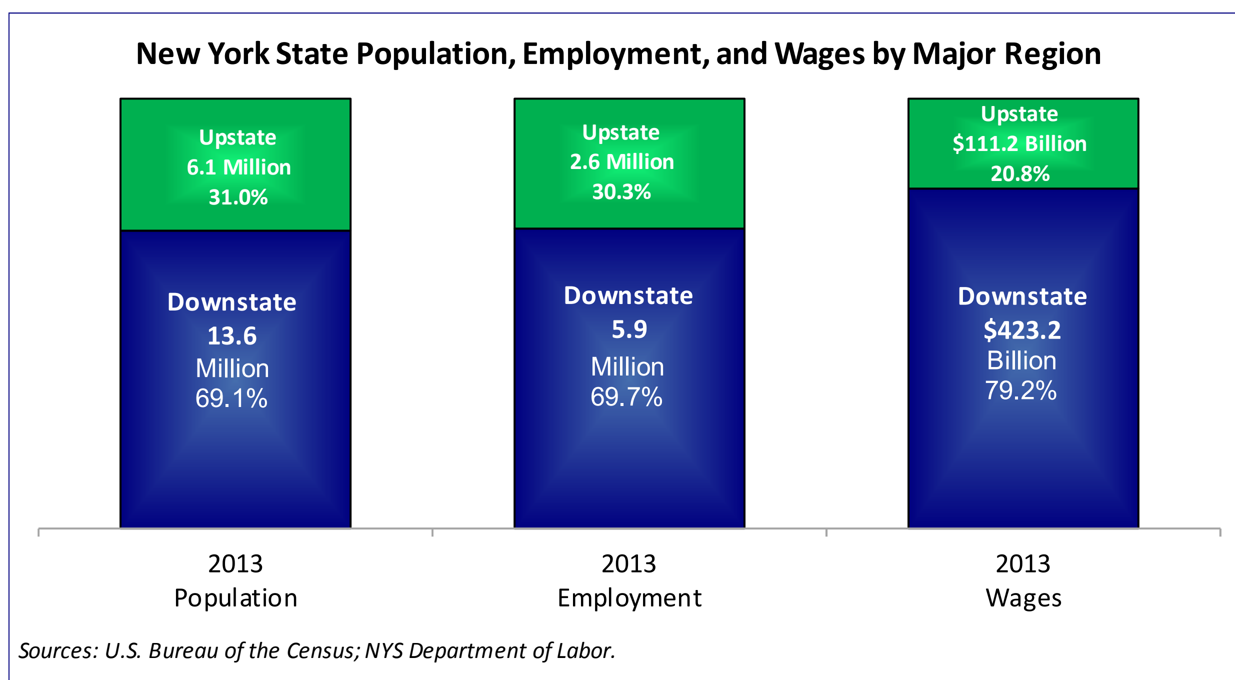


Figure 49

Along with the national economy, New York State's economy continues a slow, but steady, expansion. Employment has been growing since 2010, and while employment growth is slightly slower than employment growth for the nation, private employment in the State is at a

[48] U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Accounts, http://www.bea.gov/regional/index.htm, (accessed: October 22, 2014).

record-high level.[49] Wages have also been growing since 2010. Despite growing slightly slower than the nation in recent years, total wages in the State are poised to grow further in the forecast period as base wages grow along with employment, and variable wages respond to positive factors in the finance industry (see Figure 50).

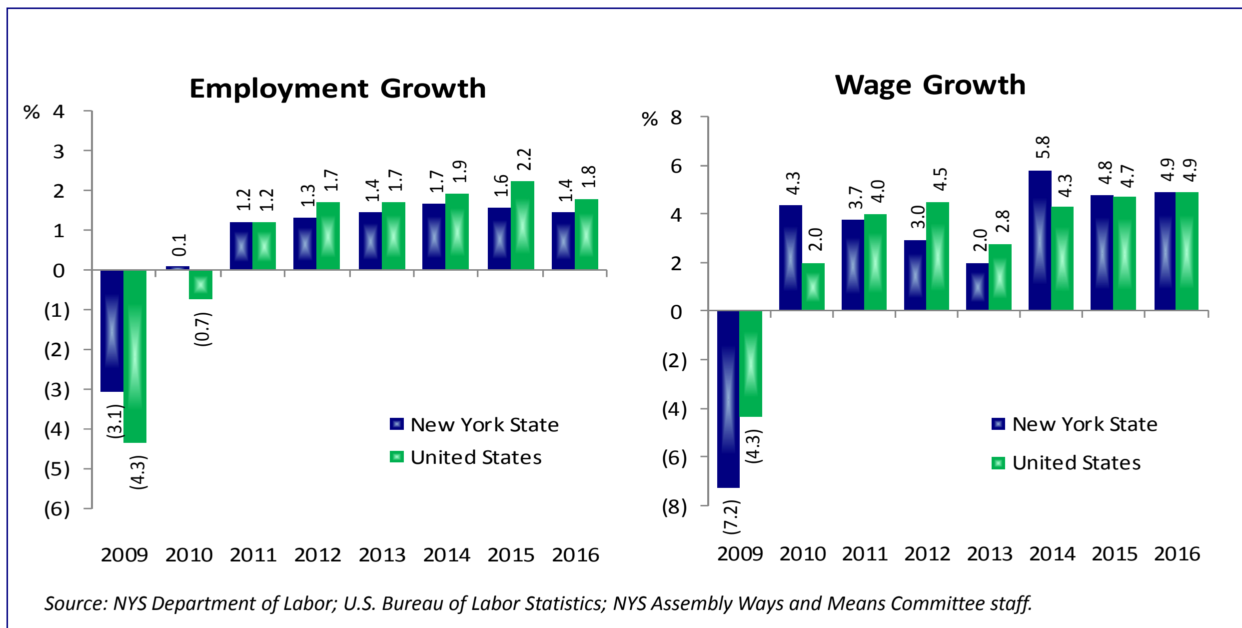


Figure 50

Wage growth has not reached the rates seen in 2006 and 2007, due to bonuses on Wall Street being significantly reined in since the financial crisis. Both variable wages and base wages are expected to contribute to the continued growth in wages (see Table 6).[50] Although variable wages accounted for only 9.9 percent of total wages in 2013, this contribution is important to total wage growth. Much of the wage outlook for the State remains dependent upon the

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[49] As measured by the U.S. Department of Labor, Bureau of Labor Statistics, *Current Employment Statistics Survey,* http://www.bls.gov/sae/ (accessed: October 22, 2014).

[50] Variable compensation figures are based on NYS Assembly Ways and Means Committee staff estimates. Variable compensation consists primarily of cash bonuses and exercised stock options. There is no known series of data for state or national variable compensation. The Committee staff estimates variable compensation based on seasonal variations in wage patterns. These seasonal patterns are analyzed at the North American Industry Classification System (NAICS) three-digit level. The growth in this variation over time is also accounted for in the estimate. Since this estimate is based on seasonal variation, it may underestimate bonuses and commissions that come at frequent intervals throughout the year. It also may underestimate stock options to the extent that they are exercised throughout the year. On the other hand, in some cases non-variable pay may be included in variable compensation if there are regular seasonal patterns (e.g., if overtime regularly occurs in a certain quarter). Therefore, variable compensation contains high uncertainty—even in terms of the data history.

performance of the financial sector, where significant risks exist. Personal income is expected to grow 4.7 percent in 2015 and 5.0 percent in 2016, growing at a rate close to those experienced in previous recoveries. As wage income accounts for about half of personal income, the growth pattern of wages will significantly impact personal income growth going forward.

Table 6

New York State Economic Outlook
(Percent Change)

	Actual 2012	Actual 2013	Estimate 2014	Forecast 2015	Forecast 2016
Employment	1.3	1.4	1.7	1.6	1.4
Personal Income	4.6	0.9	4.5	4.7	5.0
Total Wages [calendar year basis]	3.0	2.0	5.8	4.8	4.9
Base Wages	3.1	3.5	4.1	4.3	4.3
Variable Compensation	1.5	(10.2)	21.8	8.3	9.3
Total Wages [fiscal year basis]	3.0	4.2	4.7	4.8	4.9
Base Wages	2.9	3.6	4.1	4.4	4.4
Variable Compensation	3.1	8.9	9.9	7.9	9.1
New York Area CPI	2.0	1.7	1.3	0.4	1.9

Note: Base wages and variable compensation are estimated by the NYS Assembly Ways and Means Committee staff and sum to total wages. New York area CPI is based on the New York-Northern NJ-Long Island, NY-NJ-CT-PA CPI-U series from the U.S. Bureau of Labor Statistics. For fiscal year variables, 2012 represents SFY 2012-13, etc.

Sources: U.S. Bureau of Economic Analysis; NYS Department of Labor; U.S. Bureau of Labor Statistics; NYS Assembly Ways and Means Committee staff.

Employment

During the two decades prior to the 2007-09 recession, employment growth in New York State almost always lagged that of the nation. Nonfarm payroll employment in the State grew only 6.3 percent from 1990 to 2007, compared to 25.9 percent nationwide as employment growth was slower than in the nation in almost all sectors (see Table 7). The only two sectors in which the State outperformed the nation in employment growth during this period were management and other services sectors. New York employment in the management sector grew 31.5 percent from 1990 to 2007, compared to 11.9 percent in the nation. Similarly, employment in the other services sector grew 30.3 percent in the State compared to 28.9 percent nationwide. The State also experienced a much faster decline in

employment than the nation in the manufacturing sector, which was the third largest sector in the State in 1990, but slipped to seventh in 2007.

During the Great Recession and the early stage of recovery, however, New York State employment outperformed that of the nation four years in a row from 2007 to 2010. During this period, State employment outperformed the nation in most sectors, especially in the construction sector, where employment loss in the State was much less than in the nation as the New York housing market fared better than that of the nation. Between 2010 and 2014, New York State nonfarm employment grew at a slower rate than that of the nation, but the disparity was much smaller than in the pre-recession period (see Table 7).

Table 7

New York State vs. U.S. Employment Change by Sector (Percent Change)

	1990-2007		Recession 2007-2010		Recovery 2010-2014	
	New York State	U.S.	New York State	U.S.	New York State	U.S.
Total Nonfarm	**6.3**	**25.9**	**(1.9)**	**(5.6)**	**5.4**	**6.7**
Education & Health Care[1]	48.7	68.8	6.5	6.8	8.5	8.0
Professional and Business Services	31.8	75.1	(3.9)	(7.7)	13.1	14.0
Management	31.5	11.9	1.9	0.3	5.0	15.8
Other Services[2]	30.3	28.9	0.4	(3.0)	7.0	4.5
Leisure & Hospitality	22.1	44.6	4.8	(2.9)	16.1	12.8
Real Estate, Rental, & Leasing	10.4	32.4	(5.0)	(10.8)	3.9	5.7
Construction	9.1	44.8	(12.9)	(27.7)	7.8	11.2
Retail Trade	3.8	17.7	(2.1)	(6.9)	7.5	6.4
Government	1.9	20.7	0.7	1.2	(4.8)	(2.8)
Information	(5.6)	12.8	(6.2)	(10.7)	2.6	1.2
Transportation & Utilities[3]	(8.6)	20.8	(4.6)	(6.9)	3.1	9.3
Finance & Insurance	(10.8)	24.2	(9.6)	(6.8)	1.0	3.0
Wholesale Trade	(13.5)	14.2	(8.6)	(9.4)	4.0	6.9
Manufacturing[4]	(43.8)	(21.6)	(17.1)	(16.9)	(2.2)	5.7

Note: Sector definitions are slightly different from other tables in this section.

[1] Includes only private employment. Public education and health care employment is included in the government sector.

[2] Does not include administrative, support, and waste management services.

[3] Transportation, warehousing, and utilities.

[4] Does not include mining.

Source: Bureau of Labor Statistics.

Nonfarm employment in the State entered the most recent downturn one quarter after the nation and started to rebound one quarter before the nation. From peak to trough, the State lost 3.6 percent of total jobs compared to 6.2 percent for the nation. In contrast, during the 2001 recession, New York lost 3.4 percent of total nonfarm employment from peak to trough (quarterly numbers), compared to a 2.0 percent loss for the nation.

New York State employment grew 1.2 percent in 2011, the same rate as national employment growth. Nonfarm employment in the State continued to grow at a slightly slower rate than in the nation in 2012 and 2013. As the State lost a substantially smaller percentage of jobs than the nation, total nonfarm payroll employment in the State surpassed its previous peak in late 2012. The nation did not fully regain its employment loss until mid-2014 (see Figure 51).

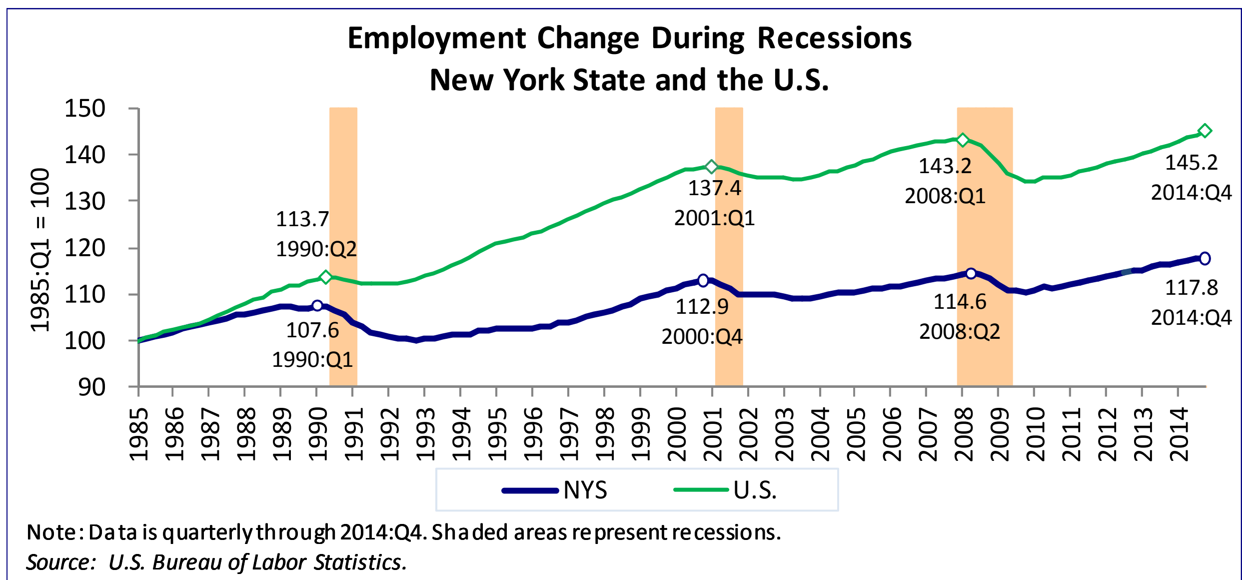

Figure 51

As the economy improves, employment in both New York State and the nation is forecast to continue to grow. However, as states that lost significant numbers of jobs regain employment, employment growth in New York lags the nation once again. Total nonfarm employment in the State is estimated to have grown 1.7 percent in 2014, compared to 1.9 percent nationwide. Nonfarm employment is forecast to grow at 1.6 percent in 2015 and 1.4 percent in 2016, while national employment is forecast to grow 2.2 percent in 2015 and 1.8 percent in 2016.

Unlike previous recoveries, when employment growth was relatively balanced among low- and high-paying sectors, the gains in employment during the current recovery have been mainly in lower paying sectors. From the first two quarters of 2009 to the first two quarters of 2014, four of the five sectors that posted the fastest annual employment growth were the sectors that had the lowest average wages in the State. In addition, a few sectors with average wage over $55,000 continued to lose jobs (see Table 8).

Table 8

New York State Nonfarm Employment Recovery by Sector

	2003-2008 (%)	2009-2014 (%)	Average Wage 2014 ($)
Total	**0.9**	**1.0**	**67,716**
Leisure & Hospitality	2.2	4.1	27,626
Retail Trade	1.0	1.6	31,840
Other Services[1]	1.1	2.0	40,583
Education & Health Care[2]	1.8	1.7	47,136
Transp. & Utilities[3]	1.1	0.3	56,335
Government	0.3	(1.3)	59,203
Construction	2.5	0.3	61,594
Manufacturing[4]	(2.6)	(1.5)	62,040
Real Estate, Rental, & Leasing	0.8	0.6	63,149
Wholesale Trade	0.0	0.2	77,140
Professional Services	3.0	1.8	100,015
Information	(1.0)	0.6	113,371
Management of Companies	1.8	1.3	156,579
Finance & Insurance	0.8	(0.3)	262,376

Note: Percentages are average annual growth rates. Growth for 2009-2014 is from the first two quarters of 2009 to the first two quarters of 2014 . Average wage is for the first two quarters of 2014.

[1] Including administrative, support, and waste management services.

[2] Includes only private employment. Public education and health care employment is included in the government sector.

[3] Transportation, warehousing, and utilities.

[4] Including mining.

Sources: NYS Department of Labor (QCEW); NYS Assembly Ways and Means Committee staff.

Improvement in the State's labor market during the current recovery has been driven mainly by employment growth in the service-providing sector. As of December 2014, the eightieth month since the previous employment peak, service-providing employment was

383,100 above its pre-recession peak, while goods-producing employment remained 127,900 below its prior peak (see Figure 52).[51]

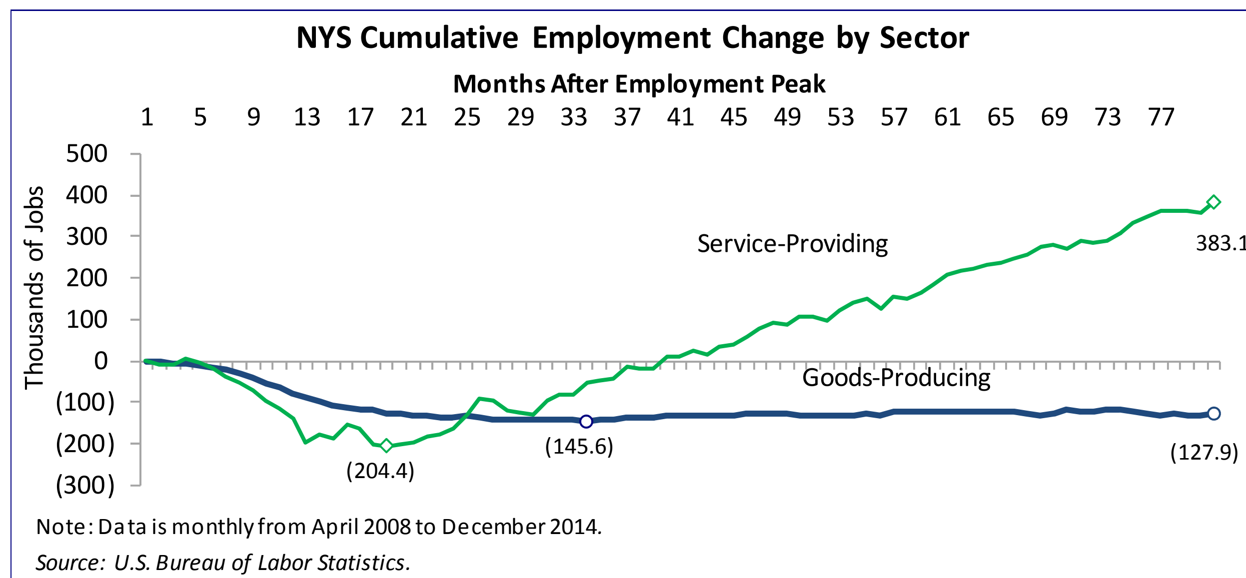

Figure 52

During the 2007-09 recession, New York performed better than most states, including other large states. After ranking fortieth among fifty states and the District of Columbia in employment growth in 2006, New York State ranked nineteenth in 2007, thirteenth in 2008. The State's ranking further improved to eighth in 2009, when the State growth rate surpassed all other states with comparatively large economies.[52] This was due in part to a more stable construction sector in New York. As employment in several states that lost a significantly higher percentage of jobs than New York has grown faster in recent years, the State has fallen in rank; New York State employment growth ranked thirteenth in 2011 and twenty-seventh in 2012. Employment growth in the State ranked twenty-sixth in 2013, before falling to thirty-first in 2014.

In terms of employment loss, the 2007-09 recession was milder in New York State than the two immediately preceding recessions. Although nonfarm employment loss was higher during the 2007-09 recession than during the 2001 recession, the employment recovery was much faster after the Great Recession (see Figure 53); 80 months after the employment peak,

[51] The service-providing sector accounted for 91.2 percent of New York State total nonfarm employment in 2013. This percentage was 89.6 percent during the 2007 recession, and 84.0 percent in 1990.

[52] Other comparatively large state economies include Texas, California, and Florida.

employment in the State surpassed its pre-recession peak. In contrast, 80 months after the 1990-91 recession, employment in the State remained at 296,600 jobs or 3.6 percent below its previous peak. At the end of the same period following the 2001-02 recession, the State's employment rose above its pre-recession peak level but only by 33,800 jobs or 0.4 percent.

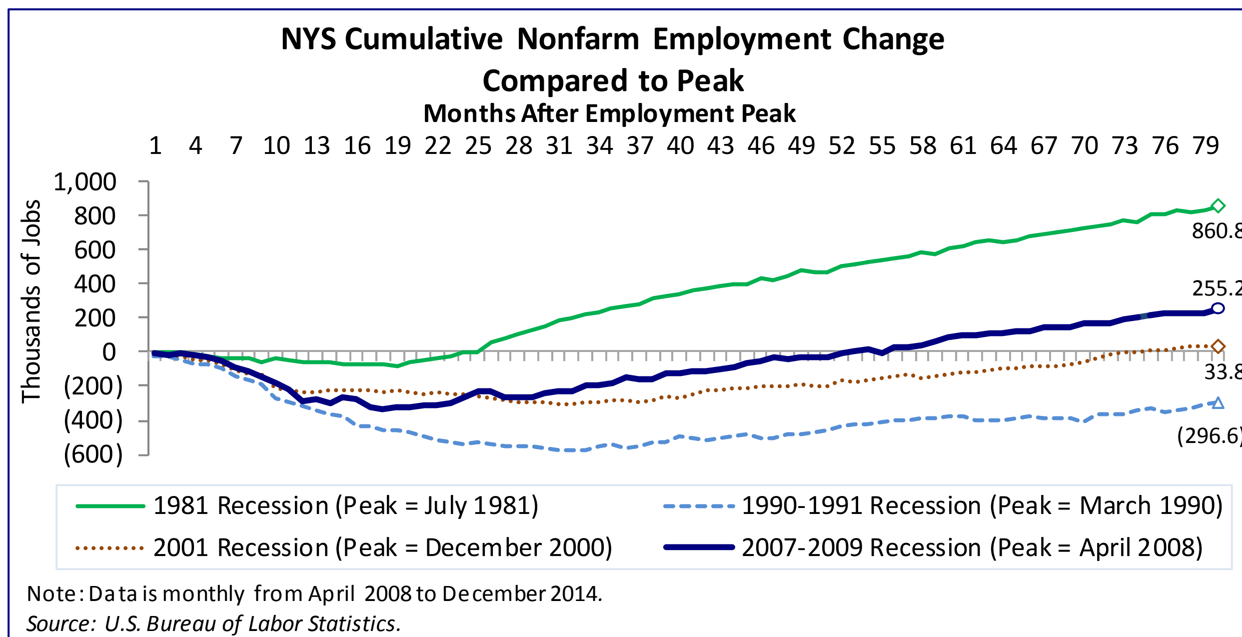

Figure 53

Sectoral Employment

All sectors, with the exception of education and health care, lost jobs during the last recession, led by the manufacturing sector. From 2008 to 2010, the manufacturing sector lost 14.3 percent or 76,850 jobs, which was about 30 percent of the State's total nonfarm job loss. Manufacturing employment rebounded in 2011, growing 0.2 percent due to growth in the durable goods industry. This gain was temporary as employment in the sector was flat in 2012, and started to fall again in 2013. The manufacturing sector is estimated to have lost 0.9 percent in 2014. It is forecast that manufacturing employment will continue to decline at a similar rate throughout the forecast period.

The education and health care sector was the only sector that gained employment during the last recession, and it has continued to grow. This sector's growth is expected to persist, as aging baby boomers will likely create more demand for health care services. The

education and health care sector is estimated to have grown 1.8 percent in 2014, and is forecast to grow by 1.8 percent in 2015 and another 1.7 percent in 2016 (see Table 9).[53]

Employment in all sectors, except the manufacturing and government sectors, has continued to recover steadily since the recession ended in 2009. Two sectors that have grown robustly in recent years are the leisure and hospitality sector and the professional services sector, particularly in downstate areas. The leisure and hospitality sector has benefited from the increasing number of visitors to the State, due partly to the weak dollar. After falling 8.0 percent in 2009, the number of international visitors to New York City increased by 29.5 percent from 8.8 million in 2009 to 11.4 million in 2013. Similarly, the number of domestic visitors to New York City increased 15.9 percent from 37 million visitors in 2009 to 42.9 million in visitors in 2013.[54] As a result, leisure and hospitality employment has grown the fastest among all sectors since 2010. Leisure and hospitality employment grew an estimated 4.0 percent in 2014. As the overall economy continues to improve, the sector is forecast to grow by 3.7 percent in 2015 and another 3.5 percent in 2016.

The professional services sector has also rebounded strongly during the current recovery as accounting and consulting firms have increased hiring in response to higher demand due to a global recovery and new laws and regulations. The region that has benefited the most from this hiring is New York City, where several big professional services firms are based. From the first quarter of 2010 to the first quarter of 2014, the State added 72,000 jobs in this sector, of which 50,200 jobs were in the New York City region. The professional services sector will likely continue to grow moderately throughout the forecast period.

The construction sector also rebounded strongly in 2013. The State gained 12,300 jobs or 3.9 percent in this sector in 2013, and is estimated to have grown 4.4 percent in 2014. Most of this gain occurred in the New York City and Long Island regions, which have been rebuilding from Superstorm Sandy that destroyed thousands of home and structures in 2012. As rebuilding activities continue and the housing market recovers, employment in this sector is expected to grow at 4.5 percent in 2015 then increase by 3.6 percent in 2016.

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[53] The sector designated as education and health in the New York State Forecast section in this report includes only private employment. Based on the data from New York State Department of Labor, as of December 2014, government education and health employment in New York State was 653,200, while private education and health employment was 1.9 million.

[54] NYC & Company Research Analytics, The Official Guide, *NYC Statistics*, 2006–2013, NYC & Company, Inc., http://www.nycgo.com/articles/nyc-statistics-page.

Budget constraints at all levels of government continue to put pressure on government employment. As a result, government employment declined five years in a row from 2009 to 2013, and is estimated to have fallen for the sixth year in 2014. This is the first time since 1991, when government employment fell seven years in a row, that employment in this sector fell for more than two consecutive years. Employment in this sector is expected to continue to decline in 2015. Government employment is forecast to decline 0.3 percent in 2015, before stabilizing in 2016 (see Table 9).

Table 9

New York State Nonfarm Employment by Sector (Percent Change)

	Recession 2009	Actual 2013	Estimated 2014	Forecast 2015	Forecast 2016
Total	**(3.1)**	**1.4**	**1.7**	**1.6**	**1.4**
Construction	(10.0)	3.9	4.4	4.5	3.6
Leisure & Hospitality	(0.9)	4.1	4.0	3.7	3.5
Transp. & Utilities[1]	(4.2)	0.3	2.9	1.0	0.8
Real Estate, Rental, & Leasing	(3.8)	1.6	2.7	2.9	2.6
Management of Companies	(0.7)	2.9	2.4	2.6	2.1
Professional Services	(4.3)	2.5	2.3	2.7	2.6
Other Services[2]	(5.0)	2.5	1.9	2.4	1.9
Education & Health Care[3]	1.7	1.7	1.8	1.8	1.7
Retail Trade	(3.8)	1.4	1.7	1.3	1.1
Information	(4.0)	0.5	1.6	0.3	0.2
Finance & Insurance	(7.2)	(0.8)	1.3	1.0	0.5
Wholesale Trade	(6.3)	0.2	0.7	0.7	0.7
Government	(0.2)	(0.6)	(0.4)	(0.3)	0.1
Manufacturing[4]	(10.9)	(0.7)	(0.9)	(0.8)	(0.9)

Note: Industries are ranked by 2014 employment growth; rankings are based on two decimal places.

[1] Transportation, warehousing, and utilities.

[2] Including administrative, support, and waste management services.

[3] Includes only private employment. Public education and health care employment is included in the government sector.

[4] Including mining.

Sources: NYS Department of Labor; NYS Assembly Ways and Means Committee staff.

New York State has seen significant change in its sectoral employment during the past several decades. The most notable are the education and health care sector and the manufacturing sector. Education and health care employment has been steadily increasing even during recessions. As this sector has continued to grow while others contracted, its share

of total nonfarm payroll employment in New York State has risen. In 1980, education and health care employment ranked fourth among all sectors in the State and accounted for less than 10 percent; this sector's share jumped to 19.1 percent and ranked first in 2013. Both upstate and downstate shared equally in this gain. Downstate, the employment share of education and health care grew from 9.6 percent in 1980 to 19.8 percent in 2013. Its rank jumped from fourth to first. Similarly, this sector's upstate employment share grew from 9.7 percent in 1980 (ranked fourth) to 18.5 percent in 2013 (ranked second behind the government sector).[55]

The manufacturing sector has also gone through a drastic change. Unlike the education and health care sector, the manufacturing sector has been losing jobs for the past few decades. In 1980, the manufacturing sector accounted for 17.1 percent of total New York State employment, the second largest employment share in the State behind the government sector. In 2013, this sector dropped to eighth in rank and accounted for only 5.3 percent of total nonfarm employment. This was due to a structural shift in the economy and other economic factors. The manufacturing sector has become less vital to the downstate economy than to upstate, in terms of both the number of jobs and share of total employment. In 1980, manufacturing was the second largest sector downstate, accounting for 13.9 percent of total employment. In 2013, the sector ranked eleventh and accounted for 3.3 percent of total employment downstate. Likewise, manufacturing was the largest sector upstate in 1980, accounting for 24.5 percent of total employment; this share dropped to 10.1 percent in 2013 and ranked fourth.

Regional Employment

In 2013, the largest region by employment in the State was New York City, which with employment of more than 3.8 million, accounted for over 40 percent of the State's total nonfarm employment. The smallest employment region was the North Country, which had 144,900 nonfarm jobs. The two largest sectors in all regions were the education and health care sector and the government sector, while in most regions the smallest sectors were the management of companies sector and the real estate, rental, and leasing sector.

Downstate regions were hit harder than upstate regions in the 2007-09 recession. On an annual basis, downstate lost 3.2 percent of its nonfarm employment or 182,600 jobs, compared to a loss of 2.8 percent or 75,200 jobs in upstate. However, downstate has recovered faster

[55] Downstate New York includes the New York, Long Island, and Mid-Hudson regions.

than upstate. From 2009 to 2013, downstate gained 5.8 percent in nonfarm jobs with all regions gaining jobs. In contrast, upstate employment remained flat during this period, with four of seven regions experiencing job loss. The Mohawk Valley and North Country regions lost the most jobs in terms of percentage from 2009 to 2013 (see Table 10).

Table 10

New York State Nonfarm Employment by Region 2008-2013

	2008		2009			2013		
	Employment (Thousands)	Share of Total State Employment (%)	Employment (Thousands)	Share of Total State Employment (%)	Employment Change 2008-2009 (%)	Employment (Thousands)	Share of Total State Employment (%)	Employment Change 2009-2013 (%)
New York State	**8,573.7**	**100.0**	**8,312.0**	**100.0**	**(3.1)**	**8,654.9**	**100.0**	**4.1**
Downstate	**5,783.4**	**67.5**	**5,600.9**	**67.4**	**(3.2)**	**5,925.8**	**68.5**	**5.8**
New York City	3,672.6	42.8	3,563.6	42.9	(3.0)	3,836.8	44.3	7.7
Long Island	1,221.0	14.2	1,179.3	14.2	(3.4)	1,221.8	14.1	3.6
Mid-Hudson	889.8	10.4	858.0	10.3	(3.6)	867.1	10.0	1.1
Upstate	**2,652.7**	**30.9**	**2,577.5**	**31.0**	**(2.8)**	**2,580.0**	**29.8**	**0.1**
Finger Lakes	542.9	6.3	527.1	6.3	(2.9)	534.0	6.2	1.3
Western New York	629.1	7.3	610.9	7.4	(2.9)	616.2	7.1	0.9
Capital	507.6	5.9	495.6	6.0	(2.4)	500.1	5.8	0.9
Central New York	348.8	4.1	337.7	4.1	(3.2)	336.0	3.9	(0.5)
Southern Tier	298.1	3.5	288.0	3.5	(3.4)	284.2	3.3	(1.3)
North Country	152.0	1.8	148.2	1.8	(2.5)	144.9	1.7	(2.2)
Mohawk Valley	174.2	2.0	169.9	2.0	(2.5)	164.6	1.9	(3.1)

Note: New York State total includes unclassified data.
Source: NYS Department of Labor.

During the Great Recession, one sector that lost the most jobs in both upstate and downstate was manufacturing; however, manufacturing accounted for a larger proportion of total upstate employment than that of downstate.[56] Downstate also lost significant numbers of jobs in the finance and insurance sector and the construction sector, while upstate experienced large employment losses in the other services sector and the retail trade sector.[57] Education and health employment continued to grow both in upstate and downstate throughout the recession and subsequent recovery.

[56] In 2013, manufacturing employment accounted for 10.1 percent of upstate nonfarm employment, 3.3 percent of downstate nonfarm employment, and 5.3 percent of total New York State nonfarm employment.
[57] The other services sector includes administrative and waste services, repair and maintenance services, personal and laundry services, and membership associations and organizations.

The employment recovery in upstate has lagged that in downstate due to a slower recovery in many large sectors. From 2009 to 2013, downstate gained employment in almost all sectors, especially in leisure and hospitality, education & health care, and retail trade sectors. In contrast, upstate experienced almost no job gain during this period as it continued to lose jobs in many sectors. Although government employment in the State did not fall much during the recession, due partly to fiscal stimulus funds from the federal government, employment in this sector has fallen through the recovery. This has been a significant drag to the employment recovery in upstate, as government employment accounts for almost 20 percent of its employment, compared to 14.4 percent in downstate.[58]

Personal Income and Wages

The growth of wages and personal income in New York State remains a central issue in the State economic outlook and revenue forecasts. The largest component of New York State personal income, wages, totaled $546.9 billion, and accounted for 8.2 percent of total wages paid in the United States in 2013. This is the third largest share of wages paid in any state, following California at 13.2 percent and Texas at 8.5 percent.[59] The State has typically been helped by strong growth in variable wages (bonuses) in the financial sector, as increases in variable compensation help drive wage growth in the State, leading to increases in personal income.

While personal income growth may be spurred by more or better paying jobs, in New York State the presence of high wage growth even in the absence of strong employment growth is a factor in driving personal income growth. Personal income and wages have grown at much higher rates than employment (see Figure 54).

[58] The regions with the largest share of government employment are the North Country, where government employment accounted for 29.6 percent of nonfarm employment in 2013, followed by the Mohawk Valley region at 24 percent.

[59] Wages are as reported by the U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), http://www.bls.gov/cew/ (accessed: October 22, 2014).

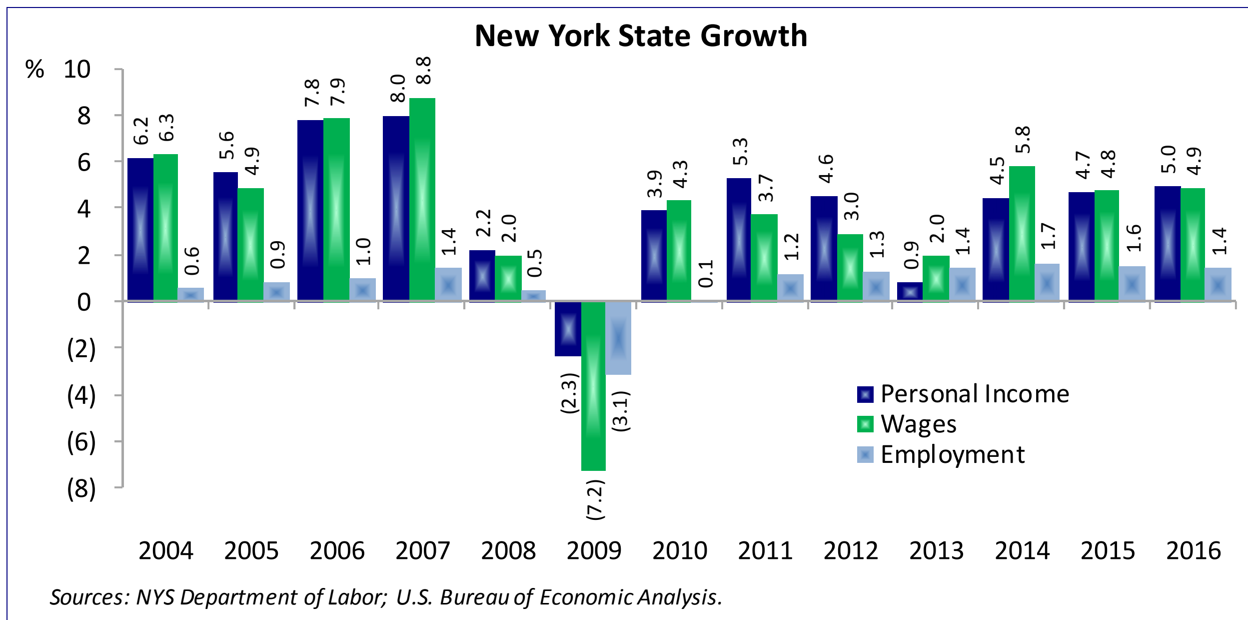


Figure 54

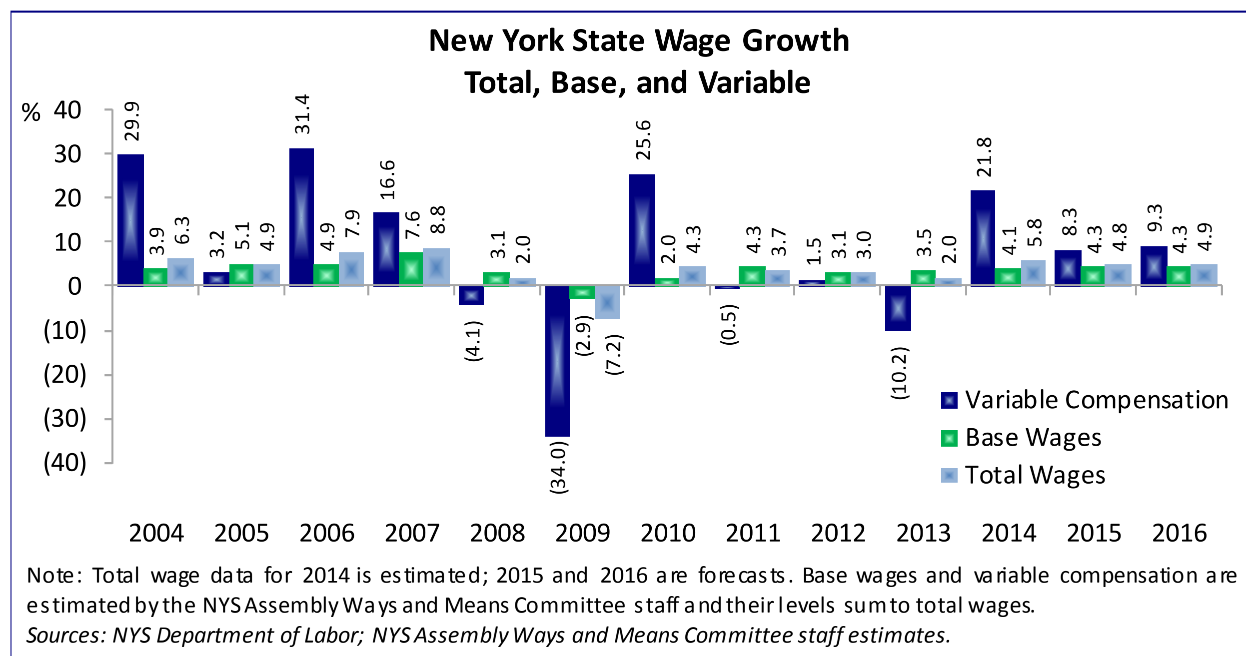
Personal income in New York State is forecast to grow 4.7 percent in 2015 and 5.0 percent in 2016. The increase in personal income will be driven mainly by wage growth. The other components of personal income are also growing. Dividend, interest and rental income comprises about 17 percent of personal income in New York State. Dividend, interest and rental income started to fall in late 2007, but resumed growth in the fourth quarter of 2009. Personal transfer receipts also comprise about 17 percent of personal income, a share that has fluctuated only slightly over the past ten years. The share rose to 18 percent in the fourth quarter of 2011, as effects of the Great Recession pushed up the level of transfer payments. State unemployment insurance compensation increased markedly, until the first quarter of 2010, when unemployment insurance payments started to decrease as employment in the State expanded. The largest portion of State transfer payments is Medicaid, followed by Social Security, and Medicare. All three of these components have shown a steady upward trend before and after the Great Recession. [60]

Wage growth in recent years has been solid, aided by a return to positive growth in variable compensation. However, though positive, wage growth rates have been below those achieved leading up to the 2007-09 recession, partly due to the growth during the current recovery being concentrated in lower-paying jobs overall and restrained growth in variable wages. Therefore, as employment returned, wage growth remained restrained. Also, slack in

[60] Transfer payments data is from the U.S. Bureau of Economic Analysis.

the labor market and high productivity, especially in the early stages of the recovery, allowed firms to maintain profit margins and put little upward pressure on wages. Total wages in New York State are forecast to grow 4.8 percent in 2015 and 4.9 percent in 2016.

Variable wage growth is not forecast to reach the high levels attained in 2006 and 2007, when securities industry firms had huge profits and bestowed large bonuses on employees. Variable wage growth is forecast to be 8.3 percent in 2015 and 9.3 percent in 2016. Base wages are forecast to grow by 4.3 percent in both 2015 and 2016, reflecting an expectation of continued growth in employment. As employment grows steadily, even in those industries with a relatively lower average wage, base wages will continue on a slow and steady upward trend (see Figure 55).



Note: Total wage data for 2014 is estimated; 2015 and 2016 are forecasts. Base wages and variable compensation are estimated by the NYS Assembly Ways and Means Committee staff and their levels sum to total wages.
Sources: NYS Department of Labor; NYS Assembly Ways and Means Committee staff estimates.

Figure 55

Regionally, the distribution of wages in the State is uneven. In 2013, New York City accounted for 56 percent of State wages, a far higher percentage than the other regions accounted for. Part of this was driven by the large percentage of population that lives in the New York City region. In addition, New York City had a larger share of relatively higher paying jobs due to the City's higher share of jobs in the financial services and professional and business

services sectors.[61] Therefore, wage growth in New York City has a profound effect on wages in the State (see Figure 56).

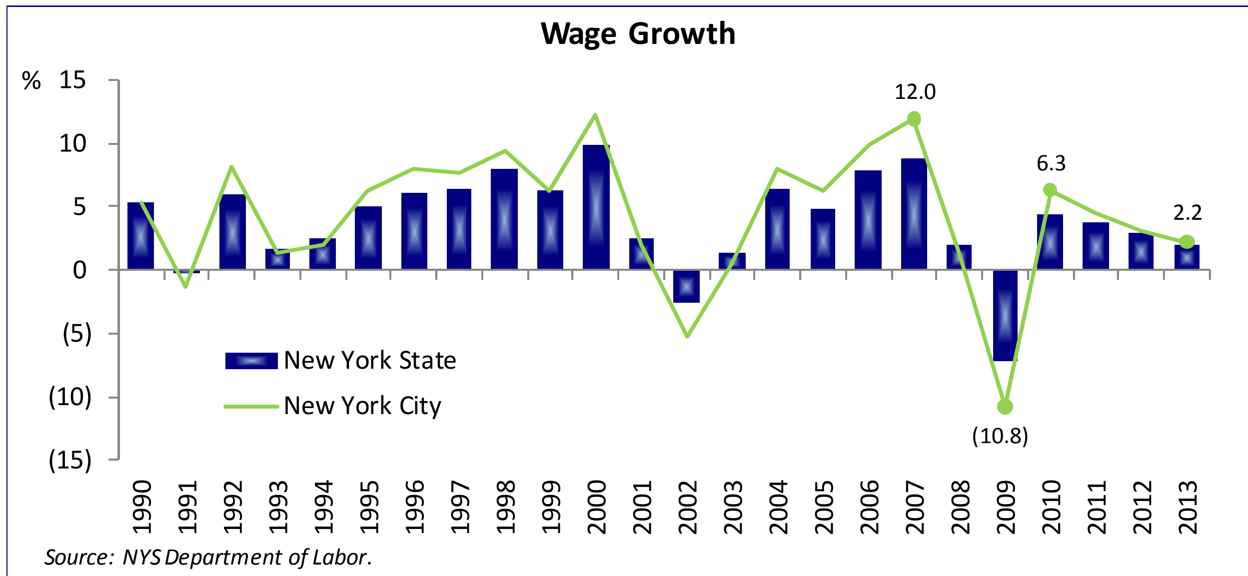


Figure 56

The distribution of wages within the State is also uneven across industries. In 2013, the finance and insurance sector accounted for 18.0 percent of wages in the State, while accounting for 5.7 percent of employment. The government sector had the second highest share of wages in the State in 2013 at 14.3 percent, but the highest share of employment at 15.8 percent. Going forward, these sectors that account for the highest share of wages face risks as a result of current economic conditions. The government sector has been constrained in recent years by cutbacks at the federal, state, and local levels. Although wages in the sector are expected to grow during the forecast period, growth will be restrained. The finance and insurance sector was hit hard by the financial crisis of 2008 and although wages have grown in the sector, the recovery has been slow. Changes in the sector have major implications for the variable wage outlook, as discussed in the Finance and Insurance section on page 76.

[61] The financial activities and professional and business services sectors have a higher average wage than many other sectors. As of December 2014, the share of financial activities employment in New York City's total employment was 10.7 percent, compared to a share of 7.4 in the State overall. The professional and business services share in New York City was 16.5 percent compared to a share of 13.7 percent in the State. This is based on CES data, NYS Department of Labor.

Variable Compensation

Much of New York State variable compensation is concentrated in the financial sector, particularly the securities industry which accounted for 41.2 percent of total variable wages paid in the State in 2013. Before the Great Recession, the percentage of the State's total variable compensation paid in the securities industry was over 50 percent. Regardless of the drop in share, however, the securities industry continues to pay the largest share of variable wages in New York State compared to other sectors (see Figure 57).

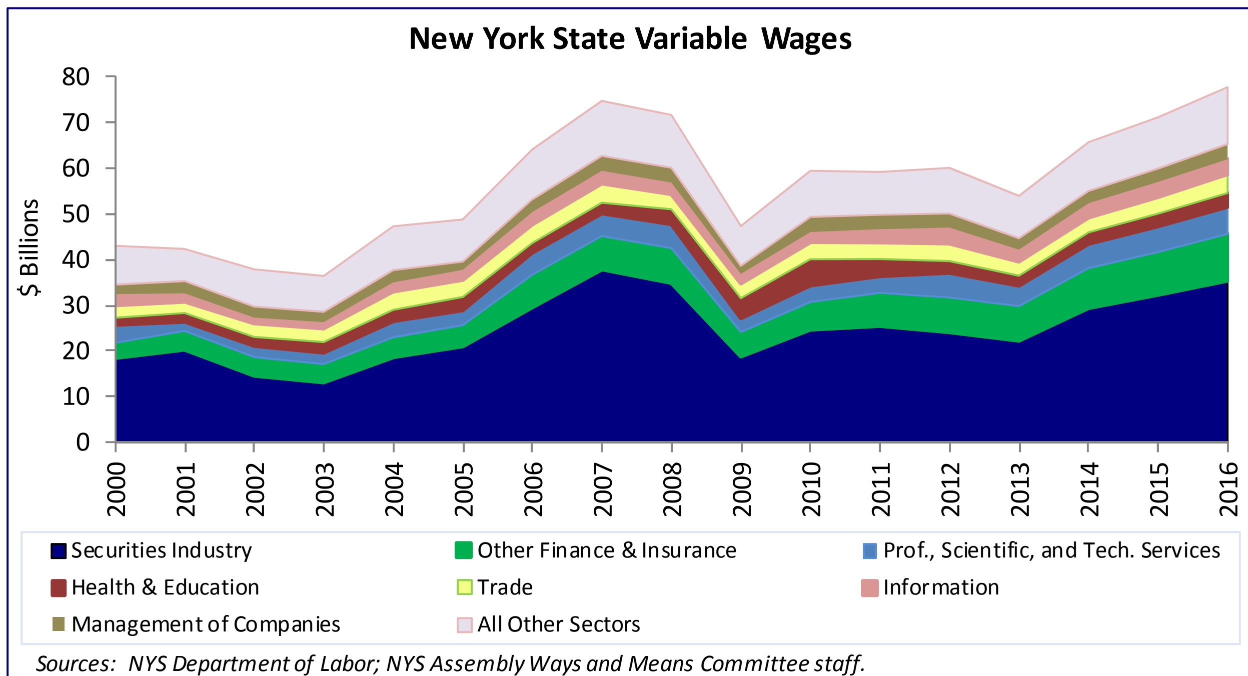
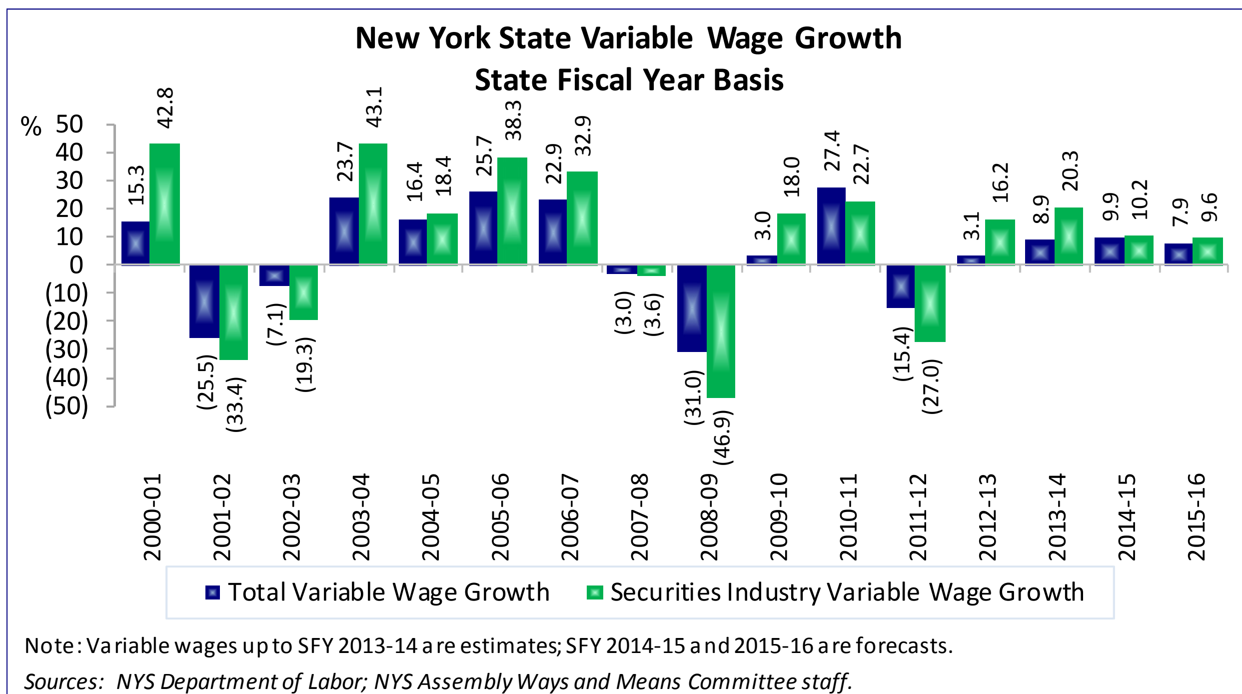


Figure 57

While inherently complex, forecasting bonus season payments continues to be more difficult since the financial crisis. Not only is the level of profitable activities that leads to bonus payments difficult to assess, but the financial sector has also been undergoing some structural changes and are likely leading to long-term changes in compensation practices. One of the major changes resulting from the financial crisis is an expansion of bonus payouts in the form of stock options, rather than cash. However, the exact breakout between stock and cash is not available, nor is information on how much cash may be deferred. In addition, the timing and the amount of gains realized is not clear.

The Assembly Ways and Means Committee staff estimates that State total variable compensation, which was $62.8 billion or 11.2 percent of the State's total wages in State Fiscal

Year (SFY) 2013-14, will increase by 9.9 percent to $69.0 billion in SFY 2014-15 (see Figure 58). The overall level of variable compensation has yet to reach to the 2006 or 2007 level. However, those levels were likely inflated as bonuses in the financial industry reached record levels. Growth in variable wages during the forecast period will be 7.9 percent year-over-year during SFY 2015-16 and 9.1 percent in SFY 2016-17.



Note: Variable wages up to SFY 2013-14 are estimates; SFY 2014-15 and 2015-16 are forecasts.
Sources: NYS Department of Labor; NYS Assembly Ways and Means Committee staff.

Figure 58

Finance and Insurance Sector

The finance and insurance sector is important to the overall health of the New York State economy, especially downstate as the sector's employment is heavily concentrated in New York City.[62] The performance of the finance and insurance sector has a considerable impact on State tax revenues, as it comprises a significant portion of total wages in the State. While the sector accounted for 5.7 percent of total State nonfarm payroll employment in 2013, the industry comprised 18.0 percent of total State nonfarm payroll wages (see Figure 59).[63]

[62] According to the NYS Department of Labor, as of December 2014 the finance and insurance sector employed 499,600 people, 64 percent of whom were employed in New York City. See NYS Department of Labor, *Labor Statistics*, http://labor.ny.gov/stats/lscesmaj.shtm, (accessed: February 16, 2015).

[63] Eighty-four percent of 2013 total New York State wages paid in the finance and insurance sector were paid in New York City. See NYS Department of Labor, Quarterly Census of Employment and Wages (QCEW), http://www.labor.ny.gov/stats/LSQCEW.shtm, (accessed: October 22, 2014).

However, finance and insurance employment as a share of total employment has been slowly declining, while the share of wages has fluctuated over time. The share of wages reached 22.3 percent in 2007 as the securities industry revenues and profits were exceptional, and massive bonuses were paid to workers. As the landscape of the industry changed, and bonuses were curtailed, that share has fallen to under 20 percent – still a significant share of State wages.

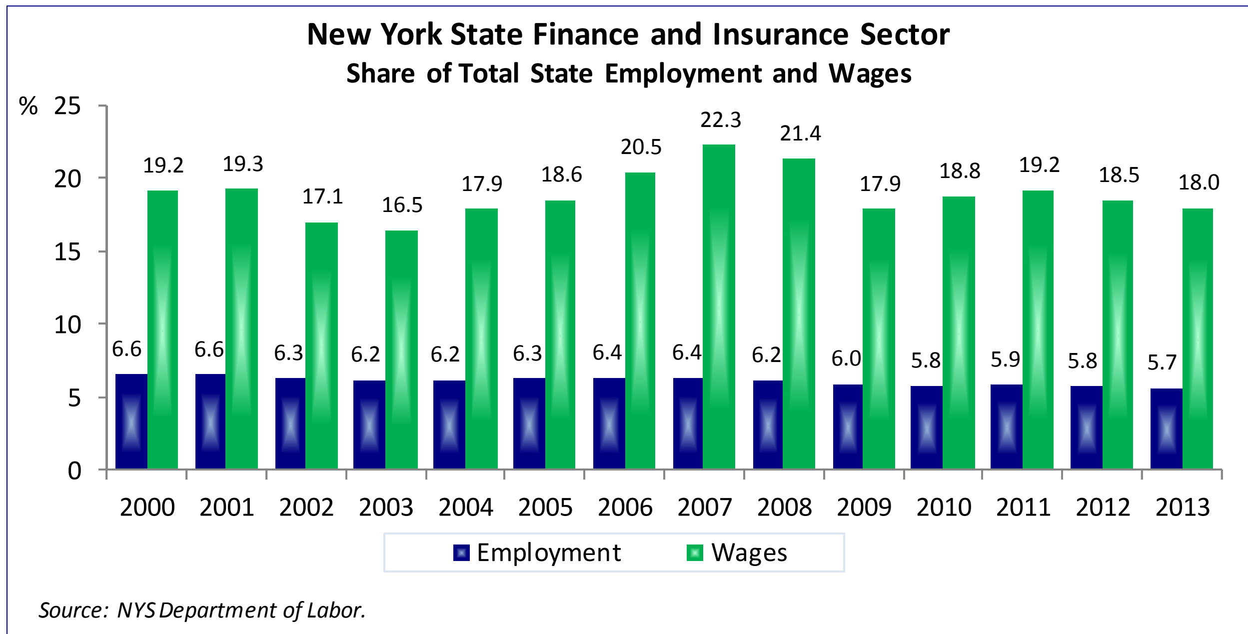


Figure 59

Changes in the magnitude of New York State's finance and insurance industry have also changed the share of the State's industry in the United States. The share of wages has been volatile since 1990, but has hovered around 19 percent. The share of employment on the other hand has steadily declined from 12.0 percent in 1990 to 8.8 percent in 2013. This decline in share existed even before the 2007-09 recession (see Figure 60). Still, New York State accounts for a relatively large portion of wages and employment in the United States finance and insurance industry.

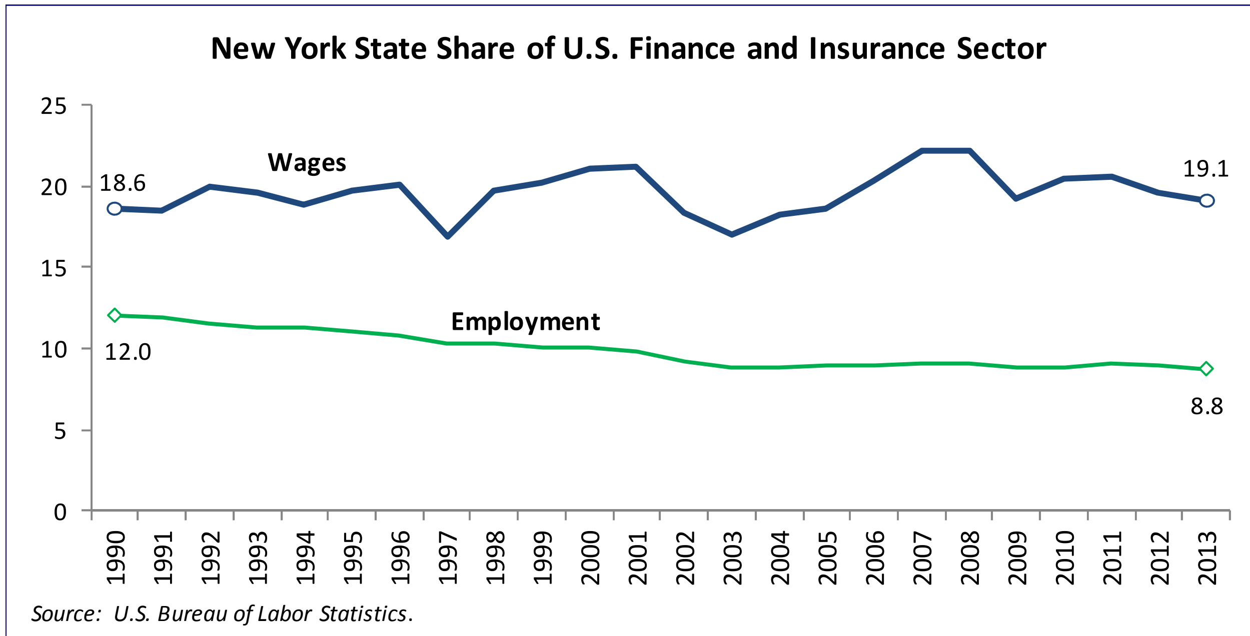


Figure 60

While finance and insurance industry employment has increased in the United States since late 2011, the State's recovery in the industry was only short-lived and faltered in mid-2012 as the industry continued to restructure (see Figure 61). However, recently, employment appears to have stabilized and has even shown some signs of growth as Wall Street firms start

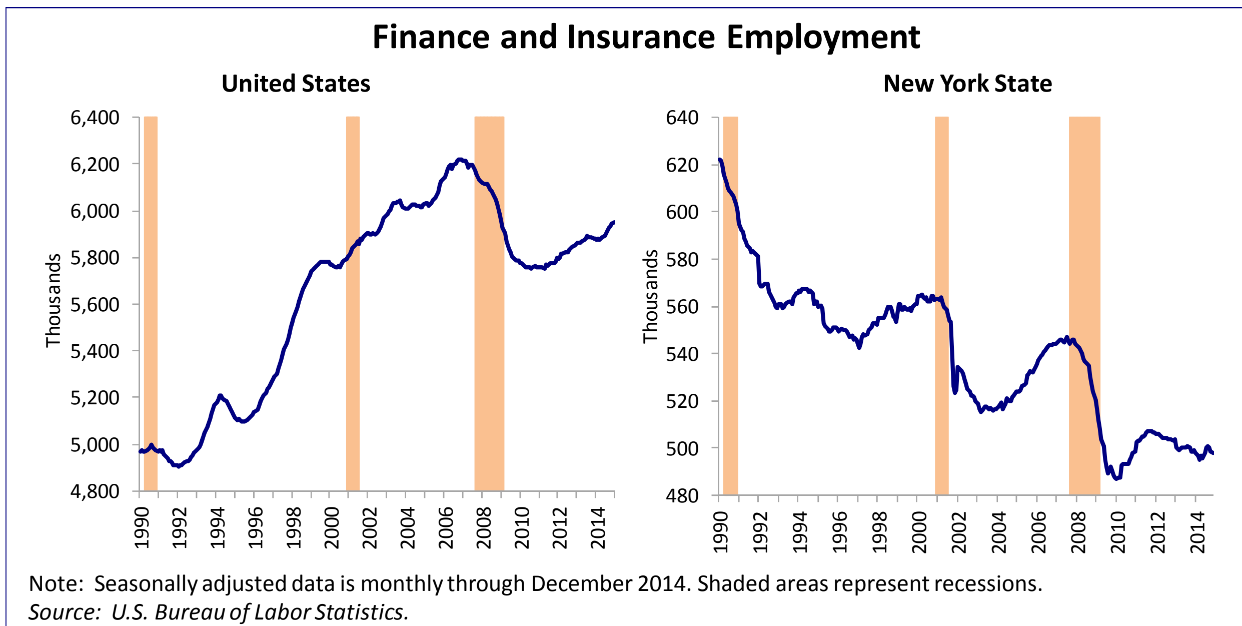


Figure 61

to hire new staff. Some firms have begun to expand into new markets, and firms are becoming more comfortable offering permanent positions to new hires.[64] However, the industry is unlikely to regain all the jobs lost as a result of the Great Recession during the forecast period.

Throughout the forecast period, growth in variable compensation in the finance and insurance industry is expected to remain positive as the economy grows; profits and revenues, upon which bonus levels were traditionally based, will remain muted compared to pre-recession levels. The outlook for lucrative activities remains mixed, although some activities showed resilience in 2013 and their strength continued into 2014. In 2014, Initial Public Offering (IPO) activity was very strong.[65] In addition, merger and acquisition activities were also very robust.[66] These deals may have offset sluggishness in other activities. Trading revenue, which was sluggish in early to mid-2014, showed strength in the third quarter leading to trading revenue gains.[67] However, many fourth quarter results showed weakness in trading revenue again.

Although employment may be stagnant it does not necessarily mean that compensation will fall. Compensation can respond to increased revenues and profits, which may happen even without an increase in staff. Even keeping staff levels unchanged, higher incentive compensation may lead to an overall increase in wages paid within the industry. In addition, many changes that occurred as a result of the Great Recession, including changing compensation practices and stricter regulations, are still present, but the industry is also facing new wage challenges that have come with the economic expansion. Some firms have raised starting salaries in order to attract first year analysts.[68] This could offer some upside to the overall compensation picture. In addition, stock awards that were part of deferred bonus

[64] Aaron Elstein. "Bankers, It Seems, Are Ready to Believe in Themselves Again," *Crains New York Business*, August 18, 2014, http://www.crainsnewyork.com/article/20140818/FINANCE/308179993/bankers-may-be-ready-to-believe-in-themselves-again.

[65] PricewaterhouseCoopers LLP, "2014 IPOs Raise Highest Proceeds Since 2000, According to PwC's Deals Practice," *PwC US*, (New York) December 9, 2014, http://www.pwc.com/us/en/press-releases/2014/ q4-2014-ipo-watch-press-release.jhtml.

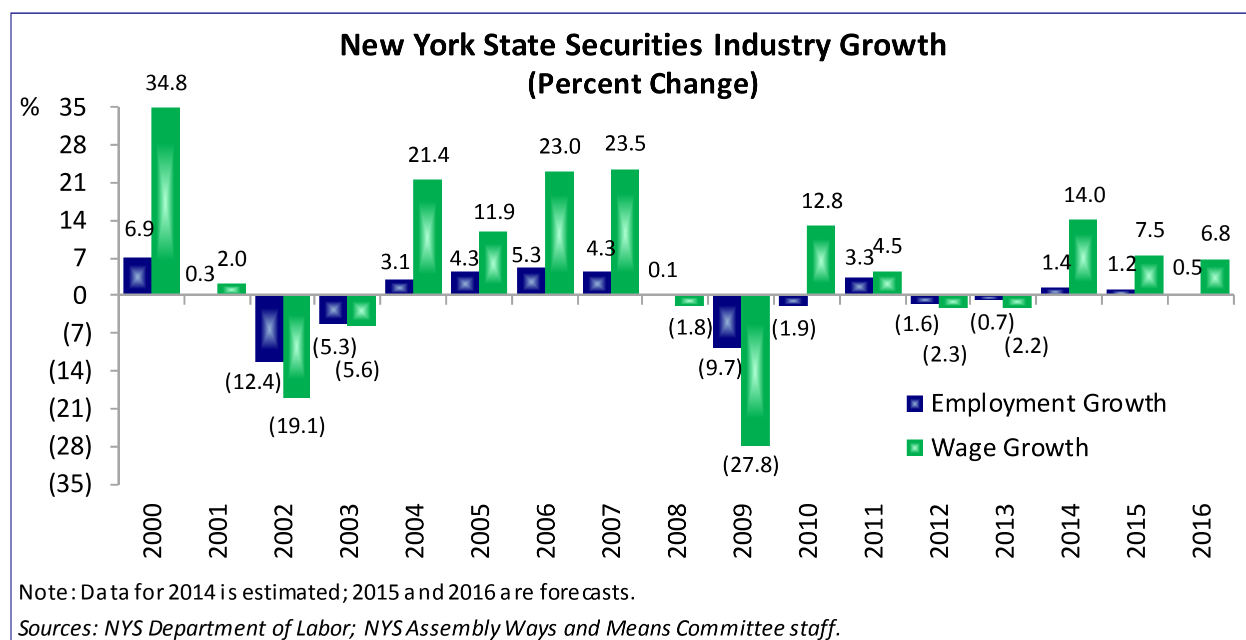
[66] Dan Primack, "2014 Was a Huge Year for M&A and Private Equity," *Fortune*, January 5, 2015, http://fortune.com/2015/01/05/2014-was-a-huge-year-for-ma-and-private-equity/.

[67] Justin Baer, Saabira Chaudhuri, and Julie Steinberg, "Wall Street Trading Gets Busy Again, After a Long Lull," *Wall Street Journal*, October 16, 2014, http://online.wsj.com/articles/wall-street-trading-gets-busy-again-after-a-long-lull-1413502037.

[68] William Alden and Sydney Ember, "Wall Street Banks Dig Deeper to Keep Best and Brightest Junior Bankers," New York Times, August 21, 2014, Dealb%k section, http://dealbook.nytimes.com/2014/08/21/wall-street-banks-dig-deeper-to-keep-best-and-brightest/?_php=true &_type=blogs&_r=0.

packages after the recent recession have significantly increased in value.[69] As employees cash out these awards, the effect on New York State wages and revenues will be positive.

Within the finance and insurance sector, the securities industry is especially important in New York State, where it accounts for 37.5 percent of employment in the finance and insurance sector, and 63.7 percent of the wages in 2013. Growth within the sector in terms of employment and wages has remained restrained since the financial crisis, but the industry is expected to grow throughout the forecast period (see Figure 62).



Note: Data for 2014 is estimated; 2015 and 2016 are forecasts.

Sources: NYS Department of Labor; NYS Assembly Ways and Means Committee staff.

Figure 62

Real Estate Market

After outperforming the nation during both the housing boom and the housing correction, the State housing market has lagged the national housing market during the recovery. During the housing boom, home prices in the State rose 65.6 percent from the first quarter of 2001 to the first quarter of 2007, compared to 53.3 percent for the nation (see Table 11). Increases of home prices in New York were driven largely by downstate and Albany-Schenectady-Troy metro home prices, which had almost doubled during this period.

[69] Eli Rosenberg, "Wall Street Bankers cashing in on bonus stock shares amid market boom," New York Daily News, November 30, 2014, http://www.nydailynews.com/news/national/wall-street-bankers-cashing-bonus-stock-article-1.2028480.

Home prices continuously declined during the housing correction. From the first quarter of 2007 to the second quarter of 2011, home prices fell 20.6 percent nationally, while home prices in the State declined by much less, 7.1 percent. The two metros that had the largest home price depreciation in New York State were the New York-Jersey City-White Plains and Nassau-Suffolk areas, where prices dropped by 16.6 percent and 12.8 percent, respectively. Upstate home prices were less affected by the real estate cycle than downstate. Prices in Buffalo-Niagara Falls, Syracuse, and Rochester continued to appreciate during the housing downturn.

Table 11

Home Price Change by New York State Metropolitan Area
(Percent Change)

	2001:Q1-2007:Q1	2007:Q1-2011:Q2	2011:Q2-2014:Q3
Buffalo-Cheektowaga-Niagara Falls	32.3	4.5	11.4
Rochester	22.2	0.2	6.0
Syracuse	38.8	0.7	3.8
Albany-Schenectady-Troy	82.2	(4.9)	3.6
New York-Jersey City-White Plains	89.8	(16.6)	4.8
Nassau-Suffolk	85.1	(12.8)	1.4
New York State	**65.6**	**(7.1)**	**4.1**
U.S.	**53.3**	**(20.6)**	**18.1**

Note: Data is seasonally adjusted. The FHFA Index presented herein may show different price changes from the S&P/Case-Shiller Index. This is because the two indices use different data. The FHFA Index is based on homes with conforming loans, which have a loan limit of $417,000 for single-family homes. Therefore, the FHFA index does not reflect price changes for more expensive homes.

Source: Federal Housing Finance Agency (FHFA).

During the recovery, however, home prices in New York State grew much slower than the national average. From the second quarter of 2011 to the third quarter of 2014, home prices grew 18.1 percent nationally, while home prices in New York State grew by only 4.1 percent. Prices in Buffalo-Cheektowaga-Niagara Falls metropolitan area have been growing steadily throughout the housing correction and the recovery.

Despite slow home price growth, home sales in the State were strong in 2013 as in the nation. Favorable mortgage interest rates, steady employment growth, and rising rents encouraged people to buy homes. After growing 7.0 percent in 2012, home sales in the State

increased 12.6 percent in 2013.[70] Higher sales pushed housing inventory in the State to fall from 9.9 months in 2012 to 7.8 months in 2013, compared to less than 5 months nationwide. As in the nation, activities slowed in 2014. Closed sales dropped by 1.3 percent in 2014. Similarly, pending sales and new listings were almost flat during this period.[71]

Although the percentage of mortgage holders in New York State who owe more than their house is worth (negative equity) has remained among the lowest in the nation, the State's ranking has been deteriorating. In addition, the share has declined slower in the State than in the nation. In the fourth quarter of 2011, 6.4 percent of mortgage holders in the State were in negative equity, the second lowest in the nation, compared to 22.8 percent in the nation. The percentage of mortgage holders with negative equity fell slightly to 5.0 percent in the third quarter of 2014, the seventh lowest among all states, compared to a fall of more than half to 10.3 percent nationwide.[72]

The State also has seen increasing foreclosure activities recently. In 2013, foreclosure filings in New York increased by 34.0 percent from the previous year, compared to a decline of 3.0 percent for the nation.[73] This trend continued into 2014 where foreclosure starts in New York increased 33 percent from a year ago.[74] As a result, the foreclosure inventory in the State dropped only gradually by 0.8 percentage point in 2014 from a year ago to 4.0 percent. This is the second highest among all states, behind New Jersey.[75] Thus, it is evident that the State's housing market remains strained.

As home prices fell faster than income, and mortgage interest rates were at record lows during the housing correction, homes have become more affordable. Nationally, the Housing

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[70] NYS Association of Realtors, "Annual Report on the New York State Market," NYS Association of Realtors, http://www.nysar.com/docs/members-pdfs/nysar_ann_ public_2013_revised.pdf ?sfvrsn=0.

[71] NYS Association of Realtors, "Annual Report on the New York State Market," NYS Association of Realtors, http://www.nysar.com/docs/members-pdfs/nysar_ann_ public_2014_revised.pdf ?sfvrsn=0.

[72] Corelogic, "Corelogic's Negative Equity Data Updates," Corelogic, as of January 21, 2015.

[73] RealtyTrac Staff, "1.4 million U.S. Properties with Foreclosure Filings in 2013, Down 26 percent to Lowest Annual Total Since 2007," RealtyTrac, January 13, 2014, http://www.realtytrac.com/content/foreclosure-market-report/2012-year-end-us-foreclosure-report-7963.

[74] RealtyTrac Staff, "1.1 million U.S. properties with foreclosure filing in 2014, down 18 percent from 2013 to the lowest level since 2006," RealtyTrac, January 14, 2015.

[75] The foreclosure inventory represents the number and share of mortgaged homes that have been placed into the process of foreclosure by the mortgage servicer. The data accounts for only first liens against a property and does not include secondary liens. The foreclosure inventory is measured only against homes that have an outstanding mortgage. See, Corelogic, Corelogic's National Foreclosure Report, Corelogic, November 2014.

Opportunity Index (HOI) rose from 41.3 percent in the first quarter of 2006 to its recent peak at 77.5 percent in the first quarter of 2012. Recently, as home prices as well as mortgage rates rose, the Housing Opportunity Index began to fall and stood at 61.8 percent in the third quarter of 2014. Eleven out of thirteen metropolitan areas in New York State that are included in this list have a higher Housing Opportunity Index than the nation.

Regionally, housing in upstate New York has long been more affordable than that of downstate. While most upstate metropolitan regions were consistently ranked among the top fifty most affordable metros out of 227 metros nationwide, New York-White Plains-Wayne has been ranked among the least affordable large metros every quarter since the second quarter of 2008. In the third quarter of 2014, only 21.6 percent of homes sold in this area were affordable to families earning the area median income, compared to about 90 percent in Utica-Rome, Binghamton, and Syracuse.[76]

Falling home prices have also reduced the housing cost burden for homeowners in the State. In 2012, 33.2 percent of homeowners across the State paid more than 30 percent of their income on housing. This share has fallen to 31.4 percent in 2013. However, a large disparity still exists in New York State. In 2013, downstate residents faced a much higher housing cost burden than those in upstate. The housing burden was highest in New York-Northern New Jersey-Long Island, where 38.0 percent of homeowners and 51.6 percent of renters paid more than 30 percent of their income on housing. The lowest burden for homeowners was in Elmira, where only 15.7 percent of homeowners paid more than 30 percent of their income on housing. In the State as a whole, 31.4 percent of all New York homeowners paid more than 30 percent of their income on housing in 2013, while about half of all renters paid more than 30 percent of their income on housing, compared to 25.3 percent and 47.6 percent for the nation, respectively (see Table 12).

[76] Large metros are defined as areas with population of 500,000 or more. See National Association of Home Builders, NAHB/Wells Fargo Housing Opportunity Index (HOI), September 17, 2014.

Table 12

Housing Cost Burden by New York State Metropolitan Area

	Owner		Renter		
	2013		2013		
Metropolitan Statistical Area	Owner-Occupied Housing Units Total	Percent with Housing Costs Over 30% of Household Income	Renter-Occupied Housing Units Total	Percent with Housing Costs Over 30% of Household Income	Housing Opportunity Index 2014:Q2
New York-Northern New Jersey-Long Island	3,655,346	38.0	3,425,345	51.6	23.3
Kingston	48,419	32.5	20,231	51.7	71.5
Glens Falls	36,104	25.3	15,310	46.1	75.7
Albany-Schenectady-Troy	225,196	23.8	122,746	47.7	80.0
Rochester	286,410	22.0	139,193	53.2	81.7
Utica-Rome	75,989	21.9	40,124	45.3	NA
Binghamton	67,539	21.1	29,190	54.0	89.4
Ithaca	21,313	20.8	16,211	52.9	72.2
Syracuse	172,177	20.5	83,984	46.1	89.1
Buffalo-Niagara Falls	309,935	19.5	159,962	45.0	83.1
Elmira	24,160	15.7	11,678	56.1	90.6
New York State	**3,873,299**	**31.4**	**3,346,057**	**50.8**	**N/A**
United States	**73,843,861**	**25.3**	**42,447,172**	**47.6**	**64.5**

Note: The Housing Opportunity Index for New York-Northern New Jersey-Long Island was the Index for New York-White Plains-Wayne, NY-NJ.
--Housing costs for homeowners include mortgage payment, real estate taxes, fire hazard and flood insurance, utilities, and fuels. The housing cost for renters is gross rent.
--The Housing Opportunity Index is defined as the share of homes sold in the area that would have been affordable to a family earning the median income (i.e., the total monthly payment is less than 28 percent of the monthly median household income).

Sources: U.S. Census Bureau, 2013 American Community Survey 1-Year Estimates; National Association of Home Builders.

The commercial real estate market in the State has recovered quite well after deteriorating in 2008 and 2009. Activities increased sharply in 2013, when overall leasing totaled nearly 26 million square feet, a 10.5 percent increase from 2012.[77] However, as almost four million square feet of new office space became available during the year, the overall vacancy rate in Manhattan rose from 9.4 percent in the fourth quarter of 2012 to 11.0 percent in the fourth quarter of 2013. Leasing activities continued to be strong in 2014, increasing by 27.8 percent from 2013 to 32.8 million square feet, the highest level in more than fifteen years. As a result, the overall vacancy rate declined from 11.0 percent in 2013 to 9.3 percent in 2014.

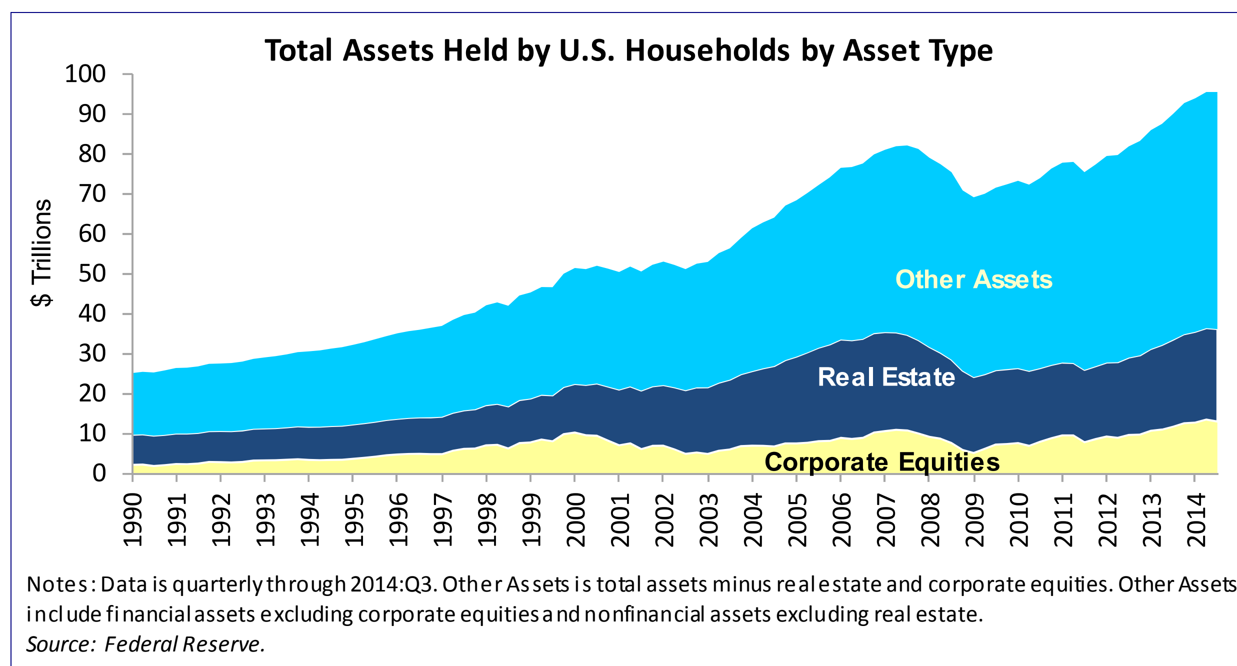
[77] Cushman & Wakefield, "MarketBeat Office Snapshot: Manhattan NY," Q4 2013.

Direct asking rents rose from $64.18 per square foot per year in the fourth quarter of 2013 to $68.49 per square foot per year in the fourth quarter of 2014.[78]

Looking forward, the office market will likely continue to improve as the City continues to add jobs at a healthy pace. Employment in the key office-using industries such as professional services is expected to recover moderately.

Capital Gains

Generally, the performance of the financial markets determines the extent to which capital gains are realized, since gains are only realized when the sale price of assets exceeds the purchase price of assets. In any particular year, if the sale price of an asset far exceeds its purchase price, then capital gains are likely substantial. In recent years, capital gains realization has been mainly influenced by equity markets. While equity prices have grown significantly after plunging in 2008 and 2009, real estate markets have only been slowly recovering (see Figure 63). Still, investors have the uncanny ability to realize gains despite market performance.



Notes: Data is quarterly through 2014:Q3. Other Assets is total assets minus real estate and corporate equities. Other Assets include financial assets excluding corporate equities and nonfinancial assets excluding real estate.
Source: Federal Reserve.

Figure 63

[78] Cushman & Wakefield, "MarketBeat Office Snapshot: Manhattan NY," Q4 2014.

Capital gains grew to $77.2 billion or by 58.2 percent in 2012, after growing 9.2 percent in 2011 (see Figure 64). The upsurge in capital gains was partly attributed to gains being shifted from 2013 to 2012 as a result of an anticipated increase in capital gains taxes in 2013.[79] Historically, investors capitalized on gains in anticipation of higher future tax rates. In addition, corporate equity prices and mutual fund share prices grew strongly.[80]

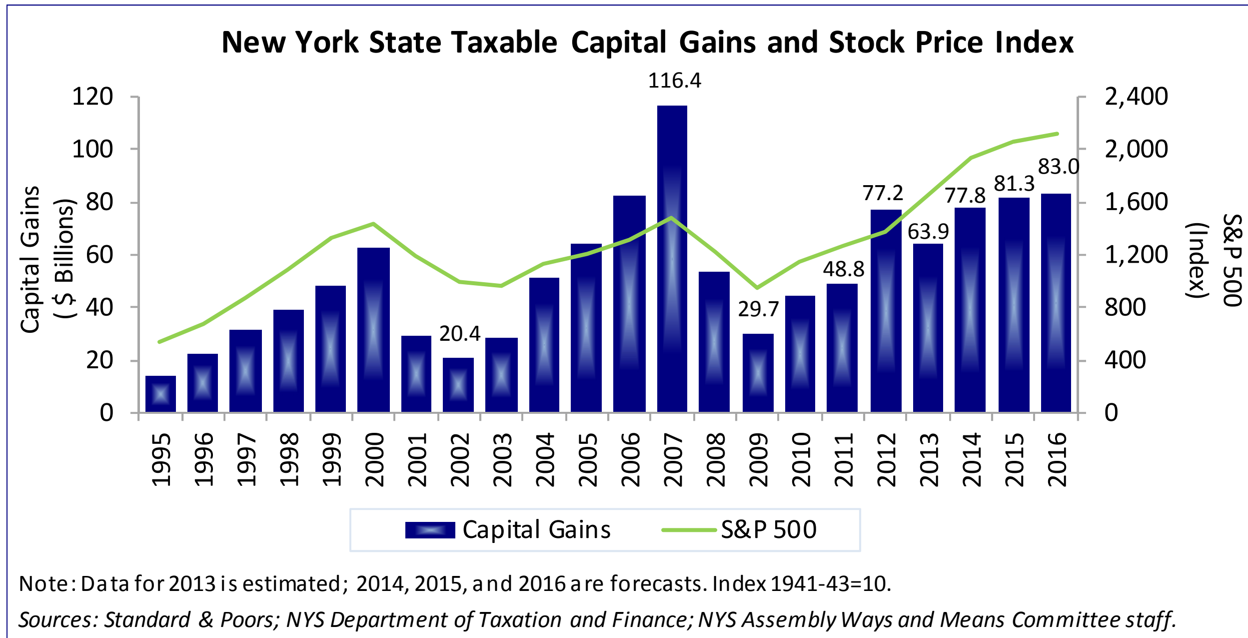


Figure 64

In 2013, capital gains fell an estimated 17.3 percent to $63.9 billion as a consequence of the shift, which was tempered somewhat by the resilient performance of equity markets. Capital gains realization was reflective mainly of higher equity prices in 2014 as housing prices, though rising, were lackluster. Taxable capital gains are estimated to have grown 21.8 percent to $77.8 billion in 2014. In 2015 and in 2016, steady increases in home prices will likely contribute more to gains than in the past few years. However, the performance of the stock market is expected to slow down in 2015 and again in 2016. Against this backdrop, net capital gains are projected to grow 4.5 percent to $81.3 billion in 2015, and increase by 2.1 percent to $83.0 billion in 2016.

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[79] A tax on unearned income of 3.8 percent as part of the healthcare package and the expiration of capital gains tax rates that had been extended in 2010 will result in an increase in tax rates on realized capital gains from 15 percent to approximately 24 percent. See *The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010,* Public Law 111-312, 111th Congress, December 17, 2010; and *The Patient Protection and Affordable Care Act*, Public Law 111-148, 111th Congress, March 23, 2010.

[80] Home prices are as measured by Freddie Mac House Price Index.

NYS Forecast Comparison

The NYS Assembly Ways and Means Committee staff's forecast for total nonfarm payroll employment growth in State fiscal year (SFY) 2014-15 is 1.6 percent (see Table 13). This forecast is 0.1 percentage point below the Division of Budget's forecast. The staff's forecast for wage growth in SFY 2014-15 is 4.7 percent. This forecast is 0.2 percentage point above the Division of Budget's forecast.

Table 13

New York State Forecast Comparison
(Percent change from prior State Fiscal Year)

	Actual SFY 2013-14	Estimate SFY 2014-15	Forecast SFY 2015-16
Employment			
Ways and Means	1.6	1.6	1.6
Division of the Budget	1.6	1.7	1.4
Wages			
Ways and Means	4.2	4.7	4.8
Division of the Budget	4.2	4.5	4.5

Sources: NYS Assembly Ways and Means Committee staff; NYS Division of Budget, FY 2015 Executive Budget Financial Plan, February 2015.

The NYS Assembly Ways and Means Committee staff's forecast for total nonfarm payroll employment growth in SFY 2015-16 is 1.6 percent and is 0.2 percentage point above the Division of the Budget's forecast. The staff's forecast for wage growth in SFY 2015-16 is 4.8 percent, which is 0.3 percentage point above the Division of the Budget's forecast.

Risks to the Forecast

RISKS TO THE FORECAST

In general, the pace of the recovery has been slower than expected, and the risks to the economic outlook remain on the downside. Unforeseeable risks such as abnormal weather or adverse geopolitical developments persist in the current economic environment. In addition to unanticipated risks, problems that were central to the last recession continue—although with less severity. These issues include weaknesses in the housing market, uncertainty in the financial markets, and lack of robust growth in wages and other labor market indicators. If these areas were to worsen the impact on the outlook would be significant.

Actions by the government also add uncertainty to the forecast. Issues surrounding continued federal cutbacks present a downside risk to the economy. In addition, political debate over issues such as the budget and the debt ceiling introduces uncertainty into the economic outlook.

Federal Reserve actions in response to Quantitative Easing are also adding uncertainty to the outlook. In particular, a bumpy exit from Quantitative Easing and the transition to tighter U.S. monetary policy pose increased downside risk to both developing and advanced economies. Also, there is some element of uncertainty introduced by the expected hikes in interest rates after having been kept artificially low for such an extended period.

The health of the global economy is also a concern. Although the European debt crisis appears to have eased, issues still remain. Also, the recent weakening in economic growth outlooks in both China and several emerging economies pose downside risks to the economic outlook for the U.S. and world economies. If the global economy were not to continue to recover as assumed, the ability of the United States economy to grow would be impacted. In addition to global economic growth, other global issues add uncertainty to the outlook, including the events in Iraq and the Ukraine, unrest in the Middle East, and other geo-political issues. Furthermore, the extreme volatility in oil prices adds further risk to the forecast.

The current economic climate presents particular challenges and risks to the New York State forecast. Wall Street and the financial markets play a central role in the State economy, and drastic cuts to or changes in the composition of Wall Street compensation (including bonuses) and the resulting reductions in Wall Street tax revenues have critical implications for the economic health of the State. However, faster growth than expected for Wall Street activities offers some upside potential for the forecast.

Appendices

APPENDIX A

U.S. Economic Outlook State Fiscal Year (Percent Change)	Actual 2013-14	Estimate 2014-15	Forecast 2015-16	Forecast 2016-17
Real GDP	2.3	2.8	2.8	2.7
Real Consumption	2.4	2.8	3.3	2.8
Real Investment	5.6	6.9	5.3	5.9
Real Exports	3.3	3.6	2.8	4.2
Real Imports	1.9	4.5	5.5	5.3
Real Government	(1.8)	0.4	0.6	0.4
Federal	(5.6)	(0.8)	(0.5)	(0.7)
State and Local	0.8	1.2	1.3	1.1
Personal Income	2.3	4.0	4.5	4.7
Wages & Salaries	3.2	4.3	4.9	4.8
Corporate Profits	2.2	3.6	2.8	3.8
Productivity	0.9	1.0	1.5	1.9
Employment	1.7	2.1	2.2	1.7
CPI-Urban (1982-84=100)	1.4	1.3	1.0	2.2
S&P 500 Stock Price (1941-43=10)	21.2	15.1	4.3	2.8
Treasury Bill Rate (3-month)*	0.0	0.0	0.5	2.1
Treasury Note Rate (10-year)*	2.6	2.3	2.6	3.7

* Fiscal year average rate.

Sources: U.S. Bureau of Economic Analysis; U.S. Bureau of Labor Statistics; Federal Reserve; Standard & Poor's; NYS Assembly Ways and Means Committee staff.

APPENDIX B

NYS Employment and Wages in NAICS Sectors						
	Employment (Thousands)			Wages ($ in Billions)		
	Estimate 2014	Forecast 2015	Forecast 2016	Estimate 2014	Forecast 2015	Forecast 2016
Total	**8,800.1**	**8,938.0**	**9,067.2**	**578.7**	**606.4**	**636.1**
Education & Health	1,685.7	1,716.1	1,746.0	82.3	86.3	91.0
Government	1,358.9	1,354.2	1,355.8	79.3	80.4	81.8
Retail Trade	938.3	950.5	960.6	30.2	31.6	32.9
Other Services	805.9	825.2	841.1	33.4	35.4	37.2
Financial Activities	684.3	695.0	702.4	121.3	128.6	136.9
Leisure & Hospitality	866.1	898.1	929.0	24.9	26.6	28.2
Professional Services	625.1	641.7	658.2	64.1	67.9	71.7
Manufacturing	454.2	450.7	446.6	28.2	28.7	29.0
Construction	339.4	354.7	367.6	21.9	23.5	25.3
Wholesale Trade	336.8	339.3	341.6	26.5	27.8	29.2
Transport & Utilities	264.9	267.7	269.9	14.9	15.6	16.4
Information	263.6	264.3	264.9	29.2	30.4	31.4
Management of Companies	141.4	145.1	148.1	20.8	22.1	23.6

Note: Some NAICS sectors are grouped with others. For sector definitions, see Appendix E.

Sources: NYS Department of Labor, QCEW; NYS Assembly Ways and Means Committee staff.

APPENDIX C

NYS Employment and Wage Growth in NAICS Sectors (Percent Change)						
	Employment			Wages		
	Estimate 2014	Forecast 2015	Forecast 2016	Estimate 2014	Forecast 2015	Forecast 2016
Total	**1.7**	**1.6**	**1.4**	**5.8**	**4.8**	**4.9**
Information	1.6	0.3	0.2	9.6	4.3	3.3
Government	(0.4)	(0.3)	0.1	1.8	1.4	1.7
Manufacturing	(0.9)	(0.8)	(0.9)	0.7	1.6	1.2
Financial Activities	1.6	1.6	1.1	10.7	6.0	6.5
Wholesale Trade	0.7	0.7	0.7	2.9	4.9	5.1
Transport & Utilities	2.9	1.0	0.8	5.5	5.0	5.3
Retail Trade	1.7	1.3	1.1	4.2	4.5	4.1
Education & Health	1.8	1.8	1.7	4.3	4.8	5.5
Other Services	1.9	2.4	1.9	4.9	5.8	5.2
Management of Companies	2.4	2.6	2.1	5.7	6.0	6.7
Leisure & Hospitality	4.0	3.7	3.5	7.4	6.7	6.1
Professional Services	2.3	2.7	2.6	7.0	6.0	5.6
Construction	4.4	4.5	3.6	6.0	7.6	7.4

Note: Some NAICS sectors are grouped with others. For sector definitions, see Appendix E.

Sources: NYS Department of Labor, QCEW; NYS Assembly Ways and Means Committee staff.

APPENDIX D

New York State Economic Outlook State Fiscal Year		Actual 2013-14	Estimate 2014-15	Forecast 2015-16	Forecast 2016-17
Employment	***Percent Change***	1.6	1.6	1.6	1.4
	Level	8,692.5	8,830.1	8,970.1	9,095.0
Personal Income	***Percent Change***	2.0	4.4	4.7	5.0
	Level	1,067.0	1,113.4	1,165.8	1,223.6
Total Wages	***Percent Change***	4.2	4.7	4.8	4.9
	Level	560.5	586.9	615.2	645.6
Base Wages	***Percent Change***	3.6	4.1	4.4	4.4
	Level	497.7	518.0	540.8	564.4
Variable Compensation	***Percent Change***	8.9	9.9	7.9	9.1
	Level	62.8	69.0	74.4	81.2
CPI (1982-84=100)	***Percent Change***	1.5	1.0	0.9	1.8
	Level	257.7	260.4	262.6	267.4

Note: Employment level is in thousands; wage and personal income levels are in billions of dollars.
Sources: U.S. Bureau of Economic Analysis; NYS Department of Labor, QCEW; U.S. Bureau of Labor Statistics; NYS Assembly Ways and Means Committee staff.

APPENDIX E

The North American Industry Classification System (NAICS)

Code	NAICS Title
11	**Agriculture, Forestry, Fishing and Hunting**
111	Crop Production
112	Animal Production
113	Forestry and Logging
114	Fishing, Hunting and Trapping
115	Support Activities for Agriculture and Forestry
21	**Mining**
211	Oil and Gas Extraction
212	Mining (except Oil and Gas)
213	Support Activities for Mining
22	**Utilities**
221	Utilities
23	**Construction**
236	Construction of Buildings
237	Heavy and Civil Engineering Construction
238	Specialty Trade Contractors
31-33	**Manufacturing**
311	Food Manufacturing
312	Beverage and Tobacco Product Manufacturing
313	Textile Mills
314	Textile Product Mills
315	Apparel Manufacturing
316	Leather and Allied Product Manufacturing
321	Wood Product Manufacturing
322	Paper Manufacturing
323	Printing and Related Support Activities
324	Petroleum and Coal Products Manufacturing
325	Chemical Manufacturing
326	Plastics and Rubber Products Manufacturing
327	Nonmetallic Mineral Product Manufacturing
331	Primary Metal Manufacturing
332	Fabricated Metal Product Manufacturing
333	Machinery Manufacturing
334	Computer and Electronic Product Manufacturing
335	Electrical Equipment, Appliance, and Component Manufacturing
336	Transportation Equipment Manufacturing
337	Furniture and Related Product Manufacturing
339	Miscellaneous Manufacturing
42	**Wholesale Trade**
423	Merchant Wholesalers, Durable Goods
424	Merchant Wholesalers, Nondurable Goods
425	Wholesale Electronic Markets and Agents and Brokers

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The North American Industry Classification System (NAICS) -- *(continued)*

Code	NAICS Title
44-45	**Retail Trade**
441	Motor Vehicle and Parts Dealers
442	Furniture and Home Furnishings Stores
443	Electronics and Appliance Stores
444	Building Material and Garden Equipment and Supplies Dealers
445	Food and Beverage Stores
446	Health and Personal Care Stores
447	Gasoline Stations
448	Clothing and Clothing Accessories Stores
451	Sporting Goods, Hobby, Book, and Music Stores
452	General Merchandise Stores
453	Miscellaneous Store Retailers
454	Nonstore Retailers
48-49	**Transportation and Warehousing**
481	Air Transportation
482	Rail Transportation
483	Water Transportation
484	Truck Transportation
485	Transit and Ground Passenger Transportation
486	Pipeline Transportation
487	Scenic and Sightseeing Transportation
488	Support Activities for Transportation
491	Postal Service
492	Couriers and Messengers
493	Warehousing and Storage
51	**Information**
511	Publishing Industries (except Internet)
512	Motion Picture and Sound Recording Industries
515	Broadcasting (except Internet)
516	Internet Publishing and Broadcasting
517	Telecommunications
518	Internet Service Providers, Web Search Portals, and Data Processing Services
519	Other Information Services
52	**Finance and Insurance**
521	Monetary Authorities - Central Bank
522	Credit Intermediation and Related Activities
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities
524	Insurance Carriers and Related Activities
525	Funds, Trusts, and Other Financial Vehicles
53	**Real Estate and Rental and Leasing**
531	Real Estate
532	Rental and Leasing Services
533	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)

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The North American Industry Classification System (NAICS) -- *(continued)*	
Code	**NAICS Title**
54	**Professional, Scientific, and Technical Services**
541	Professional, Scientific, and Technical Services
55	**Management of Companies and Enterprises**
551	Management of Companies and Enterprises
56	**Administrative and Support and Waste Management and Remediation Services**
561	Administrative and Support Services
562	Waste Management and Remediation Services
61	**Educational Services**
611	Educational Services
62	**Health Care and Social Assistance**
621	Ambulatory Health Care Services
622	Hospitals
623	Nursing and Residential Care Facilities
624	Social Assistance
71	**Arts, Entertainment, and Recreation**
711	Performing Arts, Spectator Sports, and Related Industries
712	Museums, Historical Sites, and Similar Institutions
713	Amusement, Gambling, and Recreation Industries
72	**Accommodation and Food Services**
721	Accommodation
722	Food Services and Drinking Places
81	**Other Services - except Public Administration**
811	Repair and Maintenance
812	Personal and Laundry Services
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations
814	Private Households
92	**Public Administration**
921	Executive, Legislative, and Other General Government Support
922	Justice, Public Order, and Safety Activities
923	Administration of Human Resource Programs
924	Administration of Environmental Quality Programs
925	Administration of Housing Programs, Urban Planning, and Community Development
926	Administration of Economic Programs
927	Space Research and Technology
928	National Security and International Affairs

Source: Executive Office of the President, Office of Management and Budget, North American Industry Classification System, United States, 2002.