THE ASSEMBLY
STATE OF NEW YORK
ALBANY

February 28, 2011

Dear Colleagues:

I am pleased to provide you with the New York State Assembly Ways and Means Committee's Economic Report for 2011. This report continues our commitment to providing clear and accurate information to the public by offering complete and detailed assessments of the national and State economies.

The Ways and Means Committee staff's assessments and projections presented in this report are reviewed by an independent panel of economists, including professionals from major financial corporations and universities, as well as respected private forecasters. Assembly Speaker Sheldon Silver 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 2011

Sheldon Silver
Speaker
New York State Assembly

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

Prepared by the
Assembly Ways and Means Committee Staff

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EXECUTIVE SUMMARY

United States

- The NYS Assembly Ways and Means Committee staff's forecast for **overall national economic growth** in 2011 is 3.2 percent. The staff's forecast is 0.2 percentage point above the Division of the Budget. The staff's forecast is equal to the Blue Chip Consensus and IHS Global Insight. The staff's forecast is lower than Moody's Economy.com and Macroeconomic Advisers by 0.5 percentage point.

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

	Actual 2009	Estimate 2010	Forecast 2011	Forecast 2012
Ways and Means	(2.6)	2.8	3.2	3.1
Division of the Budget	(2.6)	2.8	3.0	3.6
Blue Chip Consensus	(2.6)	2.9	3.2	3.3
Moody's Economy.com	(2.6)	2.9	3.7	4.0
Macroeconomic Advisers	(2.6)	2.9	3.7	3.8
IHS Global Insight	(2.6)	2.9	3.2	2.9

Sources: NYS Assembly Ways and Means Committee staff; NYS Division of the Budget, Executive Budget 2011-12, February 2011; Blue Chip Economic Indicators, February 2011; Moody's Economy.com, February 2011; Macroeconomic Advisers LLC, January 2011; IHS Global Insight, February 2011.

- The recession that began in December 2007 ended in June 2009. It was the **longest and deepest recession** since the Great Depression. An astounding 8.75 million payroll jobs or 6.3 percent were lost between January 2008 and February 2010. U.S. economic output contracted $553.7 billion or 4.1 percent from the fourth quarter 2007 peak level to the trough in the second quarter of 2009.

- With aggressive policy actions by the federal government and monetary authorities, the **U.S. economy** started showing signs of stabilization in the second half of 2009. Gross Domestic Product, adjusted for inflation, grew an estimated 2.8 percent in 2010 after declining 2.6 percent in 2009.

- Spending in all major sectors turned positive in 2010, except for state and local governments, which have been restraining spending in the midst of budget woes. Overall **economic recovery** is expected to continue in 2011 and 2012, helped by continued improvement in consumer and business spending. Global economic recovery will also support foreign demand for U.S. exports.

- **Employment recovery** has been slow with only 11.6 percent of the lost jobs regained as of January 2011. The unemployment rate was still high at 9.0 percent in January; only 1.1 percentage points lower than the October 2009 peak level of 10.1 percent. Unsure how the future course of the economy will play out and also pressed for cost-saving efforts and productivity gain in the face of global competition, businesses are reluctant to hire more aggressively.

- **U.S. Gross Domestic Product**, or real GDP, is forecast to grow 3.2 percent in 2011. This is below the post-World War II average performance during the early phase of recovery: on average, the U.S. economy grew 4.7 percent per year during the first two years after nine post-World War II recessions. The national economy is forecast to continue to expand in 2012 at an annual rate of 3.1 percent.

- **U.S. payroll employment** gained 1.02 million jobs from February 2010 to January 2011. Another 2.4 million jobs are expected to be added during 2011. By the end of 2012, the U.S. economy will still have 2.4 million fewer jobs compared to the January 2008 peak level. This is in spite of the fact that the U.S. economy is expected to add 235,000 jobs per month in 2012.

- After growing only 1.8 percent in 2010, **personal consumption spending**, adjusted for inflation, is forecast to grow by 3.1 percent year-over-year in 2011 and 2.8 percent in 2012. These growth rates are below the percentage increases observed during most of the 1990s and 2000s. Consumers appear to be picking up their spending, although they continue to face headwinds that have weighed on their expectations about future economic growth, and thus remain cautious.

- As **asset prices** spiraled downward, the net worth of households fell $12.8 trillion or 19.9 percent in 2008 compared to 2007. This was the largest annual decline since the series began in 1945. As of the third quarter of 2010, only $3.5 trillion had been recouped. Therefore, the balance sheet situation for households remains precarious as depressed housing prices persist and high volatility in the financial markets fosters significant uncertainties.

- Overall private **investment** spending grew an estimated 16.8 percent in 2010, following three consecutive years of decline. Growth in 2010 was largely due to the restocking of inventories following severe rundowns and a pick up in equipment and software spending. The NYS Assembly Ways and Means Committee staff forecasts overall business spending growth to slow to 6.8 percent in 2011. The slowdown in growth from 2010 is due to lower levels of inventory restocking and more moderate

spending growth on equipment and software. As the housing and commercial real estate sectors improve, business spending growth is expected to accelerate to 9.3 percent in 2012.

- The **housing market** started to stabilize in 2010. However, both home sales and housing starts remain at record lows. Home prices are still falling. Although activity in the market is expected to start improving during the forecast period, the pace will likely remain slow in 2011 due to a slow employment recovery and large inventories of both new and existing homes relative to the pace of sales.

- As of the third quarter of 2010, it was estimated that almost eleven million mortgages or 22.5 percent of all mortgage holders owed more on their mortgage than the properties were worth (**negative equity**), with another 2.4 million mortgages approaching negative equity. This imposes a significant downside risk to the housing market as it could create an incentive for homeowners to default on their mortgages.

- After growing 7.3 percent in 2008 and 5.7 percent in 2009, **federal government spending** growth slowed to an estimated 4.8 percent in 2010 as growth in military compensation and defense investment spending slowed. Federal government spending growth is forecast to further slow to 0.8 percent in 2011, as the government continues to restrain spending on compensation for defense and nondefense personnel as well as public investments. Federal government spending is forecast to fall 1.9 percent in 2012 due partly to a decline in nondefense payroll and public investment spending and even slower growth in defense compensation.

- **State and local government spending** fell an estimated 1.3 percent in 2010 despite a boost from the American Recovery and Reinvestment Act of 2009 (ARRA) and additional fiscal help from the federal government. In 2011, state and local government spending is forecast to decline another 0.5 percent as the fiscal stimulus wanes and states continue to limit spending. In 2012, state and local government spending is forecast to increase only 0.1 percent as states' revenues improve and continue to restrain spending.

- Global economic recovery helped U.S. export growth in 2010. **Exports** grew an estimated 11.7 percent in 2010. **Imports** grew an estimated 12.6 percent. As the U.S. and world economies recover from the recession, world trade will likely continue to improve. U.S. imports are forecast to grow by 6.8 percent in 2011, and 7.5 percent in 2012, while U.S. exports are forecast to grow by 9.0 percent in 2011 followed by 8.7 percent in 2012.

- After growing 3.0 percent in 2010, **personal income** is forecast to grow 4.7 percent in 2011 due to $111 billion in payroll tax cuts, an improving labor market with higher wage and salary expectations, and increases from dividend and interest income. In 2012, with the payroll tax cuts set to expire at the end of 2011, personal income growth is forecast to slow to 3.2 percent.

- After advancing 1.6 percent in 2010, inflation, based on the **Consumer Price Index,** is forecast to grow 2.1 percent in 2011 and 2.2 percent in 2012. Although much slack remains in the economy, higher energy and food prices will apply upward pressure to prices. The extent to which commodity prices will increase presents significant risk to the inflation forecast.

- After three consecutive years of decline, **corporate profits** are estimated to have grown 29.2 percent in 2010. Increased productivity through output gains and employment cuts helped boost corporate profits through the first three quarters of 2010, as did growing demand for U.S. exports. Moving forward, corporate profits are forecast to continue to grow but at a slower pace as costs move more in line with sales.

- The current forecast assumes that the Federal Reserve will maintain the **federal funds rate** within the current target range (0-0.25) through the end of 2011, before raising the rate throughout the forecast period. It is also assumed that the Fed will continue its program to purchase longer-term U.S. Treasury securities in order to encourage the economic recovery and help inflation remain at levels coherent with the Fed's mandate.

- The **S&P 500** averaged 1,140.8 in 2010, an increase of 20.5 percent from 2009. With economic recovery expected to continue, the stock market is forecast to continue to improve throughout the forecast period.

- Many risks to the economic outlook remain. Problems that were central to the recent recession continue to a certain extent, including limited access to credit and weaknesses in both the labor market and the housing market. Unrest in the Middle East and recent spikes in commodity prices, particularly food and energy prices, present a serious risk to consumer price inflation. If these areas fail to improve, or worsen again, the impact on the outlook would be significant.

New York

- The NYS Assembly Ways and Means Committee staff's forecast for **total nonfarm payroll employment growth** in New York State in 2011 is 0.9 percent. The staff's forecast is 0.2 percentage point above the Division of the Budget. The staff's forecast for **wage growth** in the State in 2011 is 3.8 percent. The staff's forecast is 0.6 percentage point above the Division of the Budget.

New York State Forecast Comparison (Percent Change)				
	Actual 2009	Estimate 2010	Forecast 2011	Forecast 2012
Employment				
Ways and Means	(3.1)	0.1	0.9	1.2
Division of the Budget	(3.1)	(0.1)	0.7	1.3
Wages				
Ways and Means	(7.2)	4.4	3.8	6.6
Division of the Budget	(7.2)	4.0	3.2	5.2

Sources: NYS Assembly Ways and Means Committee staff; NYS Division of the Budget, Executive Budget 2011-12, February 2011.

- As the overall economy continues to recover, total nonfarm payroll employment in both the State and the nation is forecast to increase in 2011 and 2012. However, as the State lost fewer jobs than the nation, the speed of nonfarm payroll employment recovery in New York State will likely be slower than that of the nation. For example, after losing almost 2.3 million jobs or 16.6 percent during the recent recession, the nation's manufacturing sector has gained 161,000 jobs or 7.1 percent. For comparison, the State's manufacturing sector has gained only 500 jobs or 0.6 percent, after losing 84,000 jobs or 15.5 percent. **Nonfarm payroll employment** in the State is forecast to increase by 0.9 percent in 2011 and further in 2012 by 1.2 percent.

- The securities industry was particularly hard hit and continues to be troubled by the problems in the financial system. **Securities industry employment** reached a record high of 871,000 jobs nationally in the second quarter 2008, but has since contracted by 7.9 percent as of the fourth quarter of 2010. Securities industry employment in New York State declined by 9.7 percent in 2009, a loss of 20,100 jobs. Although there were reports of hiring in some segments of the industry, overall securities industry employment is estimated to have declined further by 3.7 percent in 2010. Securities industry employment is forecast to grow by 0.8 percent in 2011 and 2.8 percent in 2012.

- In 2011, **total nonfarm wages** in New York State are expected to continue to recover as businesses continue to regain confidence in the economy and start hiring employees (albeit at a slower pace than before the recession). Overall wages will grow by 3.6 percent in 2011 and 6.6 percent in 2012, as the financial sector continues to recover and the general health of the State economy and employment outlook returns. The 2012 forecast is impacted by tax law changes that would cause shifting of wages from 2013 to 2012.

- **New York State variable wages** are volatile. While they have declined by double-digit percentages before, the 30.8 percent drop in 2009 was unprecedented and corresponds to a drop of $21.6 billion. Variable wages are estimated to have grown by 19.1 percent in 2010, and are forecast to grow merely 2.2 percent in 2011. As the securities industry accounts for a large percentage of variable wages, weak bonus payments in the sector will contribute to the paltry growth in 2011. In 2012, variable wages are forecast to grow strongly by 23.6 percent as the financial sector continues to recover and the overall economy expands. In addition, tax law changes will contribute significantly to the higher growth rate in 2012.

- After declining in 2008 and 2009, **taxable capital gains** are estimated to have increased to $40.9 billion in 2010. The increase largely reflects a continued recovery in the financial market. Taxable capital gains are forecast to increase 27.4 percent in 2011 to $52.1 billion due to expected increases in asset prices. In 2012, capital gains are expected to increase markedly to $78.8 billion, partly as a result of shifting from 2013 to 2012 as investors respond to expectations of a tax increase.

UNITED STATES FORECAST

The recession that began in December 2007 ended in June 2009. It was the longest and deepest recession since the Great Depression. An astounding 8.75 million payroll jobs or 6.3 percent were lost between January 2008 and February 2010. The jobs lost were more than three times as many as the 2.7 million jobs lost during the 1981-82 recession, which was the second sharpest recession since World War II. The unemployment rate surged to 10.1 percent in October 2009, leaving 15.6 million workers jobless (see Figure 1). The jobless rate was still 9.0 percent in January 2011. U.S. economic output contracted $553.7 billion or 4.1 percent from the fourth quarter 2007 peak level, as both consumer and business spending declined sharply, 2.4 percent and 35.8 percent respectively (see Appendix A on page 87 and Appendix B on page 88).

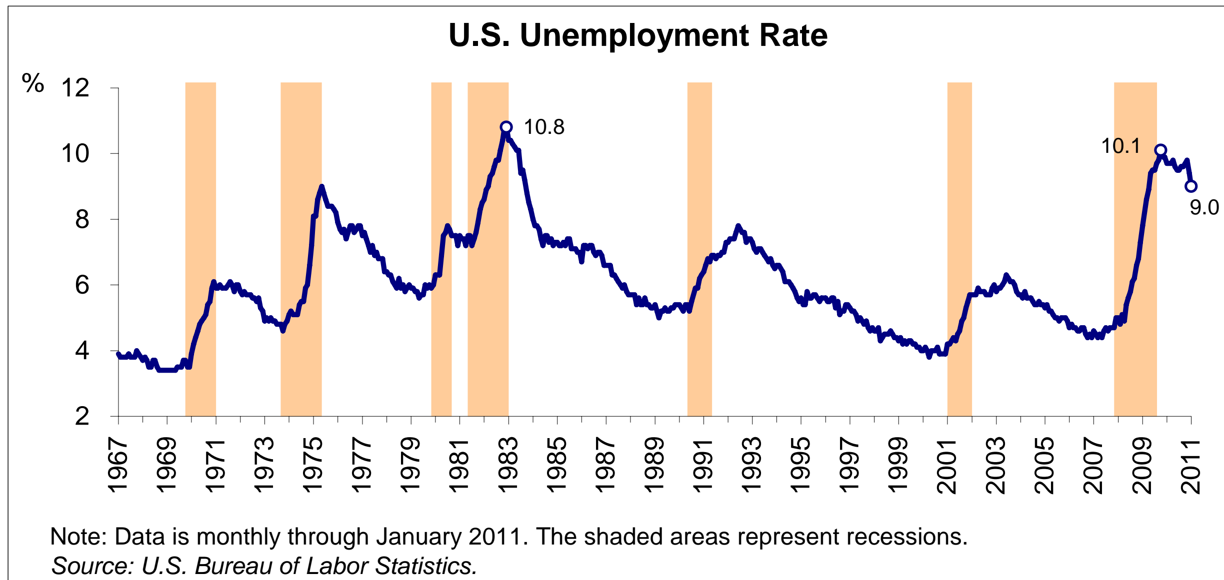

Figure 1

The housing market went through the most severe adjustments among all sectors. Private residential investment expenditures declined a total of 58.7 percent or $460.2 billion between the fourth quarter of 2005 and the third quarter of 2010. Housing starts underwent a more severe contraction, declining 76.7 percent from the peak in January 2006 to the bottom in October 2009 (see Figure 2).[1] Home prices declined more

[1] In historical comparison, housing starts declined 89.7 percent from the peak in 1925 to the bottom in 1933. But, when adjusted for the U.S. population, housing starts peaked at 8.1 per 1,000 persons in 2006,

than 30 percent from the 2006 peak level and foreclosure filings in 2007 and 2008 totaled over 3.5 million.

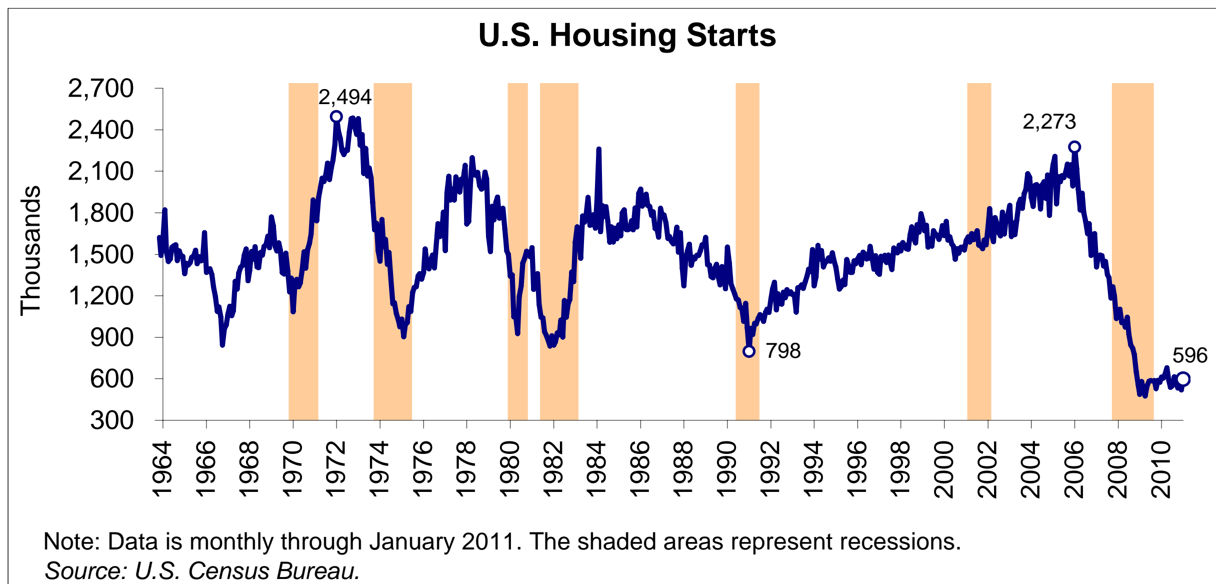

Figure 2

With aggressive policy actions by the federal government and monetary authorities, the U.S. economy started showing signs of stabilization in the second half of 2009. Gross Domestic Product grew 4.4 percent, after adjusting for inflation, between the third quarter of 2009 and the fourth quarter of 2010. Induced by attractive deals and incentives, consumers started spending again. Businesses also started spending again in order to replace old equipment and software and remain productive in competitive global markets. Although at a measured pace, businesses started hiring again. As a result, private payroll employment gained 1.2 percent or 1.3 million jobs between February 2010 and January 2011.

The current recovery is forecast to continue in 2011 and 2012. In post-World War II (post-WWII) U.S. history, once economic recovery was under way, it typically lasted

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compared to 7.3 per 1,000 persons in 1925. This indicates that the housing bubble leading up to the 2006 peak was even greater than the one before the Great Depression. For more details, see Jeff Booth, "Housing Starts Today vs. The Great Depression!" *Building into the Future*, BuildDirect, http://blog.builddirect.com/industryinsights/housing-starts-today-vs-the-great-depression/, (accessed November 2, 2010).

fifty-nine months.[2] It has been twenty months since the last recession ended in June 2009. Consumer spending will be helped by pent-up demand and gradual improvement in household balance sheets. Also, improvement in personal income and $111 billion of social security tax cuts will provide cash flow to support consumer spending growth in 2011.[3] Corporate profits have shown strength, and businesses have been updating equipment and software. Industrial production has been steadily rising and the rate of utilization of existing production capacity has also been gradually picking up, indicating more business capital spending in the near future. The private sector has been creating payroll jobs since February 2010, helping labor income growth. Global economic growth is expected to continue, more pronouncedly in Asia and South America, supporting global demand for U.S. exports.

Economic recovery is forecast to be relatively slow compared to earlier recoveries. U.S. real GDP is forecast to grow 3.2 percent in 2011 (see Table 1). This is below the post-WWII average performance during the early phase of recovery: on average the U.S. economy grew 4.7 percent per year during the first two years after nine post-WWII recessions. Excesses still remain in the housing market and home prices are likely to fall further. Housing demand remains weak despite record low mortgage rates. With 11 million homeowners owing more than their homes are worth, more foreclosures are likely.[4] Also, as seen in the recovery after the savings and loan crisis of the late 1980s and after the stock market bubble burst of 2000, the pace of recovery after financial crisis is usually slow.[5] That is because it takes several years to mend balance sheets and recoup from asset losses. Financial intermediaries still struggle to repair their damaged balance sheets, unwilling to release their reserves to loans. Unsure how the future course of the economy will play out and pressured for cost-saving efforts and productivity gains in the face of global competition, businesses are reluctant to hire more aggressively.

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[2] Fifty-nine months is the average duration of eleven expansions since 1945. Three expansions lasted roughly three years and one expansion lasted for two years. Although the U.S. economy fell into recession in July 1981, only one year after the previous recession ended, it was rather an exception in that it was caused primarily by a sharp tightening by the Federal Reserve to fight inflation and then exacerbated by the Reagan tax cuts that were announced in 1981. Since the tax cuts were scheduled to become effective on January 1, 1983, production and other economic activities were effectively postponed until after January 1983, making the economic performance of 1981 and 1982 appear worse than it would otherwise have been.

[3] CCH Tax Briefing, 2010 Tax Relief/Job Creation Act, Special Report, December 21, 2010, http://tax.cchgroup.com/downloads/files/pdfs/legislation/bush-taxcuts.pdf (accessed February 25, 2010).

[4] Core Logic, "Negative Equity Report Q3 2010," September 13, 2010.

[5] Prakash Kannan, "Credit Conditions and Recoveries from Recessions Associated with Financial Crises," Working Paper 10/83, International Monetary Fund, March 2010.

In the 1990s, the economy was powered by the financial market boom and financial innovations. In the decade after the 2001 recession, the economy was fueled by a housing market boom and global economic growth. It is not clear yet what sectors, if any, will help put the economy on a robust growth path in coming years. For now, cautiousness on the part of consumers and businesses is expected to lead to relatively slow growth in employment and output in 2011.

Table 1

U.S. Economic Outlook (Percent Change)				
	Actual 2009	Estimate 2010	Forecast 2011	Forecast 2012
Real GDP	(2.6)	2.8	3.2	3.1
Consumption	(1.2)	1.8	3.1	2.8
Investment	(22.6)	16.8	6.8	9.3
Exports	(9.5)	11.7	9.0	8.7
Imports	(13.8)	12.6	6.8	7.5
Government	1.6	1.1	0.0	(0.7)
Federal	5.7	4.8	0.8	(1.9)
State and Local	(0.9)	(1.3)	(0.5)	0.1
Personal Income	(1.7)	3.0	4.7	3.2
Wages & Salaries	(4.3)	2.1	4.1	4.8
Corporate Profits	(0.4)	29.2	8.0	2.9
Productivity	3.5	3.5	1.9	1.7
Employment	(4.4)	(0.7)	1.2	2.1
Unemployment Rate*	9.3	9.6	9.1	8.5
CPI-Urban	(0.3)	1.6	2.1	2.2
S&P 500 Stock Price	(22.5)	20.5	16.4	5.9
Treasury Bill Rate (3-month)*	0.2	0.1	0.2	1.3
Treasury Note Rate (10-year)*	3.3	3.2	3.6	4.2

* Annual average rate.

Note: Personal income and corporate profits are nominal.

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.

U.S. payroll employment on net gained 1.02 million jobs from February 2010 to January 2011. Another 2.4 million jobs are expected to be added during 2011. By the end of 2012, the U.S. economy will still have 2.4 million fewer jobs compared to the January 2008 peak level. This is in spite of a monthly net gain of 235,000 jobs expected during 2012.

The current forecast assumes that the Fed will be able to effectively employ various policy tools to unwind the expansionary monetary policies at the appropriate time.[6] Furthermore, the recent trend in productivity and unit labor costs indicates 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 is forecast to advance 2.1 percent in 2011 and 2.2 percent in 2012. However, recent spikes in commodity prices, particularly food and oil prices, present serious risks to consumer price inflation.

Gross Domestic Product

The U.S. economy, as measured by real GDP, declined 2.6 percent in 2009 (see Figure 3). This was the largest yearly decline since 1946. Except for federal government spending, expenditures by every sector of the U.S. economy contracted sharply (see Figure 4). The 1.2 percent decrease in personal consumption spending in 2009 was the second consecutive yearly decline, which was unprecedented since the early 1930s. Also, the 22.6 percent contraction in overall business spending in 2009 was the largest yearly decline since 1949. In particular, residential construction spending was more than halved in 2009 from its yearly peak level of 2005. Had it not been for the drag of residential

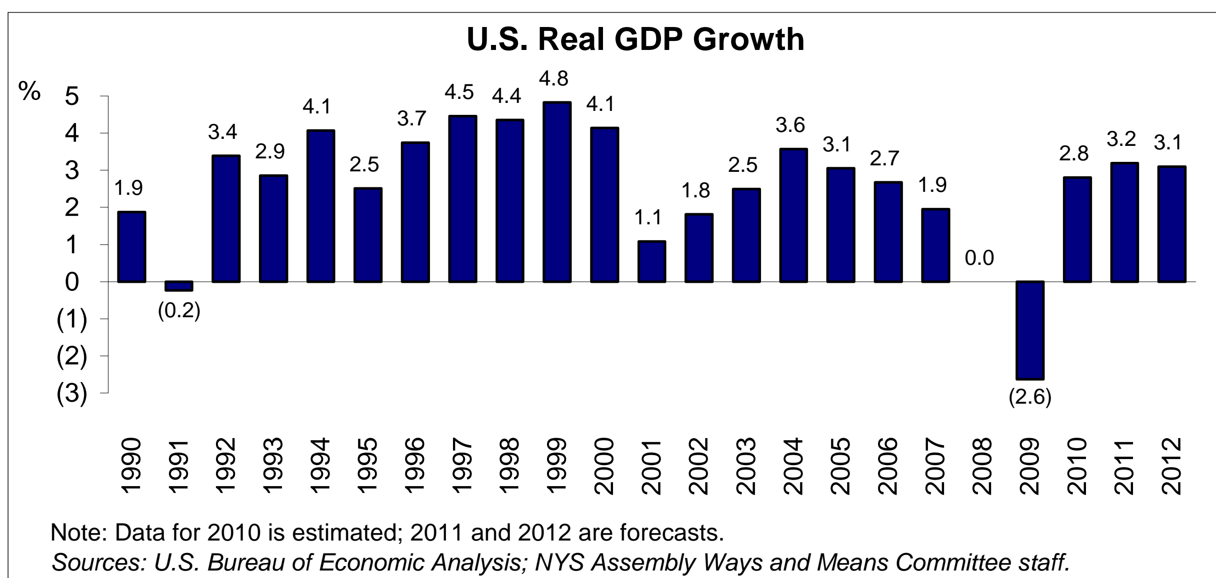


Figure 3

[6] For a list of such policy tools available to the Fed, see Ben Bernanke, "The Fed's Exit Strategy," *Wall Street Journal*, July 21, 2009, http://online.wsj.com/article/SB10001424052970203946904574300050657897992.html.

construction activity, the national economic contraction in 2009 could have been less severe by 0.7 percentage point even without spillover effects. Aggressive actions by the federal government and Federal Reserve helped the economy avoid any worse contraction and post a brisk 5.0 percent gain in the fourth quarter of 2009 followed by an additional 3.7 percent in the first quarter of 2010.

All major sectors turned positive in 2010, except for state and local governments that have been restraining spending in the midst of budget woes (see Figure 4). On an annual average basis, U.S. real GDP grew an estimated 2.8 percent year-over-year in 2010. In 2011, although the weak employment recovery will be a drag and the effects of household wealth losses will linger, recovery in consumer spending is expected to continue. It will be helped by pent-up demand and gradual improvement in household balance sheets. Also, the $111 billion in social security tax cuts will support consumer spending growth in 2011. Businesses with cash from healthy earnings are keen on remaining productive in competitive global markets. Business spending on equipment and software replacements will likely continue in the coming months. With mortgage rates at record low levels, activity in the housing market is expected to gradually turn around in 2011. Given tepid demand and still sizable excesses in the market, however, the pace of the housing recovery is forecast to be slow compared to historical standards. As federal stimulus funds run low and state and local governments are strained by budget woes, support from the public sector is expected to slow down during 2011. Overall, the U.S. economy will continue to grow during 2011 and 2012 at an annual rate of 3.2 percent and 3.1 percent, respectively.

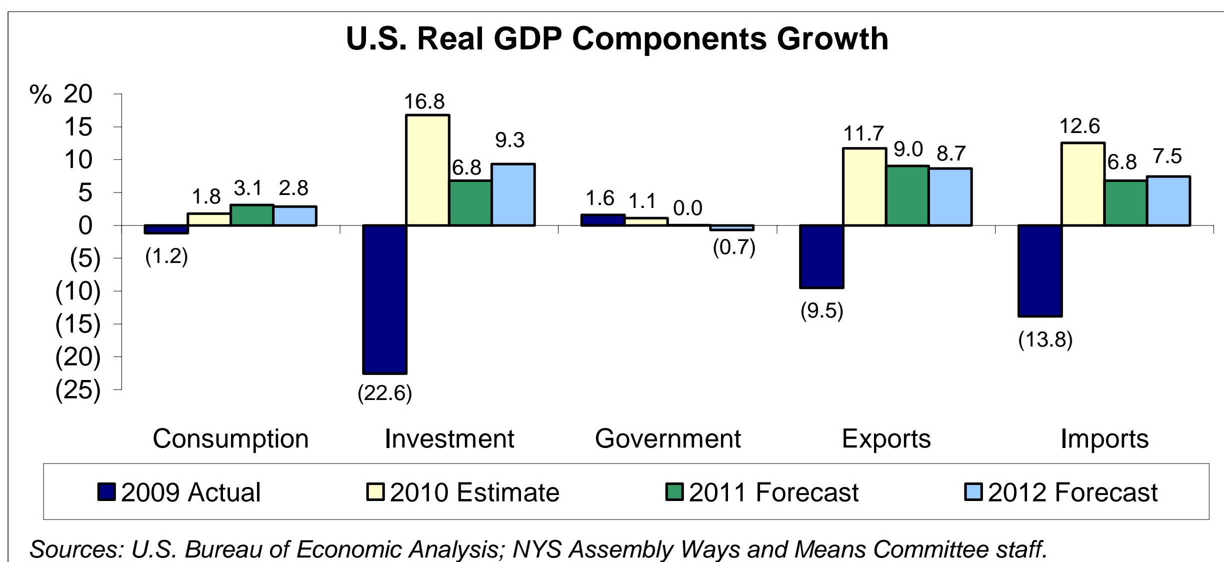


Figure 4

Consumption

After falling in 2008 and 2009, the first back-to-back yearly falloff since 1932, consumer spending grew a paltry 1.8 percent in 2010. The pace of consumer spending remains one of the biggest concerns to overall economic recovery as it accounts for more than two-thirds of GDP.

Consumers continue to face headwinds that have weighed on their expectations about future economic growth, and thus remain frugal. In particular, persistently high unemployment, difficulty obtaining credit, modest wage growth, and household wealth that is far below its peak level have contributed to consumers' restrained spending behavior. However, recent strength in some indicators, such as retail sales, suggests that consumers are starting to spend again, albeit at a cautious pace. As consumer spending has yet to return to pre-crisis growth rates, the possibility exists that consumer spending patterns have permanently changed as they have learned to live with less over the past few years and are inclined to be more thoughtful spenders. In the longer run, the falling debt burden of households and steady job growth should rebuff consumers' fears, helping to improve the outlook of personal consumer spending. As a result, consumer spending is expected to grow 3.1 percent in 2011 and 2.8 percent in 2012 (see Figure 4).

New orders of consumer goods, a leading indicator of personal consumption spending, declined 27.5 percent from its peak in July 2008 to its trough in March 2009 (see Figure 5) as the economy continued to contract. Since then, new orders of consumer goods have improved at a gradual pace, reflecting a better overall outlook for consumption spending.

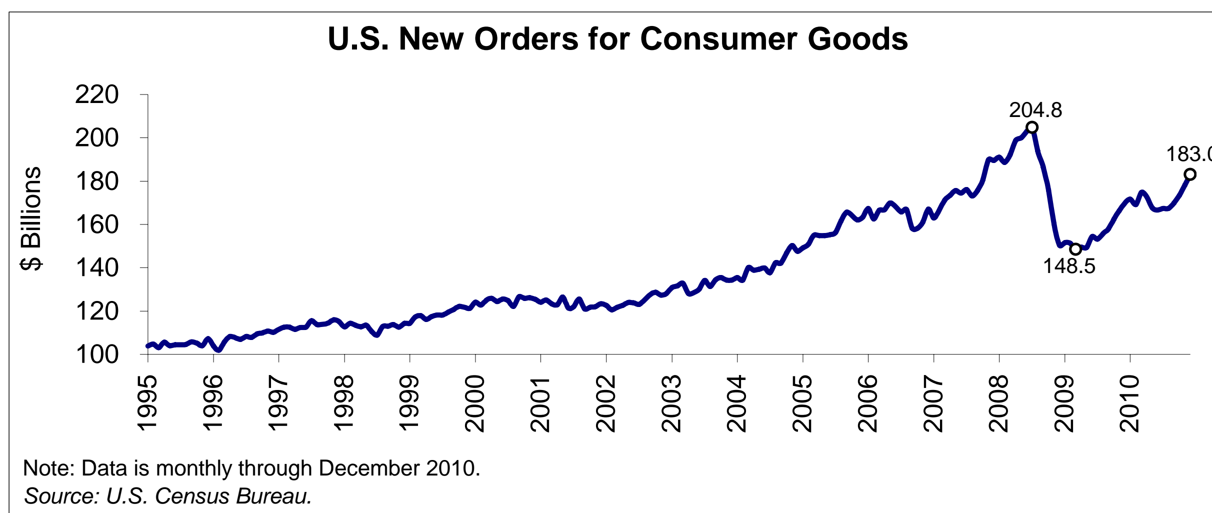
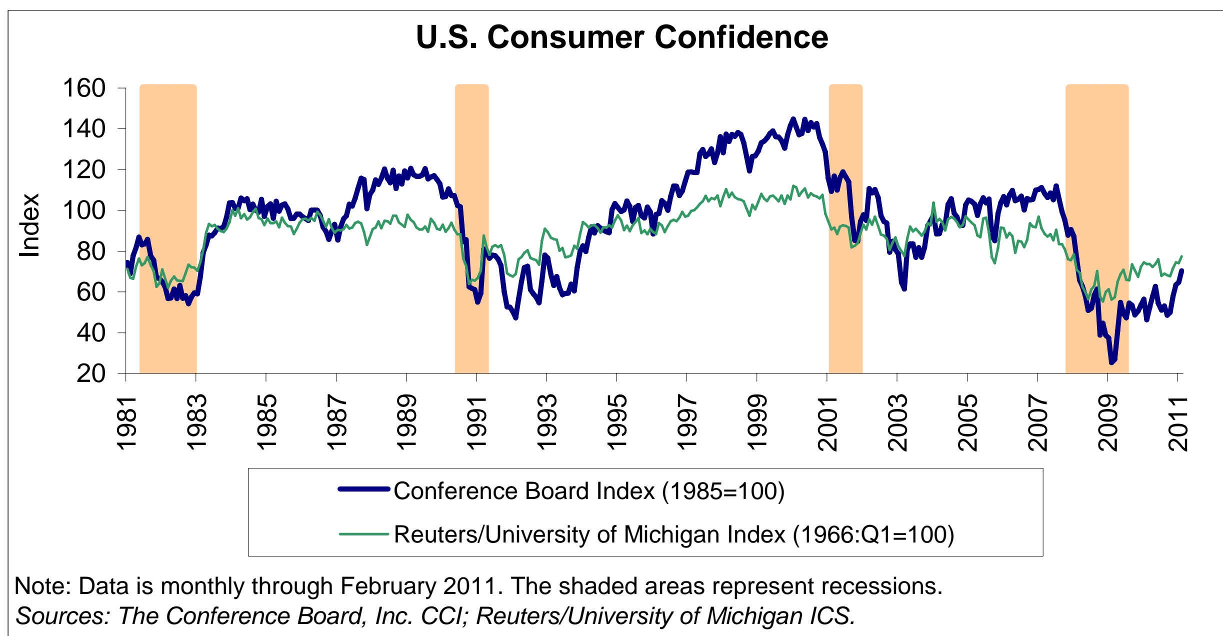


Figure 5

The recent recession took a heavy toll on consumer confidence, as the cumulative effect of losses in household wealth, less access to credit, slower income growth, and higher unemployment weighed on consumer's optimism (see Figure 6).[7] The downward pressure of these factors on consumer spending outweighed the effects of low interest rates, tax cuts, tax credits, and other transfer income that households received through the fiscal stimulus passed by Congress in February 2009. Despite general improvement in the overall economy, confidence remains low compared to pre-recession levels, underscoring the cautious nature with which consumers have been approaching spending.



Note: Data is monthly through February 2011. The shaded areas represent recessions.
Sources: The Conference Board, Inc. CCI; Reuters/University of Michigan ICS.

Figure 6

Compared to the recent recession period, credit conditions have improved for some consumers (see Figure 7). For instance, consumers with good credit standing may find it easier to secure financing. Going forward, this should help support consumer spending, especially large durable purchases such as automobiles.

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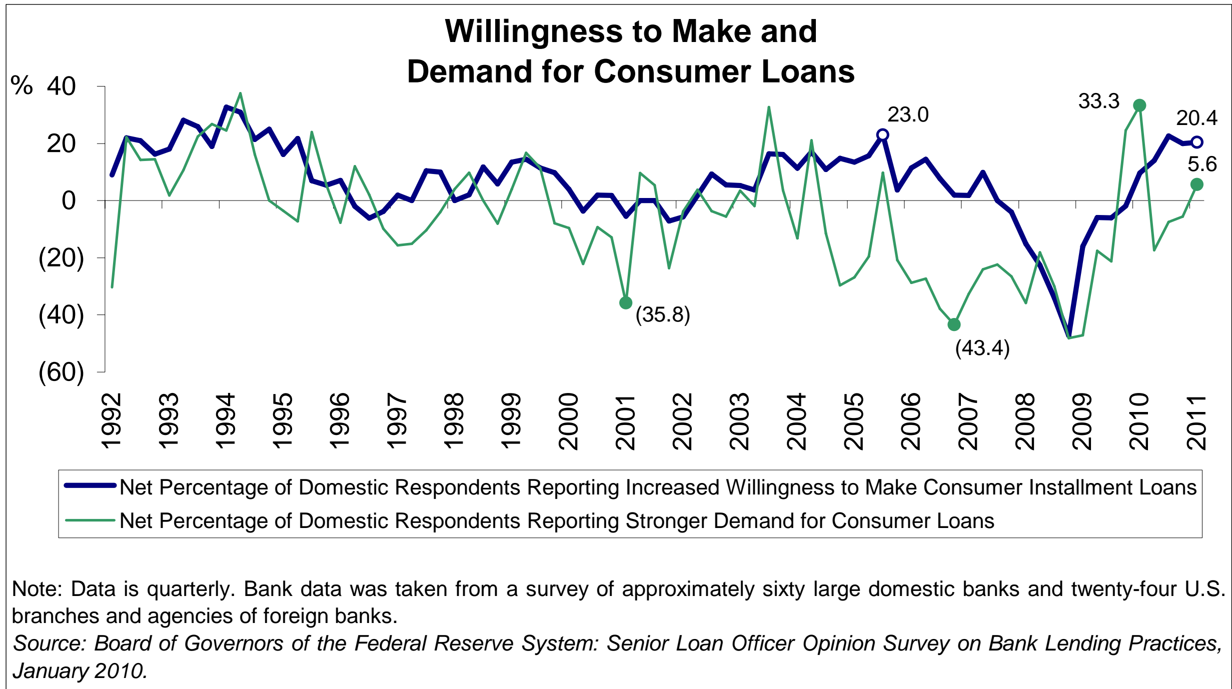
[7] Consumer confidence fell in February 2009 to its lowest level since the series started in 1978. See Steven Gherstad and Vernon L. Smith, "Household Expenditure Cycles and Economic Cycles, 1920-2010," (working paper, Economic and Science Institute, Chapman University, CA, June 22, 2010).



Note: Data is quarterly. Bank data was taken from a survey of approximately sixty large domestic banks and twenty-four U.S. branches and agencies of foreign banks.

Source: Board of Governors of the Federal Reserve System: Senior Loan Officer Opinion Survey on Bank Lending Practices, January 2010.

Figure 7

The issues in the stock and housing markets played a major role in declining consumer spending during the recession, as they significantly impacted the net worth of households. As asset prices spiraled downward, the net worth of households fell $12.8 trillion or 19.9 percent in 2008 compared to 2007 (see Figure 8). This was the largest annual decline since the series began in 1945. As of the third quarter of 2010, only $3.5 trillion had been recouped. Therefore, the balance sheet situation for households remains precarious as depressed housing prices persist and high volatility in the financial markets fosters significant uncertainties. As the economic recovery continues, however, further wealth rebuilding (in the near future, rebuilding will likely be primarily through stock market gains, as opposed to housing value increases) should help sustain real personal consumption spending. Additional support will be provided by a decline in the rate of savings compared to the rate at which people were saving during the recession.

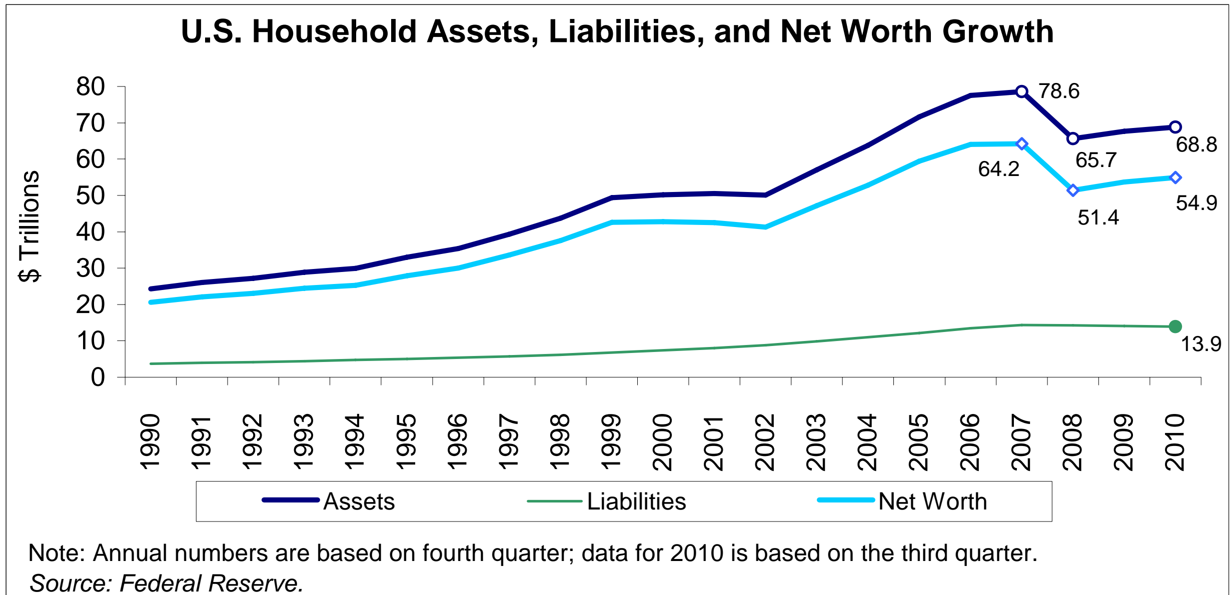


Figure 8

As real estate assets grew in value, leading up to the recent recession, consumers had been heavily financing their purchases using their home equity. Total home equity withdrawals peaked at $83.6 billion in the second quarter of 2006. Total home equity withdrawals by households fell $71.7 billion from its peak in the second quarter of 2006 to the fourth quarter of 2008 as real estate prices declined. Cash-out volume remains low as large numbers of homeowners choose to "cash-in" by paying additional money when refinancing. In the fourth quarter of 2010, only 16 percent of borrowers increased their refinanced loan balance by at least 5 percent, the lowest share since the series began in 1985.[8] Cash-out volume is at the lowest dollar value level in more than ten years (see Figure 9). Without another sustained increase in housing prices, the volume of home equity cash-out will likely remain lower than pre-recession levels. Therefore, cash-out will not provide the same boost to consumption that it added before the recession.

[8] Freddie Mac, "46 percent of Refinancing Homeowners Pay Down Debt in Fourth Quarter," Freddie Mac, January 31, 2011, http://www.freddiemac.com/news/archives/rates/2011/4qupb10.html.

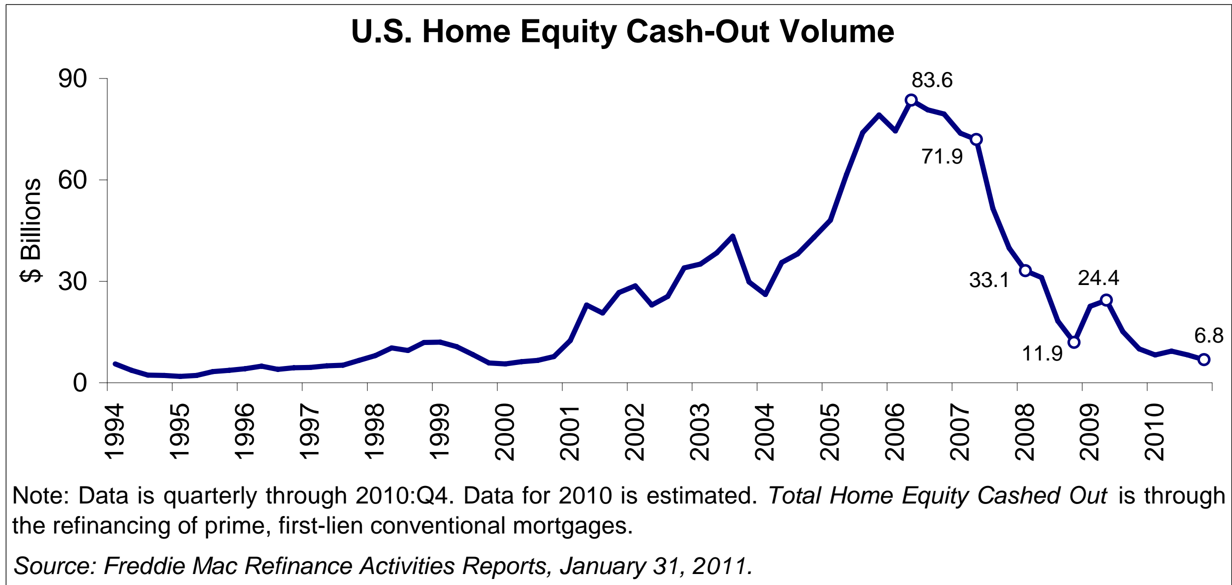


Figure 9

Falling debt burdens (due to consumers making direct payments and charge-offs by banks) could enhance personal consumption spending as funds once used to make debt payments become available to make purchases (see Figure 10). Consumer spending will also continue to be encouraged as households rebuild their wealth. In addition, low interest rates will provide some support to consumer spending. Also, the extension of tax cuts and the reduction of the social security tax should help support disposable income. These supporting factors will be partially offset by the headwinds consumers are facing as previously discussed. In addition, the small gains observed recently in the labor market have done little to improve the situation of consumers who have been unemployed. However, workers who have been employed throughout the recession may be feeling more secure, perceiving their chances of remaining employed as greater than several months ago. Their perception of their economic stability may be more optimistic given the positive changes in some overall indicators. These consumers are likely to increase their spending faster due to pent-up demand. Therefore, real personal consumption spending is forecast to grow by 3.1 percent year-over-year in 2011 and an additional 2.8 percent in 2012 (see Figure 11). Although growth is positive, it will be below the percentage increases observed during most of the 1990s and 2000s.

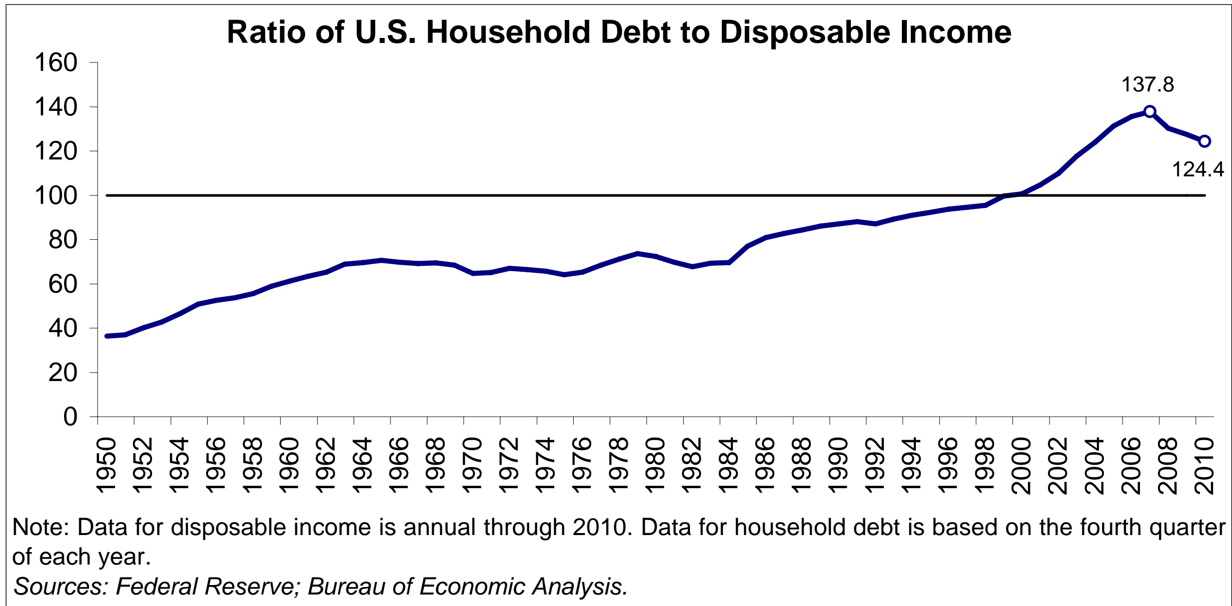


Figure 10

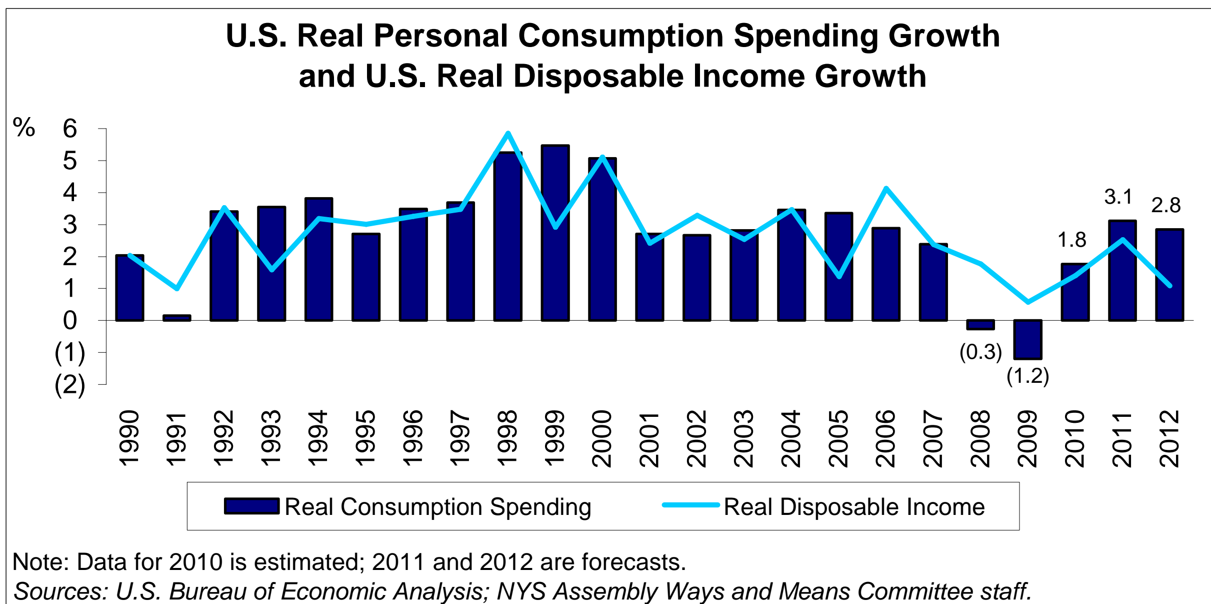


Figure 11

The three major components of consumption, services, durables, and non-durables expenditures fell in 2009 (see Figure 12). Although all three components started to recover during 2010, the growth was at varying paces with services consumption growing the slowest. Services consumption growth is currently low compared to other post-recession

periods. This will have implications for overall consumer spending growth, as services consumption represents the largest share of consumer spending (65 percent) compared to durables (13 percent) and non-durables (22 percent).

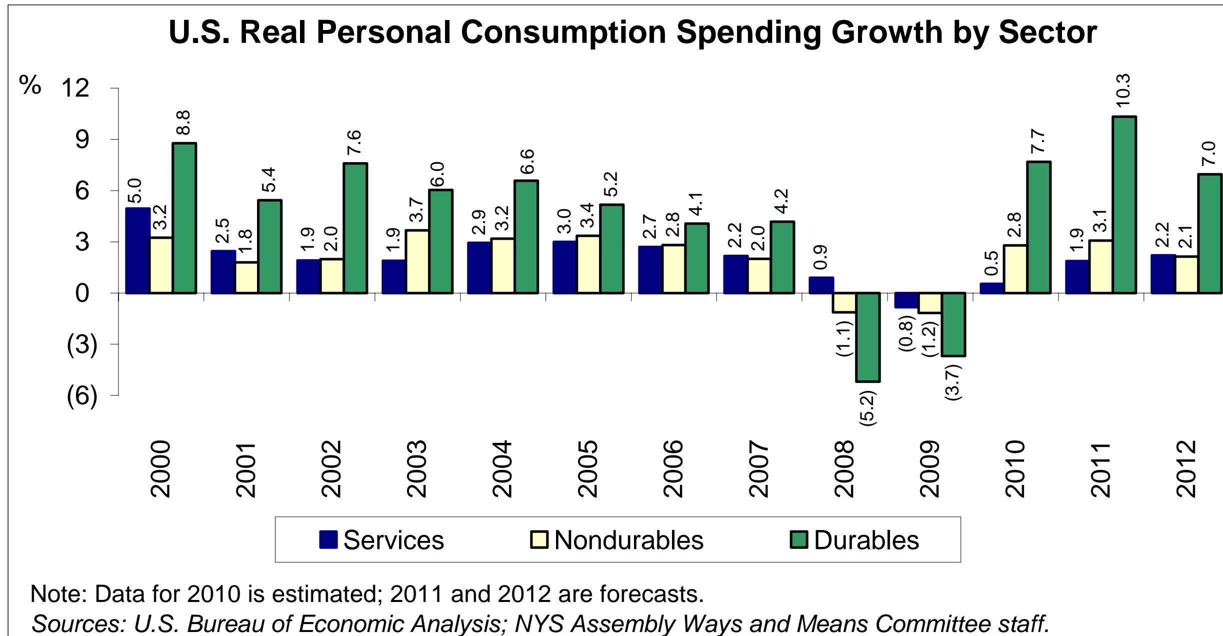


Figure 12

One explanation for the slower growth in services consumption is that while consumers could defer most durable purchases until their economic situation improved, purchases in some categories of service consumption, such as healthcare, could not be deferred and thus spending growth continued in these categories throughout the recession. In addition, some categories of service spending are likely to experience slower growth during this recovery compared to historical growth rates during other recoveries given the nature of the current recovery. For example, housing services, which accounted for a large part of growth in services spending leading up to the recent recession, is expected to experience slower growth as a result of the slow recovery in the housing market.

Durables spending, which historically had shown the strongest growth, is expected to continue to pick up strongly as the economic recovery starts to take hold. During the recession, consumers may have economized by finding substitutes or choosing to defer or eliminate purchasing discretionary durable items such as cars. As consumer spending resumes, some of these durable purchases that consumers had put off will now take place

as consumers see their economic situation improve, especially consumers who have remained employed throughout the recession.

The forecast for consumer spending is consistent with the gradual recovery pattern of past recessions that were most similar in nature to the recent recession. However, the recent recession has been deeper and longer than those in the past few decades. Characteristically, the recession that began in December 2007 appears to be most comparable to the 1990-91 recession than to other recessions of the past four decades. In the 1990s, serious solvency problems arose at thrift institutions and the financial sector was hit by a credit crunch. Initially, the recovery in consumer spending was sluggish. On the other hand, the 1973-75 and 1980-82 recessions were caused by a disruption in oil supply. Then, consumer spending fell dramatically; however, rebounded quite sharply.

Investment

Business spending came back strongly in 2010 following three years of consecutive losses that amounted to the greatest decline in business spending of any post-WWII recession. The source of investment growth has come from a return to spending on equipment and software, and the restocking of inventories following severe rundowns throughout 2008 and the first half of 2009. Growth in these two components outpaced continued declines in the residential and nonresidential construction sectors in 2010, and boosted total business spending growth to an estimated 16.8 percent. The NYS Assembly Ways and Means Committee staff forecasts overall business spending growth to slow to 6.8 percent in 2011. The slowdown in growth from 2010 is due to the slowdown of inventory restocking and more moderate spending growth on equipment and software. As the economy continues to improve and residential and nonresidential construction activities rebound, business spending growth is expected to accelerate to 9.3 percent in 2012 (see Figure 13 and Figure 14).

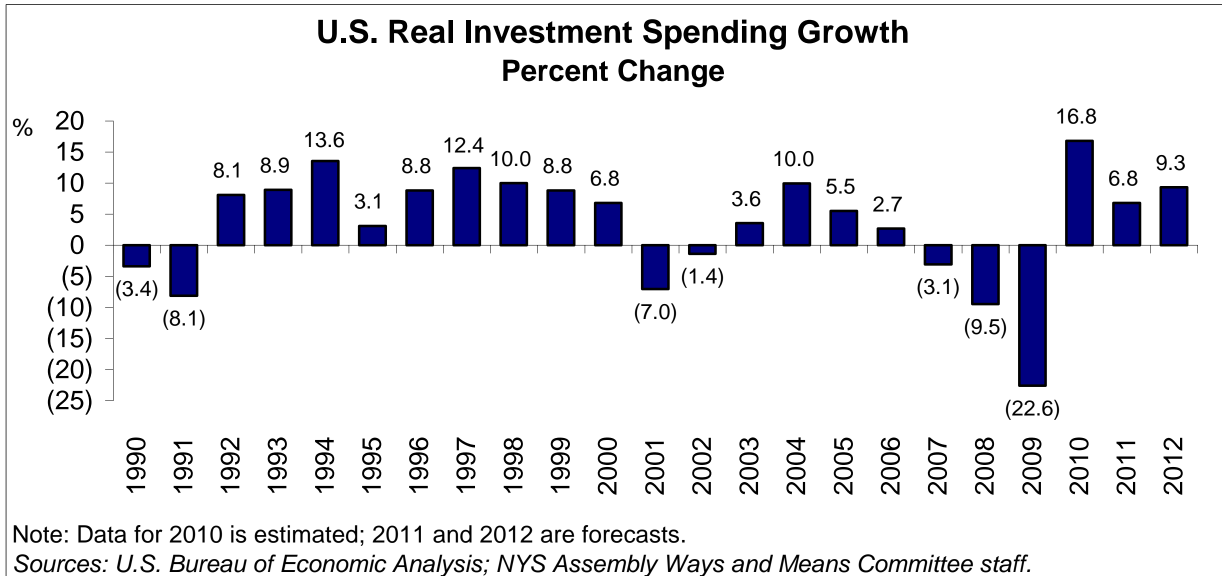


Figure 13

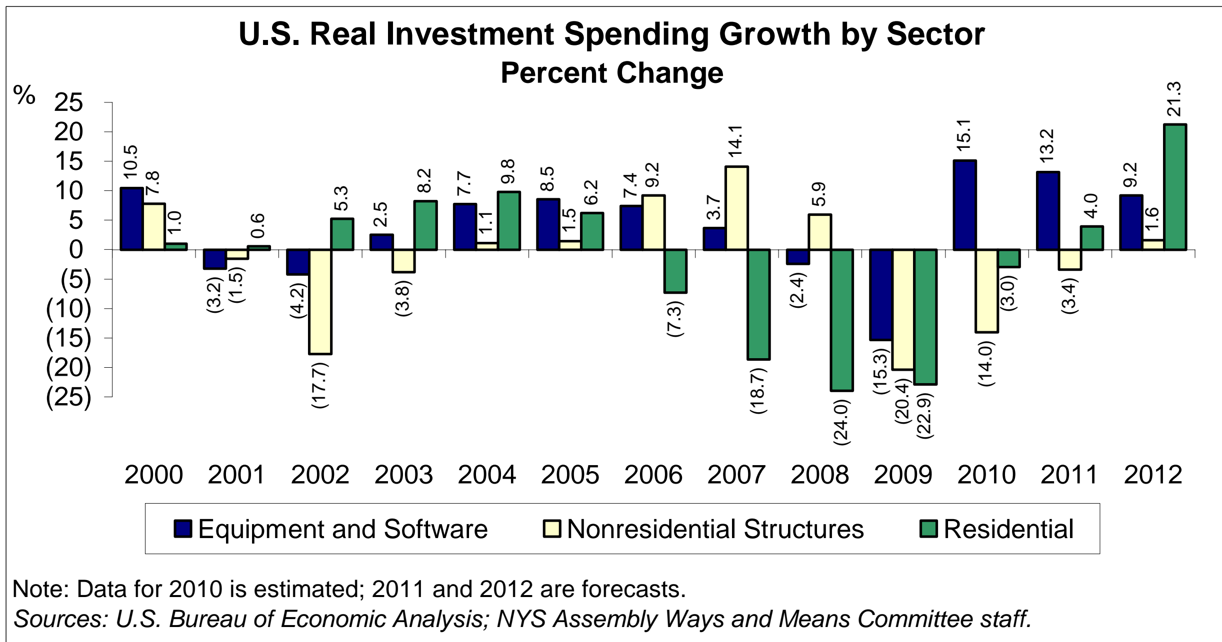


Figure 14

Business spending on equipment and software grew strongly throughout 2010. This wave of business capital spending came following two years of decline, as many businesses held off investing in replacements and upgrades while they struggled to stay afloat. Emerging from the recession, several quarters of strong profit growth have left

corporations with record levels of cash holdings. Growing global competition, along with tax breaks on capital goods, has forced businesses to use this extra cash flow to strengthen productivity and gain a competitive edge through improvements in technology. Consequently, business spending on equipment and software grew an estimated 15.1 percent in 2010.

As business conditions improve along with the economy, spending on equipment and software is gaining, as evidenced by the strong upward trend in nonmilitary capital goods orders (excluding aircraft) in recent months (see Figure 15). As replacement investment slows in the forecast period, the sector is forecast to grow 13.2 percent in 2011 and 9.2 percent in 2012.

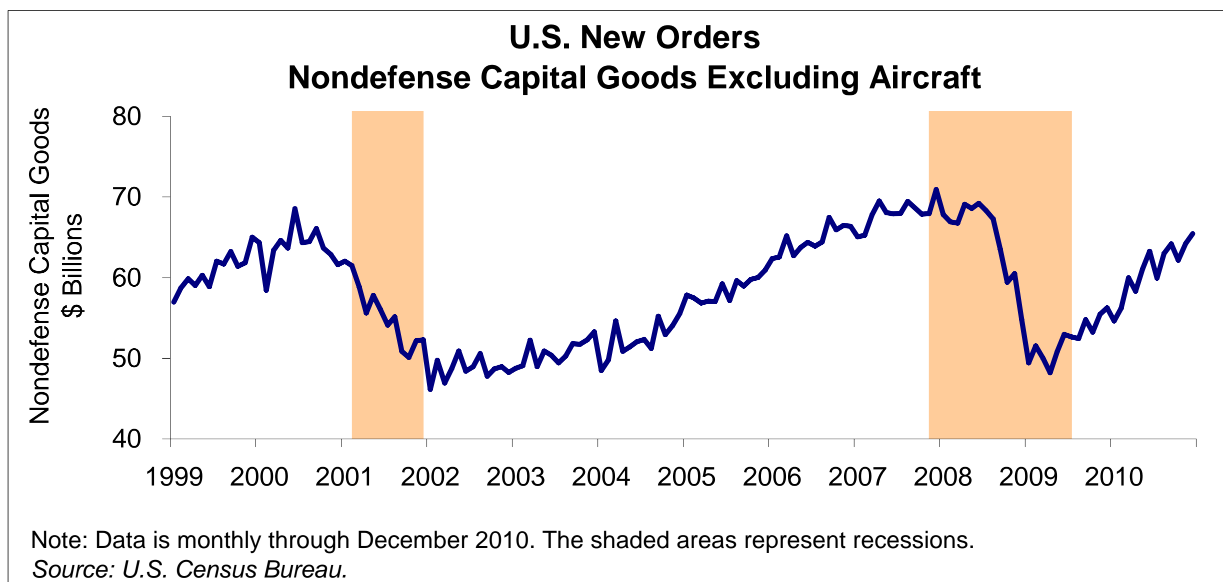


Figure 15

Spending on inventories came back strongly in 2010 following large declines in 2008 and in the first half of 2009. From the third quarter of 2009 to the third quarter of 2010, changes in inventory significantly contributed to GDP growth. In the forecast period, inventory accumulation will be more restrained, as the pace of restocking slows. As such, contributions to GDP growth will be minimal in the forecast period (see Figure 16).

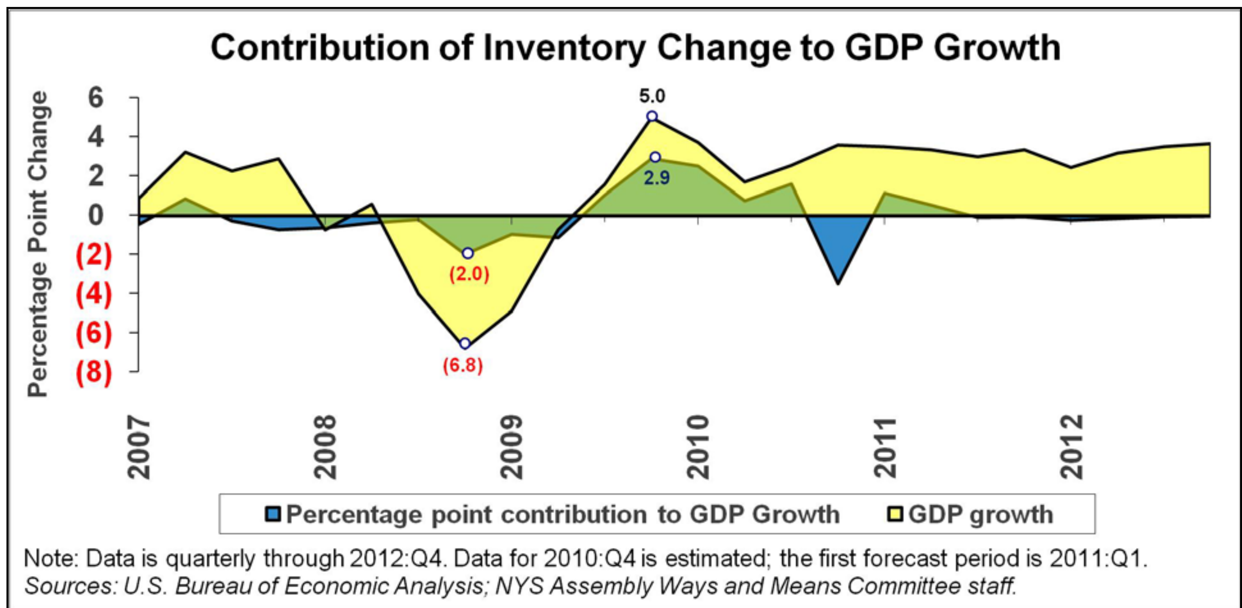
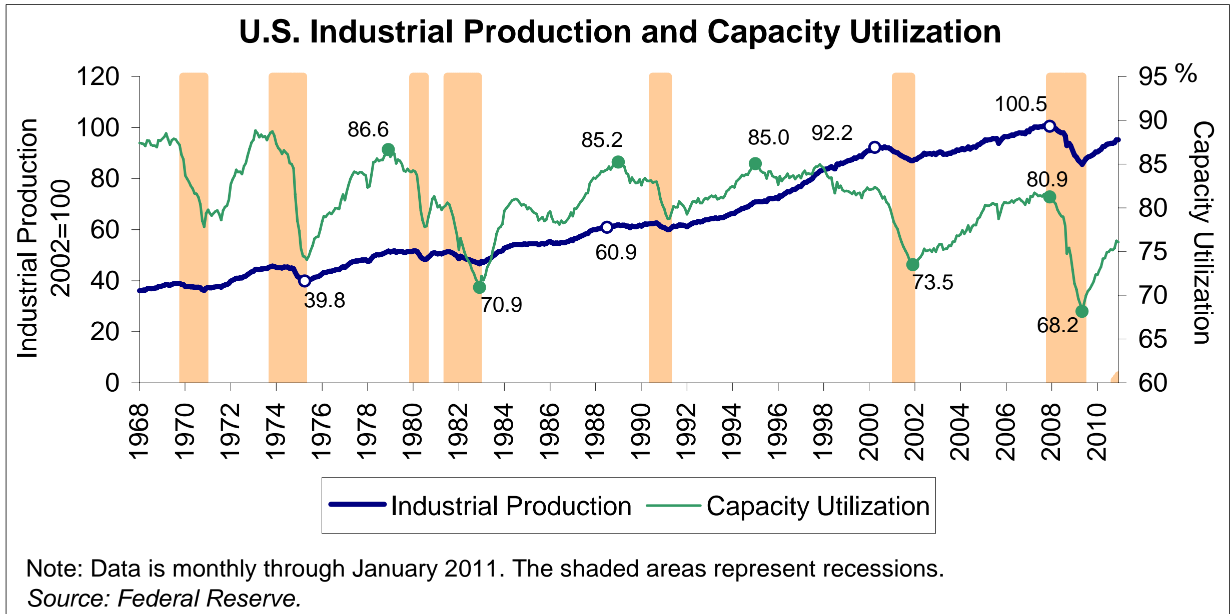


Figure 16

Investment in nonresidential structures continued to experience declines throughout 2010. Spending on structures fell an estimated 14.0 percent in 2010, following a decline of 20.4 percent in 2009. Significant gains in the highly volatile mining and exploration sector softened double-digit declines in business spending in all other structures sectors, but such gains are not expected to continue in the forecast period. Despite an expanding U.S. economy, declines are forecast to continue throughout 2011 as the sector remains strained by an abundance of underwater properties, tight credit conditions, high rates of unemployment and a focus on increasing space efficiency.

Industrial production has been improving since mid-2009, indicating continued growth in the business sector (see Figure 17). However, even as manufacturing and office employment growth improves, businesses have found themselves with excess space left over from past layoffs and plant slowdowns. The capacity utilization rate has been improving since mid-2009, but its levels still indicate soft demand, as quite a bit of spare capacity remains in the economy. The level of excess capacity will likely discourage investment in new space in the forecast period. Companies, now focused on increasing efficiency, are working to increase space utilization before expanding. As such, the movement towards space maximization in the wake of hard-to-obtain financing will keep vacancy rates above desirable levels and continue to weigh on commercial real estate prices.



Note: Data is monthly through January 2011. The shaded areas represent recessions.
Source: Federal Reserve.

Figure 17

After peaking at 15.0 percent in the first quarter of 2010, office vacancy rates in central business districts began to show signs of improvement, but still remained undesirably high at 14.4 percent in the fourth quarter of 2010.[9] Outside of central business districts, vacancy rates have been slower to recover, but appear to have flattened out in the second half of 2010. Property prices remain 40 percent below their October 2007 peak but have stabilized since the end of 2009 (see Figure 18). As vacancy rates and prices have stabilized over the past several months and interest rates have remained low, demand for commercial real estate loans has increased with investors looking to take advantage of undervalued markets (see Figure 19).

[9] Cushman & Wakefield, "United States Office Report, 4Q10," *MarketBeat*, January 2011.

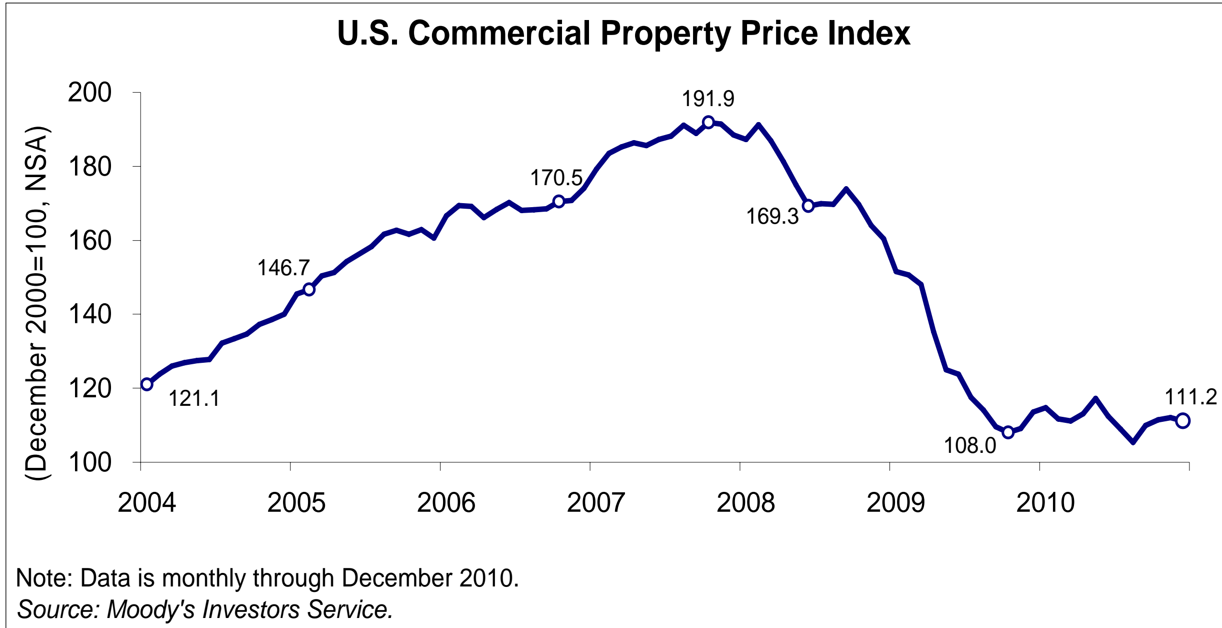


Figure 18

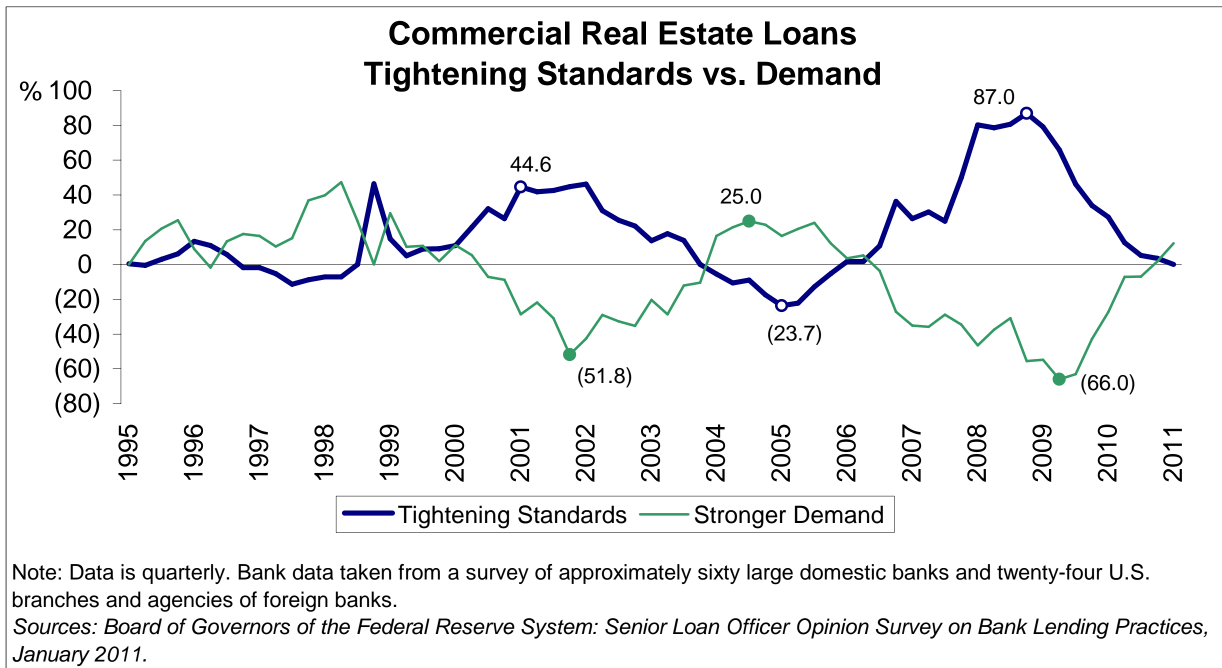


Figure 19

Banks have remained cautious in light of high delinquency rates on commercial mortgage-backed securities (CMBS)—a record high 9.0 percent in December 2010[10]—and have continued to show restraint in commercial real estate loans, but have been indicating a growing interest in taking on risk in the market. Continued improvements in commercial mortgage debt outstanding should encourage large lending institutions to loosen lending standards on commercial loans in the forecast period.[11] The resurgence of interest in commercial real estate acquisition is positive news for commercial real estate and is indicative of improving market fundamentals.[12]

Growing interest in real estate acquisition will not automatically translate to new spending on structures as vacancy rates remain too high and space prices too low to warrant investment on new building construction. As such, spending on structures will continue to decline in 2011, though with diminishing severity. Continued strengthening in commercial real estate fundamentals, employment, and the national economy along with the need for expansion will contribute to gradual recovery in the nonresidential structures sector in 2012.

Housing Market

Housing accounts for the largest portion of household wealth and was the essence of the recent recession. Home prices had been steadily increasing since the end of the 1991 recession. As a result, the housing market emerged as one of the most important factors to influence the overall state of the economy, especially following the 2001 recession. From the end of the 2001 recession to the end of 2005, national home prices rose at an average rate of almost 3 percent per quarter (based on the S&P/Case-Shiller U.S.

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[10] Moody's Investment Service CMBS Delinquency Tracker. Data is historical from 2002.

[11] Commercial mortgage debt outstanding has been declining since its peak in 2008. See Board of Governors of the Federal Reserve System, "Mortgage Debt Outstanding (1.54)," line 4, release date: December 2010.

[12] Small banks continue to struggle in the current market and will likely keep lending standards tight as approximately 40 percent of their balance sheets remain made up of commercial real estate loans—the majority of which are concentrated in the hard hit secondary and tertiary markets. Widespread losses in the sector will continue to gravely affect the small banking sector. In comparison, commercial real estate loans make up only 15 percent of large lending institutions balance sheets. Further, large lending institutions are largely concentrated in primary markets, which have been showing signs of strengthening going into 2011. See Congressional Oversight Panel, *Commercial Real Estate Losses and the Risk to Financial Stability*, February 10, 2010; and Wells Fargo Securities, "Commercial Real Estate Chartbook: Quarter 4," February 4, 2011.

National Home Price Index). As a result, household real estate assets grew 67 percent from $13.6 trillion in 2001 to its peak of $22.7 trillion in 2006.

Since its peak in 2006, the S&P/Case-Shiller Composite 20 Index declined dramatically. The Index dropped by more than 30 percent from the first quarter of 2006 to the first quarter of 2009, with the highest depreciation rates in the areas that experienced the fastest growth during the boom period. Both the S&P/Case-Shiller and the Federal Housing Finance Agency (FHFA) home price indices began to stabilize in early 2009 (see Figure 20).

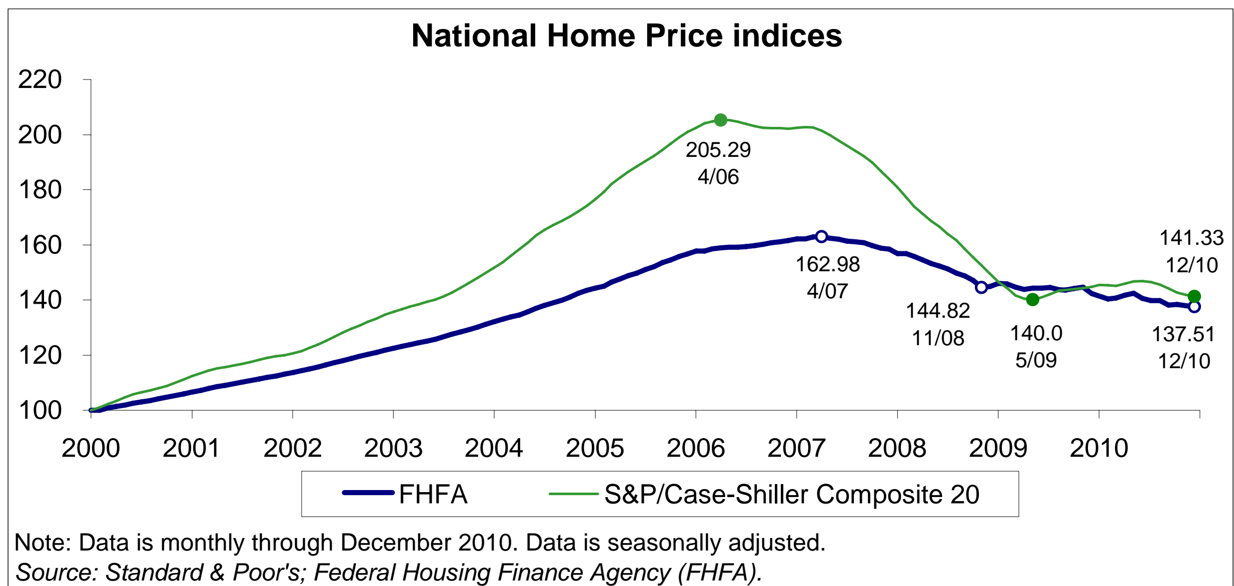

Figure 20

Concerns of another possible decline in residential values are reflected in the Senior Loan Officer Opinion Survey. In the January survey, small fractions of domestic banks reported a net tightening of standards on both prime and non-traditional mortgage loans, marking a reversal from the slight easing reported in the July survey for prime loans (see Figure 21). Further reflecting insecurities in the housing market, banks, on net, kept standards tight for approving home equity lines of credit and reduced the size of existing home equity loans for customers.

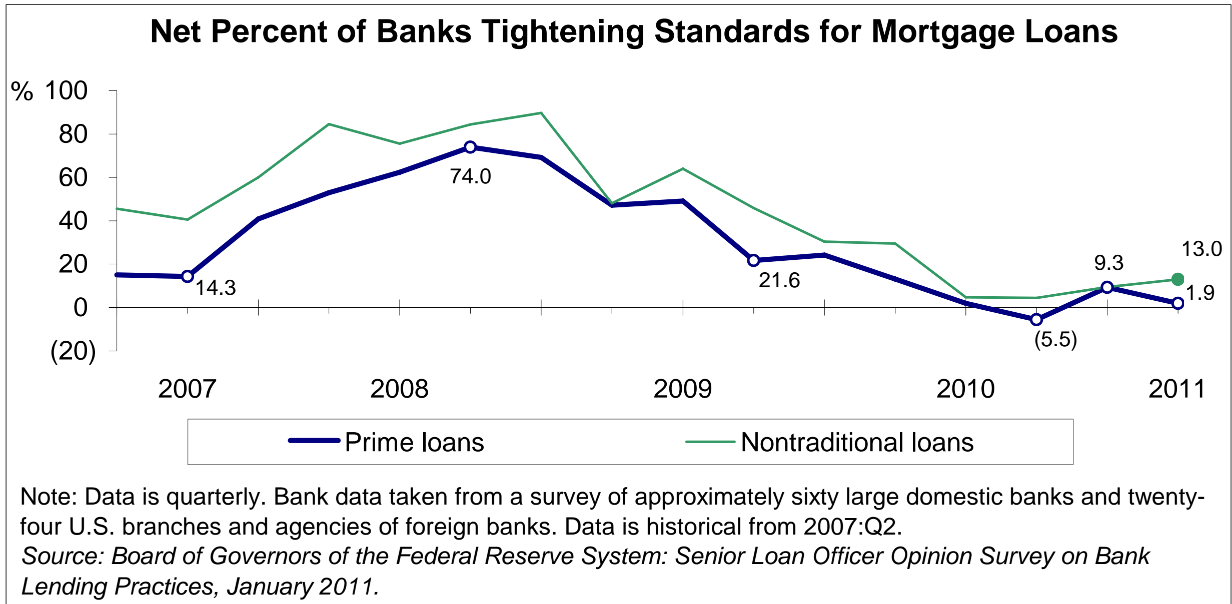

Figure 21

Cautiousness by banks to make loans is partly in response to foreclosures and high delinquency rates. The delinquency rate on single-family residential mortgages reached 11.3 percent in the second quarter of 2010, marking the highest rate that it has been at since the series began in 1991 (see Figure 22). The third quarter of 2010 marked the first improvement in the delinquency rate on single-family residential mortgages in seventeen quarters.

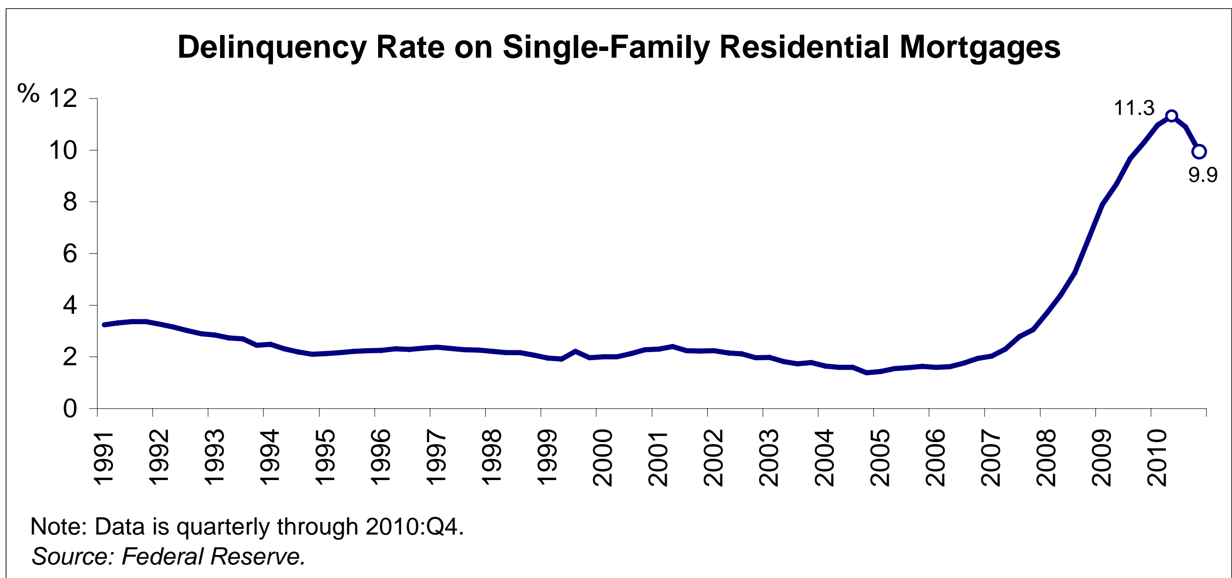

Figure 22

The main cause of the high rate of delinquencies on single-family homes is the inability of people who lost their jobs in the past recession to pay their mortgages as well as the significant portion of people who have come to owe more on their homes than their homes are worth due to declining home values. As of the third quarter of 2010, it was estimated that almost eleven million mortgages or 22.5 percent of all mortgage holders owed more on their mortgage than the properties were worth (in negative equity), with another 2.4 million mortgages approaching negative equity.[13] This imposes a significant downside risk to the housing market as it could create an incentive for homeowners to default on their mortgages.

The federal government has created several programs to aid and encourage homeowners to keep their homes. One of the flagship programs that the federal government put in place is the Home Affordable Modification Program (HAMP), which aims to help homeowners modify their mortgages to reduce their monthly payment to a more affordable level, thus reducing foreclosures. However, approximately 730,000 mortgage holders who had tried to get their mortgages modified through the program had withdrawn through November 2010, indicating that homeowners are remaining under stress. That is about half of the 1.4 million homeowners who had enrolled since the program began in March 2009.[14] Thus, it is possible that new foreclosures will continue to come into the market.

The continued addition of foreclosed homes onto the market is daunting for home builders, as it encourages home-buyers to bargain shop for foreclosed homes, instead of purchasing new ones. Further, increases in foreclosures make banks more cautious in lending, which in return makes taking out a loan to purchase a home more difficult and perhaps undesirable for otherwise potential buyers. The juxtaposition of single-family homes for sale to the median number of months that new homes remain on the market after completion demonstrates the severity in the lack of demand for new homes at the

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[13] First American CoreLogic's data report is based on 48 million properties that have a first and/or second mortgage, which account for over 90 percent of all mortgages in the U.S. The data was revised for the third quarter of 2009 to adjust for amortization and home equity lines of credit (HELOC). As a result, the third quarter estimates are not comparable to prior quarters. Using the old methodology, the third quarter estimate of negative equity would be 33.8 percent. See First American CoreLogic, "First American CoreLogic's Negative Equity Data Report" (as of December 13, 2010).

[14] U.S. Department of Treasury, U.S. Department of Housing and Urban Development, *Housing Scorecard, Making Home Affordable Program: Servicer Performance Report through October 2010*, October 2010.

current time (see Figure 23). Since its peak of 572,000 in July 2006, the inventory of new homes has declined 67.0 percent. The stock of new single-family homes is now hovering near historical lows at around 200,000 and yet, despite this low inventory, the median amount of time that it took to sell a new home after completion in the corresponding period was 7.8 months in January 2011. At the beginning of 2006, it took less than 4.0 months to sell a home after completion.

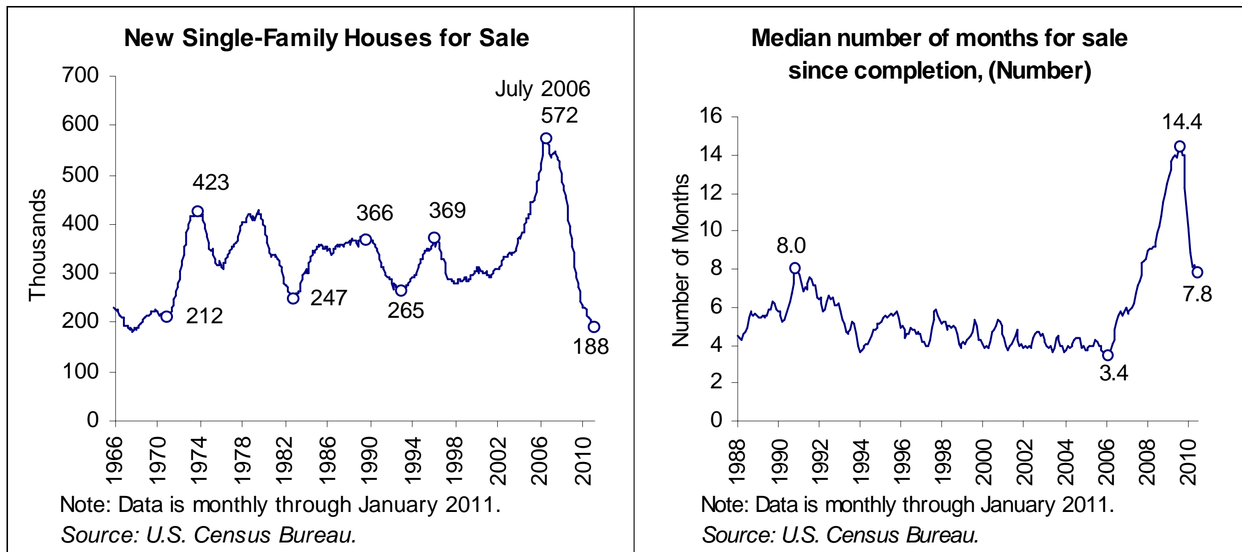

Figure 23

Even with mortgage rates at historical lows, the sale of single-family homes remains depressed (see Figure 24). Consequently, housing starts and building permits have remained anemic. Small upticks, seen through 2009 and 2010, are mostly due to the $8,000 housing tax credit, which extended through April 2010. In the second half of 2010, the residential sector has experienced some payback from the shift in demand to the first half of the year. As such, the NYS Assembly Ways and Means Committee staff estimates that residential construction spending for 2010 declined 3.0 percent over the year, marking the sector's fifth consecutive year of descent.

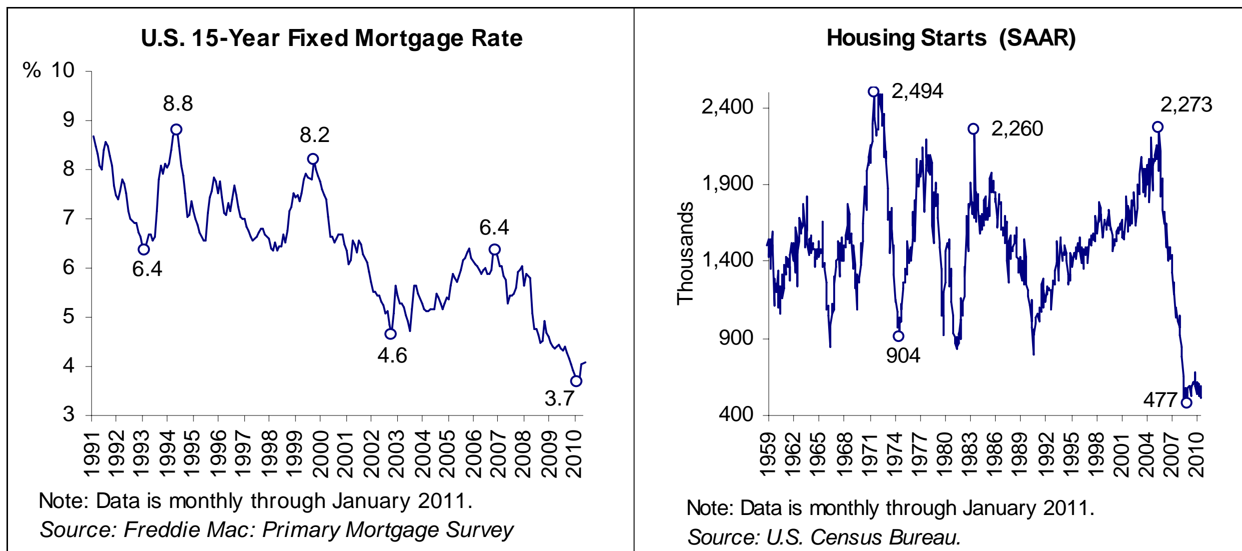

Figure 24

Moving into 2011, credit problems are expected to loosen a bit more as the economy improves. Furthermore, slow gains in employment are expected to coincide with slow gains in the residential market, pushing residential investment spending growth up 4.0 percent. This is a very low rate of growth following five years of heavy declines. Going forward, the residential market has two major factors working in its favor. One is the relatively low mortgage rates. The other is the low level of new home inventory. Consequently, as employment improves and credit conditions ease, demand for new homes should pick up, as market conditions remain favorable to buyers. Further, the low inventory level of new homes means that, at the least, growth in supply will move linearly with growth in demand. As employment and the overall economy improve in 2012, growth in residential structures is expected to pick up, growing 21.3 percent over the year. Similarly, as demand increases, home prices are likely to appreciate.

Government Spending

Federal government spending slowed to 5.7 percent in 2009 after growing 7.3 percent in the prior year. The slowdown was due to slower growth in public investment spending and significantly lower non-compensation expenditures. Specifically, the increase in outlays for equipment and software was dramatically less than in 2008. Similarly, growth in spending on investments and services such as vehicles, missiles, research and development, and petroleum products was more sluggish than in 2008.

Slower growth in the compensation of military employees and defense investment spending compared to 2009 caused total federal government spending growth to slow to 4.8 percent in 2010. Federal government spending growth is forecast to slow further to 0.8 percent in 2011 as the government continues to restrain spending on compensation for defense and nondefense personnel as well as public investment. In 2012, the federal government is expected to further curtail the compensation of defense and nondefense employees. In addition, a reduction in outlays on public investments and a falloff in non-compensatory spending in nondefense will contribute to the decline in federal spending of 1.9 percent in 2012 (see Figure 25).

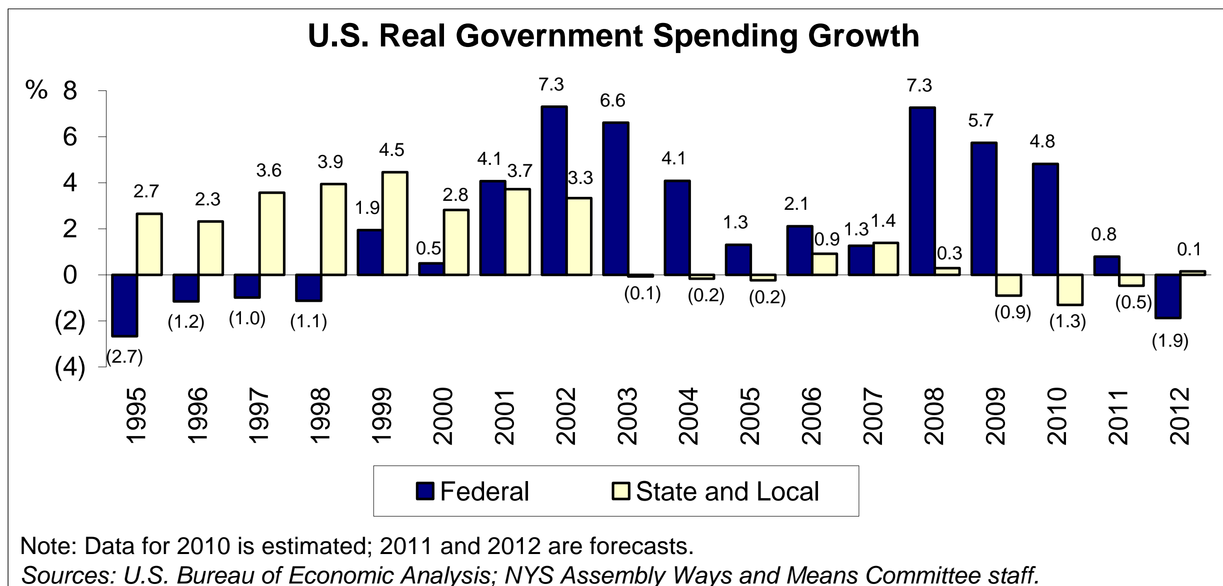

Figure 25

The federal budget deficit for federal fiscal year (FFY) 2008-09 was $1.5 trillion or 10.0 percent of GDP (see Figure 26). This was the largest federal deficit as a share of GDP since 1945. The considerable gap in the federal budget stemmed from declining tax receipts and substantially higher spending by the federal government. In FFY 2009-10, the budget deficit was $1.3 trillion, or 8.9 percent of GDP, while the budget deficit is projected to be nearly $1.5 trillion or 9.8 percent of GDP in FFY 2010-11.[15]

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[15] See Congressional Budget Office, *Budget and Economic Outlook*, January 2011.

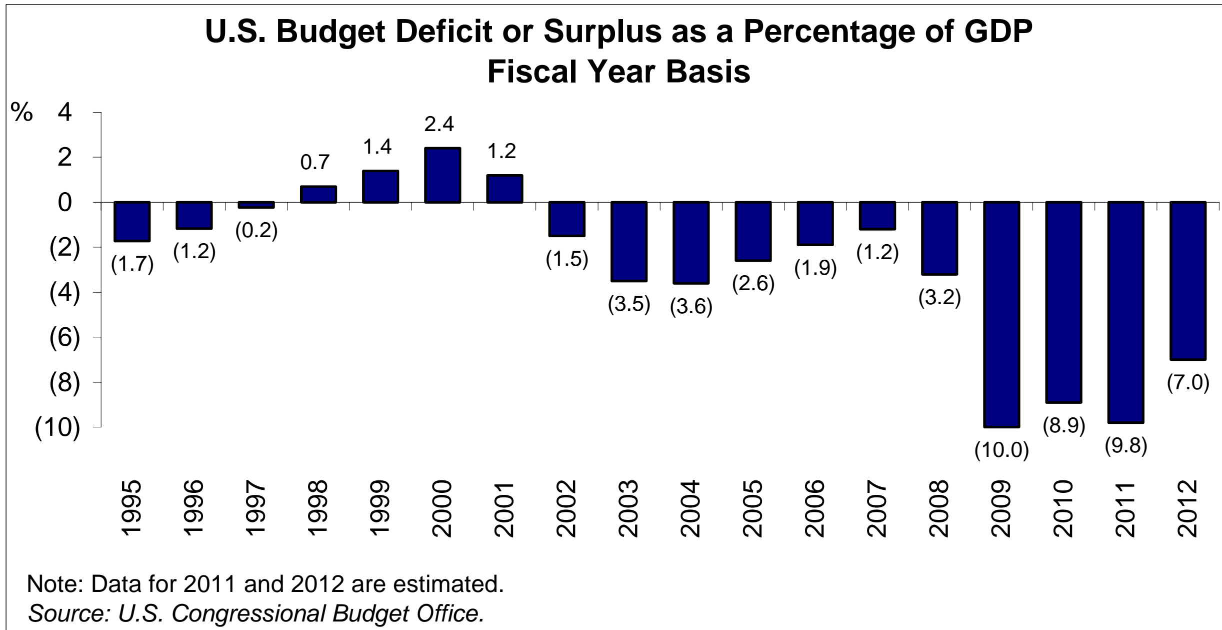

Figure 26

The extension of unemployment benefits and an increase in the federal government's share of Medicaid costs authorized by the American Recovery and Reinvestment Act of 2009 (ARRA) also have expanded the federal deficit. The 2010 Tax Relief Act, which provides further assistance to the unemployed as well as other tax relief, will also increase the budget deficit. Though spending related to these fiscal policies has expanded the federal deficit, they have provided support for overall economic growth. Long term, however, an expanding budget deficit poses certain risks to economic growth, as it could lead to higher inflation or a lower dollar value as high debt will put pressure on the exchange rate. A large deficit could also lead to higher interest rates.

State and local government spending fell 0.9 percent in 2009, despite significant aid from the federal government. State and local government spending growth had already begun to slow, growing only 0.3 percent in 2008 following growth of 1.4 percent in 2007. Falling state and local tax receipts outpaced the federal contribution to states' coffers, discouraging spending.

Historically, states try to maintain spending levels in an economic downturn by initially drawing down reserve funds. However, as revenue expectations are diminished and "rainy day" funds are depleted, spending cutbacks such as a hiring freeze or layoffs, canceling or delaying of capital projects, renegotiation of debt, pension and health

benefits, cuts in public safety and human services, and across-the-board cuts become necessary. Many states also raised taxes. Since all states except Vermont operate under balanced budget requirements, these options are most readily used to alleviate the fiscal stress of lower revenues in a deteriorating economy. These actions by the states, though necessary to meet budget requirements, adversely impact overall economic growth.

In general, state and local government spending continues to suffer even after recessions have ended. For the 2001 recession that began in March and ended in November of that year, state and local government spending growth slowed before falling three consecutive years from 2003 to 2005, then growing only 0.9 percent in 2006. The falloff in state and local government spending was primarily due to a significant drop in income tax collections, which meant states and localities had to make necessary adjustments to meet budgetary requirements even with fiscal relief from Congress.[16]

The recent recession that ended in June 2009 continues to take its toll on state and local governments. Cutbacks in the face of rising deficits and weak revenues persist at the state and local levels of government. State and local government tax receipts rose in the first three quarters of 2010 compared to a year earlier, mainly from improvements in personal income, sales, and property tax collections. However, corporate income tax collections continued to weaken over the same period.[17]

The hardships faced by state and local governments will be prolonged into coming years given that the recent recession was deeper and longer than past recessions, and total federal aid is fading. For state fiscal year (SFY) 2010-11, budget deficits are expected to be about $100 billion, an additional estimate of about $134 billion is projected in SFY 2011-12, even with billions of dollars in assistance from the federal government.[18] Widening budget gaps will require additional reductions in services and programs, higher taxes, and additional layoffs.[19] Since 2008, thirty states have made cuts to healthcare, twenty-five

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[16] The fiscal relief package included $10 billion for Medicaid assistance and $10 billion in grants based on state populations. See, *The Jobs and Growth Tax Relief Act Reconciliation Act of 2003*, Public Law 108-27, 108th Congress, May 28, 2003.

[17] U.S. Bureau of Census, *Quarterly Summary of State and Local Tax Revenue, Third Quarter 2010*, Washington, DC, December 29, 2010.

[18] See Elizabeth McNichol, Phil Oliff, and Nicholas Johnson, "States Continue to Feel Recession's Impact," Center of Budget and Policy Priorities, updated January 21, 2011.

[19] Kansas and New Mexico increased sales taxes effective July 1, 2010. New York, South Carolina, Hawaii, and Utah increased their tax on tobacco products; while Washington imposed a soda tax. See Erica Williams,

states have cut services for the elderly and the disabled, thirty states plus the District of Columbia have reduced programs for K-12 education, and forty-one states have made cuts in higher education.[20] Furthermore, the slow recovery has exacerbated the strain on some localities that have been borrowing to provide funds for longer-term capital projects.

Given these circumstances, state and local government spending fell an estimated 1.3 percent in 2010 despite a boost from the ARRA and additional fiscal help from the federal government.[21] In 2011, state and local government spending is forecast to decline further by 0.5 percent as the fiscal stimulus wanes and states continue to limit spending. In 2012, state and local government spending is forecast to increase only 0.1 percent with the continued restraints in spending.

Exports and Imports

U.S. exports and imports declined sharply in the midst of the global recession in 2009. After growing six years in a row, U.S. exports declined by 9.5 percent in 2009. Imports declined for two consecutive years in 2008 and 2009 by 2.6 percent and 13.8 percent, respectively. As a result, the trade deficit dropped to $363 billion in 2009, the lowest level since 2000.

The global economic recovery and the weak U.S. dollar value helped U.S. export growth in 2010. Exports increased an estimated 11.7 percent in 2010. With recovery of the U.S. economy, U.S. imports grew an estimated 12.6 percent in 2010. As the U.S. and the world economies recover from the recession, world trade as well as U.S. trade will likely continue to improve. U.S. imports are forecast to grow by 6.8 percent in 2011, and 7.5 percent in 2012. A weak dollar along with export deals will help exports in 2011 and 2012.[22] Exports are forecast to grow by 9.0 percent in 2011 and 8.7 percent in 2012 (see

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Phil Oliff, Ashali Singham, and Nicholas Johnson, "New Fiscal Year Brings More Grief for State Budgets, Putting Economic Recovery At Risk," Center of Budget and Policy Priorities, June 29, 2010.

[20] Nicholas Johnson, Phil Oliff, And Erica Williams, "An Update on State Budget Cuts," Center on Budget and Policy Priorities, (last updated February 9, 2011), http://www.cbpp.org/files/3-13-08sfp.pdf.

[21] In August 2010, Congress passed additional appropriations of $26 billion to assist states. Of the $26 billion, $10 billion was allocated to retain teachers who would have otherwise lost their jobs, and $16 billion was designated to help states with health care costs. See Public Law 111-226, 111th Congress, August 10, 2010.

[22] On January 19, 2011, the government announced multi-year export deals worth over $45 billion with China. The deals will allow U.S. companies to have greater access to the Chinese market, and are estimated to create over 200,000 U.S. jobs. As of 2009, the U.S. deficit with China was over $250 billion; as a result, these deals will have a small impact on the U.S. trade deficit.

Figure 27). Since the total value of imports is more than 20 percent higher than exports, higher export growth does not always lead to improvement in net exports (exports minus imports). Exports must grow at a much higher rate than imports to keep net exports from deteriorating. Net exports are expected to deteriorate throughout the forecast period and will adversely influence U.S. economic growth.

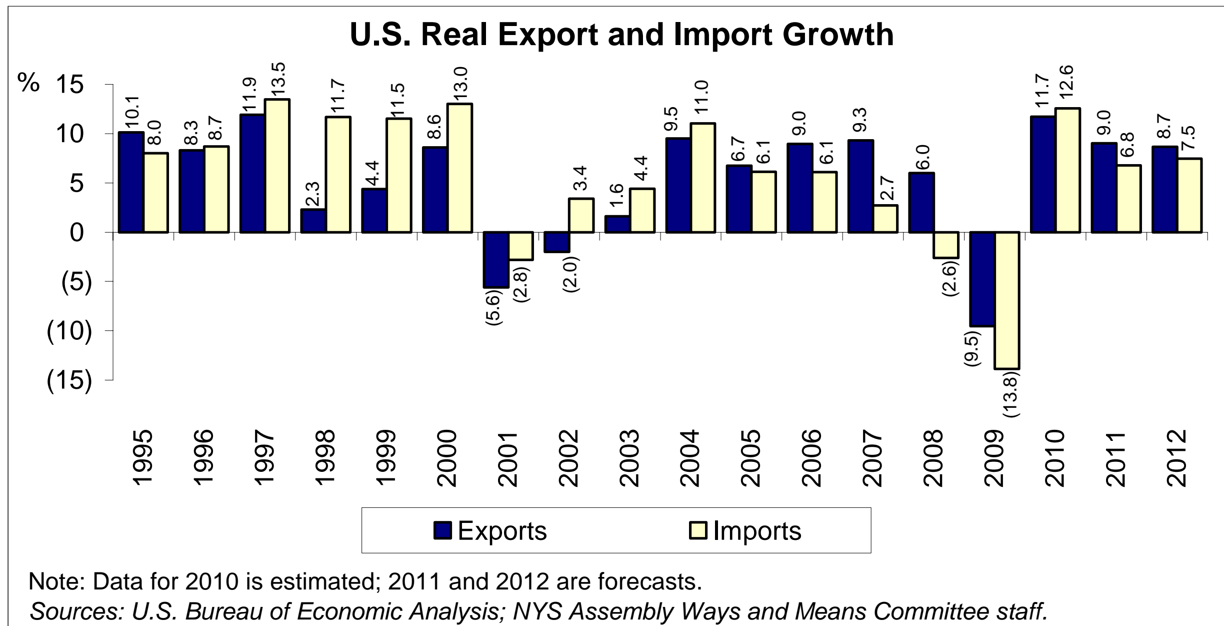

Figure 27

As the problems in the financial markets intensified during the recession, systemic risk in global financial markets rose. The dollar appreciated sharply from the second half of 2008 until early 2009, as investors moved money towards the safe-haven currency. Downward pressure from increasing worries among holders of mounting U.S. debt raised concern about the global recovery, and caused the dollar to depreciate starting from the second quarter of 2009. However, the debt problems in Greece and several other European countries that emerged in early 2010 caused significant concerns over the stability of the European Union and its recovery as well as the euro. As a result, the euro depreciated more than 16 percent from the end of 2009 to its four-year low on June 7, 2010, (at less than $1.20 per euro). As the problem subsided the euro started to gain back its value.

Due to subdued European debt problems, worsening deficits, and downward pressure from the Fed's quantitative easing, the U.S. dollar is likely to depreciate further in

2011. The dollar value is estimated to have depreciated by 4.4 percent in 2010, and is forecast to depreciate further in 2011 by 4.5 percent before flattening in 2012 (see Figure 28). Although the European debt crisis reemerged in the second half of 2010, the crisis has been contained so far. However, the problem remains a risk to global recovery, as the sustainability of its fiscal position and the impact on the rest of the world remains unclear.

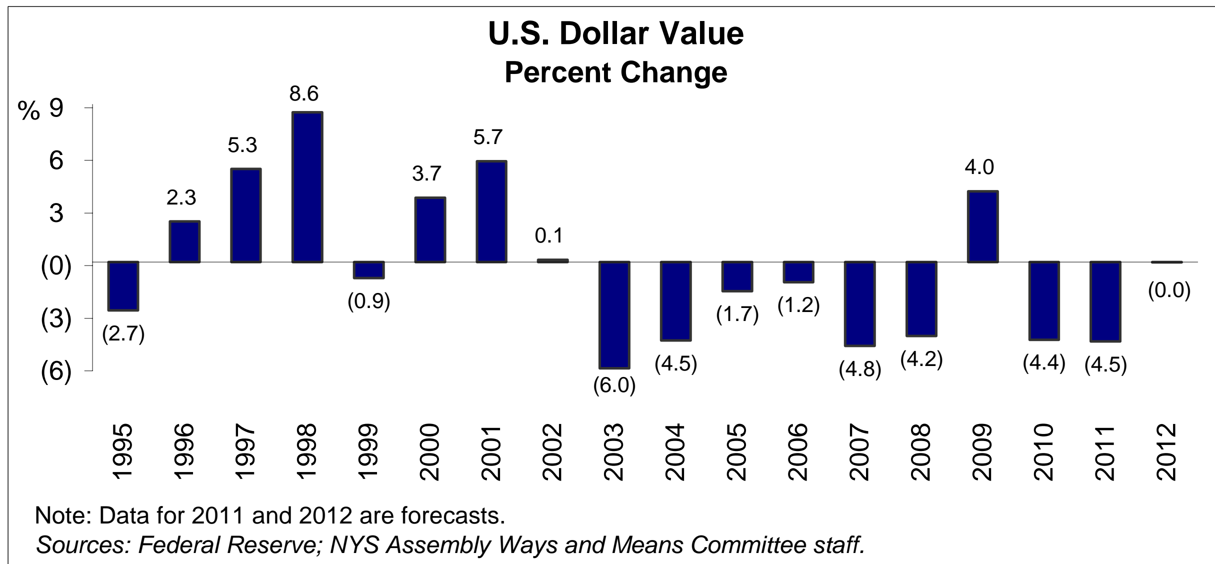

Figure 28

In 2010, 66 percent of U.S. goods exports were industrial supplies and high value-added capital goods such as aircraft and computers (see Figure 29). The U.S. had a trade surplus of $86.1 billion in capital goods and industrial supplies (excluding petroleum) in 2010, while overall trade was in deficit. The U.S. has recorded trade surpluses in these investment goods and production inputs for eleven out of the past sixteen years, while overall trade has been in deficit every year since 1995. It appears that the trade of these goods and supplies is relatively less sensitive to changes in U.S. dollar values.

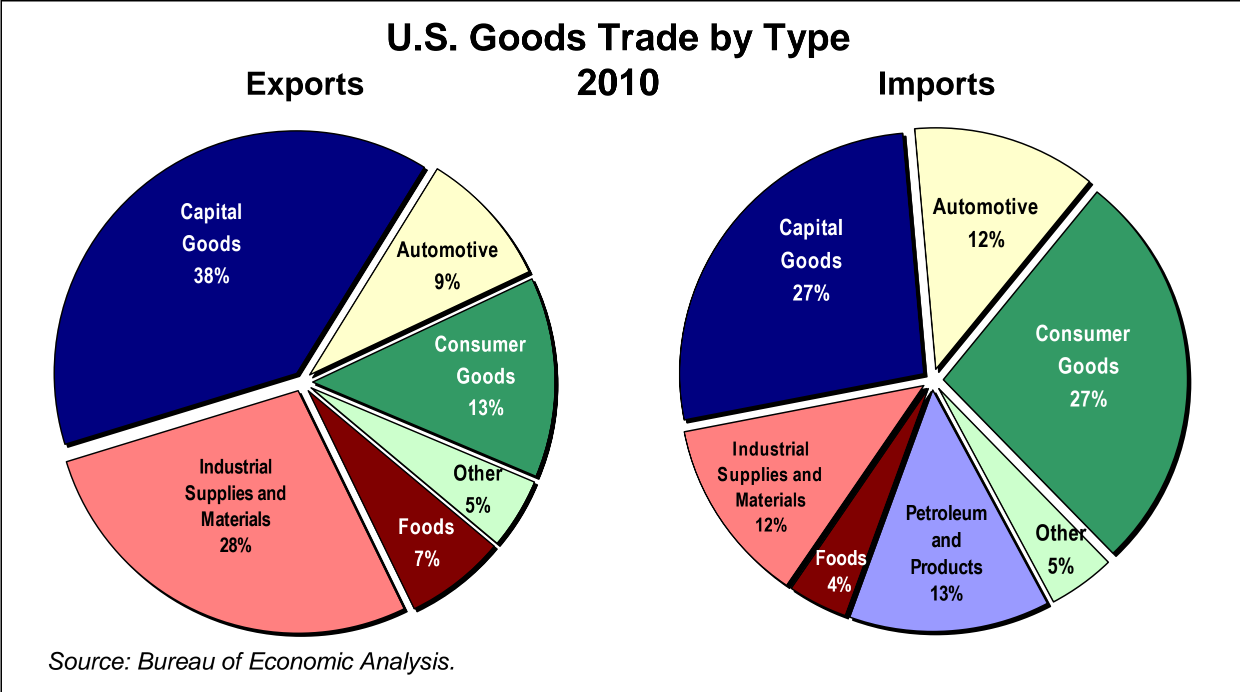

Figure 29

After years of robust growth, the world economy entered recession in 2009, with most advanced countries and a number of developing countries in recession. Other developing countries, which rely heavily on exports, also experienced slower growth in 2009 due to less demand for exports. As the U.S. and the world economies emerged from the recession, most countries were on the path to a much faster growth in 2010 compared to 2009. Most countries are expected to experience healthy growth in 2011, as the global economy continues to recover.

Japan's economy, which had been the second largest economy in the world for a long time, is estimated to have grown 3.4 percent in 2010 after two years of negative growth in 2008 and 2009 and is forecast to grow by 1.5 percent in 2011. Japan was hit particularly hard by the recent recession; as a result, the Chinese economy surpassed Japan to be the second largest economy in the world in the second quarter of 2010.

The Canadian economy, the largest trade partner for the United States (see Figure 30), is estimated to have grown by 3.0 percent in 2010 after declining 2.5 percent in 2009, and is forecast to grow further by 2.6 percent in 2011. Hit with a debt crisis in several member countries, the eurozone economy is estimated to have grown at a mere

1.6 percent in 2010, after declining 4.0 percent in 2009. The eurozone economy is forecast to grow 1.6 percent in 2011.

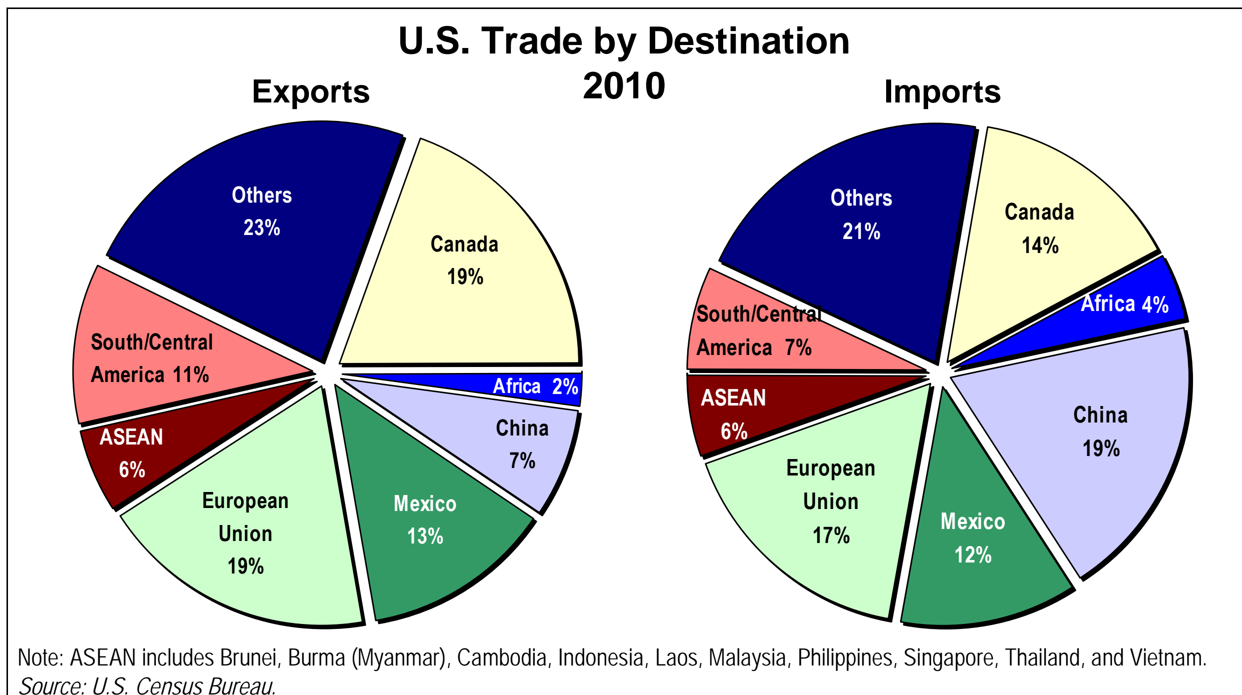

Figure 30

China, the largest U.S. trading partner in Asia with the largest developing economy, is estimated to have grown 10.1 percent in 2010 and is forecast to grow 9.3 percent in 2011. Many countries in South America were also in recession in 2009 and all are estimated to have posted positive growth in 2010. The Brazilian economy, the largest economy in South America, is estimated to have grown 7.6 percent in 2010 and is forecast to grow 4.9 percent in 2011.[23] With their strong economic performance, emerging economies play an important role in the global recovery. It is estimated that developing domestic demand accounted for almost half of the global growth in 2010.[24] Strong growth in developing countries is expected to continue to lead the world recovery. As inflation rises, these countries may increase interest rates, which could lead to slower growth that could hurt the global recovery.

[23] Blue Chip International Consensus Forecasts, Blue Chip Economic Indicators, vol. 36, no. 2, February 10, 2011.

[24] World Bank, *Global Economic Prospects 2011 - Navigating Strong Currents. GEP Volume 2, January 2011,* Washington, DC, January 12, 2011.

Employment

Employment losses were large during the recent recession, and the recovery of jobs remains a striking concern for the economy. The difficulties in the labor market are evidenced by several factors: private employment gains have been small so far; the unemployment rate hovers around 9 percent; the duration of unemployment is close to the historic high; and millions of people who have been out of work for very long periods of time have exhausted their unemployment benefits.[25]

Even as of January 2011, three years after the peak in employment in January 2008, employment remained 7.7 million below its peak (see Figure 31). This was far greater than the employment loss that remained three years after other recessions. After the 1981-82 and 1990-91 recessions, employment had surpassed the previous employment peaks within thirty-four months. However, after the 2001 recession, employment did not show sustained gains even three years after the peak.

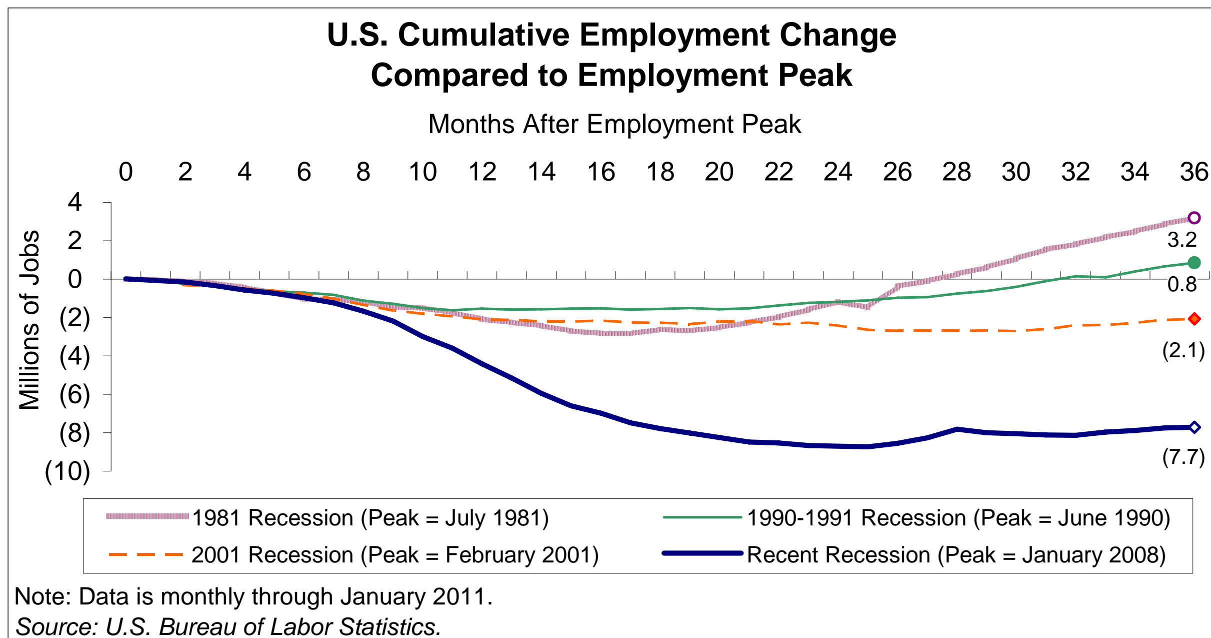

Figure 31

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[25] In early 2010, much of the private employment gain occurred in temporary help services. In mid-2010, gains in private employment slowed to fewer than 100,000. In late 2010, stronger gains in temporary help services again helped boost private employment.

Total national payroll employment declined by 0.6 percent in 2008, and then dropped steeply by 4.4 percent in 2009. Employment declined another 0.7 percent year-over-year in 2010 as hiring remained extremely sluggish (see Figure 32).[26] In 2011, payroll employment is expected to grow only 1.2 percent, reflecting the expected slow pace of the recovery and the difficulties businesses will face in determining when to hire employees. In 2012, payroll employment is expected to grow 2.1 percent, only slightly stronger than the growth seen following the 2001 recession. While the recovery of jobs may mirror the jobless recovery after the 2001 recession, there is some potential for job growth to be slightly stronger as the economy lost such a large number of jobs. It is reasonable to think that as activity picks up some of these jobs will need to be filled immediately in order to keep pace with the recovery. The possibility exists that a portion of the 8.75 million jobs lost may be gone for a very long time due to structural changes in the economy.

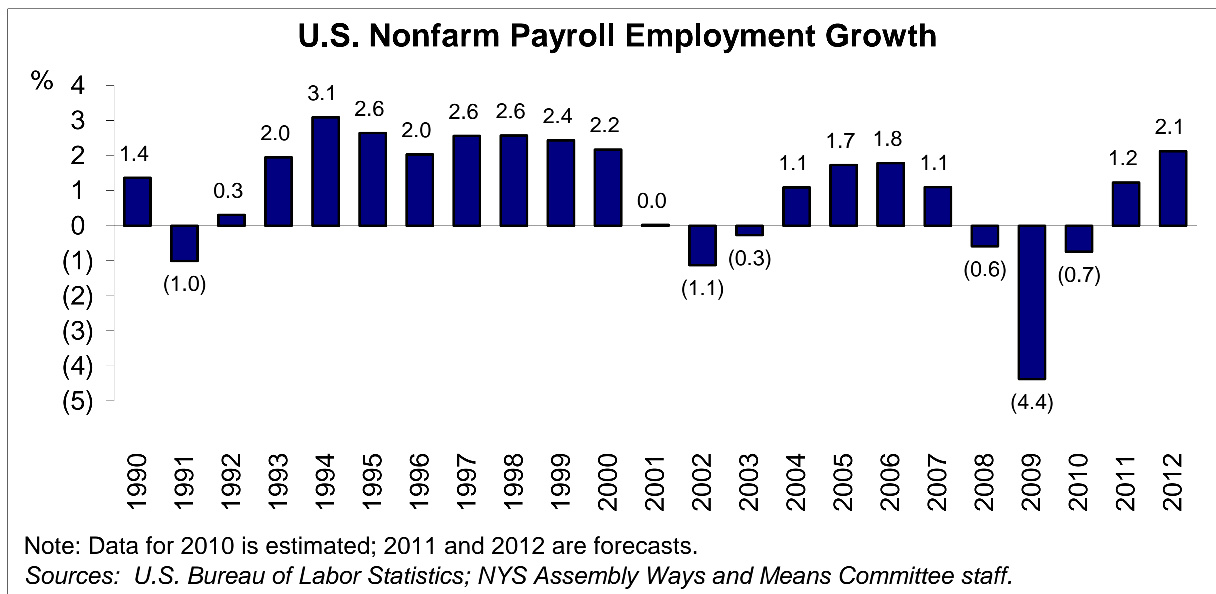

Figure 32

Unemployment remains near historical highs after reaching a high of 10.1 percent in October 2009. In addition, the rate of those unemployed and marginally attached to the labor force remains at a level not experienced since the 1981-82 recession (see Figure 33). As the recovery progresses and the unemployed assess their chances of finding a job, trends of flows in and out of the labor market may be unclear. The unemployment rate is expected to drop slowly during the forecast period.

[26] In early 2010, federal government Census-related positions produced temporary job gains.

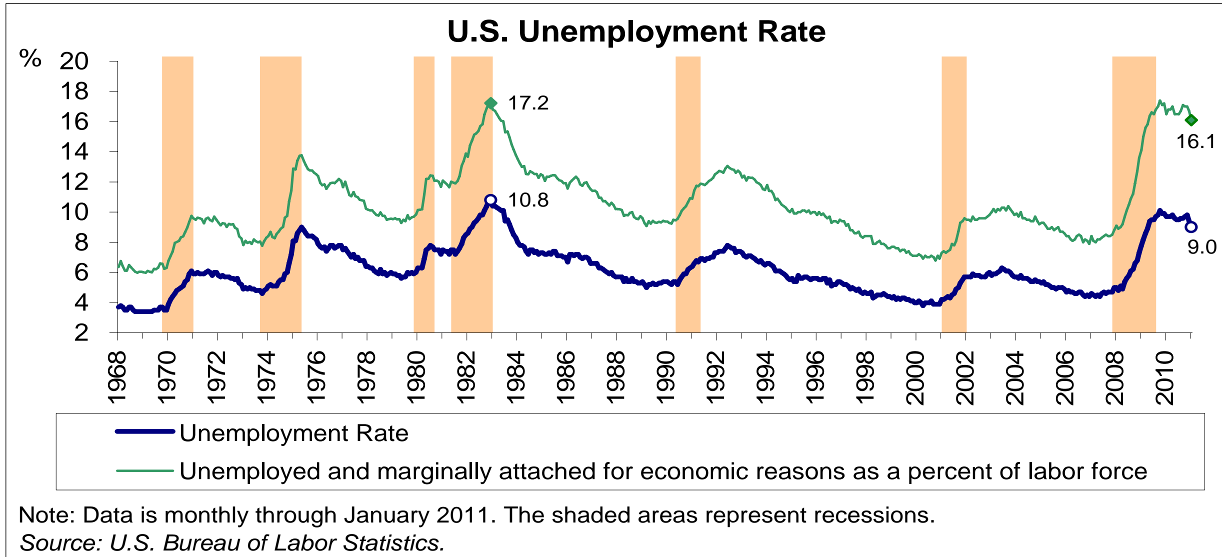

Figure 33

In addition to an unemployment rate that remains near historical highs, the length of time it has taken for initial claims to fall from a very high level has been cause for concern. Traditionally, claims of 400,000 or under were used as a benchmark to signify a healthy labor market. During the recent recession, initial claims spiked well above 400,000, with the four-week moving average hitting a high of 658,750 for the week ending April 4, 2009 (see Figure 34). Although claims remain volatile, they have shown a sustained downward trend recently. This likely signifies that the recovery in the labor market has taken hold but will continue to be difficult and extremely slow.

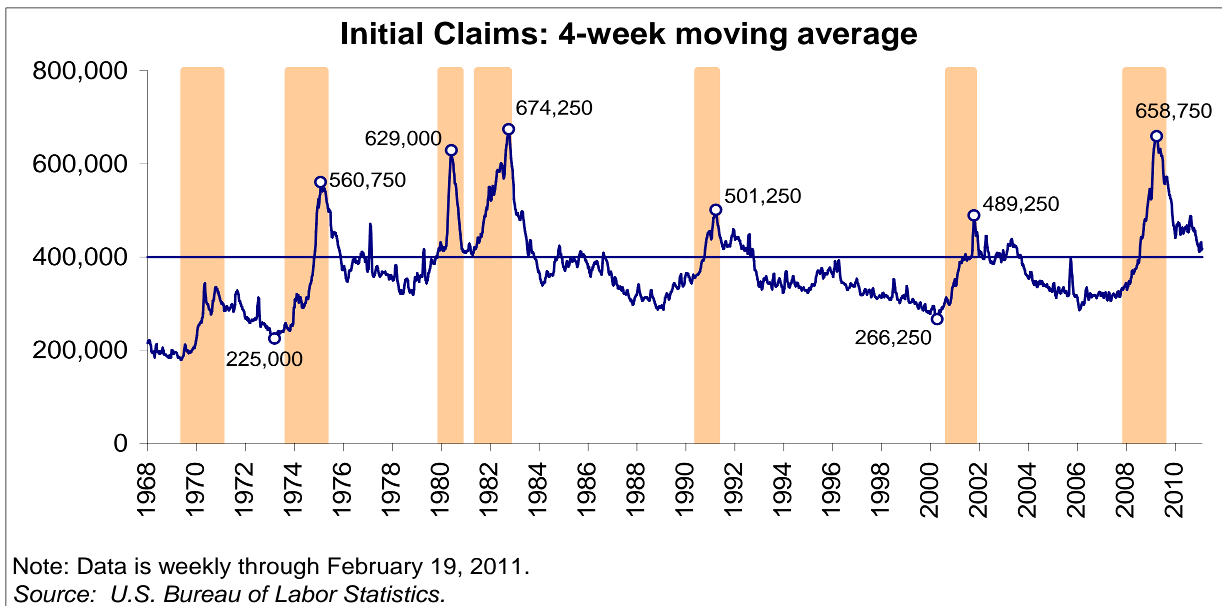

Figure 34

In addition to large numbers of people being laid off, those who have lost their jobs are remaining unemployed for longer than during and after other recessions.[27] Continuing claims remain close to four million, far above the pre-recession level of two to three million reported in 2007. These numbers may be somewhat skewed as unemployment benefits were extended several times.

Clearly, though, those who are counted as unemployed are facing a long road finding work, as evidenced by the increase in the percentage of employed who have been out of work for twenty-seven weeks and over. This percentage has risen drastically since the start of the recent recession and remains over 40 percent or 6.2 million people (see Figure 35) after reaching 46 percent in May 2010. Before the recent peak in employment in January 2008, this percentage never went above 26 percent.

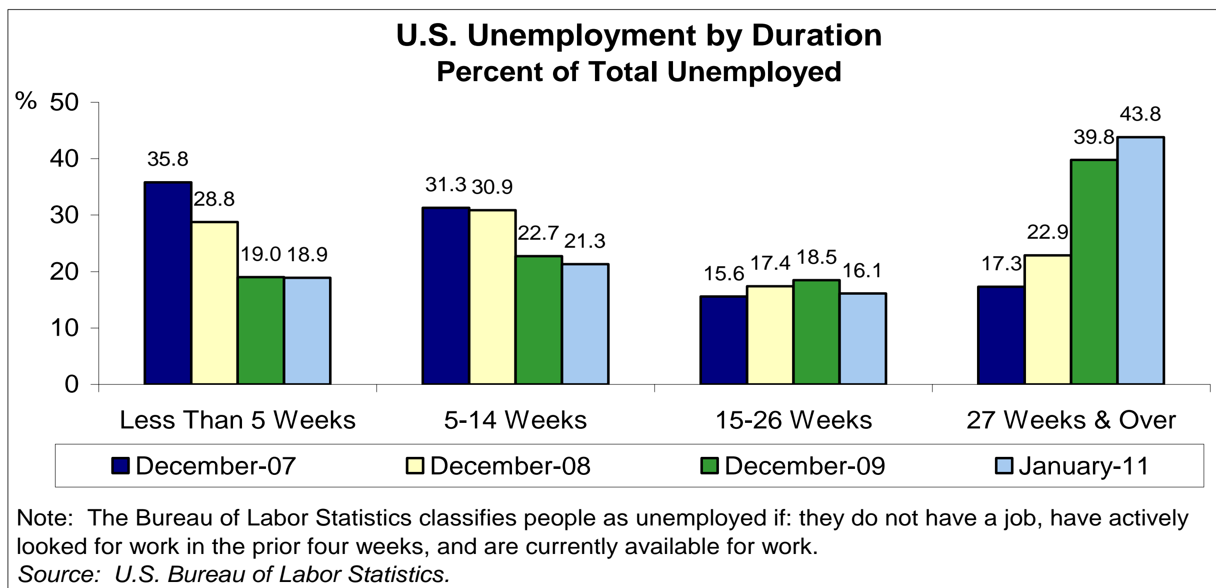

Figure 35

With the exception of other services (which has been boosted by hiring increases in temporary help), federal government, and education and health, job losses in 2010 were

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[27] As a result of the characteristics of this recession, the Department of Labor has indicated that beginning with the release of January 2011 data, survey respondents will be able to report longer durations of unemployment, up to five years instead of the current two years. See U.S. Bureau of Labor Statistics, *Labor Force Statistics from the Current Population Survey*, http://www.bls.gov/cps/duration.htm (accessed February 22, 2011).

estimated to have spread across all sectors (see Table 2). Construction lost the highest percentage of jobs, reflecting the difficult state of the housing market.

Table 2

U.S. Employment by Sector (Percent Change)				
	Actual 2009	**Estimate 2010**	**Forecast 2011**	**Forecast 2012**
Total	**(4.4)**	**(0.7)**	**1.2**	**2.1**
Education and Health	1.9	1.9	2.2	2.1
Other Services[1]	(7.3)	1.6	3.9	3.5
Mgmt. of Companies	(2.0)	(0.2)	2.0	2.7
Government	0.3	(0.3)	(1.4)	(0.0)
Federal	2.5	4.8	(4.9)	(0.1)
State and Local	(0.1)	(1.0)	(0.8)	(0.0)
Leisure & Hospitality	(2.7)	(0.4)	1.4	2.6
Retail Trade	(5.0)	(0.7)	1.0	1.3
Professional Services	(3.7)	(1.1)	1.9	3.4
Transp. & Utilities[2]	(5.3)	(1.3)	2.2	3.0
Finance & Insurance	(4.0)	(1.4)	0.5	1.6
Wholesale Trade	(6.0)	(2.3)	1.8	2.9
Manufacturing[3]	(11.5)	(2.4)	1.8	1.3
Real Estate, Rental, & Leasing	(6.3)	(2.8)	0.0	2.3
Information	(6.0)	(3.3)	(0.6)	(0.6)
Construction	(16.0)	(8.1)	0.8	8.9

[1] Including Administrative, Support, and Waste Management Services.
[2] Transportation, Warehousing, and Utilities.
[3] Including Mining and Logging.
Sources: U.S. Bureau of Labor Statistics, Current Employment Statistics (CES); NYS Assembly Ways and Means Committee staff.

Manufacturing, which endured double-digit percentage losses in employment in 2009, started to stabilize in 2010, losing an estimated 2.4 percent. However, the outlook for the sector remains one of only slow growth. Many of the jobs lost from the sector may be gone forever due to factors such as outsourcing and the structural changes of the economy more towards a service-based economy. After the 2001 recession, the recovery in manufacturing was largely jobless with gains in employment confined to very few industries in the sector. Some of the industries that grew were associated with the housing industry (such as wood kitchen cabinets and countertops, and cement and concrete products) and therefore may owe their recovery to the housing boom. Given that the forecast discussed in this report does not call for a return of the housing market to pre-crisis

levels, these sectors of manufacturing may not offer the same boost to the recovery. Other sectors that follow a more cyclical nature may produce more job gains during the recovery.

The dismal performance of the labor market provides additional strain on the economy. In particular, consumers who have been out of work for months have faced issues such as losing basic needs like shelter and the ability to support themselves. This has contributed to the especially slow recovery in consumer spending. As businesses start to hire on a steady basis, it will certainly help consumers that had been unemployed be able to spend and feel comfortable making some larger purchases, thereby helping to support economic growth.

Personal Income

Personal income growth was sustained by a significant increase in social benefit payments by governments to households in 2009.[28] As the economic downturn persisted into 2009, wages and salaries, the main component of personal income, decreased drastically. In addition, other nontransfer income components fell sharply. The worsening job market exerted downward pressure on hourly wages and average hours worked as employers adjusted their workforce to the weakened economy. Personal income fell 1.7 percent in 2009 as the increase in transfer income was outweighed by the sharp decrease in labor, dividend, and interest income (see Figure 36). This was the first yearly decline in personal income since 1949. Personal income would have declined 4.5 percent without the 13.5 percent increase in transfer income in 2009.

In 2010, transfer payments, particularly unemployment and healthcare benefits, are estimated to have tapered off. Though weak gains in employment have slowed down growth in personal income, modest increases in wages and salaries spurred an estimated 3.0 percent rise in personal income in 2010. Historically, the increase in 2010 personal income is below the 5.6 percent annual average growth from 2002 to 2007. This suggests that the slow economic recovery will continue to hamper growth in personal income.

[28] The ARRA includes provisions that provide assistance to unemployed workers and struggling families, assistance for child support through the Temporary Assistance for Needy Families, increased medical support through Medicaid, and food assistance through the Supplemental Nutrition Assistance Program. See, The *American Recovery and Reinvestment Act of 2009*, Public Law 111-5, 111th Congress, February 17, 2009.

Figure 36

Personal income is forecast to grow 4.7 percent in 2011 due to increases from dividend, interest, and proprietors' income. In addition, there are higher wage and salary expectations as a result of an improving labor market. Also expected are higher contributions by employers to employees' pension and insurance funds. In addition, personal income is anticipated to be positively affected by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010, Public Law 111-312, which reduced employees' share of the Social Security tax from 6.2 percent to 4.2 percent in 2011.[29] In 2012, personal income is forecast to grow 3.2 percent mainly as a result of the expiration of the Social Security tax cut at the end of 2011.

The deteriorating labor market resulted in employment and average hours worked falling sharply, and a slowdown of hourly wages. This led to wages and salaries declining 4.3 percent in 2009, after increasing 2.1 percent in 2008 (see Figure 37). The year-over-year decline in wages and salaries was the first since 1954. As the economy began to recover and employers started to rebuild their workforce, they have had a large pool of unemployed workers from which to choose, putting little upward pressure on wages and salaries growth. Thus, wages and salaries grew an estimated 2.1 percent in 2010.

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[29] See, *The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010* (2010 Tax Relief Act); Public Law 111-312, 111th Congress, December 17, 2010.

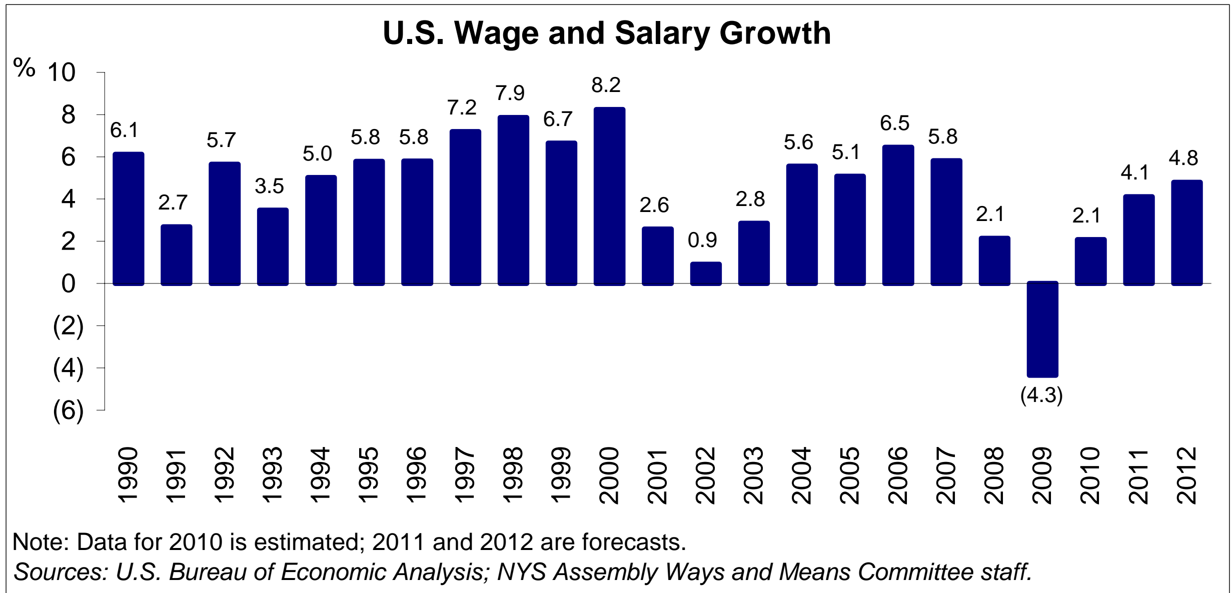

Figure 37

In 2011, wages and salaries growth is projected to be 4.1 percent due to the continued gradual improvements in the labor market and other economic conditions. By 2012, with the economic recovery well on its way, wages and salaries growth is forecast to be 4.8 percent. The scheduled expiration of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 will impact the forecast for 2012 and 2013.[30] In particular, certain wages and salaries that would have been paid out in the first quarter of 2013 are forecast to be shifted to the fourth quarter of 2012 to take advantage of the lower tax rates.

Transfer income growth was helped by social benefit payments associated with government programs that allocated billions of dollars in funds to households. These programs also included the extension of unemployment benefits along with healthcare

[30] The EGTRRA included provisions that reduced the income tax rates for most tax payers, eliminated the marriage penalty, provided greater tax deductions for education expenses and savings, increased the tax credit for tax payers with children, created a 10 percent tax bracket, and increased the amount of tax deduction that could be taken for IRA contributions. The JGTRRA included provisions that reduced the tax rates on long-term capital gains and dividend income, increased tax deductions to small businesses, and extended most of the provisions in the EGTRRA, which would have been phased out prior to 2010. See *Economic Growth and Tax Relief and Reconciliation Act of 2001*, Public Law 107-16, 107th Congress, June 7, 2001; and *Job and Growth Tax Relief Reconciliation Act*, Public Law 108-27, 108th Congress, May 28, 2003. See also, *The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010*, Public Law 111-312, 111th Congress, December 17, 2010.

benefits for unemployed people. Personal transfer income grew 13.5 percent in 2009. As these benefits are exhausted, growth in personal transfer income will likely abate. Personal transfer income growth slowed to an estimated 7.6 percent in 2010 and is forecast to slow further to 1.0 percent in 2011 and 0.4 percent in 2012.

In 2009, dividend income decreased 12.2 percent as liquidity constraints coupled with challenging economic conditions led many firms to conserve cash and cut dividends to shareholders. As the economy continues to improve and firms become more profitable, dividend income is forecast to increase 8.1 percent in 2011 after growing an estimated 2.2 percent in 2010. Dividend income is projected to grow another 6.2 percent in 2012.

Personal interest income will continue to weigh on personal income as low interest rates have depressed interest income. As interest rates were kept low, personal interest income declined 7.0 percent in 2009 and fell an estimated 2.3 percent in 2010. With a gradual increase in interest rates starting in 2011, interest income is expected to increase 2.5 percent in 2011 and 5.3 percent in 2012.

Prices

For the first time since 1955, the Consumer Price Index declined on an annual average basis in 2009. The Index fell 0.3 percent, mainly as a result of declining energy prices (see Table 3). Prices increased in 2010 by 1.6 percent. Although the energy component grew by almost 10 percent over 2009, it was off the lower 2009 base.

Table 3

U.S. Consumer Price Index (CPI) by Category (Percent Change)	2005	2006	2007	2008	2009	2010
All Items	3.4	3.2	2.9	3.8	(0.3)	1.6
Services	3.3	3.8	3.3	3.5	1.4	0.8
Food & Beverages	2.4	2.3	3.9	5.4	1.9	0.8
Energy	16.9	11.0	5.6	13.7	(18.1)	9.6
All Items Less Food & Energy (Core)	2.1	2.5	2.3	2.3	1.7	1.0
Housing	3.3	3.8	3.2	3.2	0.4	(0.4)
Apparel	(0.8)	(0.1)	(0.4)	(0.1)	1.0	(0.5)
Transportation	6.6	3.9	2.2	5.8	(8.2)	7.9
Medical Care	4.2	4.0	4.4	3.7	3.2	3.4
Recreation	0.7	1.4	0.5	1.6	0.9	(0.8)
Education and Communication	1.9	2.7	2.4	3.4	3.0	2.0
Other Goods and Services	2.8	2.7	3.6	3.6	6.7	3.4

Source: U.S. Bureau of Labor Statistics.

Although a declining dollar has caused imports to become more expensive, putting upward pressure on prices, demand for imports fell during the recent recession limiting inflationary effects. In addition, other underlying fundamentals have also been working to keep core inflation in check. Productivity growth accelerated in 2009 to 3.5 percent from 1.0 percent in 2008. Productivity is also estimated to have increased in 2010 by 3.5 percent, helping to keep downward pressure on inflation as businesses are able to produce more without higher costs. Unit labor costs for the U.S. nonfarm business sector fell by 1.6 percent in 2009 and are estimated to have fallen another 1.5 percent in 2010. This has helped put downward pressure on prices as businesses have not faced an increase in labor costs, which account for a major portion of most firms' budgets. Going forward, productivity is expected to increase at a slower rate and unit labor costs are expected to increase only slightly.

Although productivity and unit labor costs should not add too much upward pressure to consumer prices, recent upward pressure from food, energy, and other commodity prices should keep inflation above 2 percent. Food and energy prices have been a leading cause of concern for the inflation outlook. This issue is especially acute recently given current geopolitical events. Prices of other commodities have also been rising sharply since February 2009, adding concern to the outlook for inflation (see Figure 38).

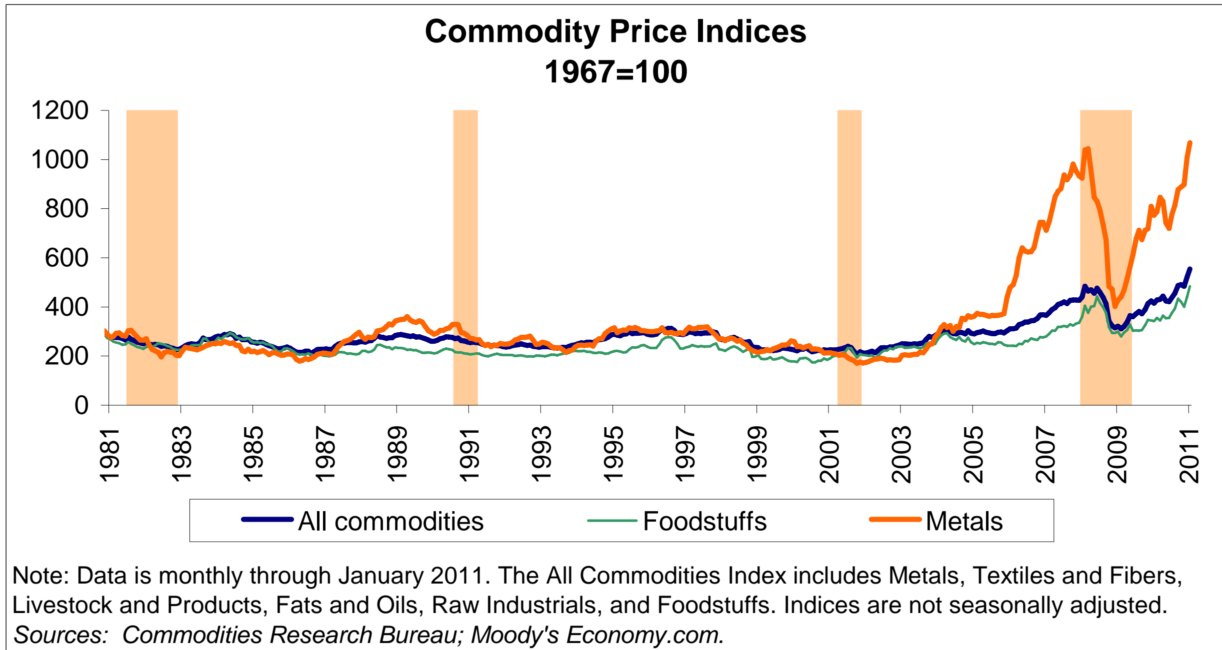

Figure 38

The Consumer Price Index increased 1.6 percent in 2010, well below the increases observed in the years leading up to the recent recession (see Figure 39). It is expected by the Assembly Ways and Means Committee staff that consumer prices will grow 2.1 percent in 2011 and 2.2 percent in 2012, as upward pressure from food, energy prices, and other commodities continues.

Figure 39

Energy Prices

Falling oil prices in early 2009 largely explain lower consumer prices in 2009, but the overall trend in oil prices continues to be volatile and represents considerable risk to the CPI forecast. The long-term outlook for oil prices is unclear and daily movements in prices may not necessarily reflect the true balance of supply and demand fundamentals in the long run. Energy prices, particularly oil and gasoline prices remain the driving force behind changes in the Consumer Price Index on a monthly basis.

After spiking to over $127 per barrel on a monthly average basis in July 2008, nominal crude oil prices fell to $35.59 in December 2008 and rose throughout 2009 to $72.67 in December 2009.[31] During 2010, the RAC price changed only by about $10 and was much less volatile than in other years. However, prices are still much higher compared to 2000 and have started to move upwards at a faster rate in the past few months (see Figure 40).

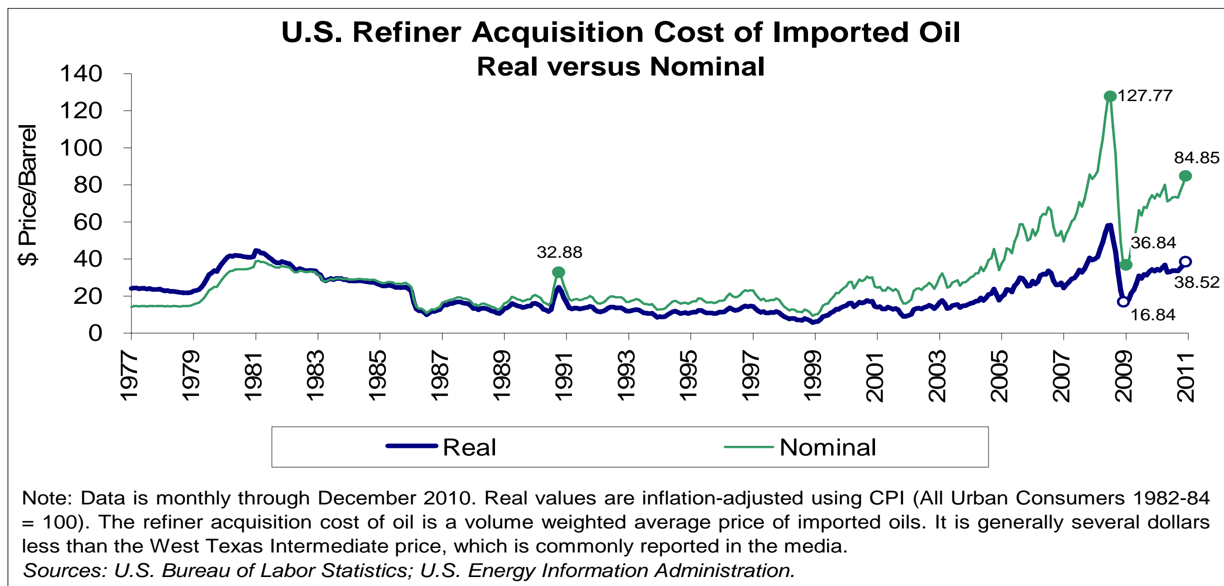

Figure 40

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[31] This refers to monthly data on the U.S. Refiner Acquisition Cost of Oil (RAC), a volume weighted average price of imported oils. The RAC is generally less than the West Texas Intermediate (WTI) price commonly reported in the media. West Texas Intermediate prices have also been at record levels. For the purposes of this report and the forecast contained within, the RAC is utilized due to the fact that it is generally thought to be less volatile than the WTI spot price. Up until 2003, the WTI price averaged about $2 more than the RAC on a monthly basis. After 2003, however, the difference between the two prices widened significantly and became more unpredictable, reaching over $7 in some months. News stories referring to volatile spikes in crude oil prices on a daily or intra-day basis of several dollars or more are referring to WTI daily spot prices or futures prices of other various oil price measures.

Energy prices are expected to rise throughout the forecast period, as pressures from overall economic growth help spur demand and consumption. As the global economy recovers, it is expected that oil demand will pick up in response to higher economic growth. However, there is great risk in the energy price outlook, as economic fundamentals are only part of what influences changes in oil prices. Speculative activities, geopolitical unrest, supply disruptions, the U.S. dollar value, and the pace of economic growth all have the potential to influence energy prices, possibly drastically.

Corporate Profits

After three consecutive years of decline, corporate profits are estimated to have grown 29.2 percent in 2010 (see Figure 41). Increased productivity through output gains and employment cuts helped boost corporate profits through the first three quarters of 2010, as did growing demand for U.S. exports. Gains from these areas are estimated to have pushed corporate profit levels above their pre-recessionary 2006 peak level. Moving forward, corporate profits are forecast to continue to grow but with decelerating intensity as costs move more inline with sales.

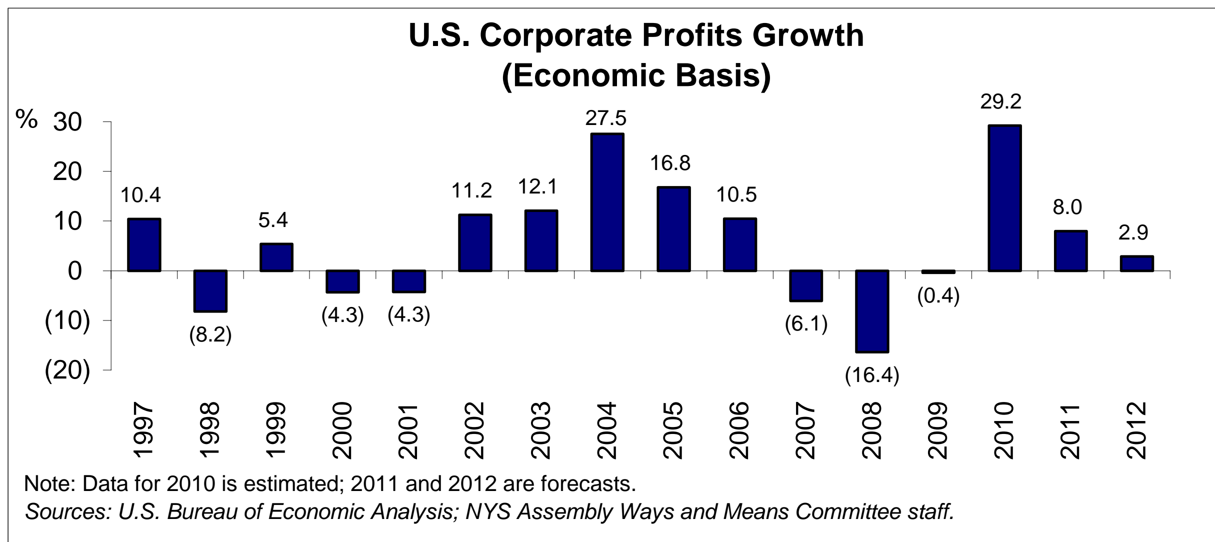

Figure 41

U.S. corporate profits were broad based in 2010, with double-digit growth at both financial and nonfinancial firms (see Figure 42). Growth in both sectors was largely due to improvements in productivity across industries; however, in addition, firms were also aided by an array of government programs. In particular, government programs, passed under the

American Recovery and Reinvestment Act of 2009, provided subsidies and tax breaks for businesses, and worked to boost consumer demand through several incentive programs.

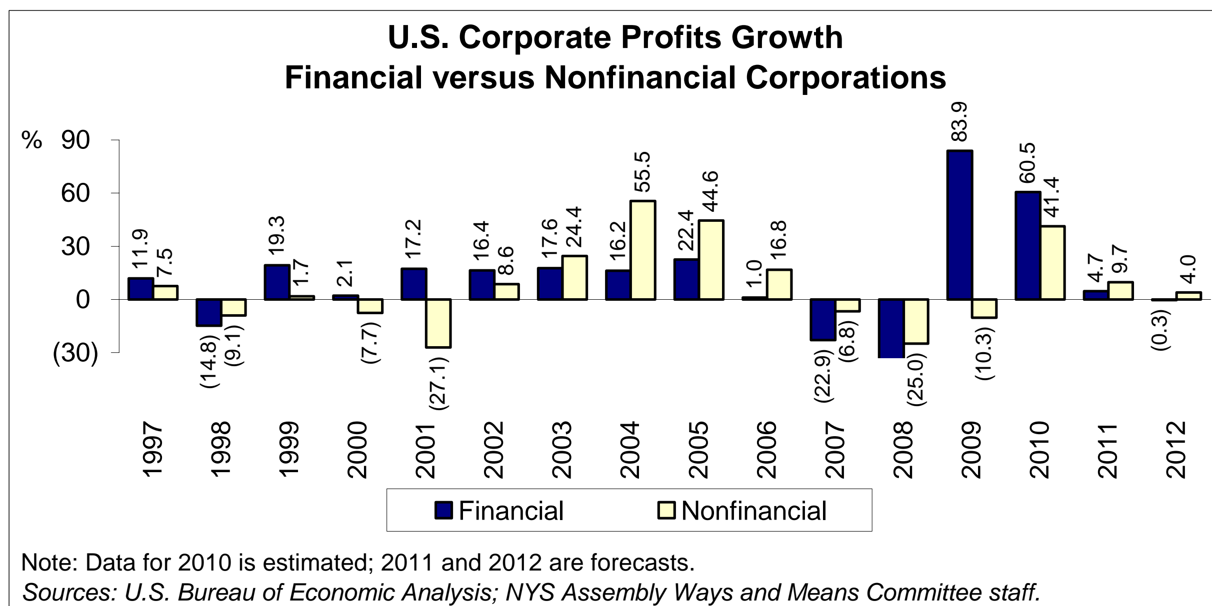

Figure 42

New tax breaks passed under the 2010 Tax Relief and Job Creation Act will aid corporate profits in the forecast period, but to a smaller extent than the 2009 legislation referred to previously, as it is less extensive. In 2011, costs are expected to come more inline with sales, as input prices rise, interest costs increase, and corporations hire workers in order to meet rising demand. New regulations passed under the financial overhaul bill in the summer of 2010 are expected to hinder profit growth at financial firms, as some of the high profit practices, such as proprietary trading, have been restricted. This combination of factors will cause corporate profit growth to slow to 8.0 percent in 2011.

The share of U.S. corporate profits in national income is forecast to rise to 13.2 percent in 2011 as businesses continue to strengthen (see Figure 43). The share of corporate profits in national income improved significantly in 2010 after falling to a twenty-two year low of 8.1 percent in 2009. The share of U.S. corporate profits in national income is forecast to decrease to 13.0 percent in 2012 as improvements in the labor market increase wage pressures and cause corporate profits growth to slow to 2.9 percent.

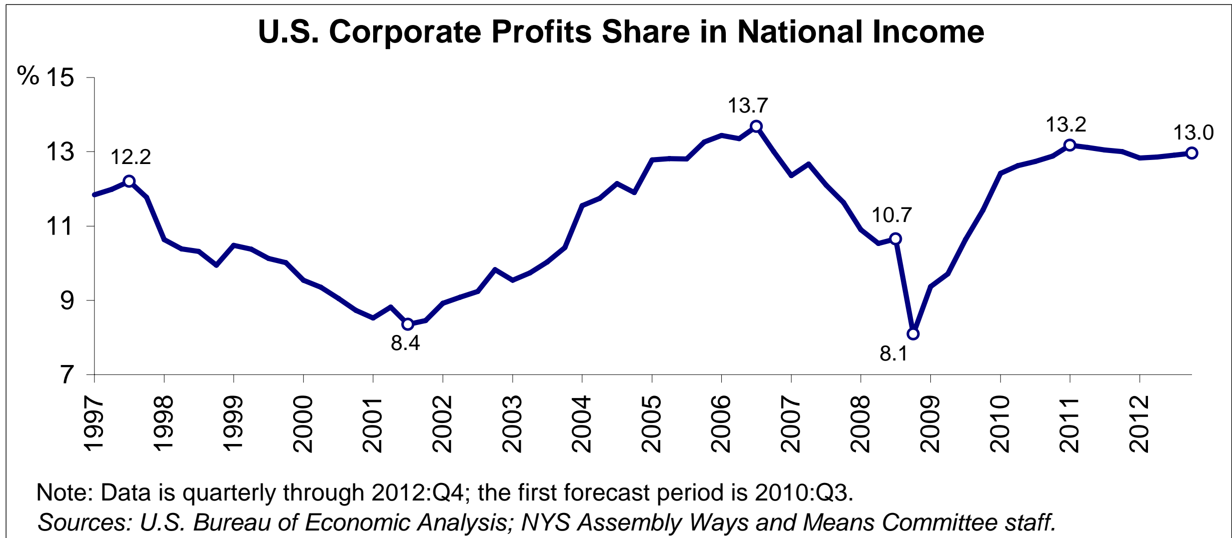

Figure 43

Interest Rates

After holding the federal funds rate at 5.25 percent for over a year from June 2006 to September 2007, the Federal Reserve cut the target rate to 0-0.25 percent range on December 16, 2008, the lowest level on record, in an attempt to fight recession. With signs that the recovery might be slower than initially forecasted, the Federal Reserve decided at their December 14, 2010, meeting to keep the target rates unchanged in order to support economic activities. In addition to keeping the federal funds rate at a historic low, the Fed has also increased liquidity in the market through quantitative easing (QE2). Under QE2, the Fed is purchasing $600 billion in long-term Treasuries by the end of the second quarter of 2011 at a pace of about $75 billion per month. Increasing demand for Treasury securities will put downward pressure on their yields as well as other long-term interest rates that are usually tied to U.S. Treasury rates.

As the U.S. economy and the labor market recover slowly, inflation is expected to stay in check. The current forecast assumes that the Fed will maintain the rate within the current target range through the end of 2011, and then raise the rate throughout the forecast period (see Figure 44).

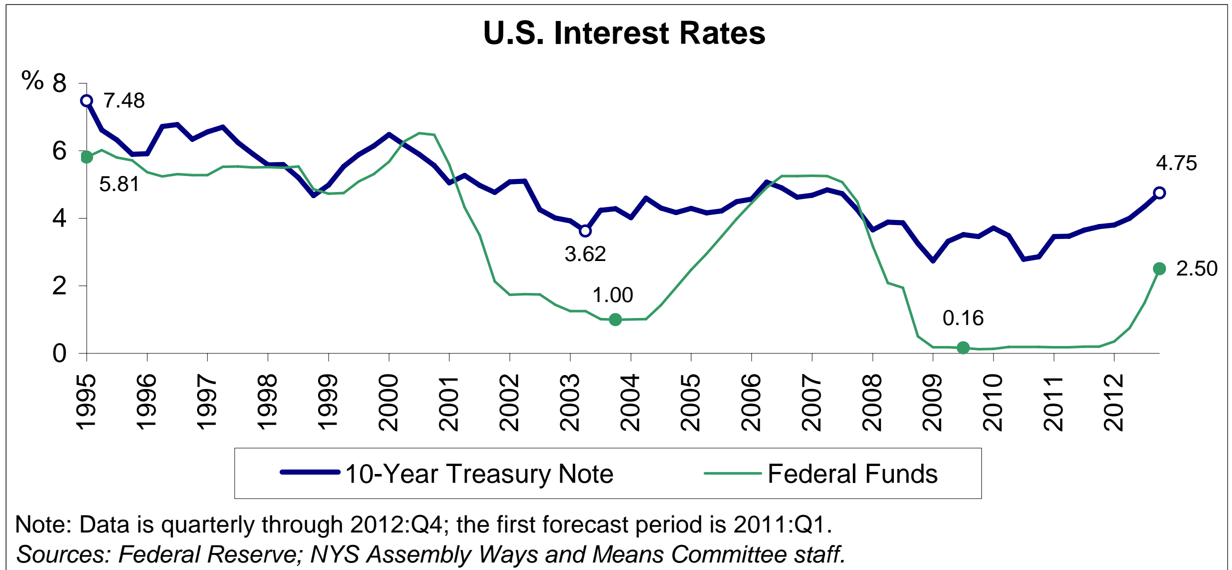

Figure 44

The federal funds rate, which averaged 0.2 percent in 2010, is forecast to average 0.2 percent in 2011 before rising to an average of 1.3 percent in 2012. Similarly, the three-month Treasury bill rate averaged 0.1 percent in 2010, and is forecast to average 0.2 percent in 2011 and 1.3 percent in 2012.

As the U.S. and world economies went through the recent recession, the bond market became more attractive for investors who sought safer investments. Looking for safety and liquidity, investors shifted their funds from stocks to Treasury bonds. The purchase of U.S. Treasury bonds by foreign investors significantly increased from less than $200 billion in 2007 to $538.5 billion in 2009. Demand for Treasury bonds continued to be strong in 2010, with net purchases of over $700 billion.

On the contrary, net purchases of U.S. corporate stocks by foreigners dropped drastically from almost $200 billion in 2007 to less than $40 billion in 2008, while net purchases of U.S. corporate and other bonds by foreigners dropped from $393.4 billion in 2007 to less than $100 billion in 2008. This trend continued into 2009 for corporate and other bonds to a net sale (instead of purchase) of $40.8 billion. In contrast, purchases of U.S. corporate stocks increased in 2009 as investors with regained confidence in the economy

sought higher returns. Net purchases of U.S. corporate stocks and U.S. corporate and other bonds remained low in 2010, as market risk rose due to the European crisis (see Figure 45).[32]

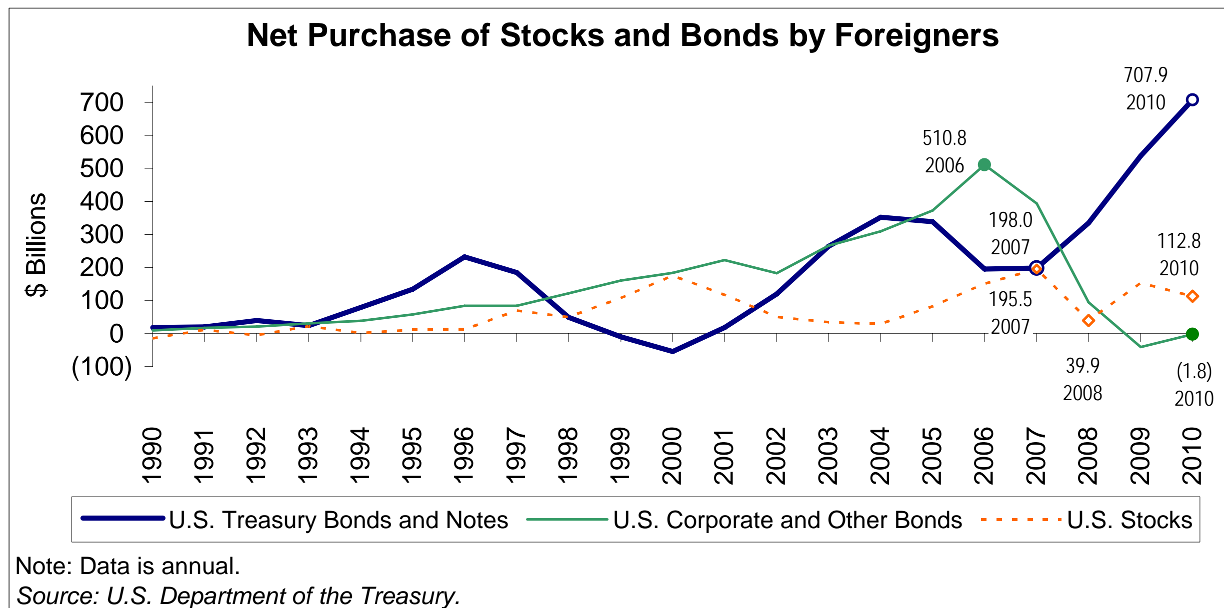

Figure 45

High demand for U.S. Treasury securities during the recession pushed bond prices up in 2008 and early 2009. As a result, the 10-year Treasury note yield dropped from an average of 3.7 percent in 2008 to 3.3 percent in 2009. Increasing the supply of Treasury securities to finance the budget deficit pushed bond yields up in late 2009. The 10-year Treasury note yield averaged 3.5 percent in the fourth quarter of 2009, an increase from 2.7 percent in the first quarter. However, the debt problem in Europe that emerged in early 2010 caused investors to become more risk averse and shift their investments back to Treasury securities once again in mid-2010. As a result, the Treasury securities yield dropped to the lowest level in a year. In the third quarter of 2010, the 10-year Treasury note yield averaged 2.8 percent, almost a percentage point lower than it was in the first quarter of 2010.

Lower yields on long-term bonds have led to record low mortgage rates, which are typically set relative to long-term bond yields (see Figure 46). Lower mortgage rates and

[32] U.S. Department of the Treasury, Resource Center, Data and Charts Center, Treasury International Capital System (TIC), Securities (b), Special Data Series, http://www.treasury.gov/resource-center/data-chart-center /tic/pages/ticsec2.aspx#ussecs (accessed February 23, 2010).

low home prices have led to record high affordability, which has supported housing activities and thus helped stabilize the housing market. However, as investors shift their investment to equities, there is less demand for Treasury bonds. As a result, Treasury bond yields have increased in recent months leading to higher mortgage rates. Despite the increase, mortgage rates remain near record low levels.

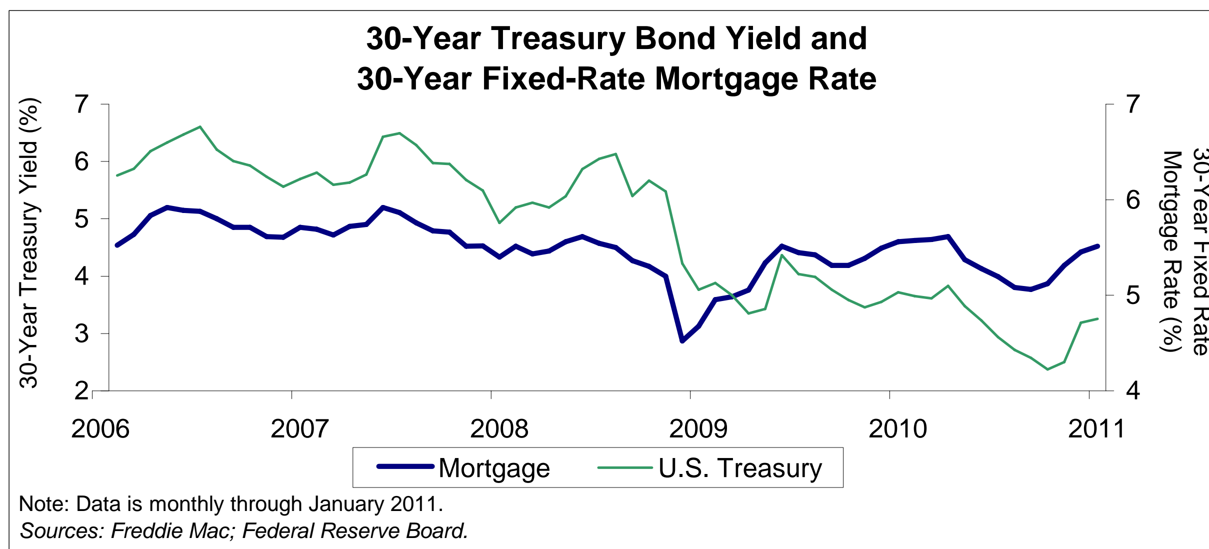

Figure 46

The world economy is expected to continue to recover in 2011. As the fear of European fiscal crisis fades, investors will likely shift their investments from Treasury securities to stocks and corporate bonds to seek higher returns. As a result, long-term Treasury yields will likely increase throughout the forecast period. The 10-year Treasury rate averaged 3.2 percent in 2010 and is forecast to rise to 3.6 percent in 2011 before rising further to an average of 4.2 percent in 2012.

Stock Market

After reaching its peak in October 2007, the stock market plummeted to its lowest level in over twelve years, bottoming out in March 2009. The S&P 500 Stock Price Index (S&P 500) and the Dow Jones Industrial Average (DJIA) fell over 50 percent during this period, marking the largest decline since the Great Depression.[33]

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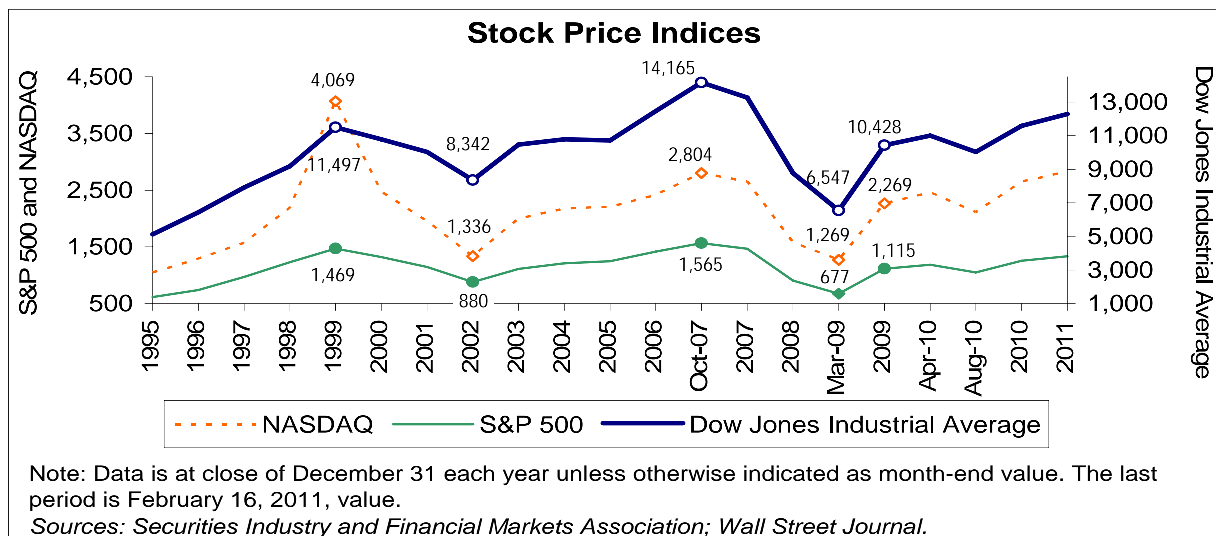
[33] The Dow Jones Industrial Average (DJIA) dropped 53.8 percent compared to a less than 40 percent decline from its peak in January 2000 to its trough in October 2002. During the 1929 stock market crash, the DJIA

Improvement in economic activities has gradually lifted market uncertainty, and helped improve stock market performance in the second half of 2009. As a result, the stock market gained quite rapidly since its trough, growing more than 50 percent by the end of 2009. The market continued to improve in early 2010, with the S&P 500 gaining over 6 percent during the first four months. Since April 2010, however, the stock market has gone through several corrections. The emergence of fiscal problems in several European countries in mid-2010 spilled over into the global financial market, causing nervousness among investors. In response, equity markets worldwide started to rattle and have since become more volatile and more sensitive to news. Equity markets worldwide declined sharply. By the end of August 2010, the stock market had lost all of its gains for the year. However, the S&P 500 resumed growing again as risks subsided and corporate earnings continued to improve (see Figure 47).



Note: Data is at close of December 31 each year unless otherwise indicated as month-end value. The last period is February 16, 2011, value.
Sources: Securities Industry and Financial Markets Association; Wall Street Journal.

Figure 47

On a quarterly average basis, the S&P 500 reached a peak of 1,496.4 in the second quarter of 2007 (see Figure 48). After the U.S. entered recession in December 2007, activities in the stock market declined rapidly. The S&P 500 dropped 45.9 percent from the second quarter of 2007 to 809.3 in the first quarter of 2009, before gaining at a fast pace. The market gained almost 40 percent from the first quarter of 2009 to the first quarter of 2010, and continued to improve through 2010 (on a quarterly basis).

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dropped by more than 80 percent from its peak in September 1929 to its trough in July 1932. The DJIA did not return to pre-1929 levels until the mid-1950s.

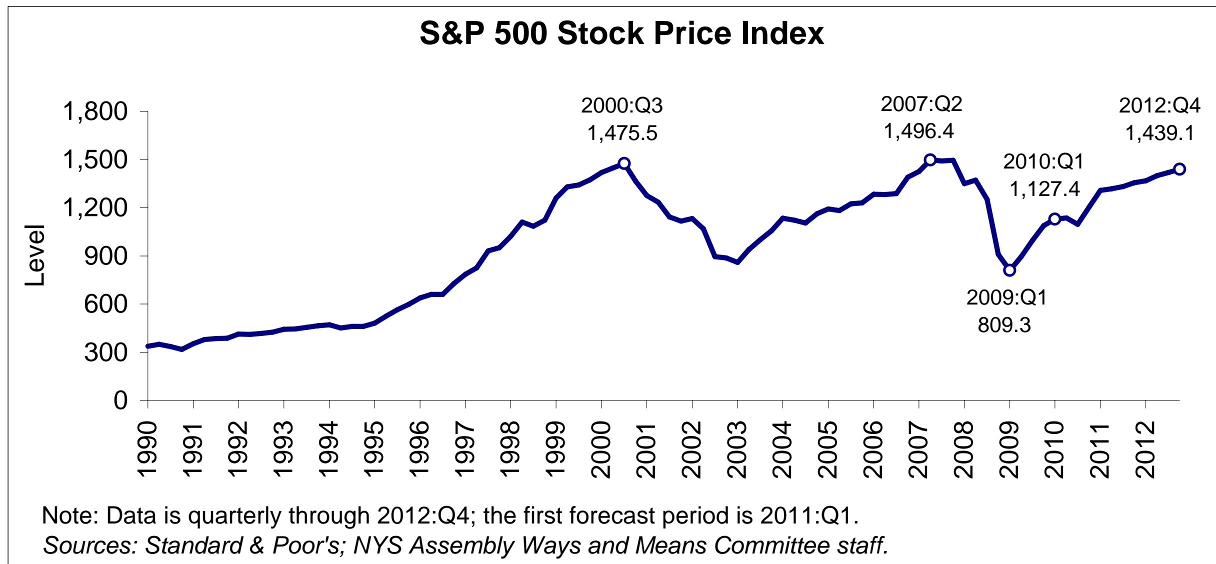

Figure 48

Despite several corrections in the market in 2010, the S&P 500 averaged 1,140.8, an increase of 20.5 percent from 2009, the strongest increase in a decade. With the economy continuing to recover, the stock market is expected to continue to improve throughout the forecast period. The S&P 500 is forecast to increase 16.4 percent in 2011 before improving further in 2012 with growth of 5.9 percent.

Global recovery is expected to be driven by several large emerging countries. The BRIC (Brazil, Russia, India, and China) is expected to be the economic powerhouse in the world by the end of this century. Higher growth prospects coupled with a more sustainable fiscal position have made emerging markets a more attractive choice for investors. This preference for investment in developing markets is reflected in the market indices. As of December 31, 2010, the one-year annualized total return of the S&P 500 was 15.1 percent, while the one-year total return was 16.7 percent for S&P Latin America 40 and 39.2 percent for S&P Southeast Asia 40.[34]

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[34] The S&P Latin America 40 is an equity index drawn from three major Latin American markets: Brazil, Chile, and Mexico. The index constituents are leading, large, liquid blue chip companies from the Latin American markets, capturing 70 percent of their total market capitalization.

The S&P Southeast Asia 40 is designed to provide exposure to forty leading companies from the emerging markets of Indonesia, Malaysia, the Philippines, and Thailand through liquid stocks trading on the primary exchange of those countries.

Despite higher volatility and the rising role of emerging equity markets, the stock market is expected to continue to recover throughout the forecast period. Increases in overall economic activities will eventually lead to an increase in demand for financial services and thus help lift the stock market. However, the market remains fragile as uncertainties still exist. Slow economic growth and high unemployment have led to a significant increase in loan defaults as reported by several major banks. Although the euro debt problem has been contained so far, it is possible that the problem will re-emerge and that could have a significant adverse impact on the stock market as well as on the speed of global recovery.

United States Forecast Comparison

The NYS Assembly Ways and Means Committee staff's forecast for overall national economic growth in 2011 is 3.2 percent (see Table 4). The staff's forecast is 0.2 percentage point higher than the Division of the Budget forecast. The staff's forecast is equal to the Blue Chip Consensus and IHS Global Insight forecasts. The staff's forecast is lower than Moody's Economy.com and Macroeconomic Advisers by 0.5 percentage point.

Table 4

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

	Actual 2009	Estimate 2010	Forecast 2011	Forecast 2012
Ways and Means	(2.6)	2.8	3.2	3.1
Division of the Budget	(2.6)	2.8	3.0	3.6
Blue Chip Consensus	(2.6)	2.9	3.2	3.3
Moody's Economy.com	(2.6)	2.9	3.7	4.0
Macroeconomic Advisers	(2.6)	2.9	3.7	3.8
IHS Global Insight	(2.6)	2.9	3.2	2.9

Sources: NYS Assembly Ways and Means Committee staff; NYS Division of the Budget, Executive Budget 2011-12, February 2011; Blue Chip Economic Indicators, February 2011; Moody's Economy.com, February 2011; Macroeconomic Advisers LLC, January 2011; IHS Global Insight, February 2011.

The Assembly Ways and Means Committee staff's forecast for overall national economic growth in 2012 is 3.1 percent. The staff's forecast is lower than the Division of the Budget by 0.5 percentage point, Blue Chip Consensus by 0.2 percentage point, Moody's Economy.com by 0.9 percentage point, and Macroeconomic Advisers by 0.7 percentage point. The staff's forecast is 0.2 percentage point above IHS Global Insight.

NEW YORK STATE FORECAST

The economy in New York State was dramatically affected by the recent recession and is still feeling the effects of the downturn. Some parts of the State economy fared better than the nation as a whole, while some fared worse. For example, total nonfarm payroll employment in New York State did not fall by as high of a percentage as national employment. During the recent recession, the State housing market did not fare as badly as the housing markets in other states. In terms of wage losses, however, New York State was very hard hit due to the State's concentration in the financial industry.

As the national economy recovers and the financial sector returns to health, New York State will benefit and continue to recover from the recession. However, downside risks remain. Further issues in the national economy and financial sector could be detrimental to the outlook for the State economy.

The NYS Assembly Ways and Means Committee staff estimates that in 2010 nonfarm payroll employment in the State increased 0.1 percent, wages grew 4.4 percent, and personal income grew 4.2 percent. In 2011, employment will continue to recover, growing at an annual average rate of 0.9 percent. Personal income is forecast to gain 5.5 percent (see Table 5). As discussed further in the variable compensation section on page 69, variable compensation is expected to grow throughout the forecast period, but will be impacted in 2012 by tax law changes.[35]

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[35] Data 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 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.

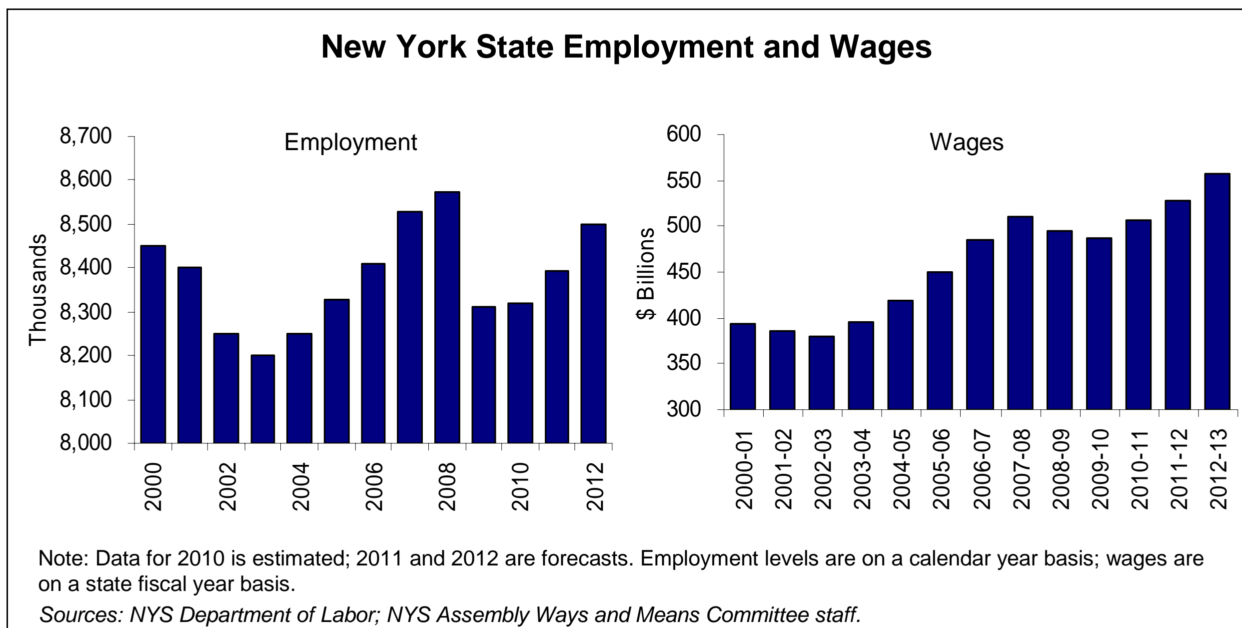
Table 5

New York State Economic Outlook (Percent Change)				
	Actual 2009	Estimate 2010	Forecast 2011	Forecast 2012
Employment	(3.1)	0.1	0.9	1.2
Personal Income	(3.1)	4.2	5.5	3.5
Total Wages [calendar year basis]	(7.2)	4.4	3.8	6.6
Base Wages	(3.5)	2.8	3.8	4.4
Variable Compensation	(30.8)	19.1	3.2	23.5
Total Wages [fiscal year basis]	(1.5)	4.0	4.5	5.4
Base Wages	(2.7)	3.5	3.9	4.6
Variable Compensation	9.0	8.1	9.0	10.9
New York Area CPI	0.4	1.7	2.1	2.3

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, 2009 represents SFY 2009-10.

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.

Both employment and wages are expected to recover throughout the forecast period. However, it is unlikely that employment will quickly return to the level reached during the years leading up to the recent recession (see Figure 49). Wages are expected to



Note: Data for 2010 is estimated; 2011 and 2012 are forecasts. Employment levels are on a calendar year basis; wages are on a state fiscal year basis.

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

Figure 49

recover during the forecast period, although they will grow at rates lower than pre-recession rates. Much of the wage outlook for the State remains dependent upon the performance of the financial sector, where significant risks exist.

Employment

Growth of total nonfarm payroll employment in New York State has almost always lagged national employment growth during the two decades before the recent recession. New York State was hit harder than the nation in the two prior recessions, and its employment recovered much slower than the nation. Employment growth in both the State and the nation slowed sharply during the recent recession; however, State nonfarm employment fared better than the nation this time.

After lagging the nation for nineteen out of the previous twenty years, State nonfarm employment growth outperformed the nation for four years in a row from 2007 to 2010. Even though total nonfarm payroll employment grew significantly slower in 2008 than in 2007, the State still gained employment in 2008, while national employment declined by 0.6 percent. As the overall economy weakened further in 2009, total employment in the State declined by 3.1 percent, the largest decline in more than a decade. Nonfarm payroll employment in New York State is estimated to have grown by 0.1 percent in 2010, compared to a decline of 0.7 percent for the nation.

As the overall economy continues to recover, total nonfarm payroll employment in both the State and the nation is forecast to increase in 2011 and 2012. However, as the nation has lost substantially more jobs than the State, the speed of employment recovery in the nation will likely be faster. For example, after losing almost 2.3 million jobs or 16.6 percent during the recent recession, the nation's manufacturing sector has gained 161,000 jobs or 7.1 percent. For comparison, the State's manufacturing sector has gained only 500 jobs or 0.6 percent, after losing 84,000 jobs or 15.5 percent. Total nonfarm payroll employment in the State is forecast to increase by 0.9 percent in 2011, while national employment growth is forecast to grow by 1.2 percent. New York State total nonfarm payroll employment is forecast to grow further in 2012 by 1.2 percent, while national employment is forecast to grow by 2.1 percent (see Figure 50).

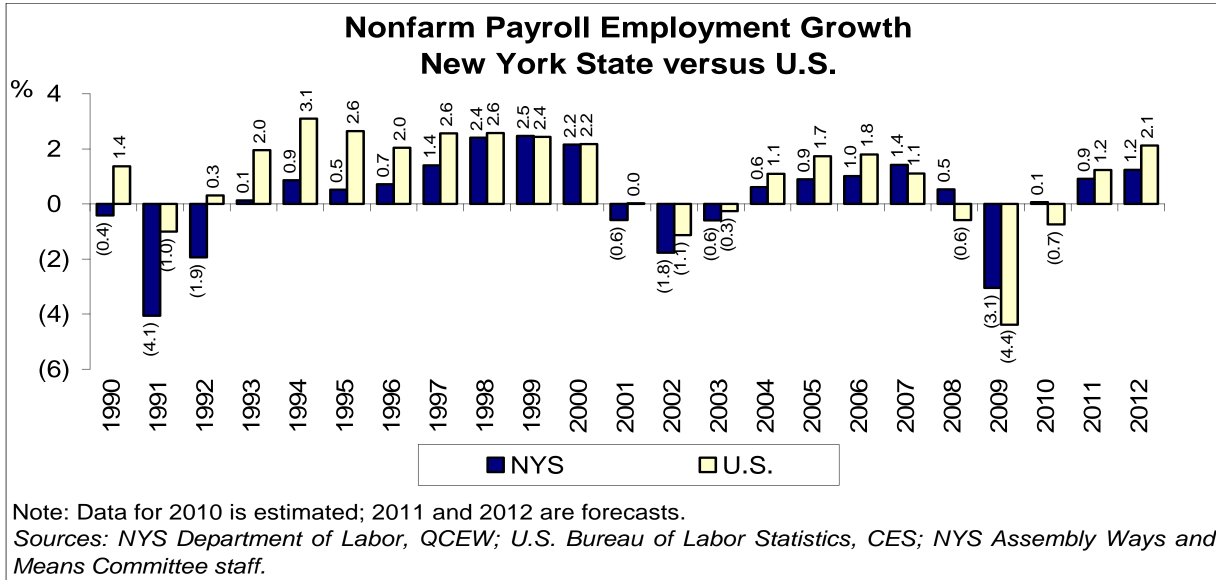


Figure 50

While national employment loss was more severe during the recent recession than prior recessions, that does not hold true for the State (see Figure 31 on page 34 and Figure 51). New York State lost fewer jobs during the recent recession than during the 1990-91 recession. As of December 2010, almost three years after the recent New York State employment peak in April 2008, nonfarm payroll employment in the State remained 330,400 below the peak, while the comparable number after the end of the 1990-91 recession was 578,100.

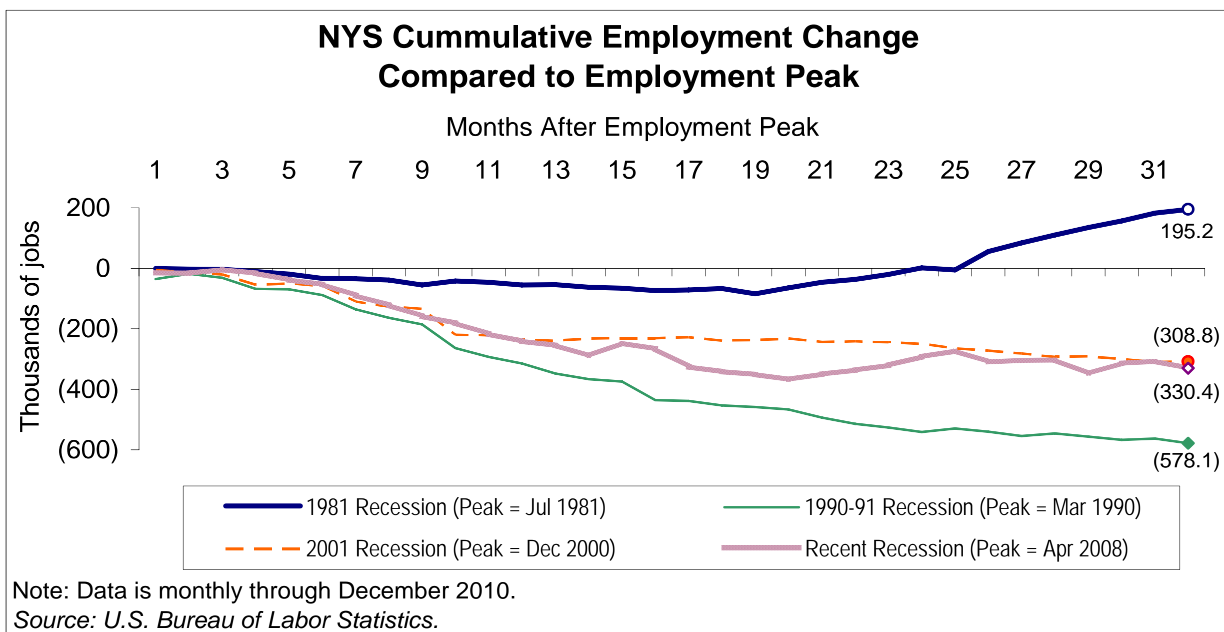


Figure 51

Unlike the 2001 recession, when the State started losing jobs earlier than the nation, New York State entered the recent downturn after the nation. New York State's total nonfarm payroll employment decline started in the third quarter of 2008; while the nation started losing jobs in the second quarter of 2008 (see Figure 52).

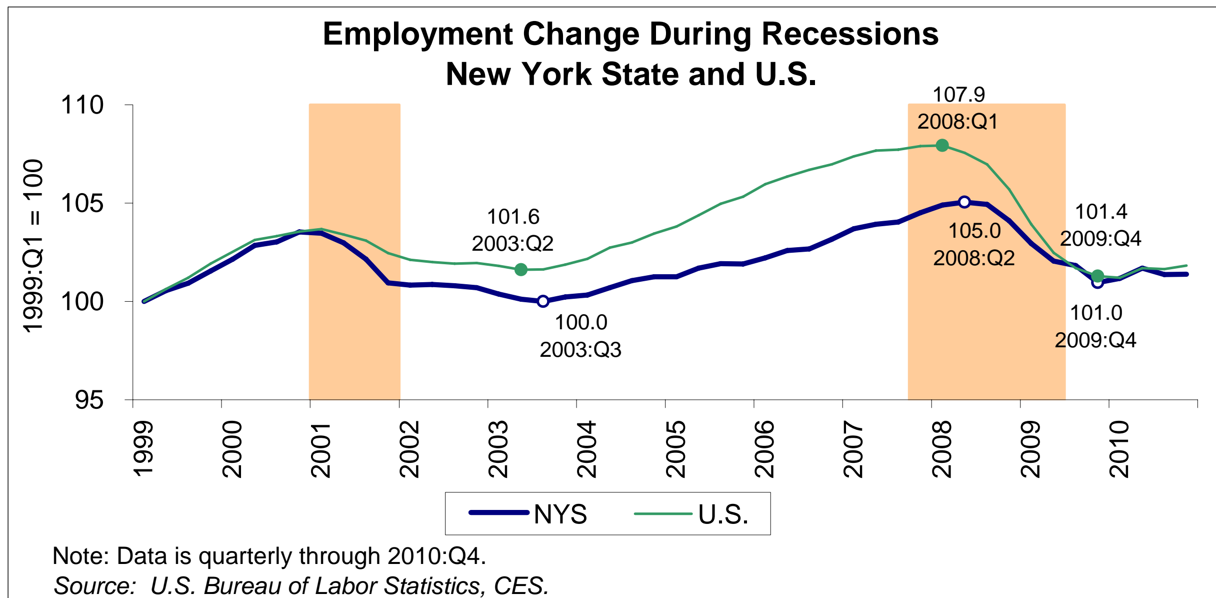


Figure 52

The rate of employment loss in the State has also been lower than the nation during the recent recession. This is mainly because New York's housing market fared better than that of the nation. As a result, the percentage of employment loss in the State's construction sector has been much less than this sector's national job loss. On an annual average basis, the nation lost 28.1 percent of construction jobs from peak to trough compared to 13.7 percent for the State. Another sector that outperformed the nation during the recent recession was leisure and hospitality. This may be due in part to the weak U.S. dollar, which helped the tourism industry in New York City. International visitors to New York City increased almost 8 percent in 2008 from 2007. In 2009, international visitors to the City declined 9.5 percent, due to the global recession, and then increased 12.8 percent in 2010. In comparison, in the wake of the September 11th terrorist attacks, international visitors to New York City had decreased for three consecutive years from 2001 to 2003. As a result, the State lost less of a percentage of total employment than the nation in the recent recession. New York State lost 3.1 percent of total payroll jobs from peak to trough compared to 5.6 percent for the nation (annual numbers). In contrast, New York lost

2.9 percent of employment from its 2000 peak to its 2003 trough, compared to a 1.4 percent loss for the nation from the 2001 peak to the 2003 trough.

From 2008 to 2009, New York State lost 3.1 percent of total nonfarm payroll jobs or about 261,700 jobs on a yearly average basis.[36] The unemployment rate in the State peaked at 9.4 percent in January 2010, compared to only 5.3 percent in January 2008.[37] As economic conditions improve, many firms have started to hire more workers. At the same time, some workers who have been unemployed for a long period of time may have left the labor force. As a result, the State unemployment rate has begun to decline, but it is not expected to come down quickly as those who left the labor force during the recession will likely return to the labor market but not find jobs immediately. Meanwhile, firms may be cautious about the recovery and reluctant to hire more aggressively.

From 1998 to 2008, total New York State nonfarm payroll employment grew at an average rate of 0.6 percent per year, slower than the national average growth rate of 0.8 percent per year. This trend has, however, reversed in recent years. In 2009, New York State accounted for 6.5 percent of total U.S. payroll employment. The State ranked third in the size of employment, behind California and Texas. New York State has performed better than the nation and relatively well in terms of employment growth in recent years when compared to other states, and is among the best compared to other large states.

Total New York State nonfarm payroll employment growth was ranked eighth in 2009, an improvement from thirteenth in 2008 and twentieth in 2007. In 2010, State employment declined by 0.5 percent, while national employment declined by 0.7 percent. However, New York State employment growth dropped from eighth to twenty-fifth in terms of ranking (see Table 6).[38]

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[36] On an annual basis, New York State nonfarm employment peaked in 2008, while national nonfarm employment peaked in 2007. Nonfarm employment in both the State and the nation bottomed out in 2010.

[37] New York State Department of Labor, *Employment and Unemployment Data, Workforce and Industry Data*, December 2009.

[38] These growth rates and rankings are based on Current Employment Statistics (CES) data, which is timelier than the Quarterly Census of Employment and Wages (QCEW) data but subject to significant revisions. Unless otherwise noted, QCEW data is the basis of statements regarding New York State employment in this section.

Table 6

Employment Growth by State 2008-2010						
Geography	Employment Growth					
	2010		2009		2008	
	Growth	Rank	Growth	Rank	Growth	Rank
United States	**(0.7)**		**(4.4)**	**-**	**(0.6)**	**-**
Top Five						
District Of Columbia	1.7	1	(0.1)	1	1.5	5
New Hampshire	1.2	2	(3.4)	17	0.0	22
North Dakota	1.1	3	(0.2)	2	2.5	2
Alaska	0.8	4	(0.3)	3	1.3	6
Texas	0.4	5	(2.8)	9	2.0	3
New York	**(0.5)**	**25**	**(2.7)**	**8**	**0.7**	**13**
Bottom Five						
California	(1.5)	47	(6.0)	46	(1.3)	46
Georgia	(1.6)	48	(5.5)	41	(1.0)	44
Rhode Island	(1.7)	49	(4.8)	35	(2.2)	48
Colorado	(1.8)	50	(4.5)	33	0.8	10
Nevada	(3.0)	51	(9.1)	51	(2.2)	49

Note: The growth rates and rankings are based on Current Employment Statistics (CES) employment data. This data may differ from QCEW data usually used by the NYS Assembly Ways and Means Committee staff. The CES data is more timely but subject to possible significant revision. Rankings are based on two decimal places.

Source: U.S. Bureau of Labor Statistics.

While most sectors lose jobs during economic downturns, health and education employment has steadily increased even during recessions. This sector is the only sector that gained employment in 2009. This trend is likely to continue as aging baby boomers create more demand for healthcare services. The education and health sector grew about 2 percent per year between 2008 and 2010, and generated more than 25,000 new jobs each year. The sector is expected to continue to gain jobs at a similar rate in 2011 and 2012. As a result, the sector's share of total nonfarm payroll employment in New York State is expected to increase from 17.8 percent in 2008 to 19.3 percent in 2012. Most sectors are expected to gain jobs in 2011 and 2012, with the exception of the manufacturing, information, and government sectors.

The leisure and hospitality sector will be the main beneficiary of the weak dollar. As the dollar is expected to remain low while the global economy continues to improve, it is

likely that more foreign visitors will travel to New York. As a result, leisure and hospitality employment is expected to grow stronger than most sectors in 2011 and 2012.

The other services sector, which includes temporary workers, is also expected to experience strong growth in 2011, as employers usually hire workers on a temporary rather than permanent basis during the early stages of an economic recovery. As the economy continues to recover, firms are likely to start hiring workers for full-time positions. As a result, job growth in this sector is expected to slow to 1.6 percent in 2012.

The manufacturing sector has been continuously losing jobs for the past few decades due to structural shifts in the economy and other economic factors, and is estimated to have lost the largest number of jobs during the recent recession. The decline of the U.S. automobile industry has had a negative effect on national and State manufacturing employment, and is of particular concern to upstate New York, as many manufacturing firms are located in the upstate area.

Although this trend exists nationwide, New York lost manufacturing jobs at a higher rate than the nation in the past decade. The sector lost more than 10 percent of jobs in 2009. From 2008 to 2010, the manufacturing sector has lost more than 75,000 jobs, which accounted for more than 25 percent of State total nonfarm jobs lost. The loss of State manufacturing jobs is forecast to continue throughout the forecast period, while national manufacturing is expected to rebound in 2011. In 2011 and 2012, New York State's manufacturing employment is forecast to fall by 1.6 percent and 2.0 percent respectively, the fastest rate of employment loss among all sectors (see Table 7). On the contrary, nationwide manufacturing employment is forecast to grow over 1.0 percent in 2011 and 2012.

Table 7

New York State Employment by Sector (Percent Change)				
	Actual 2009	Estimate 2010	Forecast 2011	Forecast 2012
Total Employment	**(3.1)**	**0.1**	**0.9**	**1.2**
Leisure & Hospitality	(0.9)	2.4	1.8	2.0
Other Services[1]	(5.0)	2.2	2.6	1.6
Education & Health	1.7	2.0	2.0	2.0
Mgmt. of Companies	(0.7)	1.2	1.9	2.0
Retail Trade	(3.8)	0.3	0.8	0.8
Real Estate, Rental, & Leasing	(3.8)	0.3	0.8	1.2
Government	(0.2)	(0.2)	(0.7)	0.2
Transp. & Utilities[2]	(4.2)	(1.0)	0.8	1.2
Professional Services	(4.3)	(1.3)	1.9	2.7
Information	(4.0)	(1.8)	(1.2)	(0.9)
Wholesale Trade	(6.3)	(2.2)	0.4	0.8
Finance & Insurance	(7.2)	(2.4)	0.6	1.5
Manufacturing[3]	(10.9)	(3.8)	(1.6)	(2.0)
Construction	(10.0)	(4.1)	1.8	4.5

Note: Industries are ranked by 2010 employment growth; rankings are based on two decimal places.
[1] Including Administrative, Support, and Waste Management Services.
[2] Transportation, Warehousing, and Utilities.
[3] Including Mining.
Sources: NYS Department of Labor, QCEW; NYS Assembly Ways and Means Committee staff.

The construction sector also lost a significant number of jobs in 2009, as a result of slow activity in both commercial and residential construction. Construction employment in the State, however, fared better than that of the nation, with a rate of decline of 10.0 percent compared to 16.0 percent nationwide in 2009. As private construction is expected to recover only slowly for the next few years, employment in this sector is forecast to grow only 1.8 percent in 2011.

Regional Employment

Between the second quarter of 2010 (the most recent quarterly data available) and the second quarter of 2008, New York State lost almost 250,000 nonfarm jobs: led by 81,100 jobs lost in the manufacturing sector and 53,800 jobs lost in the construction sector. Total nonfarm payroll employment declined in all regions during this period.

The rate of job loss in New York State during the recent recession was distributed somewhat evenly across the regions. The fastest decline was in the Central New York and Mid-Hudson regions, which lost 4.0 percent of its nonfarm jobs due to a significant loss of manufacturing jobs. On the contrary, New York City lost the least percentage of jobs from the second quarter of 2008 to the second quarter of 2010, as it benefited from a weak dollar that brought visitors to the region and stimulated leisure and hospitality job growth. The Mohawk Valley region lost the second least percentage of jobs during the same period as almost half the jobs in these regions are in the government and education and health sectors, which were the least affected during this period. New York City accounted for 43.3 percent of total State nonfarm employment in the second quarter of 2008, and accounted for 32.9 percent of total State nonfarm employment loss from the second quarter of 2008 through the second quarter of 2010. While the Mid-Hudson region accounted for 10.6 percent of total State nonfarm employment in the second quarter of 2008, and 15.2 percent of total State nonfarm employment loss between the second quarter of 2008 and the second quarter of 2010 (see Table 8).

Table 8

New York State Nonfarm Employment by Region
2008:Q2 to 2010:Q2

	Employment 2010:Q2 (Thousands)	Share of Total State Employment 2010:Q2 (%)	Employment 2008:Q2 (Thousands)	Share of Total State Employment 2008:Q2 (%)	2008:Q2 - 2010:Q2 (Percent Change)	Share of Total State Nonfarm Employment Change 2008:Q2 to 2010:Q2 (%)
New York State	**8,276.7**	**100.0**	**8,516.9**	**100.0**	**(2.8)**	**100.0**
Downstate	**5,675.7**	**68.6**	**5,829.8**	**68.4**	**(2.6)**	**64.1**
New York City	3,606.8	43.6	3,686.0	43.3	(2.1)	32.9
Long Island	1,202.3	14.5	1,240.8	14.6	(3.1)	16.0
Mid-Hudson	866.5	10.5	903.0	10.6	(4.0)	15.2
Upstate	**2,601.0**	**31.4**	**2,687.1**	**31.6**	**(3.2)**	**35.9**
Western New York	616.6	7.4	635.2	7.5	(2.9)	7.8
Finger Lakes	533.7	6.4	550.2	6.5	(3.0)	6.9
Capital	497.7	6.0	514.8	6.0	(3.3)	7.1
Central New York	339.0	4.1	353.1	4.1	(4.0)	5.9
Southern Tier	291.9	3.5	303.6	3.6	(3.9)	4.9
Mohawk Valley	172.5	2.1	176.4	2.1	(2.2)	1.6
North Country	149.7	1.8	153.7	1.8	(2.6)	1.7

Note: New York State total does not include unclassified data.
Source: NYS Department of Labor, QCEW.

Table 9 shows the sectoral rates of year-over-year employment growth by region for the most recent quarter for which data is available. From the second quarter of 2008 to the second quarter of 2010, employment decreased in most sectors in all regions. In most regions, the largest employment level increase in recent years was in the education and health sector, while in most regions the largest rate of employment loss was in the construction and manufacturing sectors.

Table 9

New York State Employment Change
2008:Q2 to 2010:Q2
(Percent Change)

	New York State	Downstate		Upstate New York
		New York City	NYC Suburbs	
Total	(2.9)	(2.1)	(3.5)	(3.2)
Education and Health	4.0	4.2	5.1	2.9
Leisure and Hospitality	1.8	3.5	0.2	1.5
Government	1.3	2.1	1.0	0.8
Mgmt. of Companies	(0.0)	0.6	(2.3)	(0.9)
Finance & Insurance	(2.5)	1.2	(5.0)	(3.5)
Retail Trade	(4.3)	(2.2)	(6.0)	(6.3)
Other Services[2]	(4.7)	(5.0)	(8.5)	(8.9)
Information	(5.3)	(3.0)	(7.7)	(8.3)
Real Estate, Rental, and Leasing	(6.1)	(7.1)	(4.5)	(2.7)
Professional Services	(6.6)	(5.7)	(7.0)	(7.6)
Transportation and Utilities[1]	(8.2)	(8.0)	(8.1)	(7.8)
Wholesale Trade	(9.6)	(10.6)	(9.5)	(6.1)
Manufacturing[3]	(14.8)	(15.3)	(19.0)	(9.4)
Construction	(15.0)	(20.7)	(11.6)	(14.6)

Note: Downstate employment grew 1.0 percent during this period. Rankings are based on two decimal places.

[1] Transportation, Warehousing, and Utilities.
[2] Includes Administrative, Support, and Waste Management Services.
[3] Including Mining.

Source: NYS Department of Labor, QCEW.

Although New York State has a lower share of manufacturing employment than the nation, manufacturing represents a larger share of total upstate employment than that of national or State total nonfarm employment. In the second quarter of 2008, manufacturing employment accounted for 11.3 percent of upstate nonfarm employment, 4.0 percent of downstate nonfarm employment, and 6.3 percent of total State nonfarm employment. A

continuous decline in the manufacturing sector has led to a smaller share of manufacturing employment in all regions. As of the second quarter of 2010, manufacturing employment made up 10.0 percent of upstate nonfarm employment, 3.5 percent of downstate nonfarm employment, and 5.5 percent of total State nonfarm employment. The highest concentration of manufacturing employment was in the Southern Tier and the Finger Lakes regions, where manufacturing employment accounted for 13.0 percent and 12.6 percent of the regions' nonfarm employment in the second quarter of 2010, respectively (see Table 10).

Table 10

New York State Manufacturing Employment by Region 2008:Q2 to 2010:Q2					
	Manufacturing Employment 2010:Q2 (Thousands)	Manufacturing Share of Nonfarm Employment 2010:Q2 (%)	Manufacturing Employment 2008:Q2 (Thousands)	Manufacturing Share of Nonfarm Employment 2008:Q2 (%)	2008:Q2-2010:Q2 (Percent Change)
U.S.	**12,227**	**9.5**	**14,320**	**10.4**	**(14.6)**
New York State	**461**	**5.5**	**542**	**6.3**	**(15.0)**
Downstate	**200**	**3.5**	**236**	**4.0**	**(15.3)**
Long Island	73	6.1	82	6.6	(10.5)
Mid-Hudson	50	5.8	58	6.4	(13.0)
New York City	76	2.1	96	2.6	(20.7)
Upstate	**260**	**10.0**	**305**	**11.3**	**(14.6)**
Southern Tier	38	13.0	46	15.0	(16.6)
Finger Lakes	67	12.6	78	14.3	(14.2)
Western New York	65	10.6	77	12.2	(15.6)
Mohawk Valley	17	9.7	19	10.9	(12.6)
Central New York	32	9.6	38	10.7	(14.3)
North Country	12	7.7	14	9.1	(17.4)
Capital	29	5.8	33	6.3	(10.6)

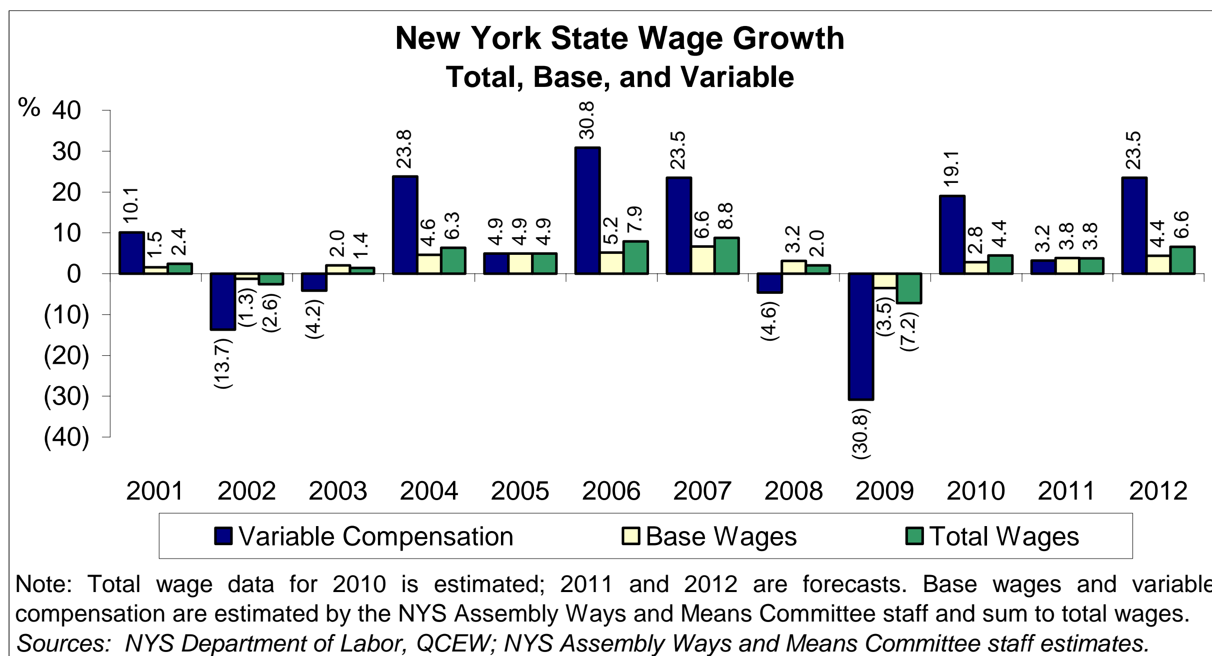
Note: New York State total does not include unclassified data.
Sources: U.S. Department of Labor, CES; NYS Department of Labor, QCEW.

Wages

The growth of wages in New York State remains a central issue in the State economic outlook and revenue forecasts. The State has typically been helped by strong growth in variable wages (bonuses) in the financial sector; however, this usual source of income tapered greatly during the recent recession leading to adverse effects on the State economy and revenues.

As the financial crisis set in and variable wages dropped steeply, total wages in New York State suffered greatly. Total wages dropped 7.2 percent in 2009, by far the

largest yearly drop since the data series started in 1975. While variable wages are more volatile and have declined by double-digit percentages previously, the drop in 2009 variable wages of 30.8 percent or $21.6 billion was unprecedented. Base wages also struggled in 2009, as employment dropped and inflation remained low. Base wages fell 3.5 percent in 2009, also unprecedented (see Figure 53).



Note: Total wage data for 2010 is estimated; 2011 and 2012 are forecasts. Base wages and variable compensation are estimated by the NYS Assembly Ways and Means Committee staff and sum to total wages.
Sources: NYS Department of Labor, QCEW; NYS Assembly Ways and Means Committee staff estimates.

Figure 53

In 2010, the overall wage outlook improved somewhat as businesses started to regain some confidence in the economy; however, the growth was at a slower pace than before the recession. Total wages are estimated to have grown by 4.4 percent in 2010, helped by a healthy 19.1 percent gain in variable compensation. Total wage growth is forecast to continue in 2011 as the financial sector continues to recover and the general health of the State economy and healthier employment growth return. However, with variable wage growth expected to be almost flat in 2011 as poor revenues in the financial sector during 2010 impact the bonuses paid in the first quarter of 2011, total wage growth in the State is also expected to slow in 2011 to 3.8 percent (see Table 11).

Table 11

Personal Income, Wages, and CPI New York State		Actual 2009	Estimate 2010	Forecast 2011	Forecast 2012
Personal Income	***Percent Change***	**(3.1)**	**4.2**	**5.5**	**3.5**
	Level	891.9	928.9	980.1	1,014.1
Total Wages	***Percent Change***	**(7.2)**	**4.4**	**3.8**	**6.6**
	Level	481.1	502.4	521.4	555.8
Base Wages	***Percent Change***	**(3.5)**	**2.8**	**3.8**	**4.4**
	Level	432.6	444.7	461.8	482.2
Variable Compensation	***Percent Change***	**(30.8)**	**19.1**	**3.2**	**23.5**
	Level	48.5	57.7	59.6	73.6
New York Area CPI	***Percent Change***	**0.4**	**1.7**	**2.1**	**2.3**

Note: Levels are in billions of dollars. New York area CPI is based on the New York-Nothern NJ-Long Island, NY-NJ CT-PA CPI-U series from the U.S. Bureau of Labor Statistics.

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.

Wages are one indicator that especially highlights the differences between the various regions in New York State. The share of total New York State nonfarm wages is uneven across regions (see Figure 54). Over half of the wages paid in the State are paid in New York City, although in 2009 the City accounted for only 43 percent of employment and total State population. The share of wages outside of New York City is spread more evenly throughout the other State regions.

During the recent recession in which the New York City economy was hammered by the loss of many high paying financial jobs, employment in the City still generated the majority of wages paid in the State compared to other regions. Although the financial crisis is said to have been one major trigger of the latest recession, pain quickly spread "from Wall Street to Main Street." Therefore, other regions of the State that are not so dependent on the financial sector also saw losses in wages in other industries as a result of the recession.

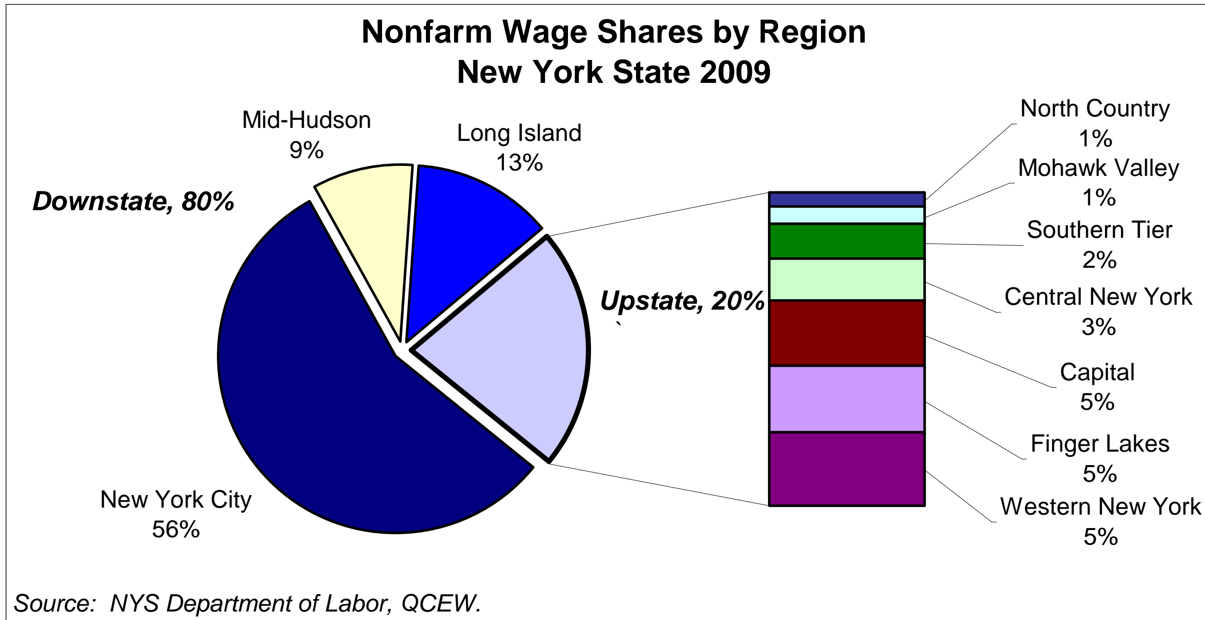


Figure 54

Variable Compensation

Variable compensation is the most volatile component of New York wages and plays an important role in the forecasting of State wages. Even though the share of variable compensation in total wages is small compared to base wages, its impact on changes in total compensation cannot be ignored. Variable compensation accounted for an estimated average of 12.3 percent of total State compensation from 2004 to 2008, increasing from around 5 percent in the 1970s. The share reached a high of 14.5 percent in 2007. In 2009, however, this percentage fell to 10.0 percent as financial firms drastically cut back on bonus payouts in the face of billions of dollars in losses.

The NYS Assembly Ways and Means Committee staff estimates that in 2010 54.0 percent of variable wages in the State were paid by the finance and insurance industry. A large portion of those wages came directly from the securities industry. As the majority of variable wages in New York State is paid by the financial sector, the determination of variable wages has become more difficult to forecast as a result of the recent financial crisis.

The current bonus season has proved particularly difficult to gauge expectations for the magnitude of bonus payouts. Although there were reports of strong revenues and profits in some quarters during 2010, the overall annual results appear mixed. Some

investment firms reported higher revenues and higher compensation expenses for 2010 compared to 2009. However, some firms had lower overall revenue and compensation expense totals. In addition, as financial firms continued to face harsh public criticism for paying bonuses, it became unclear how the firms would react to the public outcry and how their compensation structures would change as a result. Some banks have announced they are raising base pay and diminishing bonus payments. Others have changed the division of bonuses between stock options and cash, awarding more stock and less cash. As this report is written, some of these changes are still unclear and could have lasting effects on the amounts of variable compensation that are paid on a yearly basis.

The Assembly Ways and Means Committee staff estimates that New York State total variable compensation, which was $73.4 billion in 2007, fell 4.6 percent to $70.1 billion in 2008 as financial services companies began to cut back. Total variable compensation is estimated to have decreased by 30.8 percent to $48.5 billion in 2009. This is the largest decline since estimates of the series began in 1975. The declines are a direct result of a major pullback in securities industry bonus payments, which are estimated to have fallen 45.9 percent. Much of this decline is accounted for in State wage data in the first quarter of 2009, when firms paid lower bonuses based on dismal company results for calendar year 2008.

In 2010, firms recovered somewhat and the securities industry payments in the first quarter of 2010 were surprisingly upbeat, growing by an estimated 27.1 percent over the low base in the first quarter of 2009. The Assembly Ways and Means Committee staff expects total variable wages will remain almost flat in 2011, before resuming stronger growth in 2012. For the fiscal year ending in 2012, total variable wages are forecast to increase 9.0 percent, led by growth in the securities industry. For SFY 2012-13, total variable wages are expected to grow 10.9 percent (see Figure 55).

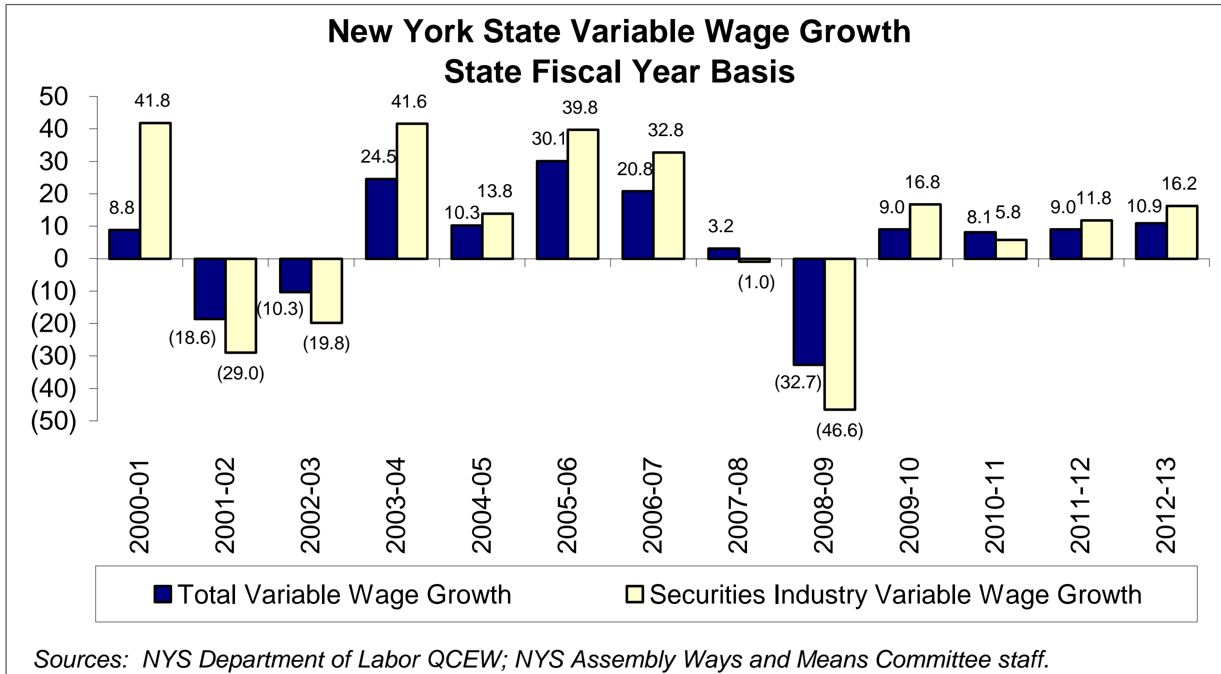


Figure 55

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 employment is heavily concentrated in New York City. While the sector accounted for less than 6 percent of total State nonfarm payroll employment in 2009, the industry comprised 20 percent of total State nonfarm payroll wages. As a result, the performance of the finance and insurance sector has a considerable impact on State tax revenues.

Finance and insurance variable compensation accounted for more than half of total State variable wages in 2009. It is the most volatile component of State nonfarm payroll wages and as such is a major risk to the New York State forecast. Finance and insurance bonuses are related to securities industry revenues and profits. Given the recent turmoil in the industry and new regulations, strong revenue growth may no longer translate into increases in compensation. As problems in the housing and credit markets intensified during the recent recession, industry revenues and profits declined significantly due to asset degradation, huge write-downs by many firms, and the closure of financial institutions. Moving forward, significant risks remain for the bonus outlook. One of the major risks to the forecast is the result of regulatory actions pertaining to salaries and

bonuses in the industry and how these regulations may change the concept of variable wages as we know it.

On a fiscal year basis, finance and insurance variable compensation in New York State fell sharply by 42.5 percent in SFY 2008-09 to $24.7 billion, while total variable compensation fell 32.7 percent. As the national economy came out of recession in the second half of 2009, financial firms paid higher bonuses. As a result, finance and insurance variable compensation rose by 13.0 percent to $28.9 billion in SFY 2009-10, before rising further to an estimated $29.8 billion in SFY 2010-11 as the overall economy has continued to improve.

The recent recession led to a major slowdown in Wall Street activities that had traditionally helped the securities industry attain huge profits. For example, after setting record deals in 2007, merger and acquisitions (M&A) activity slowed markedly in 2008. Worldwide M&A activities dropped 29.6 percent to $2.9 trillion in 2008, the lowest level since 2005. Contributing to this decline was the tight credit market, which led to a record high number of withdrawn M&A transactions as dealmakers were unable to obtain favorable financing. M&A activities continued to slow in 2009 before rebounding in 2010 (see Figure 56).[39]

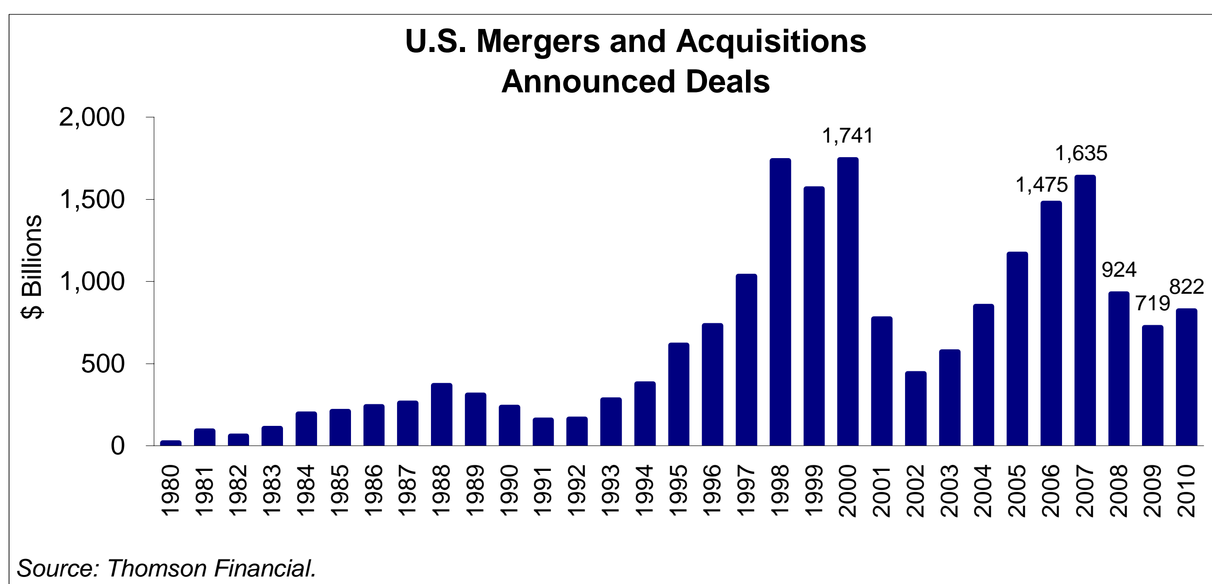


Figure 56

[39] Thomson Reuters: "Mergers & Acquisitions Review," *Financial Advisors*, fourth quarter of 2009.

As the economy emerged from recession and credit conditions somewhat improved, global M&A activity began to improve in 2010. Global M&A volume increased 22.9 percent in 2010 to over $2.4 trillion. However, as many M&A activities were taking place in emerging markets, U.S. M&A volume increased by only 14.2 percent during this period.[40] Although there is still uncertainty in the market, easing credit conditions, low interest rates, high cash on corporate balance sheets, and an improving economy should help support M&A activity in 2011.

Initial public offering (IPO) activities, another area that can be very lucrative for securities industry firms, were also curtailed during the recent recession. The number of IPOs issued in 2008 was the lowest since Dealogic started to track the market in 1995. [41] The total value of IPOs globally was also sharply down in 2008 compared to 2007. As Wall Street recovered and investors regained their appetites for risk, the global IPO volume rebounded in 2009, growing more than 20 percent from 2008. Most of these IPOs took place in Asia Pacific, which saw a volume increase of more than 100 percent in 2009. Even though the number of IPOs issued in the U.S. increased in 2009, the deals were of smaller values. As a result, the total volume of U.S. IPOs continued to decline in 2009.[42]

IPO activities rebounded strongly in 2010, with global IPO volume totaling $269.4 billion, more than double the 2009 volume.[43] Global deals increased by more than 110 percent over 2009, in both number of deals and volume. About half of the volume was issued in the emerging market, which totaled almost $150 billion. As economic activities are expected to continue to improve, IPO activities are expected to continue to be strong in 2011.

Since the financial crisis started, a record number of banks have gone bankrupt. In 2009, 140 banks failed, and in 2010, 157 additional banks failed, the highest since 1992.[44] In 2010, problem banks accounted for more than 10 percent of all banking institutions.[45]

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[40] Thomson Reuters: "Mergers & Acquisitions Review," *Financial Advisors*, 2010.

[41] Lacey Rose, "NBC Universal, Vivendi's Idle Threat," *Forbes.com* (Los Angeles) October 29, 2009.

[42] Thomson Reuters: "Equity Capital Markets Review," fourth quarter 2009.

[43] Thomson Reuters: "Equity Capital Markets Review," fourth quarter 2010.

[44] Federal Deposit Insurance Corporation (FDIC), Failed Bank List, last updated 02/18/2011, www.fdic.gov /bank/individual/failed/banklist.html.

[45] Federal regulators assign a composite rating to each financial institution, based upon an evaluation of financial and operational criteria. The rating is based on a scale of 1 to 5 in ascending order of supervisory concern. "Problem" institutions are those institutions with financial, operational, or managerial weaknesses

There were 884 problem banks as of the fourth quarter of 2010, with total assets of $390 billion. In the second quarter of 2007, prior to the recession, there were only 76 problem banks.[46] This has placed enormous strain on the Federal Deposit Insurance Company (FDIC), which raised the assessment rate on banks in order to keep the fund liquid.[47] As of the fourth quarter of 2010, assessment revenues and a reduction in the contingent loss reserve had helped improve the Deposit Insurance Fund (DIF), which protects depositors in the event of bank failures, balance for four quarters in a row. However, the DIF balance remains negative at $7.4 billion.[48] This remains a risk to the banking system.

By the end of 2011, the finance and insurance sector in the State is expected to lose almost 57,000 jobs or 10.5 percent of the overall employment from its peak in 2007 as financial firms cut jobs in order to reduce costs. This is higher than the rate of sector employment lost during the last employment downturn. The finance and insurance sector lost 8.4 percent of jobs from 2000 to 2003. Industry employment had been growing since the sharp declines in 2002 and 2003.

Within the finance and insurance sector, the securities industry was particularly hard hit and continues to be troubled by the problems in the financial system. Securities industry employment reached a record high of 871,200 jobs nationally in the second quarter 2008, but has since contracted by 8.6 percent. As of December 2010, securities industry employment in the State accounted for more than 22 percent of the nation's securities industry employment.[49] The industry currently employs about 180,000 workers in the State, most of whom are located in New York City, and accounted for 2.2 percent of total State nonfarm employment in 2010. As financial markets continue to under-perform, layoffs in the sector have persisted. Following the 9.7 percent employment decline in 2009, securities employment is estimated to have declined another 3.7 percent in 2010 (see Figure 57). As the industry improves and confidence and stability return to the

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that threaten their continued financial viability. Depending upon the degree of risk and supervisory concern, they are rated either a "4" or "5."

[46] Federal Deposit Insurance Corporation (FDIC), "Quarterly Banking Profile, Fourth Quarter 2010," Vol. 4, No. 4, December 31, 2010, http://www2.fdic.gov/qbp/2010dec/qbp.pdf

[47] Assessment rate is a fee that FDIC assesses based on risks and then charges bank members in order to back the deposit insurance fund, which in turn guarantees the safety of the depositors' funds.

[48] Federal Deposit Insurance Corporation (FDIC), "Third Quarter 2010 Chief Financial Officer's (CFO) Report to the Board," period ending September 30, 2010.

[49] U.S. Bureau of Labor Statistics, *Current Employment Statistics*, CES.

markets, securities employment is forecast to improve slowly, growing 0.8 percent in 2011 and 2.8 percent in 2012.

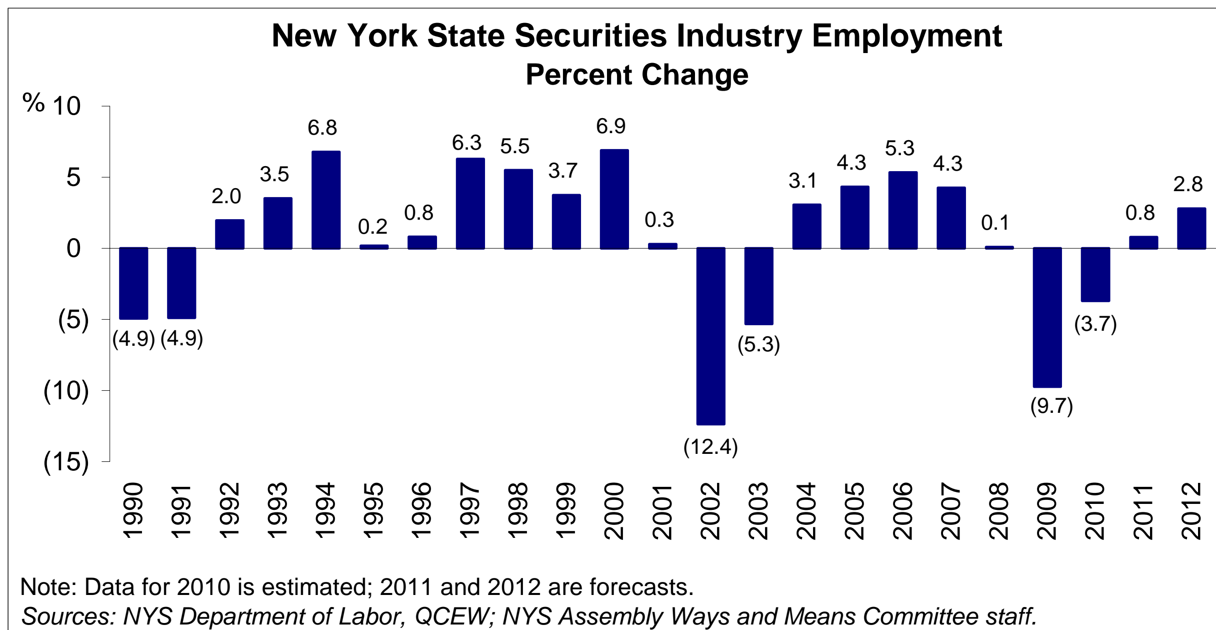

Figure 57

Employment and compensation in the securities sector will likely be affected by changes in revenue growth among investment firms. Over the past decade, securities industry revenues shared a close relationship to the growth of securities industry variable compensation (see Figure 58). Going forward, this relationship may not continue to be as solid as in years past as the industry continues to adapt to a changing environment. In particular, the relationship between revenues and variable compensation may be forever changed as major investment banks move to reallocate or reign in bonus compensation.

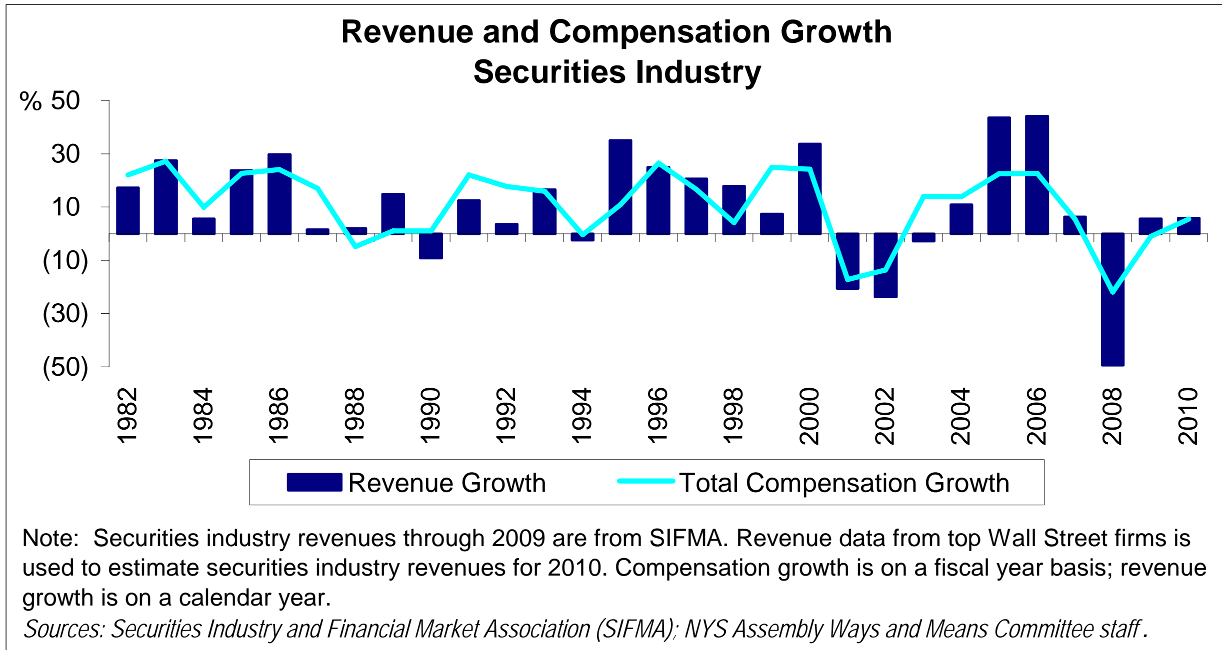

Figure 58

An overview of several major investment firms on Wall Street shows an overall increase in revenue and compensation set aside in 2010, compared to 2009. However, the relationship between compensation set aside and bonuses that are immediately taxed is becoming less clear. Some firms have already taken steps to increase base salaries instead of increasing bonuses. In addition, many firms have changed their mix of variable payouts between cash and stock. Stock payments may be cashed in at a future time, and may not necessarily coincide with traditional timing of bonuses (typically the fourth or first quarter of the calendar year).

Some of the changes in compensation practices are due to changes in regulations that may not directly tie to revenue growth, making the relationship between bonuses and revenues even more complicated. In early 2010, Congress passed the Financial Reform Bill, which requires large banks to increase the amount of capital they hold in reserve. The bill also increases federal oversight and regulation over the sector's operations that were not previously under monitoring such as hedge funds, private equity firms, and derivatives market. Additionally, in September 2010, the Basel Committee on Banking Supervision announced new international capital requirements for banks worldwide regardless of size

starting January 2013.[50] Both new regulations will likely reduce potential profit in this sector. However, both will not be fully implemented for several years, thus leaving room for banks to maintain their normal operation during the recovery.

State Housing Market

The New York State housing market performed better than the nation during both the housing boom and the correction. More home choices, moderate prices, low mortgage interest rates, and a lower rate of job losses helped to keep the State housing market on solid ground until recently. Based on the Federal Housing Finance Agency House Price Index (HPI), both the national home price and State home price peaked in the first quarter of 2007.

During the six-year period prior to the recent recession, from the third quarter of 2001 to the third quarter of 2007, home prices in New York State grew by 65.0 percent, compared to 48.3 percent in the nation. Home prices in both the State and the nation have declined since the start of the housing correction in 2007. From the third quarter of 2007 to the third quarter of 2009, overall State home prices declined by 6.5 percent, while national home prices declined by 8.3 percent. The fall in overall home prices in New York State during this period is primarily attributed to the depreciation in downstate's property prices, which inflated significantly during the housing boom. Home prices in upstate were less affected by the real estate cycle than downstate, and prices in some metros continued to appreciate during the housing downturn (see Table 12).

Activities in the housing market in the State and the nation have declined sharply since the expiration of the home buyer tax credit. In December 2010, sales of existing single-family homes in the State fell 16.2 percent from the same period last year, while sales fell 2.5 percent nationwide. The median sales price of an existing single-family home in the State, however, increased 3.7 percent from the same period last year to $225,000. In comparison, median sales price of existing single-family homes nationwide decreased 0.2 percent during this period.

[50] Among the requirements is to increase the minimum equity requirement from 2.0 percent to 4.5 percent by 2019. In addition, banks will be required to hold a capital conservation buffer of 2.5 percent. Furthermore, banks must raise their Tier 1 capital ratio from 3.5 percent to 6.0 percent by 2019.

Table 12

Home Price Change by New York State Metropolitan Area 2001:Q3 to 2010:Q3 (Percent Change)			
	FHFA Existing Home Price Index		
	2001:Q3-2007:Q3	2007:Q3-2009:Q3	2009:Q3-2010:Q3
Buffalo-Niagara Falls	28.6	3.7	1.5
Albany-Schenectady-Troy	71.3	(1.0)	0.2
Rochester	21.6	3.0	0.2
New York City (S&P/Case-Shiller)	70.9	(15.8)	0.1
Nassau-Suffolk	77.6	(10.7)	(1.0)
Syracuse	48.3	(8.3)	(1.2)
New York-White Plains	77.3	(10.3)	(1.7)
New York State	**65.0**	**(6.5)**	**(0.6)**
U.S.	**48.3**	**(8.3)**	**(1.2)**

Note: Data is not 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. The FHFA index also included both sales and appraisal data.
Sources: Federal Housing Finance Agency (FHFA); Standard & Poor's.

As of the third quarter of 2010, New York State had the second lowest rate of mortgage holders in negative equity at 7.0 percent, compared to 22.5 percent nationwide. It was estimated that approximately 130,000 of the State's mortgages were in negative equity, with another 40,000 mortgages in danger of entering negative equity.[51]

Although the housing market in the State outperformed the nation, the market remains fragile. As in the nation, adjustable rate mortgages (ARMs) became popular during the housing boom. In New York State, the number of subprime mortgage originations with adjustable rates rose from less than 5,000 loans in the second quarter of 2000 to more than 100,000 loans in the third quarter of 2007. Subprime ARMs originations dropped to less than 65,000 loans in the third quarter of 2010. Foreclosure filings in the State have been increasing rapidly since mid-2006, especially for those subprime borrowers with ARMs. As of the third quarter of 2010, foreclosure rates for subprime borrowers with ARMs were over

[51] First American CoreLogic's data report is based on 48 million properties that have a first and/or second mortgage, which account for over 90 percent of all mortgages in the U.S. See First American CoreLogic, "First American CoreLogic's Negative Equity Data Report" (as of December 2010).

three times that of subprime borrowers who had fixed-rate mortgages (FRMs). The overall foreclosure rate for subprime borrowers with ARMs in the State rose from 4.9 percent in the second quarter of 2006 to 32.8 percent at the end of the third quarter of 2009. The State also has a higher percentage of subprime loans with adjustable rate mortgages (ARMs) that are scheduled to have their interest rates reset in the next twenty-three months, than the nation. As of October 2010, 20.3 percent of subprime loans with ARMs in the State are in foreclosure, while 4.7 percent are scheduled to have their interest rates reset in the next twenty-three months. This is much higher than the national rate of 13.2 percent in foreclosures and 2.8 percent due for a rate reset in the next twenty-three months.[52] This imposes a significant downside risk on the New York State housing market as it could create more foreclosures if these mortgage holders cannot afford new mortgage payments at a higher interest rate and cannot refinance their mortgages.

Housing has become more affordable recently as home prices have fallen faster than income, while mortgage rates remain at record lows. The National Association of Home Builders/Wells Fargo Housing Opportunity Index (HOI) indicated that housing affordability reached a record high in early 2009 and remains near record highs, with more than 70 percent of homes sold in the fourth quarter of 2010 affordable to families earning the national median income, up from 46.6 percent during the fourth quarter of 2007. Leading the State in “most affordable metro” was Syracuse, where 92.9 percent of all homes sold were affordable to households earning the area’s median family income in the fourth quarter of 2010. The ratio of the median home price divided by median household income in the nation dropped from 3.8 in the fourth quarter of 2007 to 2.7 in the fourth quarter of 2010. This ratio also improved in most metros of New York. For example, New York/White Plains fell from 8.4 to 6.5. As a result, the NAHB/Wells Fargo Housing Opportunity Index in the New York/White Plains area rose significantly from 10.0 percent in the fourth quarter of 2007 to 25.6 percent in the fourth quarter of 2010.[53]

Despite improvement in housing affordability, a large disparity exists in the State.[54] Upstate homes are much more affordable than homes in downstate areas. As of the fourth quarter of 2010, out of 223 metros nationwide, three of the nine upstate metros ranked in

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[52] Federal Reserve Bank of New York, “United States Credit Conditions,” October 2010, http://data.NewYork fed.org/creditconditions/.

[53] 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).

[54] Housing is considered affordable when it costs less than 30 percent of household’s income.

the top fifth of most affordable metros. On the contrary, two of the four downstate metros ranked in the bottom fifth (least affordable), with New York-White Plains-Wayne metro listed as the least affordable metro in the country.[55] Downstate residents face a much higher housing cost burden than those upstate, especially those who rent. In 2009, less than 35 percent of all New York homeowners paid more than 30 percent of their income on housing, while nearly half of all renters paid more than 30 percent of their income on housing. Regionally, the housing burden was highest in Long Island, where 45.0 percent of homeowners and 51.6 percent of renters paid more than 30 percent of their income on housing. On the contrary, only 22.4 percent of homeowners and 42.6 percent of renters in Utica-Rome paid more than 30 percent of their income on housing (see Table 13).

Table 13

Housing Cost Burden by New York State Metropolitan Area 2009

	Owner		Renter	
	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
Metropolitan Statistical Area				
Long Island	744,041	45.0	164,525	51.6
New York City	1,036,554	40.1	2,050,942	48.7
Poughkeepsie-Newburgh-Middletown	160,811	39.1	68,185	50.9
Kingston	49,853	36.7	21,118	50.6
Glens Falls	38,895	29.9	14,218	41.2
Ithaca	20,213	26.3	18,078	60.1
Rochester	281,933	26.0	123,496	49.4
Albany-Schenectady-Troy	224,144	25.9	112,348	44.0
Buffalo-Niagara Falls	309,777	24.4	155,500	51.2
Syracuse	173,824	24.3	82,772	45.6
Utica-Rome	80,192	22.4	37,420	42.7
Binghamton	67,821	22.3	31,518	44.6
Elmira	24,017	20.7	12,187	49.5
New York State	**3,955,096**	**34.7**	**3,232,459**	**48.8**
United States	**74,843,004**	**30.4**	**38,773,225**	**47.7**

Note: Housing costs for homeowners include mortgage payment, real estate taxes, fire hazard and flood insurance, utilities, and fuels. Housing costs for renters are gross rent.
Source: U.S. Census Bureau, 2009 American Community Survey.

[55] National Association of Home Builders, "NAHB/Wells Fargo Housing Opportunity Index (HOI)," February 17, 2011, http://www.nahb.org/fileUpload_details.aspx?contentID=535.

While residential real estate activities in the State have performed relatively well, commercial real estate, especially the office market, deteriorated in 2008 and 2009. In Manhattan, slow demand due to layoffs caused leasing activity to drop by almost 45 percent in the second quarter of 2009 compared to the same period in 2008.[56] The overall vacancy rate in Manhattan rose from 7.0 percent in the third quarter of 2008 to 9.6 percent in the third quarter of 2009, while the average rental rate dropped from $65.40 per square foot per year to $51.42 per square foot per year.[57] The market showed signs of stability in the fourth quarter of 2009, with overall vacancy rates about the same as the previous quarter. The Manhattan office market improved in 2010, as leasing activity continued to increase. Leasing activity exceeded 7 million square feet in the fourth quarter of 2010.[58] Looking forward, the office market will likely continue to improve slowly in 2011 as employment in the key office-using industries such as finance and insurance, professional services, and information are expected to recover slowly.

Capital Gains

The performance of financial markets, particularly the equity and real estate markets, is an important indicator of capital gains realizations. The booming stock market of the late 1990s led to significant increases in capital gains realizations that peaked in 2000. Triggered by the steep decline in stock prices from post-bubble corrections in the stock market and the events of September 11th, the stock market plummeted in 2001.[59] After a further decline in 2002, taxable capital gains began to steadily rise in 2003 with the recovering stock market and the strengthening housing market. The stock markets peaked again in 2007 with record level taxable capital gains in both the U.S. and New York State.

Though the stock markets peaked again in 2007, turmoil in the financial markets, sparked by the distressed housing market, led to the stock markets falling significantly. The housing market started showing signs of weakness in 2006 when home prices in the U.S. grew only 8.1 percent after double-digit gains in the previous two years. Home prices decreased by 3.7 percent by the end of 2008 and an additional 4.1 percent in 2009. The prolonged contraction of the housing market also resulted in the decline of housing prices

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[56] Cushman & Wakefield, "Manhattan Office Report 4Q10," *MarketBeat*, Fourth Quarter 2010.

[57] Colliers ABR, "The Bridge to Recovery," *Barometer*, Third Quarter 2009, (New York City) http://www.colliers.com/Content/Repositories/Base/Markets/NewYork/English/Market_Report/PDFs/Barometer_3Q2009.pdf.

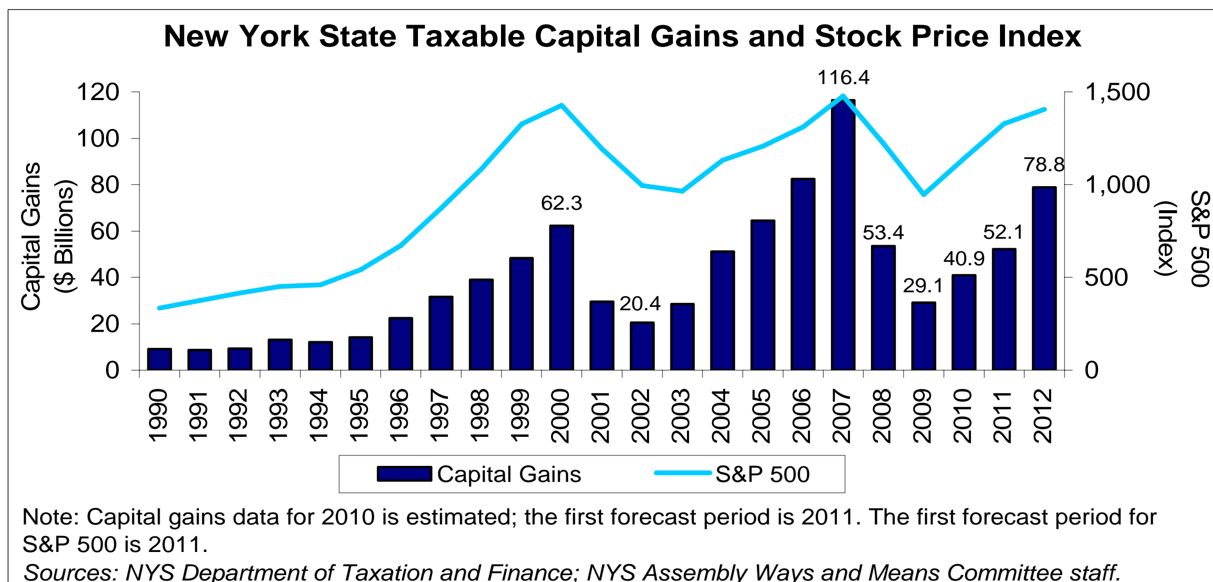
[58] Cushman & Wakefield, "Manhattan Office Report 3Q09," *MarketBeat*, Third Quarter 2009.

[59] New York State capital gains were more adversely affected by the events of September 11th because the financial sector is one of the most important sectors in the State.

in the State by 1.1 percent in 2008 and 3.3 percent in 2009.[60] Accordingly, these disturbances have had a significant adverse effect on capital gains realizations in New York State.

Since capital gains are only realized when the sale price of assets exceeds the purchase price of assets, the disparity between current year asset prices and prior years' asset prices has important implications for capital gains realizations in current and future years. If an investor purchased stocks in 2004 and sold them in 2007, capital gains were most likely realized since on average equity prices were much higher in 2007 than 2004 based on the S&P 500. More recently, increases in the stock market since the recent recession should help support capital gains as investors who bought lower priced stocks at the bottom of the market realize gains.

New York State posted taxable capital gains of $116.4 billion in 2007. However, the overall decline in economic growth coupled with the deterioration in the housing market and the significant falloff in corporate equity prices led to a 53.8 percent decline in taxable capital gains in 2008 (see Figure 59). Despite improvements in the stock market beginning in mid-2009, taxable capital gains fell an additional 45.5 percent in 2009 to $29.1 billion as home prices remained depressed and investors faced stock prices that were lower than in prior years.



Note: Capital gains data for 2010 is estimated; the first forecast period is 2011. The first forecast period for S&P 500 is 2011.
Sources: NYS Department of Taxation and Finance; NYS Assembly Ways and Means Committee staff.

Figure 59

[60] Home prices are based on Freddie Mac's Conventional Mortgage Home Price Index (CMHPI); http://www.freddiemac.com/finance/cmhpi/#new.

Taxable capital gains are estimated to have increased to $40.9 billion in 2010 from the low 2009 base. As home prices remained basically flat in 2010, the expected increase in gains is largely reflective of an increase in the financial market. Taxable capital gains are forecast to increase 27.4 percent in 2011 to $52.1 billion as equity markets continue to perform better. In addition, any gains in home prices during 2011 will help support capital gains, although realizations through home sales are expected to comprise a smaller portion of gains than stock transaction gains. As equity markets continue to grow and the economy is fully into recovery in 2012, capital gains are expected to grow to $78.8 billion. Capital gains in 2012 also includes a shift of gains from 2013 to 2012 as a result of the expected increase in capital gains taxes in 2013. As investors face higher tax rates (as a result of the expiration of current tax cuts and a tax on unearned income as part of the healthcare package), historical data suggests they will take gains sooner.

New York State Forecast Comparison

The NYS Assembly Ways and Means Committee staff's forecast for total nonfarm payroll employment growth in the State in 2011 is 0.9 percent (see Table 14). The staff's forecast is 0.2 percentage point above the Division of the Budget. The staff's forecast for State wages in 2011 is 3.8 percent. The staff's forecast is 0.6 percentage point above the Division of the Budget.

The Assembly Ways and Means Committee staff's employment growth forecast for 2012 is 1.2 percent. The staff's forecast is 0.1 percentage point below the Division of the Budget. The staff's forecast for New York State wages for 2012 is 6.6 percent. The staff's forecast is 1.4 percentage point higher than the Division of the Budget.

Table 14

New York State Forecast Comparison
(Percent Change)

	Actual 2009	Estimate 2010	Forecast 2011	Forecast 2012
Employment				
Ways and Means	(3.1)	0.1	0.9	1.2
Division of the Budget	(3.1)	(0.1)	0.7	1.3
Wages				
Ways and Means	(7.2)	4.4	3.8	6.6
Division of the Budget	(7.2)	4.0	3.2	5.2

Sources: NYS Assembly Ways and Means Committee staff; NYS Division of the Budget, Executive Budget 2011-12, February 2011.

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RISKS TO THE FORECAST

Serious risks to the economic outlook of the nation and New York State remain. Problems that were central to the recent recession continue to a certain extent, including weaknesses in both the labor market and the housing market and uncertainty in the financial markets. Furthermore, continued limited access to credit poses a significant risk going forward. If these areas fail to improve, or worsen again, the impact on the outlook would be substantial. If the recovery does not become self-sustaining from the many fiscal policies already implemented to spur growth, the outlook presented in this report would prove to be overly optimistic.

The health of the global economy is also a concern. If the global economy was not to continue to recover as assumed, the ability of the United States economy to grow would be impacted. Many global issues add uncertainty to the outlook, including the war in Afghanistan, unrest in the Middle East, volatility in oil prices, and other geo-political issues. The European debt problem remains a significant risk to the global recovery, as the extent of the problem and its impact on the rest of the world remains unclear. Any action by major emerging economies to slow their growth in order to control inflation could also be detrimental to the global recovery.

The current economic climate presents particular challenges and risks to the New York State forecast. A faster turnaround than expected for Wall Street activities offers some upside potential to the forecast. However, since the extent to which the Wall Street landscape will be permanently changed as the economy continues to emerge from the recent crisis is still unclear, there is great ambiguity surrounding the State outlook. 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) have critical implications for the economic health of the State. In addition, the extent to which the recent Dodd-Frank Wall Street Reform and Consumer Protection Act fosters hesitation or inaction on the part of financial firms could infuse more uncertainty into the forecast.

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APPENDICES

APPENDIX A

U.S. Recessions Since World War II (Based on Series-Specific Turning Points)					
GDP			**Employment**		
Peak to Trough	**Duration (Quarters)**	**Depth**	**Peak to Trough**	**Duration (Quarters)**	**Depth**
1948:Q4-1949:Q4	4	(1.6%) ($29.5)	1948:Q3-1949:Q4	5	(4.4%) (1,973.0)
1953:Q2-1954:Q1	3	(2.7%) ($62.7)	1953:Q2-1954:Q3	5	(3.2%) (1,635.0)
1957:Q3-1958:Q1	2	(3.7%) ($97.7)	1957:Q2-1958:Q2	4	(4.1%) (2,200.7)
1960:Q1-1960:Q4	3	(1.6%) ($45.1)	1960:Q2-1961:Q1	3	(1.7%) (910.0)
1969:Q3-1970:Q4	5	(0.6%) ($26.8)	1970:Q1-1970:Q4	3	(1.0%) (737.7)
1973:Q4-1975:Q1	5	(3.2%) ($157.8)	1974:Q3-1975:Q2	3	(2.7%) (2,087.3)
1980:Q1-1980:Q3	2	(2.2%) ($131.9)	1980:Q1-1980:Q3	2	(0.9%) (847.0)
1981:Q3-1982:Q3	4	(2.7%) ($163.8)	1981:Q3-1982:Q4	5	(3.0%) (2,734.3)
Average over All Previous Recessions	3.5	(2.3%) ($89.4)	Average over All Previous Recessions	3.8	(2.6%) (1,640.6)
1990:Q2-1991:Q1	3	(1.4%) ($109.4)	1990:Q2-1991:Q3	5	(1.4%) (1,498.3)
2000:Q4-2001:Q3	3	0.0% $5.6	2001:Q1-2003:Q2	9	(2.0%) (2,657.3)
2007:Q4-2009:Q2	6	(4.1%) ($553.7)	2008:Q1-2010:Q1	8	(6.2%) (8,595.0)

Note: Depth is defined as the level change from the peak level to the trough level. GDP is in billions of chained 2005 dollars. Employment is non-farm total in thousands. The percentages are the depth divided by the peak level.

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

APPENDIX B

U.S. Recessions Since World War II (Based on Series-Specific Turning Points)					
Consumption			**Investment**		
Peak to Trough	**Duration (Quarters)**	**Depth**	**Peak to Trough**	**Duration (Quarters)**	**Depth**
1948:Q4-1949:Q4	No Decline	3.4% 40.4	1948:Q3-1949:Q2	3	(31.0%) ($75.2)
1953:Q2-1953:Q4	2	(0.9%) ($12.7)	1953:Q2-1954:Q2	4	(11.1%) ($27.6)
1957:Q4-1958:Q1	1	(1.4%) ($22.3)	1957:Q3-1958:Q2	3	(17.2%) ($47.7)
1960:Q2-1960:Q3	1	(0.4%) ($7.1)	1960:Q1-1960:Q4	3	(21.7%) ($71.9)
1970:Q3-1970:Q4	1	(0.3%) ($7.5)	1969:Q3-1970:Q1	2	(8.4%) ($43.5)
1973:Q3-1974:Q1	2	(1.2%) ($37.0)	1973:Q4-1975:Q2	6	(29.4%) ($198.2)
1979:Q4-1980:Q2	2	(2.4%) ($92.8)	1978:Q4-1980:Q3	7	(19.9%) ($163.2)
1981:Q3-1981:Q4	1	(0.8%) ($29.0)	1981:Q3-1982:Q4	5	(22.5%) ($181.3)
Average over All Previous Recessions	1.4	(0.5%) ($21.0)	Average over All Previous Recessions	4.1	(20.1%) ($101.1)
1990:Q3-1991:Q1	2	(1.1%) ($56.6)	1990:Q2-1991:Q2	4	(12.7%) ($129.7)
2000:Q4-2001:Q3	No Decline	1.2% $94.2	2000:Q2-2001:Q4	6	(14.2%) ($287.3)
2007:Q4-2009:Q2	6	(2.4%) ($225.3)	2006:Q1-2009:Q2	13	(35.8%) ($811.5)

Note: Depth is defined as the level change from the peak level to the trough level. Consumption and investment are in billions of chained 2005 dollars. The percentages are the depth divided by the peak level.

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

APPENDIX C

NYS Employment and Wages in NAICS Sectors						
	Employment (Thousands)			Wages ($ in Billions)		
	Estimate 2010	Forecast 2011	Forecast 2012	Estimate 2010	Forecast 2011	Forecast 2012
Total	**8,317.5**	**8,393.4**	**8,497.7**	**502.4**	**520.8**	**555.1**
Education & Health	1,579.8	1,611.4	1,643.7	72.3	76.4	80.7
Government	1,438.3	1,427.9	1,430.5	77.3	78.2	79.5
Retail Trade	863.4	870.5	877.3	25.8	26.4	27.4
Other Services	738.8	757.6	769.7	28.7	30.0	31.3
Financial Activities	663.4	667.5	677.2	105.2	109.6	126.9
Leisure & Hospitality	725.7	738.7	753.3	19.2	20.1	21.2
Professional Services	552.8	563.3	578.4	49.9	52.3	55.1
Manufacturing	460.9	453.7	444.7	27.2	27.4	27.6
Construction	309.9	315.3	329.6	18.9	19.9	21.1
Wholesale Trade	321.7	323.1	325.5	22.8	23.5	24.4
Transport & Utilities	255.8	257.8	260.9	13.3	13.7	14.2
Information	247.1	244.2	242.0	22.4	23.1	23.8
Management of Companies	132.1	134.6	137.3	18.2	19.2	20.7

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

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

APPENDIX D

NYS Employment and Wage Growth in NAICS Sectors (Percent Change)						
	Employment			Wages		
	Estimate 2010	Forecast 2011	Forecast 2012	Estimate 2010	Forecast 2011	Forecast 2012
Total	**0.1**	**0.9**	**1.2**	**4.4**	**3.6**	**6.6**
Construction	(4.1)	1.8	4.5	(2.1)	5.2	5.9
Education & Health	2.0	2.0	2.0	4.7	5.6	5.7
Government	(0.2)	(0.7)	0.2	1.9	1.2	1.7
Leisure & Hospitality	2.4	1.8	2.0	4.6	4.7	5.3
Professional Services	(1.3)	1.9	2.7	2.1	4.7	5.3
Transport & Utilities	(1.0)	0.8	1.2	3.0	3.2	3.6
Other Services	2.2	2.6	1.6	6.2	4.4	4.4
Retail Trade	0.3	0.8	0.8	2.5	2.5	3.7
Wholesale Trade	(2.2)	0.4	0.8	0.1	2.8	4.1
Information	(1.8)	(1.2)	(0.9)	1.5	2.8	3.2
Management of Companies	1.2	1.9	2.0	16.4	5.5	7.6
Financial Activities	(1.7)	0.6	1.4	10.0	4.1	15.8
Manufacturing	(3.8)	(1.6)	(2.0)	(0.7)	0.7	0.8

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

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

APPENDIX E

New York State Economic Outlook State Fiscal Year		Actual 2009-10	Estimate 2010-11	Forecast 2011-12	Forecast 2012-2013
Employment	***Percent Change***	(2.9)	0.6	1.0	1.3
	Level	8279.5	8332.2	8416.2	8524.3
Personal Income	***Percent Change***	0.2	4.3	4.9	3.5
	Level	901.2	940.0	986.1	1020.9
Total Wages	***Percent Change***	(1.5)	3.9	4.5	5.4
	Level	486.6	505.6	528.4	556.7
Base Wages	***Percent Change***	(2.7)	3.5	3.9	4.6
	Level	433.6	448.9	466.6	488.1
Variable Compensation	***Percent Change***	9.0	6.9	9.0	11.2
	Level	53.0	56.7	61.8	68.6
CPI (1982-84=100)	***Percent Change***	0.6	1.6	2.3	2.2
	Level	238.1	241.8	247.5	253.0

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 F

U.S. Economic Outlook (Levels)	Actual 2009	Estimate 2010	Forecast 2011	Forecast 2012
Real GDP*	12,880.5	13,252.2	13,675.6	14,098.7
Real Consumption*	9,153.9	9,315.7	9,606.0	9,879.3
Real Investment*	1,515.7	1,772.7	1,893.6	2,070.4
Real Exports*	1,490.7	1,665.4	1,815.9	1,973.2
Real Imports*	1,853.8	2,086.6	2,228.3	2,394.5
Real Government*	2,542.5	2,570.1	2,571.0	2,552.7
*Federal**	1,027.5	1,077.0	1,085.6	1,065.2
*State and Local**	1,518.7	1,499.0	1,491.8	1,494.0
Personal Income**	12,174.9	12,545.3	13,132.8	13,555.0
*Wages & Salaries***	6,274.1	6,404.7	6,667.5	6,986.9
Corporate Profits (Economic Basis)**	1,257.9	1,625.1	1,754.9	1,805.6
Productivity (1992=100)	107.2	111.0	113.2	115.1
Employment***	130.8	129.8	131.4	134.2
CPI-Urban (1982-84=100)	214.5	218.1	222.7	227.5
S&P 500 Stock Price (1941-43=10)	946.7	1,140.8	1,328.2	1,406.2
Treasury Bill Rate (3-month)****	0.2	0.1	0.2	1.3
Treasury Bond Rate (10-year)****	3.3	3.2	3.6	4.2

* In billions of chained 2005 dollars.
** In billions of dollars.
*** In millions.
**** Annual average rate.

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

APPENDIX G

U.S. Economic Outlook (Percent Change)	Actual 2009	Estimate 2010	Forecast 2011	Forecast 2012
Real GDP	(2.6)	2.8	3.2	3.1
Real Consumption	(1.2)	1.8	3.1	2.8
Real Investment	(22.6)	16.8	6.8	9.3
Real Exports	(9.5)	11.7	9.0	8.7
Real Imports	(13.8)	12.6	6.8	7.5
Real Government	1.6	1.1	0.0	(0.7)
Federal	5.7	4.8	0.8	(1.9)
State and Local	(0.9)	(1.3)	(0.5)	0.1
Personal Income	(1.7)	3.0	4.7	3.2
Wages & Salaries	(4.3)	2.1	4.1	4.8
Corporate Profits (Economic Basis)	(0.4)	29.2	8.0	2.9
Productivity	3.5	3.5	1.9	1.7
Employment	(4.4)	(0.7)	1.2	2.1
CPI-Urban	(0.3)	1.6	2.1	2.2
S&P 500 Stock Price	(22.5)	20.5	16.4	5.9
Treasury Bill Rate (3-month)*	0.2	0.1	0.2	1.3
Treasury Note Rate (10-year)*	3.3	3.2	3.6	4.2

* Annual 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 H

U.S. Economic Outlook
State Fiscal Year
(Percent Change)

	Actual 2009-10	Estimate 2010-11	Forecast 2011-12	Forecast 2012-13
Real GDP	(1.1)	3.0	3.2	3.2
Real Consumption	(0.6)	2.3	3.1	2.8
Real Investment	(14.6)	16.0	7.3	9.7
Real Exports	(4.2)	11.0	9.3	8.2
Real Imports	(9.0)	13.6	6.2	7.2
Real Government	1.4	1.2	(0.6)	(0.4)
Federal	5.6	4.5	(0.8)	(1.6)
State and Local	(1.1)	(1.0)	(0.5)	0.4
Personal Income	(0.8)	3.7	4.2	3.6
Wages & Salaries	(3.0)	3.0	4.3	4.9
Corporate Profits (Economic Basis)	13.5	22.2	5.6	3.5
Productivity	4.9	2.3	2.0	1.7
Employment	(4.1)	0.2	1.5	2.2
CPI-Urban (1982-84=100)	0.3	1.4	2.3	2.1
S&P 500 Stock Price (1941-43=10)	(5.5)	15.6	13.3	6.4
Treasury Bill Rate (3-month)*	0.1	0.2	0.3	2.1
Treasury Note Rate (10-year)*	3.5	3.2	3.7	4.5

* 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 I

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.