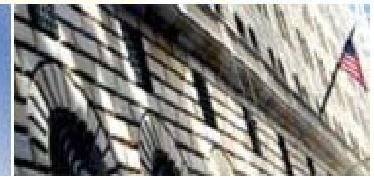
U.S. Economic Outlook

Research and Statistics Group

May 13, 2011



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Contents

Growth, AR or Q4/Q4 gth. rate	2011 Q2	2011 Q3	2011 Q4	2011 Q4/Q4	2012 Q4/Q4
Real GDP					
FRBNY	3.6	4.0	5.4	3.7	3.9
Consensus**	3.2	3.2	3.4	2.9	3.1
PCE Deflator					
FRBNY	3.8	2.4	1.9	3.0	1.7
Core PCE Deflator					
FRBNY	1.4	1.2	1.2	1.3	1.5
Unemp. Rate (Annual Data is Q4 Average)					
FRBNY	8.8	8.5	7.9	7.9	7.1
Consensus**	8.8	8.6	8.5	8.5	7.9

*Released Data
**Blue Chip Forecast (5/10/2011)

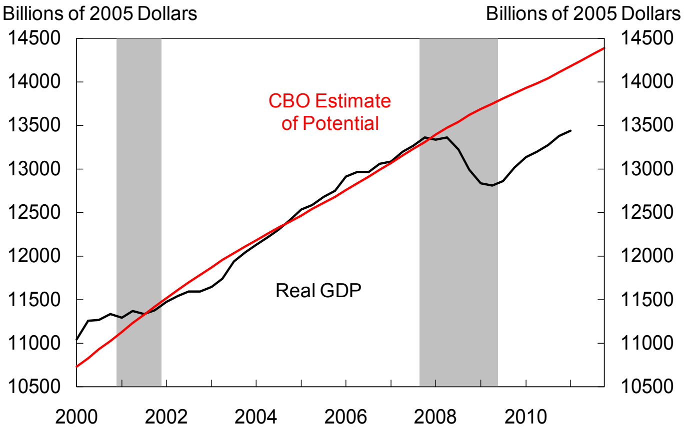
Evolution of FRBNY Forecast	2011 (Q4/Q4) 11/5/10	2011 (Q4/Q4) 5/9/11	2012 (Q4/Q4) 11/5/10	2012 (Q4/Q4) 5/9/11
Real GDP	4.0	3.7	4.5	3.9
PCE Deflator	1.4	3.0	1.8	1.7
Core PCE Deflator	1.2	1.3	1.6	1.5
Unemp. Rate (Q4 Avg.)	8.3	7.9	7.0	7.1

Outlook Overview

Based on the advance estimate, growth of real GDP slowed to 1.8% (annual rate) in 2011Q1, down from 3.1% in 2010Q4. We think that the headline number understates the momentum of the economy. Nonetheless, it does appear that higher food and energy prices sapped the strength of consumer spending. Growth of real PCE slowed to 2.7% in the first quarter, down from 3.2% over the second half of 2010. The steep increases of food and energy prices have also contributed to a marked increase in overall inflation. On a year-over-year basis, the total PCE deflator was up 1.9% as of March versus 1.1% last November. However, the increase of the core PCE deflator has been more muted. It was up 0.9% (year-over-year) as of March versus 0.8% last November. After hitting a soft patch in the second half of 2010, the pace of net job creation has strengthened again in recent months, with the three-month moving average of gains in nonfarm payroll employment reaching 233,000 in April. The unemployment rate has declined more than expected, averaging 8.9% over the three months ending in April versus 9.6% in 2010Q4. A significant portion of this decline is due to the fact that the three month moving average of the labor force participation rate has fallen from 64.5 to 64.2 over the past six months.

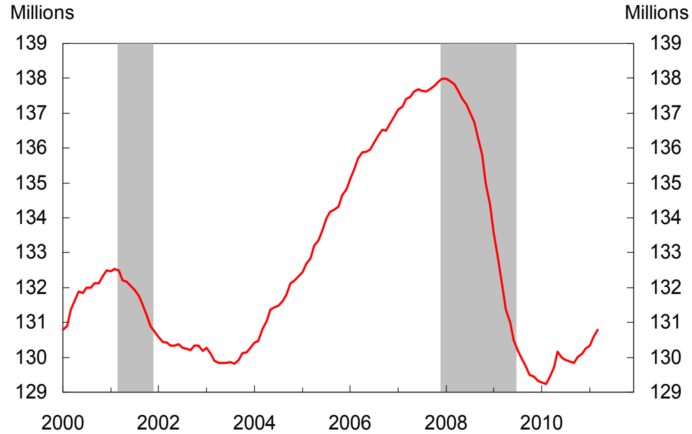
Clearly, the economy faces some new headwinds that were not present in early November. Nonetheless, our overall assessment remains that conditions are now in place for a self-reinforcing recovery generating above potential growth, a declining unemployment rate, and some firming of core inflation. Several factors underlie this expectation. First, aided by the second installment of large scale asset purchases announced by the FOMC in early November, overall financial conditions have improved substantially. The S&P500 is up about 27% since late August, while credit spreads have narrowed. Moreover, as measured by the Senior Loan Officer Survey, bank lending standards have begun to ease modestly and C&I loans on bank balance sheets have started to increase. Second, the household deleveraging process is quite far along. Based on historical relationships, the current level of the personal saving rate appears to be about where it should be given current levels of household net worth.

Real and Potential GDP



Source: Bureau of Economic Analysis and Congressional Budget Office

Nonfarm Payroll Employment



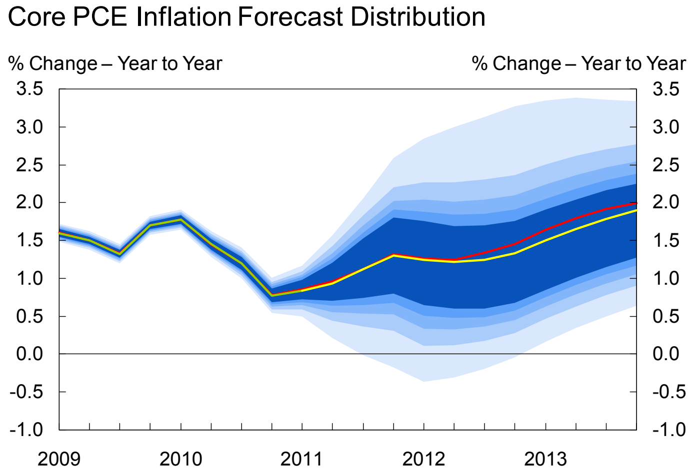
Source: Bureau of Labor Statistics

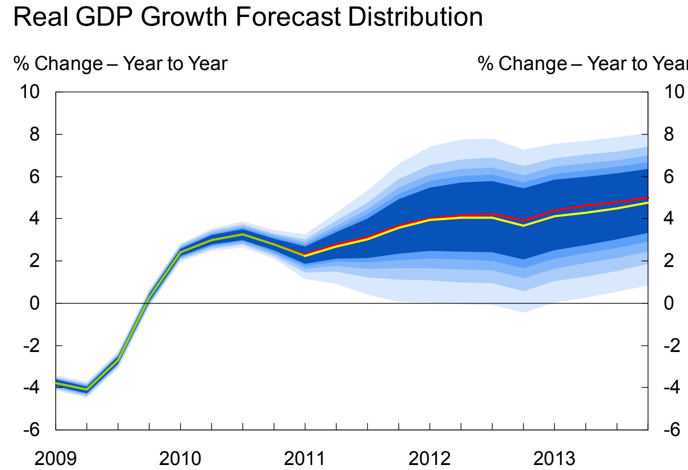
Note: Throughout text, shading represents NBER recessions.

Third, while quite low at the moment, housing market activity is likely to begin to improve in the months ahead as the labor market improves and housing affordability remains high. Fourth, continued favorable growth prospects among our major trading partners, along with a lower exchange value of the dollar, are expected to produce sustained strong growth of exports. Fifth, improving domestic and foreign demand is likely to induce stronger growth of business investment. Sixth, with incomes and spending rising, the 2010Q4 level of state and local government tax receipts was roughly equal to the previous peak level in 2008Q2, indicating that the fiscal position of those governments is healing. Lastly, the passage of the fiscal agreement in late 2010 added additional fiscal stimulus for 2011.

We have marked down our forecast for growth of real GDP in 2011 to around 3 ½% and for 2012 to around 4%, mainly reflecting the impact of higher energy prices and the fact that federal fiscal policy will turn restrictive in 2012. But this growth rate is still above our estimate of the economy's potential growth rate of 2 ½% and we expect the unemployment rate to be approaching 7% by the end of 2012. Year-over-year increases of the total PCE deflator are expected to peak in the 2 ¾% to 3% range by 2011Q3 and then move back under 2% in 2012. The core PCE deflator is expected to move into the mandate consistent range of 1 ½% to 2% toward the end of 2012.

As the events of the past several months have reminded us, there are substantial risks to this or any forecast. At this time we regard risks for growth to be somewhat skewed to the downside, with risks to inflation being roughly balanced. A key assumption of the forecast is that oil prices peak near recent levels. Should they rise considerably further, that would simultaneously diminish growth prospects while boosting headline inflation. Of course, if oil prices fall by a significant amount, the effects would be the opposite. Other risks to growth are spillovers from the ongoing financial crisis in the euro area, growing concerns about fiscal sustainability in the US, and the possibility of larger than anticipated fiscal drag in 2012. Regarding upside risk, we may be pleasantly surprised by the strength of consumer spending as the labor market and access to credit continue to improve.



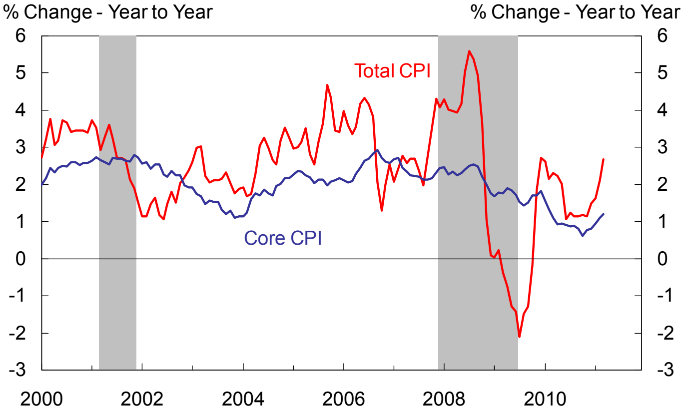


Risks Overview

Inflation. The economic and financial market developments since the last EAP meeting in November have led us to shift our inflation risk assessment from downside skew to roughly balanced. We now place more probability on high (>3%) inflation outcomes and less probability on deflation outcomes throughout the forecast horizon. There are two major factors that have contributed to this shift. First, we have increased the probability that accommodative policy begins to raise inflation expectations (the *Loss of Credibility* scenario), as measures of inflation expectations (both market- and survey-based) have risen to near the top of historical ranges. Second, we lowered the weight on the *Global Credit Crunch* and *Global Deflation* scenarios, which have downside inflation implications, as developments have indicated that financial conditions have improved since November. Commodity price movements have had some effect on the forecast distribution, principally through our assessment of the risks they may pose on inflation expectations remaining stable.

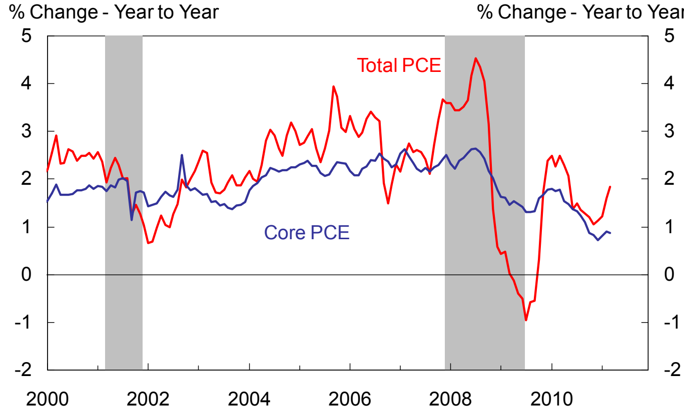
Real activity. Although less so than in November, the balance of risks to the real activity outlook are still somewhat to the downside and uncertainty remains sizable. Although less than that in November, there is still a significant probability of low or negative growth throughout the forecast horizon. Over the medium term, there is sizable probability of high (>7%) growth. A number of factors have changed since the November EAP. First, we have reduced the probability that tight credit conditions persist and continue to restrain real activity (the *Global Credit Crunch* and *Global Deflation* scenarios). Second, we have raised modestly on net the weight on our primary upside scenario, the *Productivity Boom* scenario (i.e. rapid productivity growth continues). Third, we have raised the weight on the downside scenario that a US fiscal consolidation or short-term supply shocks could slow real activity. Fourth, we have placed weight on the possibility that as financial conditions continue to improve, more typical recovery dynamics become established (*Faster Recovery* scenario), which counterbalances the downside risks and raises uncertainty.

Total and Core CPI



Source: Bureau of Labor Statistics   Notes: Not seasonally adjusted.

Total and Core PCE Deflator



Source: Bureau of Economic Analysis

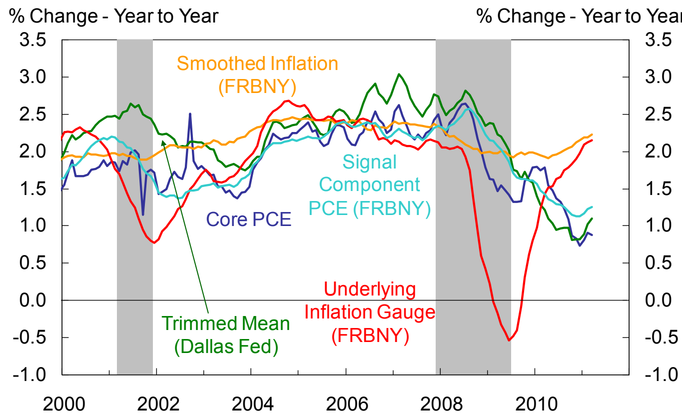
Inflation

Developments. Core inflation has picked up in the last few months. In March, the 12-month change in the non-seasonally adjusted core Consumer Price Index (CPI ex food and energy) was 1.2%, having recovered from a record low of 0.6% in October. This increase of 0.6 percentage points in six months in the year-over-year core CPI inflation rate is notable, since increases of this magnitude or larger have rarely occurred in the past twenty years. However, similar episodes of rapid increases in core inflation in the recent past have not always resulted in a subsequent further pickup in inflation, although this was the experience in 2003-2005. Moreover, the 12-month change in the core Personal Consumption Expenditure (PCE) price index has increased significantly less than core CPI inflation, moving from 0.7% in December—also a record low—to 0.9% in March. Headline inflation, in the meantime, jumped by a significantly larger amount, driven by increases in energy and, to a lesser extent, food prices. The CPI increased 2.7% in March, over the year before, while the PCE price index increased 1.85% on the same 12-month basis. An important factor in the recent pickup in core inflation is the behavior of tenants' rents and of owner's equivalent rent, whose relative importance in the consumption baskets is quite large, especially in the CPI. The inflation rate in these two items had been falling steadily since the middle of 2007, following the housing bust, but turned a corner last year. After dipping briefly into negative territory, it is currently increasing fairly briskly. In fact, these increases are likely to be an important contributing factor to the more pronounced pick-up in CPI relative to PCE core inflation in the last few months, since shelter has a higher relative importance in the former than in the latter index.

Rather than only observing core (ex-food and energy) measures, we also look at several alternative measures of underlying inflation: median, trimmed mean, smoothed measures, our underlying inflation gauge (UIG), and our signal-component indicator (for PCE inflation). Most of these measures have turned around in the last several months, contributing to the sense that the long period of falling inflation that started before the recession might be over. This change in the environment, from one of steady disinflation to one of fairly widespread inflation increases, requires careful monitoring. Nevertheless, it is useful to bear in mind that the risk of further declines in inflation was considered worrisome just a few months ago, and that the level of most of the available measures of underlying inflation remains below the mandate-consistent level of around 2%, notwithstanding the recent increases.

Outlook and Risks. In our central projection for 2011-12, core inflation retraces some of its recent gains in the short-run, and subsequently moves slowly upwards, remaining below mandate-consistent levels through 2012. In the medium-run, this forecast is predicated on the continuing restraint exercised by low levels of resource utilization on firms' marginal costs and prices, although these factors should subside over time as the economy continues to recover.

Measures of PCE Inflation Since 2000

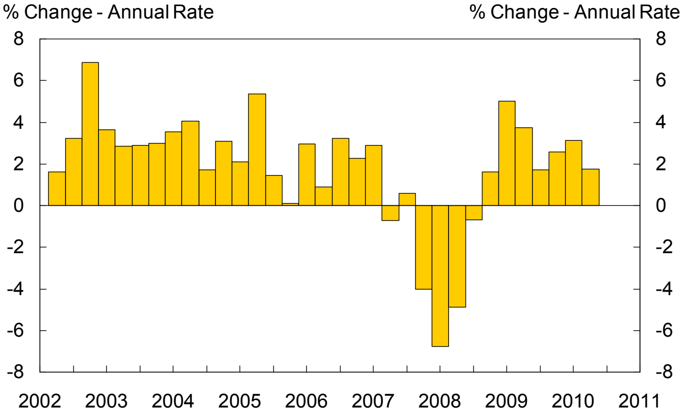


Source: Bureau of Economic Analysis, Dallas Fed, FRBNY and Bank of Switzerland

At the same time, the broad stability of long-term inflation expectations is expected to contribute to pulling inflation back toward mandate-consistent levels over time and to helping avoid more than minimal pass-through of energy price increases to core prices.

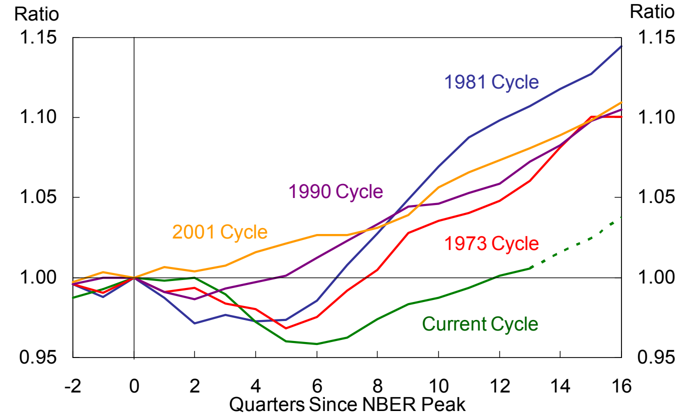
Around this central scenario, risks are roughly balanced. Much of the downside risks reflect the economy's continued vulnerability to further negative shocks at a time when the policy rate is effectively stuck at its zero bound. The upside risks stem from the possibility that the recent energy price shock might prove more persistent than expected, and that this surprise might threaten the stability of inflation expectations.

Quarterly Real GDP Growth



Source: Bureau of Economic Analysis

Level of Real GDP
(Series Set to 1.00 at NBER Peak)



Note: Dashed line represents FRBNY modal forecast.

Source: Bureau of Labor Statistics

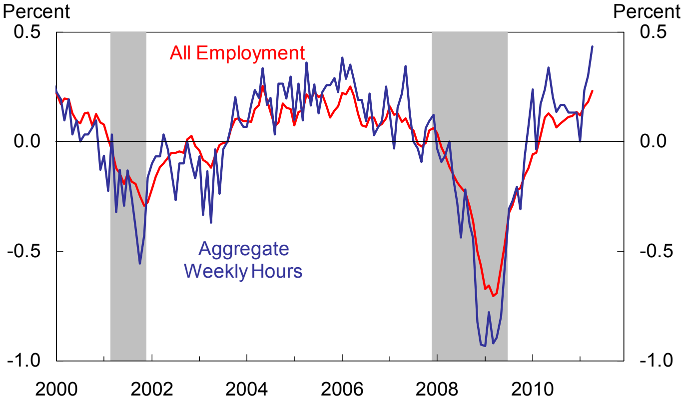
Real Activity

Developments. Based on the advance estimate, growth of real GDP slowed to 1.8% (annual rate) in 2011Q1, down from 3.1% in 2010Q4. We think that the headline number understates the momentum of the economy. Real federal defense spending fell at an unusually steep 12% annual rate, while the growth contribution from net exports was -0.1 percentage points after having been 3.3 percentage points in 2010Q4. In addition, construction spending plunged in the first quarter, likely due in part to unseasonably cold weather. Nonetheless, it does appear that higher food and energy prices sapped the strength of consumer spending that we were expecting from the two percentage point reduction of the employee's share of the OASDI payroll tax. Growth of real PCE slowed to 2.7% in the first quarter, down from 3.2% over the second half of 2010. On the plus side, growth of business investment in new equipment and software was stronger than expected in the first quarter, and inventories appear to be relatively lean.

Outlook and Risks. Clearly, the economy faces some new headwinds that were not present in early November. Energy prices are substantially higher, and the earthquake and tsunami in Japan are likely to cause supply chain production disruptions, particularly in the auto sector. Nonetheless, we continue to believe that conditions are in place for growth above potential in 2011 and 2012. Financial conditions have improved, lending standards have begun to ease, the household deleveraging process is far along, some additional fiscal stimulus has been introduced, and growth among the emerging economies of the world is quite strong. We have marked down our forecast for growth of real GDP in 2011 to around 3 ¾% and for 2012 to around 4%, mainly reflecting the impact of higher energy prices and the fact that federal fiscal policy will turn restrictive in 2012. But this growth rate is still above our estimate of the economy's potential growth rate of 2 ½% and we expect the unemployment rate to be approaching 7% by the end of 2012.

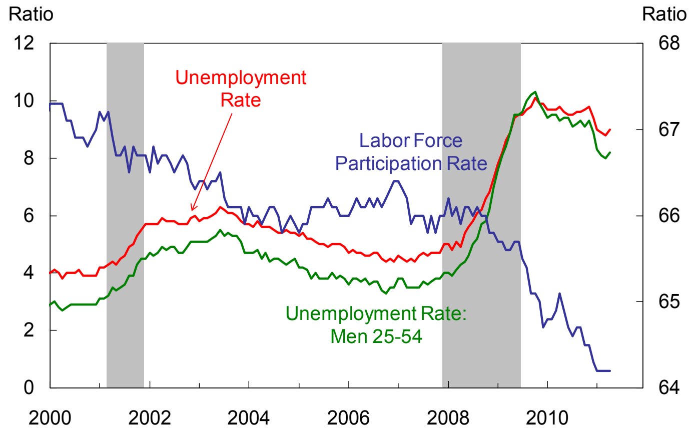
Private Nonfarm Payroll Employment and Total Hours Worked

3-Month Moving Average of One-Month Change



Source: Bureau of Labor Statistics

Measures of the Employment Situation



Source: Bureau of Labor Statistics

Labor Market

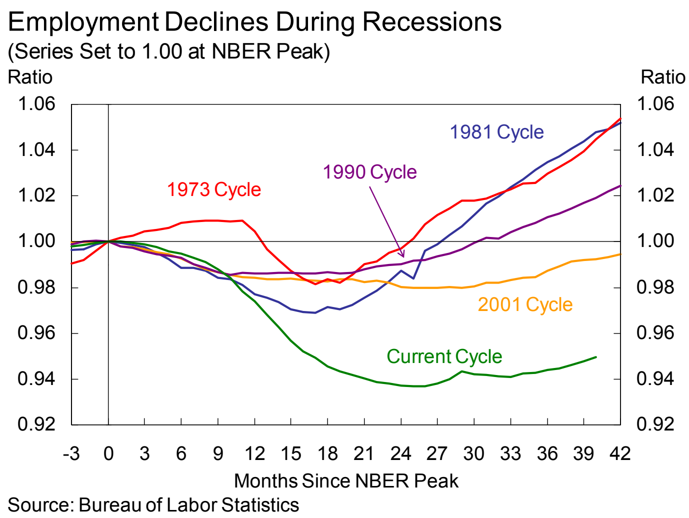
Developments. The labor market started to improve noticeably in 2011. Private nonfarm payroll employment increased by 854,000, averaging about 214,000 per month in the first four months of 2011. Employment gains were widespread across industries with the diffusion index---the fraction of industries increasing employment---reaching its highest level (70.8) since 1998 in February. Professional and business services (+226,000), education and health care (+154,000), and manufacturing (+141,000) were the major contributors to job creation.

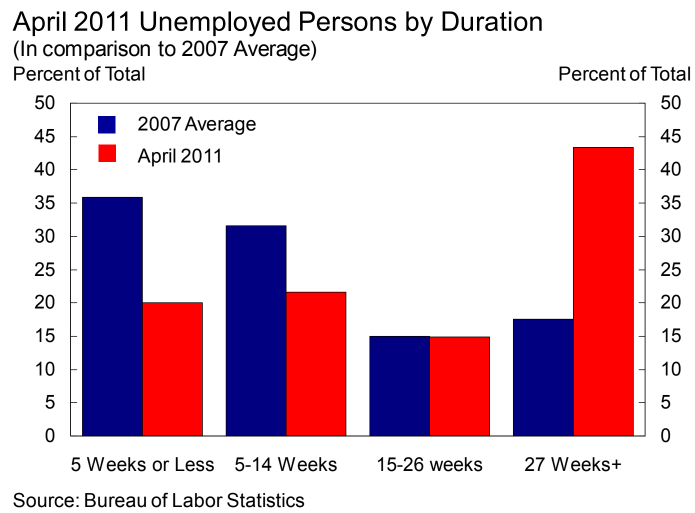
Consistent with the increase in employment, aggregate weekly hours has seen a recovery and has risen 1.1% in 2011. During the same period, the length of the average work week was little changed at 34.3 hours.

After reaching a peak of 10.1% in October 2009 (its highest level since 1983), the unemployment rate had fluctuated in a fairly narrow range of 9.4% to 9.9% for over a year. However, since November, 2010, the unemployment rate declined by 0.8 percentage points.

The improvement was particularly pronounced for prime-age male workers whose unemployment rate went down from 9.3% in November to 8.2% in April. The prime-age female unemployment rate also declined during the same period, from 8.1% to 7.7%. The unemployment gender gap (difference between male and female unemployment rates) was only 0.5 percentage points for prime-age workers. This gap peaked at 2.7 percentage points in August 2009 when prime-age male unemployment was at 10%. The labor force participation rate remained unchanged during the first four months of 2011 at 64.2%, its lowest level since 1984.

The duration of unemployment continued to be high. The median duration of unemployment stood at 20.7 weeks in March, down from its postwar high of 25.5 weeks in June 2010, but still at elevated levels. When the recession started in December 2007, the median duration of





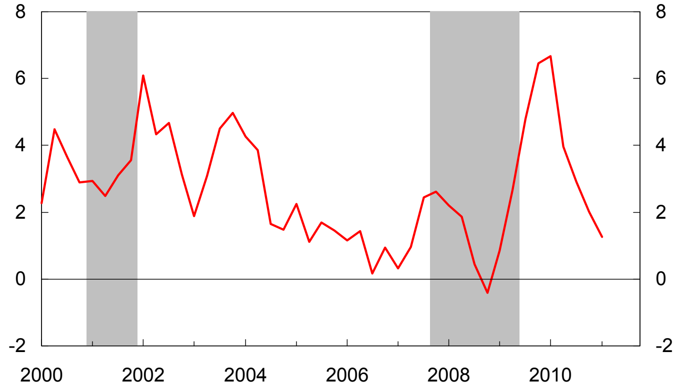
unemployment was 8.4 weeks. The continued high level of this measure indicates that long-term unemployment remains a significant issue for the labor market.

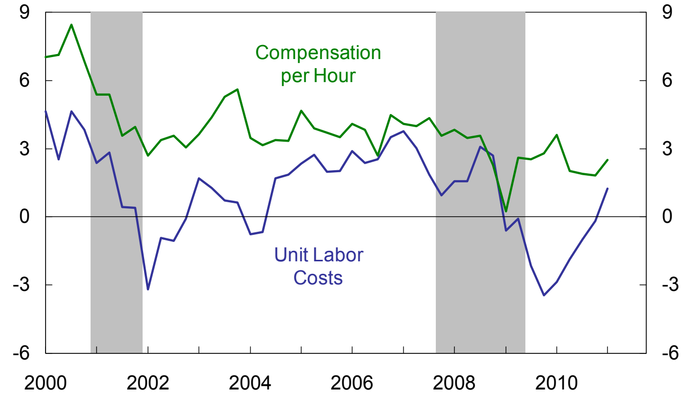
Outlook and Risks. Labor market developments in the first quarter of 2011 are consistent with a slow, cautious but steady hiring pattern. Private payrolls increased by a total of 499,000 in the last two months, the best two months since February and March 2006. If this continues, an increase of 250,000 per month is a fairly robust pace for job creation. However, given that total payroll employment currently stands at 131,028,000, well below its December 2007 level of 137,983,000, a much more aggressive hiring pattern is needed to close the employment gap and to absorb the new entrants into the labor market.

The improvement in the unemployment rate is encouraging, however, the employment-to-population ratio remains at a depressed level of 58.4%, almost 5 percentage points below its most recent peak of 63.4%, set in Dec 2006.

The recent pick-up in initial claims is another potential risk. Initial claims declined substantially in the first quarter of 2011, with the 4-week moving average of initial claims standing below 400,000 in March. However, initial claims started rising in April and the 4-week moving average of initial claims jumped to 431,000 at the week ending on April 30th. Although the Labor Department cited the impacts of school holidays in New York, a new emergency benefits program in Oregon, and auto plant shutdowns associated with the supply chain disruptions arising from Japan as contributing to the most recent surge in initial claims, the increases we have seen in recent weeks raise concern about labor market conditions.

We expect the improvement in the labor market will continue through 2011. We project payroll employment to increase by roughly 300,000 jobs per month, which should lead the unemployment rate to fall gradually throughout 2011 to about 7.9% by the end of the year.





Productivity and Costs

Developments. Output per hour in the nonfarm business sector rose 1.6% (annual rate) in 2011Q1, below the pace of 2.9% in 2010Q4 and 2.3% in 2010Q3. While the four-quarter change in productivity has slowed to 1.3%, down from 6.7% in 2010Q1, this has not changed our 1.75% estimate of trend productivity growth.

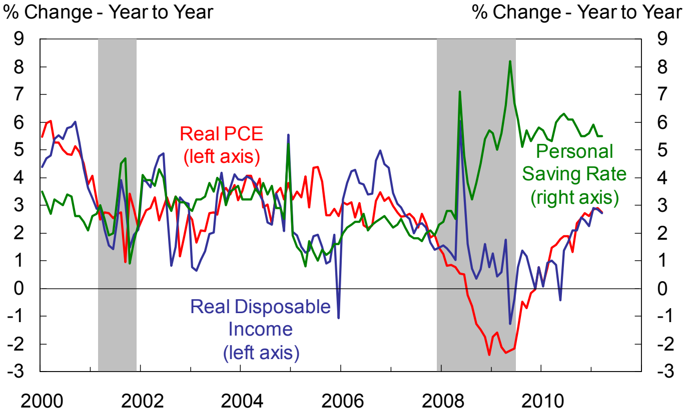
Hours worked continue to increase, although its growth remains modest in light of the very steep decline experienced by the series between 2007Q3, just before the onset of the recession, and 2009Q3. Hours worked rose 1.4% (annual rate) in 2011Q1, in line with growth during the two previous quarters; the four-quarter change was 1.9%.

Compensation rose 2.6% (annualized) in 2011Q1, up from 1.9% in 2010Q4 and close to the 2.5% increase in 2010Q3. The data reflect a still-weak labor market as recent compensation growth remains below the 4% growth rates observed over the 2003-08 period. The four-quarter change in compensation per hour was 2.5%.

Unit labor costs remain contained. For 2011Q1, unit labor costs rose 1% (annual rate), reversing the 1% decline in 2010Q4. The four-quarter change was 1.2%, the first year-over-year gain since 2008Q4. The price deflator for output of the nonfarm business sector rose 1.1% (annual rate) in 2011Q1, rebounding from a decline of 0.9% in 2010Q4. With growth in the implicit price deflator remaining modest and continued weakness in unit labor costs, profit margins remain substantial.

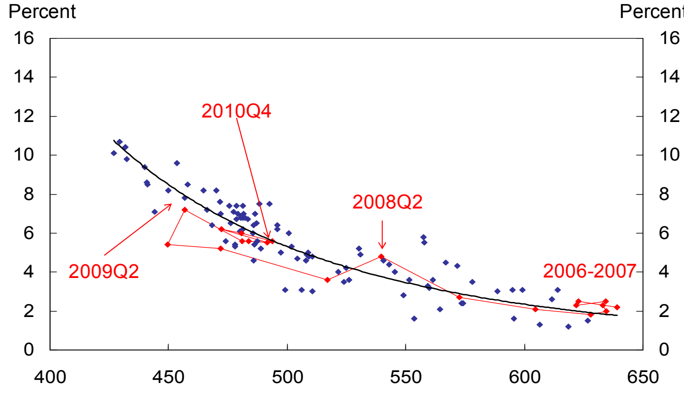
Outlook and Risks. An issue of great importance concerns the behavior of productivity and its implications for trend productivity growth. Evidence from a model developed to analyze this issue has recently alternated between viewing the robust productivity growth from 2009 through 2010 as indicative of a shift to a higher trend growth or as a largely cyclical fluctuation. While doubt remains over where trend productivity growth is heading, the 2011Q1 release does suggest that the recent strength may be more enduring. Data releases over the next few months should help clarify the productivity outlook.

Real PCE, Disposable Income and Personal Saving Rate



Source: Institute of Supply Management

Households' Net Worth and the Saving Rate
As a Percent of Disposable Income



Source: Bureau of Economic Analysis and Federal Reserve Board

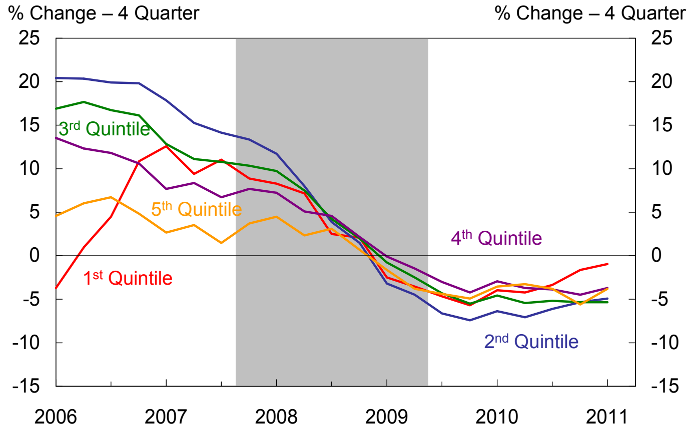
Note: Fitted line is from 1983Q1 to 2005Q4.

Consumption

Developments. The main driver of the recovery of the US economy has been a rebound of real personal consumption expenditures (PCE) after an unusually steep retrenchment over the period from late 2007 through mid 2009. Growth of real PCE slowed somewhat in 2011Q1, down to 2.7% (annual rate) from 4% in 2010Q4. Nonetheless, real PCE entered the second quarter growing at around a 3% annual rate, and available data for April has been encouraging. Sales of light-weight motor vehicles edged higher in April, to 13.2 million units (annual rate) from 13.1 million in 2011Q1, continuing a gradual upward trend since a recent low of 9.5 million in the first quarter of 2009. Anecdotal information on chain-store sales and credit card usage during the month of April has also been upbeat. At this time, we expect growth of real PCE in 2011Q2 to be in the 3% to 3 ½% range.

While this is a respectable growth rate, at the beginning of the year we had expected a firmer tone to consumer spending in the first half of 2011 due to the 2 percentage point reduction of the employee's share of the OASDI payroll tax. But higher energy and food prices are offsetting much of the stimulus expected from that provision of the fiscal agreement enacted at the end of 2010. In 2010, the US had net imports of 3.446 billion barrels of crude petroleum and related products. Each $10 per barrel increase in the import price represents a tax on the US economy of roughly $35 billion or about 1/3rd the value of the reduction in payroll taxes. Since the third quarter of 2010, the spot price of Brent crude has risen from around $78 per barrel to around $125 in April, but has since dropped back below $115. Import prices for petroleum and related products were up nearly 40% over the six months ending in March, and will likely continue to rise over the near term as higher spot prices get rolled into longer term contracts. In our view, the increase in energy prices that has occurred to date is not enough to derail the recovery of consumer spending, but it certainly will dampen that recovery, particularly over the first half of 2011.

Consumer Debt by Credit Score Quintile

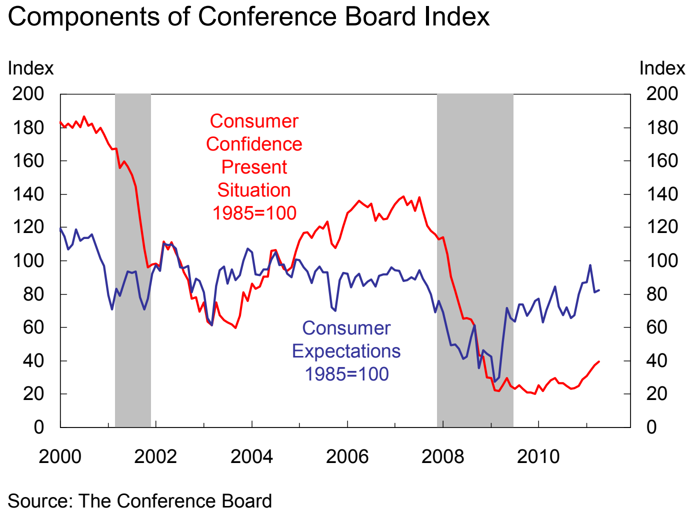


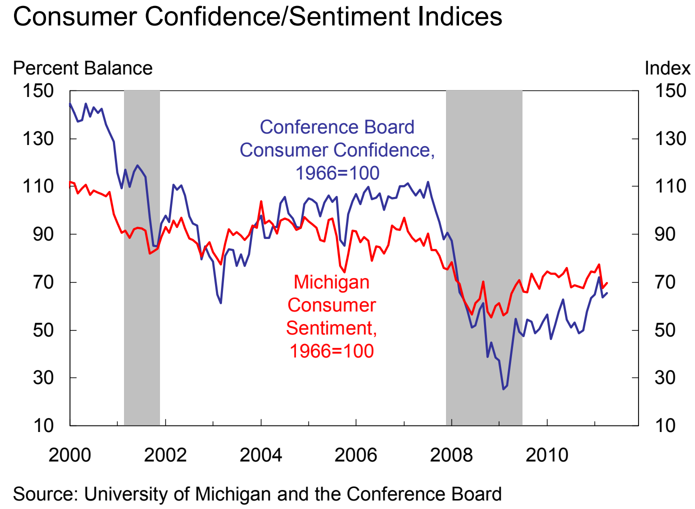
Source: FRBNY Consumer Credit Panel

Outlook and Risks. Despite the negative impact of higher energy prices, the fundamentals underlying consumer spending have improved considerably over the past year. The labor market is improving, with the three month moving average of private nonfarm payroll growth up to 233,000 as of April. In addition, the personal saving rate has stabilized in the 5 ½% to 6% range, consistent with the historical relationship between the personal saving rate and the ratio of household net worth to disposable personal income. Finally, it appears that credit is becoming easier to obtain, with the amount of debt carried by households in the highest and second highest credit score quintiles now beginning to increase, while that of borrowers with lower credit scores has stabilized.

Of course, there are both upside and downside risks to our forecast. On the downside, it could be that households will want to boost the personal saving rate even higher. While job growth is expected to continue to strengthen, the level of the unemployment rate will still be relatively high, bolstering people's desire for precautionary savings. Second, home prices have come under renewed downward pressure. For most people, the home they own is their primary source of net worth. Third, while lending standards are easing, the absolute level remains relatively stringent, limiting the amount of borrowing that will occur. Finally, the demographic profile of the country is such that the number of households headed by an individual 45 years of age or older has increased substantially over the last decade, while the number of households headed by someone younger than 45 has declined. These older households are likely to boost saving for retirement and college educations due to low interest rates and equity losses since 2007.

Regarding upside risk, it is important to note that real personal consumption expenditures in March of 2011 were only 2.2% above the trough in February of 2008. There are substantial pent up demands for durable goods such as light-weight vehicles, appliances, and furniture, in addition to nondurables such as apparel. We may be pleasantly surprised by the strength of consumer spending once the labor market begins a more substantial improvement. The last time growth of real PCE was this weak for such an extended period, in the early 1980s, it was followed by a very robust recovery.





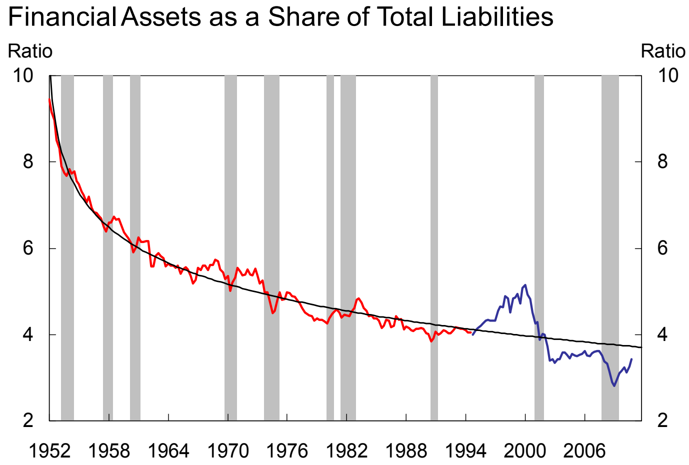
Consumer Confidence

Developments. At the depths of the recession in late 2008 and early 2009, the three major measures of consumer confidence—based on monthly surveys by the University of Michigan and the Conference Board, as well as a weekly survey by ABC—all stood at or near record lows. From the end of the recession in mid-2009 until last autumn, all three of these measures had fluctuated within relatively narrow ranges. Toward the end of 2010, however, they began to move up, reaching multi-year highs in early 2011. Michigan's index retreated sharply in March and moved up only slightly in April; but the Conference Board's index retreated only modestly and remained near its recent highs in April.

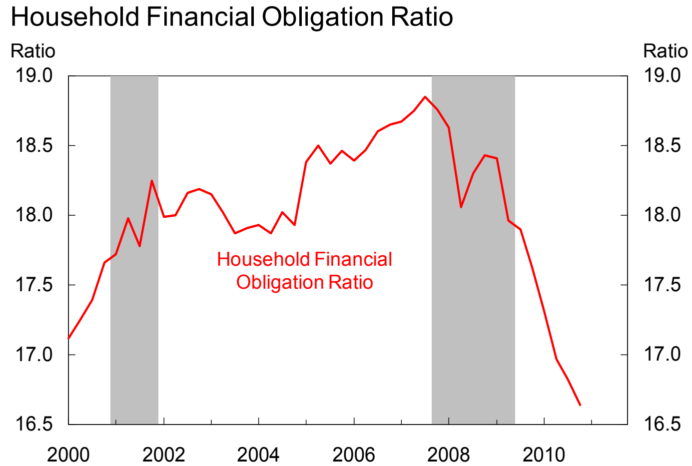
In recent months, the Conference Board's Expectations component has retreated, while the Present Situation index climbed to its highest level in more than two years. Until late 2010, all of the (modest) recovery in confidence had been in the Expectations index. Thus, it seems that consumers are only recently sensing actual improvement in the general business and employment situation.

Outlook and Risks. Although consumer confidence is not the predominant determinant of consumer spending, it has been shown to have some effect. Thus, it is likely that the persistently low levels of confidence have held back consumption somewhat. Given that job market perceptions are a factor influencing consumer confidence, it is a channel through which a pickup in the labor market could buoy consumer spending. Tracking the Conference Board's Present Situation component index can be helpful in identifying incipient shifts in the job market before they show up in the employment numbers. This series tends to correlate closely with the unemployment rate, often with a slight lead—partly due to its early release.

On this note, April survey results provide hopeful signs about the job market. The Conference Board's Present Situation index, though still low in absolute terms, rose to its highest level in nearly 2½ years. Thus, it appears that the recent pullback in some of the confidence measures does not reflect a dimmer view of the economy or job market, but rather concern over the crisis in Japan, turmoil in the Middle East, and the surge in energy prices.



Source: Federal Reserve Board

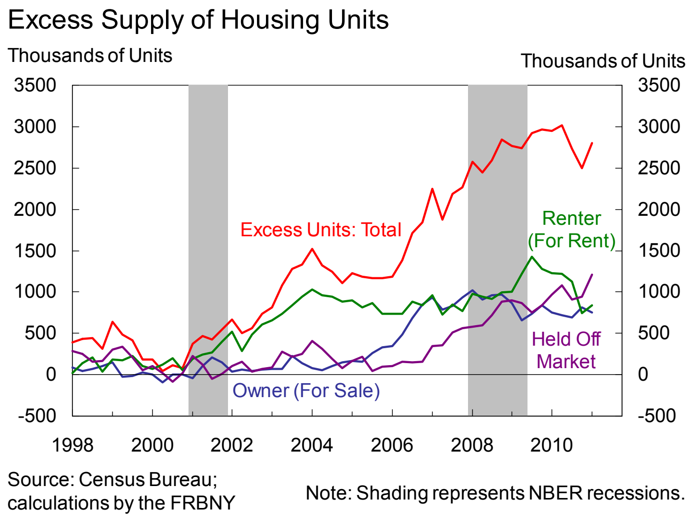


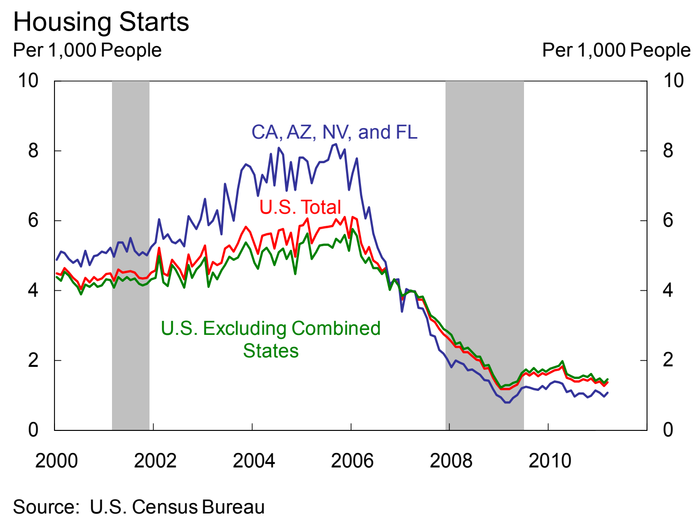
Source: Federal Reserve Board

Household Financial Conditions

Developments. Households continue to make substantial progress in deleveraging through a combination of paying down debt, debt being charged off, and refinancing existing debt at lower interest rates. Several measures of leverage, such as financial assets over liabilities and liabilities over disposable income, have returned to levels that prevailed in mid 2004. The ratio of long-term financial obligations over disposable income has shown even greater improvement, returning to levels that prevailed in the mid 1990s. Moreover, based on the historical relationship between the personal saving rate and household net worth expressed as a percent of disposable income, the current level of the personal saving rate is roughly where it should be. Thus, it appears that the deleveraging process is further along than we had expected this time last year. Total household liabilities are likely to continue to decline through much of 2011, though the rate of decline has begun to slow and is likely to slow further in the months ahead. Indeed, as of March, we have seen seven consecutive months of growth of nonmortgage consumer credit.

Outlook and Risks. Uncertainty about the pace of further deleveraging by the household sector is a source of both upside and downside risk for growth over the forecast horizon. As mentioned above, the current level of the saving rate appears to be in line with the current level of household net worth. Moreover, lending standards, while tight in absolute terms, appear to be easing. With a stronger labor market, consumer spending could turn out to be stronger than we expect. This is particularly true given the pent up demand for durable goods that has developed over the past three years. However, with household net worth still well below levels reached at the peak, and with the large fraction of households approaching normal retirement age amid increasing uncertainty about future retirement benefits, it is also possible that the personal saving rate will rise even more than we assume in our point forecast.





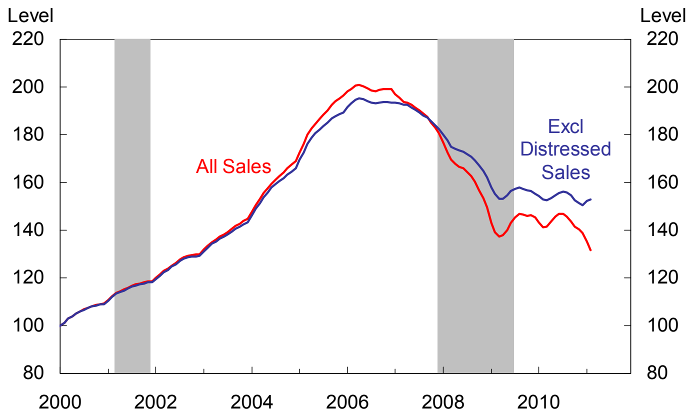
Housing

Developments. After bottoming out at the extremely low level of 530,000 (seasonally adjusted annual rate) in 2009Q1, total housing starts gradually rose to 617,000 in 2010Q1. However, starts then fell again to an annual rate of just 534,000 in 2010Q4. Total starts increased to 563,000 in 2011Q1, with the increase more than accounted for by multifamily units. Single-family starts fell further. This weakness in single-family starts is broad based across the country and is all the more surprising given the relatively low level of both mortgage interest rates and inventories of unsold new homes.

A number of factors are adversely affecting the housing market despite nearly record high levels of cash-flow housing affordability indices. Mortgage underwriting standards are reported to be extremely tight, with even high credit score applicants being required to make substantial down payments. In addition, the weak labor market and general uncertainty about the outlook for the economy and home prices continue to dampen demand.

Home Prices. The increase in housing demand that took place over the second half of 2009 and the first half of 2010 was associated with the stabilization of several national home price indices after more than two years of steady and steep declines. However, over the second half of 2010 and into 2011, home prices have come under renewed downward pressure as demand has weakened and a large supply of homes continues to come onto the market through either foreclosure, deed in lieu of foreclosure, or short sales. When distressed sales are excluded from the CoreLogic national home price index, the picture is more favorable. Home prices measured that way have continued to be stable. It is quite possible that the distressed sales home price series is overstating the actual decline in home prices due to the fact that in many, if not most cases, distressed-sale properties have not been well maintained and are often sold “as is” with uncertainty regarding the cost of repairs.

CoreLogic National Home Price Index



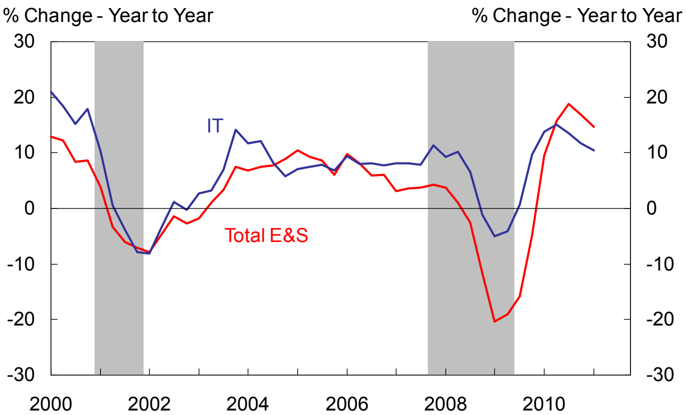
Source: CoreLogic

Outlook and Risks. We estimate that there are between 2 ½ and 3 million housing units that are vacant for sale, vacant for rent, or being held off the market until prices improve. Moreover, as of 2010Q4 there were about 2 million mortgage loans in the foreclosure process and another 1 1/2 million that were 90+ days late. This suggests that home prices are likely to remain under downward pressure for several months to come.

The risks around our outlook for housing market activity and home prices are reasonably balanced. Mortgage interest rates are relatively low and home prices have declined substantially in some markets, leading to a significant improvement in cash flow affordability. It certainly could be the case that home sales and starts improve considerably more than we are assuming, particularly if the labor market improves along the lines we expect.

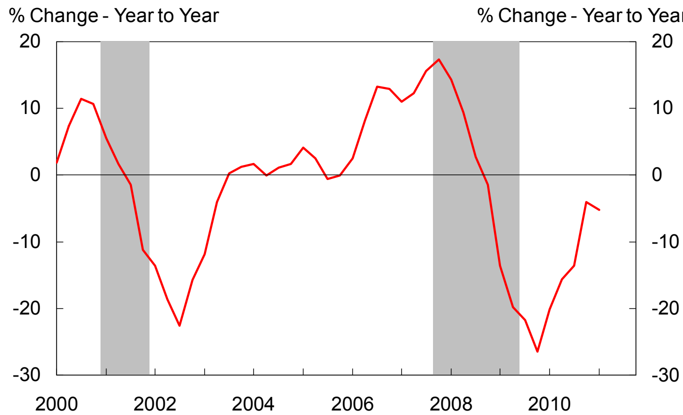
On the other hand, with underwriting standards tight and much uncertainty regarding the future path of home prices, demand may not recover as anticipated, leading to further price declines. This, of course, could produce self-reinforcing downward pressure on prices.

Real Business Investment: Equipment and Software



Source: Bureau of Economic Analysis

Business Investment in Nonresidential Structures



Source: Bureau of Economic Analysis

Investment and Inventories

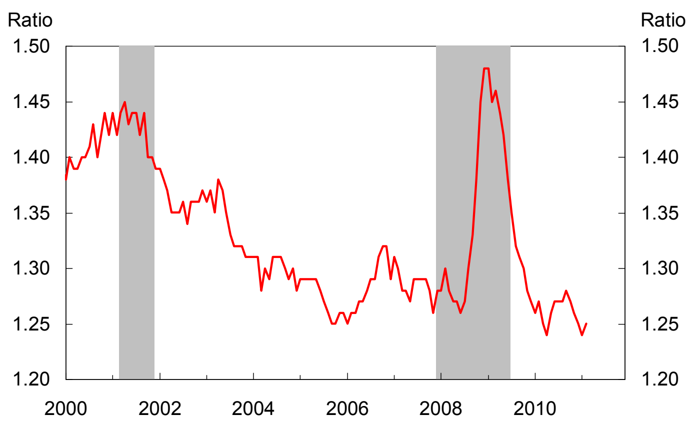
Developments—Equipment and Software. Real spending on equipment and software (E&S) increased 11.6% (annual rate) in 2011Q1, somewhat slower than the 16.9% (Q4/Q4) pace in 2010. The E&S expansion in this cycle has been faster than that of its recovery following the 2001 recession. With the latest increase, the level of real outlays in 2011Q1 just exceeded—by 0.1%—its previous peak in 2008Q1. After being initially concentrated in the high-tech sector, the recovery in E&S expenditures occurred across most major equipment types through much of 2010 and 2011Q1.

Despite some volatility, orders of nondefense capital goods excluding aircraft, a monthly indicator of near-term momentum for equipment spending, generally has been on a solid uptrend. Although their level is still below pre-recession levels, these orders have been steadily above shipments. Other capital spending indicators have been relatively robust. Consequently, E&S expenditures are expected to remain fairly robust over the near term.

Nonresidential Structures. After rising in 2010Q4, real expenditures on nonresidential structures dropped 21.8% (annual rate) in 2011Q1. These expenditures are almost 36% below their peak in 2008Q2. Most categories of nonresidential structures have declined steadily since that peak, with the exceptions of spending on oil and gas wells and, to a lesser extent, power and communications structures.

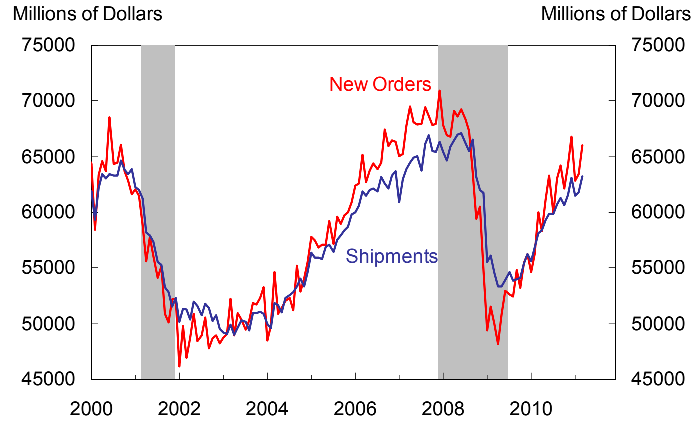
Outside of energy (where high energy prices continue to support investment), the fundamentals for investment in nonresidential structures remain relatively weak, with elevated vacancy rates and still-tight financing for new construction. Thus, the prospects in the sector remain poor, and we expect that nonresidential construction will probably remain at depressed levels for some time. However, we believe that we may be near a bottom in this category, and that recovery in this sector could begin soon. Consequently, we anticipate these expenditures to rise slowly over the near term.

Inventory / Sales: Total Business



Source: Census Bureau

Nondefense Capital Goods Excluding Aircraft



Source: Census Bureau

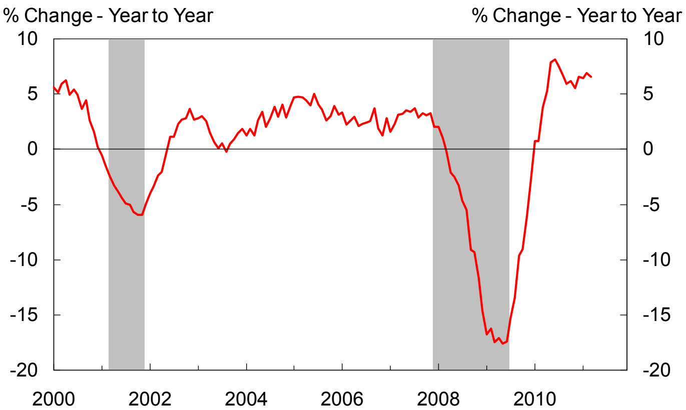
Inventories. After slowing in 2010Q4, the pace of inventory investment picked up somewhat in 2011Q1, resulting in a positive real GDP growth contribution for the quarter. The faster pace in 2011Q1 reflected the fact that firms, especially in the auto industry, returned to a pace closer to that of sales after restraining inventory investment in 2010Q4 in apparent reaction to a modest rise in inventories-sales ratios during the second half of 2010.

Even with the accumulation of inventories since the start of 2010, inventory-sales ratios remain very low: the February level of the ratio for total business was equal to the historical low. The ratio of retailers is below pre-recession figures and was at a new historical low in February. The manufacturing ratio in March is somewhat above its prerecession levels, particularly those in the mid-2000s. The wholesale trade ratio is close to its prerecession norm. Inventories-sales ratios appear to be fairly near firms' desired levels, suggesting that the near-term pace of inventory accumulation will largely reflect perceived sales prospects.

Outlook and Risks. With inventories-sales ratios near desired levels and prospects of firmer sales, we expect the pace of accumulation to increase only modestly from that in 2011Q1; therefore, inventory investment is projected to have only a small GDP growth contribution in coming quarters. Equipment and software spending is expected to be fairly robust, supported by stronger final demand and by tax incentives in 2011. After a weak 2011Q1, we project that spending on nonresidential structures over the rest of 2011 and 2012 will rise modestly as the effects of high vacancies and tight financial conditions fade.

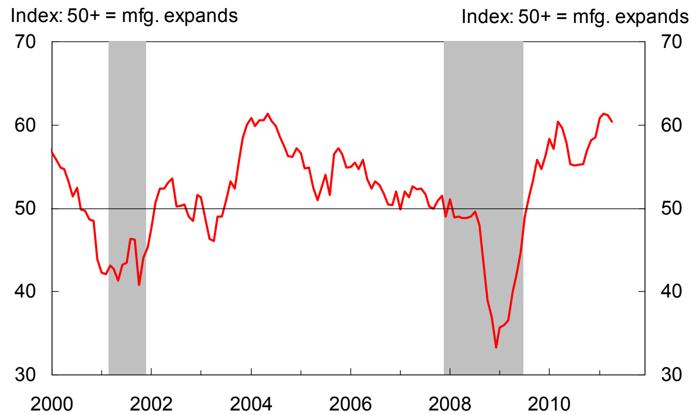
The risks to the equipment and software outlook appear balanced, but the tax changes raise uncertainty. Risks to inventory investment are also balanced; however, if final sales were to be unexpectedly weak, there could be an undesired inventory accumulation with negative production consequences. Risks to nonresidential structure expenditures are still somewhat to the downside, reflecting continuing financial problems and downward pressures on property values.

Manufacturing Output Growth



Source: Federal Reserve Board

ISM Manufacturing Index



Source: Institute for Supply Management

Manufacturing

Developments. The rebound in manufacturing output moderated in the second half of 2010 as the overall economy went into a soft patch, but it picked up again in the first quarter. Production in 2011Q1 rose 9.2% (annual rate), compared to 4.3% in the second half of 2010. Data from the ISM survey and the regional Fed surveys suggest that the recent momentum in manufacturing has been maintained fairly well into the second quarter.

Despite the significant rebound in the overall sector since mid-2009, production in most major manufacturing industries still remains well below earlier peaks, with the exceptions being the computer, food, and petroleum industries. As such, the capacity utilization rate in manufacturing remained at 75.3% in March, below the pre-recession long-term averages of about 80%. These utilization estimates incorporate an assumption that manufacturing capacity has declined modestly over the past year—reflecting the limited levels of net capital spending in the sector.

Outlook and Risks. The recent data, particularly much of the survey data as well as employment data, suggest manufacturing should expand at a solid pace over the near term. This expansion is expected to be supported by continued growth in final demand from both domestic and foreign sources.

With continued moderate downside risks to final demand and a smaller impetus from inventory rebuilding, the risks to the manufacturing outlook appear to be still skewed modestly to the downside. Capital goods manufacturers will probably be supported through the recently-enacted investment tax incentives. Continued intense competition from foreign producers may exacerbate the downside risks for domestic manufacturers. Finally, given the shrinkage in capacity observed over the past couple of years, there is a greater potential for bottlenecks in some sectors to hinder expansion in the overall manufacturing sector, which could be exacerbated in the near term by supply chain disruptions associated with the Japanese earthquake/tsunami.

GDP Growth Percent Change (Q4/Q4)	**2010**	**2011**	**2012**
Euro Area	2.0	2.1	2.0
Japan	2.5	1.5	1.8
U.K.	1.5	2.2	2.5
Canada	3.2	2.7	2.6
China	9.8	9.2	8.6
Asia-4 NIEs	6.4	5.7	4.6
Mexico	4.6	4.1	3.6
Foreign Economies	3.5	3.3	3.2

Inflation Percent Change (Q4/Q4)	**2010**	**2011**	**2012**
Euro Area	2.0	2.3	1.9
Japan	0.1	0.1	0.0
U.K.	3.4	3.8	1.9
Canada	2.2	2.1	2.2
China	4.6	3.6	3.0
Asia-4 NIEs	2.8	2.6	2.6
Mexico	5.9	5.9	5.5
Foreign Economies	2.4	2.4	1.9

Foreign Outlook

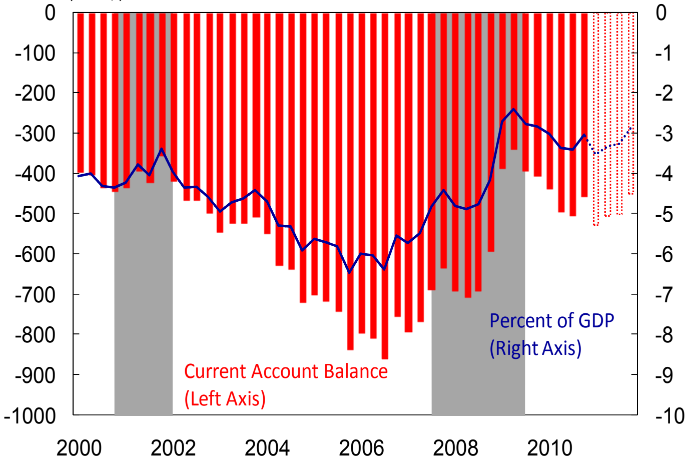
Global GDP growth slowed in Q4 with notable output declines in Japan and the United Kingdom. Euro area data were also weak. The outlook is for global growth near trend in 2011, but higher commodity prices, fiscal consolidation in Europe, and ongoing stress in the European financial markets are downside risks.

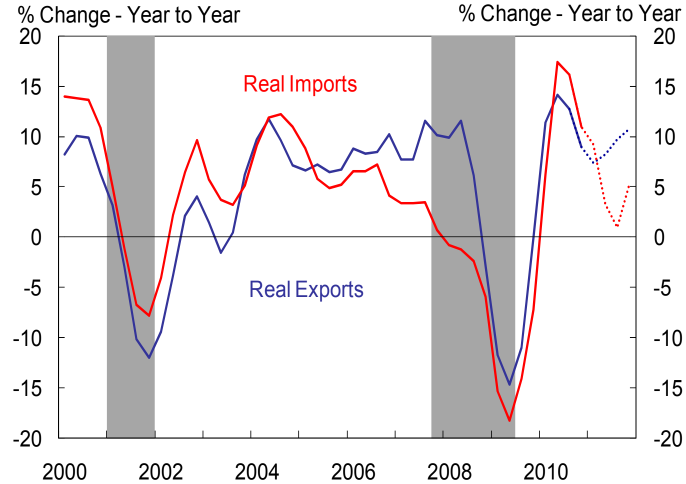
Euro area: Output growth appears to have picked up in Q1 with solid data on manufacturing and exports. Business confidence measures weakened in April but were still at relatively high levels.

Japan: The outlook is highly uncertain. GDP looked to be rebounding in Q1 before the earthquake. Production, export and PMI data were down sharply in March. The expectation is that the output lost in Q1 and Q2 will be made up by the end of the year with more government spending and business investment to rebuild lost capacity.

Emerging Asia: Modest drops in PMI measures in April suggest activity in China and the rest of Asia is slowing to still robust rates. In China, strong retail sales and production in March eased concerns that a sharper slowdown is underway. Trade and production data were more than solid across the rest of Emerging Asia in Q1. Inflation is the focus of policy as food and energy prices have caused inflation to turn up in the region.

Latin America: Growth in the major economies in the region picked up in Q1, supported by strong consumer demand. Like Asia, confidence measures remain high and inflation is a concern.





Trade

Developments. The US trade deficit narrowed to $45.8 billion in February, down from a revised $47.0 billion in January.

Export volumes were 3.7 percent lower in February, almost offsetting all of the increase in the last two months. All major categories were down, with the largest fall in autos. Over the 12 months ending in February, real exports moved up 8.0 percent.

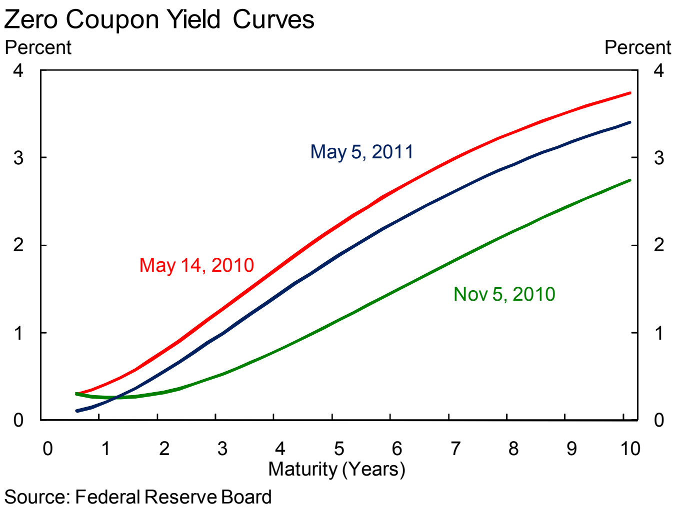
Nonoil import volumes were down 1.9 percent in February, taking back nearly half the increase in the previous month. All major categories fell except consumer goods, which saw a large increase. Over the year, real nonoil import growth was still high at 12.9 percent. Oil import volumes also declined in February, but this follows large upswings in the previous three months. Although oil prices were 3.4 percent higher in February, the net result is a fall in the current-dollar oil bill of US$1.5 billion.

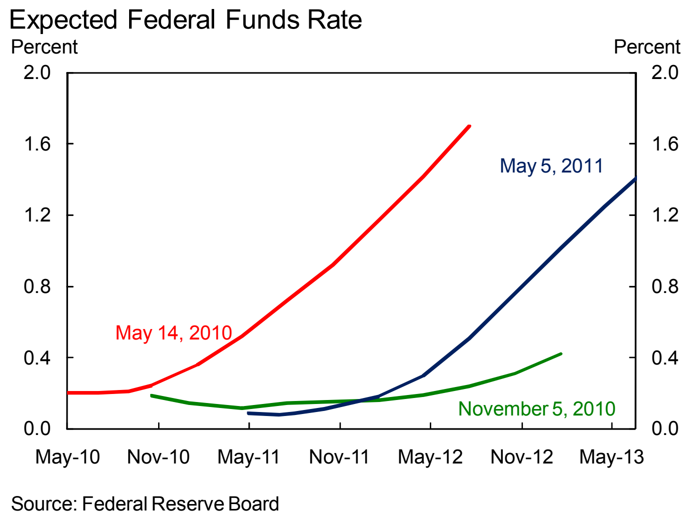
These data suggest that net exports will subtract 0.1 percentage point from GDP growth in Q1 2011, following a positive contribution of 3.3 percentage points in 2010 Q4.

Outlook and Risks.

The forecast for 2011 is for net exports to add 0.5 percentage point to GDP growth over the year. The current account deficit is projected to be 3.2 percent of GDP in 2011.

The risk for net exports is largely tied to the U.S. and foreign growth outlooks. The uncertainty surrounding the forecast for Europe is a particular risk to the outlook given the size of its market. An additional risk to the forecast is tied to the volatility of the US dollar relative to its major trading partners.





Financial Markets

Nominal Interest Rates. Treasury yields have shifted up significantly since the last EAP meeting in November 2010, after having declining sharply through the summer of 2010 following the onset of the European sovereign debt crisis. Between November 1, 2010 and February 8, 2011, the 10-year Treasury yield rose from 2.66% to 3.75% as the market was buoyed by generally positive economic news and investor risk appetite increased. Since then, the 10 year yield has fallen back to 3.18% as of May 5, partially as a result of resurgent concerns about peripheral Europe and mixed economic news.

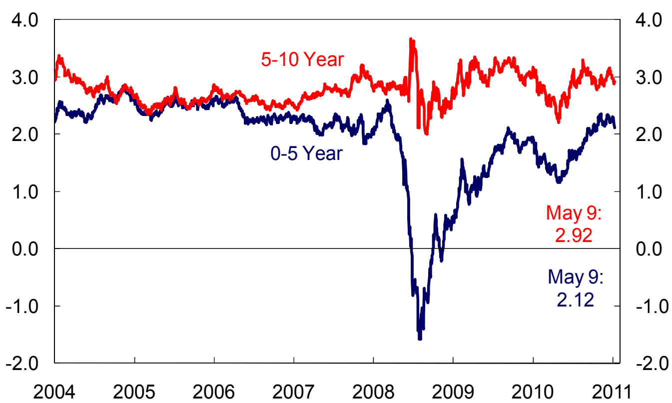
Option implied volatilities in Treasury and swap markets, as measured by the 3-month MOVE and SMOVE indices, have declined markedly in recent months after reaching post crisis highs in December 2010 and remain moderate relative to pre-crisis historical levels.

Expected Policy Rate Path. The expected path of the fed funds rate, as inferred from futures markets, shifted up significantly since the last EAP meeting, in line with the general rise in Treasury yields.

Market expectations currently suggest that the target fed funds rate will remain unchanged through 2011 and then rise to about 0.3% by mid 2012 and to 1% by early 2013.

Professional forecasters expect a path of the fed funds rate somewhat higher than market expectations. The median expectation from the May Blue Chip Financial Forecasts survey of 0.43% for the first quarter of 2012 is up from 0.39% in the April survey.

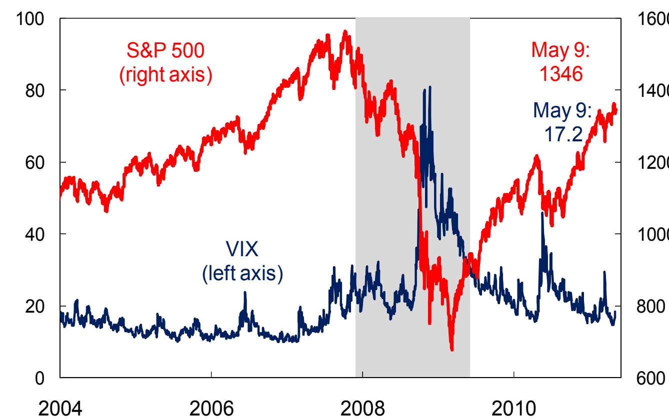
TIPS Implied Inflation Compensation: 0-5, 5-10 Year Horizons



Source: Federal Reserve Board

Note: Carry-adjusted.

S&P 500 Index: Price Level and Volatility



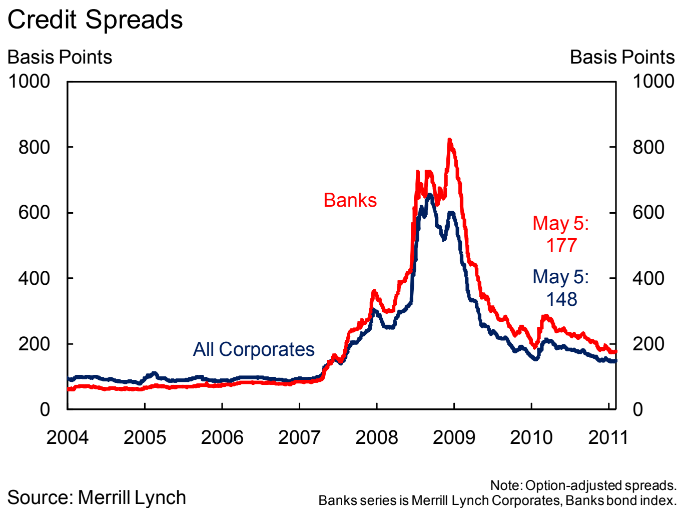
Source: Haver, Datastream

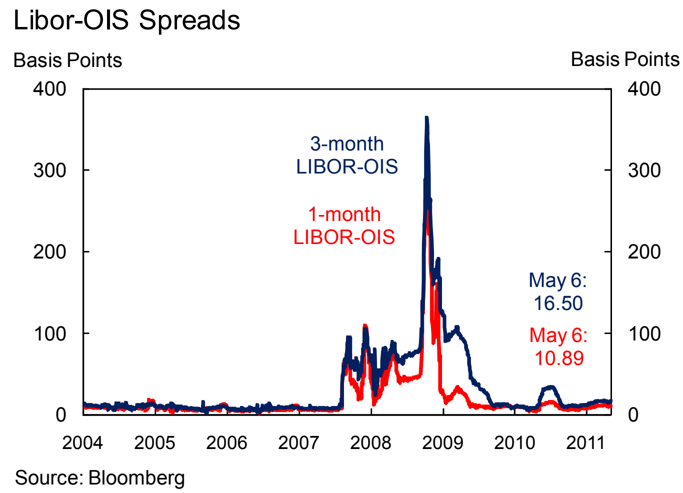
Inflation Compensation. Market-based measures of inflation expectations have continued to increase since mid 2010 as the Fed has implemented further actions to prevent inflation from remaining below a level most conducive to a healthy economy, economic data has improved, and commodity prices have continued to rise.

The 0-5 year inflation compensation measure, which gauges inflation expectations over the next five years, has risen from a recent low of 1.15% in late August 2010, preceding Chairman Bernanke's Jackson Hole speech, to 2.43% on May 5. The 5-10 year measure, gauging expected inflation 5-10 years out, has risen from a recent low of 2.4% in late August to 2.88% on May 5.

Equity Markets. Equity markets have recently risen with better-than-expected economic data and further efforts by the Federal Reserve to promote a stronger pace of economic recovery. Since August 26, the day preceding Chairman Bernanke's Jackson Hole speech, the S&P 500 index is up 28% and the Nasdaq Composite is up 33%. Since its March 2009 low, the S&P 500 index is up 98%.

Implied equity volatility as measured by the VIX has continued to trend lower since its spike up in April 2010 due to Euro area sovereign risk concerns. (This pattern was only interrupted by a brief spike after the Tohoku earthquake.) The VIX stood at 18% on May 5, a level comparable to pre-crisis lows.



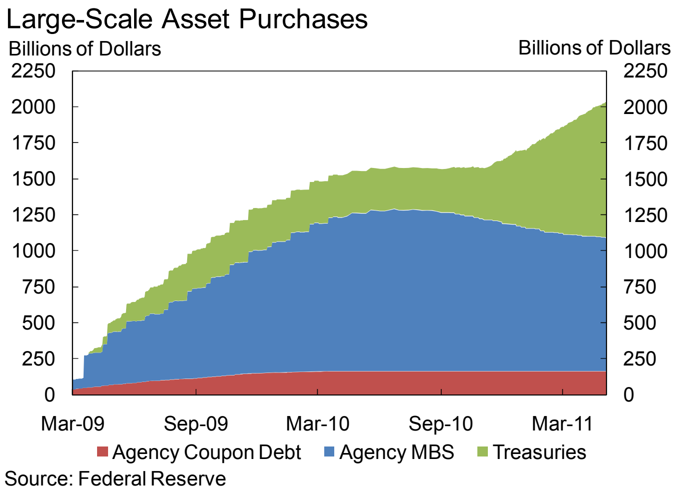


Credit Spreads. Credit spreads have remained stable in recent months. Improved economic and financial market conditions caused credit spreads to narrow considerably over much of 2009 and 2010, only briefly interrupted by the European sovereign risk crisis in Spring of 2010. During the latter part of the second quarter, credit spreads reversed course and rose about 100 basis points for banks and about 60 basis points for all corporates. Credit spreads then declined gradually throughout the second half of 2010 and the first two quarters of 2011.

Despite the recent increase in treasury yields, non investment grade bond yields have continued to decline, with B-rated bond yields reaching record lows around 7% as of May 5, the lowest level since January 2005.

Money Markets. Money market conditions have remained sound in recent weeks despite the continued financial turmoil in Europe. Market functioning had been largely restored since the significant dislocations at the height of the financial crisis, with Libor-OIS spreads returning to pre-crisis levels in late 2009 after peaking in October 2008. Measures of money market stress ticked up at the end of the second quarter, but then reversed course. The 3-month LIBOR-OIS spread currently trades at 16 basis points, which is only slightly above the average level observed before the crisis.

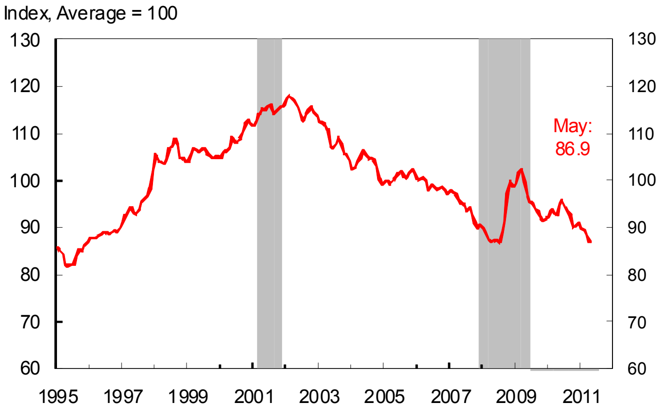
Short term funding rates, including the effective fed funds and GC repo rates, shifted down significantly in the beginning of April as some market participants temporarily withdrew following the change in the FDIC's deposit insurance assessment scheme. Since then, rates have partially bounced back, but remain lower than prior to the FDIC assessment change.



Large-Scale Asset Purchases. At its April, 2011 meeting, the FOMC decided to continue expanding its holdings of securities as announced in November "to promote a stronger pace of economic recovery and to help ensure that inflation, over time, is at levels consistent with its mandate." The committee maintained its policy of reinvesting principal payments from agency debt and agency mortgage-backed securities in longer-term Treasury securities, first announced after the August 2010 meeting, and its intent to purchase a full $600 billion of longer-term Treasury securities by the end of the second quarter of 2011.

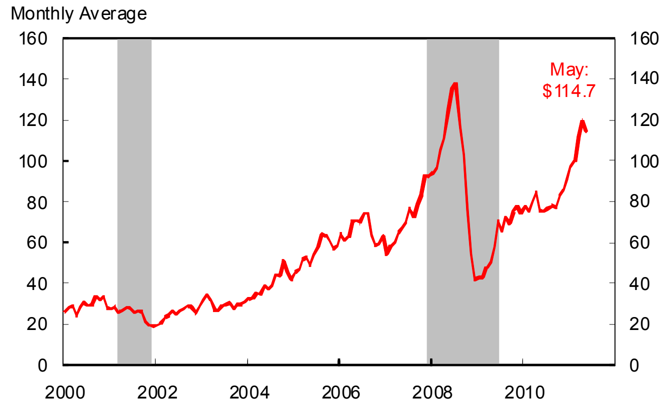
Under the large-scale asset purchase program announced in November, the Fed will have, as of May 11, purchased approximately $470 billion in Treasury securities toward the $600 billion target. An additional approximately $107 billion in Treasury purchases carried out by May 11 represents reinvestment of principal on agency debt and agency guaranteed mortgage-backed securities.

Nominal Broad Dollar Index



Source: Federal Reserve Board

Oil Prices



Source: Haver/Bloomberg. Oil is average of WTI, Brent, and Bonny Light prices.

Foreign Exchange. The trade-weighted dollar index is roughly 15% below its average over the last fifteen years. Much of the drop in the index in 2011 is tied to the euro, which has been on an upswing based on the shift to tighter ECB policy. This upward trend, though, has at times been interrupted by news about the debt crisis in the periphery euro area counties.

The yen was stable for a while at around 83 yen/dollar and then spiked stronger in the earthquake aftermath to 78 yen/dollar. Currency intervention by major central banks temporarily weakened the yen. The exchange rate is now near 81 yen/dollar.

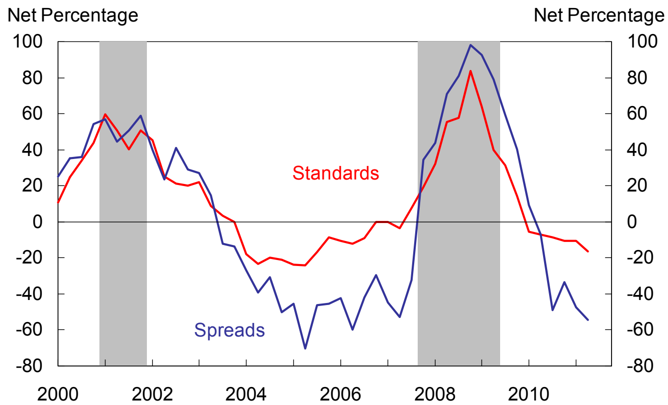
China's yuan started appreciating in mid-2010 and is strengthening at roughly a 5% annual rate. There is still strong upward pressure on the yuan based on the rapid rate of reserve accumulation by Chinese monetary authorities. Reserve purchases were up $130 billion in Q1 2011, after rising almost $500 billion last year.

Petroleum Prices. Oil prices have surged in 2011, pushed by the global recovery and turmoil in the Middle East and North Africa. China accounts for 40 percent of the projected demand growth this year. OPEC is helping make up the lost production from Libya. Prices are currently around $110-115 per barrel.

Oil demand is set to increase 1.7% in 2011, after jumping 3.3% last year. Most of the slowdown is expected in the United States and China after very robust demand growth in 2010.

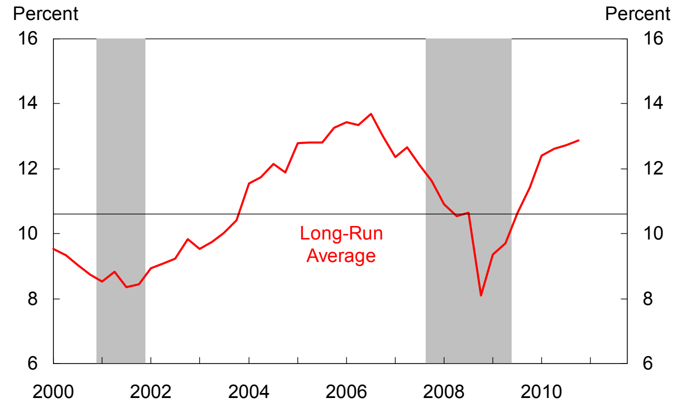
Other Commodities. Agricultural commodity prices have been rising over the past year, although the pressure eased in early May with concerns that global growth may be slowing. Upside risks are from higher energy costs, low global inventories, biofuel production, and drought conditions around the world.

Net Percentage of Loan Officers Tightening Standards and Raising Spreads for Loans to Large and Mid-Sized Firms



Source: FRB Senior Loan Officer Opinion Survey

Corporate Profits as a Percent of National Income



Source: Bureau of Economic Analysis

Bank Loan Standards and Spreads

Developments. Banks continue to undo the tight credit conditions that were a drag on growth during the crises and recession. According to the latest Senior Loan Officers Opinion Survey, the net percent of loan officers reporting tightening standards for approving loans to medium and large firms fell from -10.5 percent in 2011Q1 to -16.4 percent this quarter, the biggest such change since 2010Q1. The net percent of loan officers reporting higher spreads also fell from -47.4 percent in 2011Q1 to -54.5 percent this quarter. Overall, the latest Senior Loan Officers report suggests that the credit constraints that were a headwind during the crisis and recession are turning into tailwinds during the recovery.

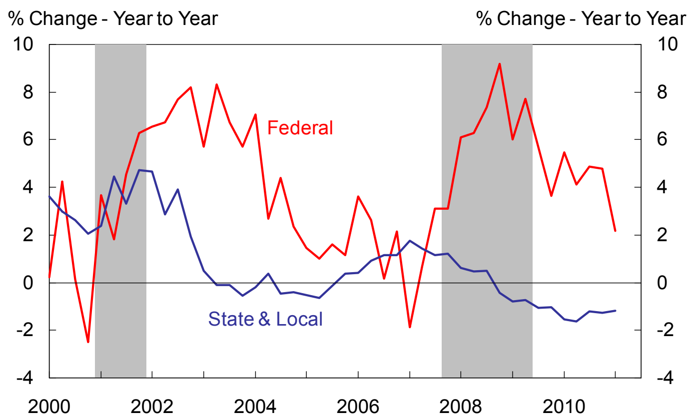
Corporate Profits

From their recent low of 8.1% of national income in 2008Q4, corporate profits have rebounded sharply over the past two years, reaching 12.9% of national income in 2010Q4. The 2010Q4 level was well above the long-run average and is approaching the most recent peak of 13.7% of national income reached in 2006Q3, which was the highest share since the early 1950s.

The bulk of the rebound in profits since the end of 2008 has been accounted for by domestic financial corporations. Profits of those firms rose from essentially zero to 3.3% of national income in 2010Q4. Profits of domestic nonfinancial corporations experienced a more moderate increase, from 5.7% of national income to 6.7%. Net foreign profits were essentially unchanged at 2.9% of national income.

Over the forecast horizon, corporate profits expressed as a share of national income will likely come under some downward pressure as the rate of growth of labor compensation costs increases while productivity growth slows.

Real Government Consumption and Gross Investment



Source: Bureau of Economic Analysis

	FY2009*	FY2010*	FY2011	FY2012
Receipts				
$ Billions	2,105	2,163	2,230	2,558
% of GDP	14.9	14.9	14.8	16.3
Outlays				
$ Billions	3,518	3,456	3,629	3,639
% of GDP	25.0	23.8	24.1	23.2
Balance				
$ Billions	-1,413	-1,294	-1,399	-1,081
% of GDP	-10.0	-8.9	-9.3	-6.9
Debt Held by the Public				
% of GDP	53.5	62.1	68.9	73.4

Source: Congressional Budget Office

Government Spending

After slowing from mid 2008 through 2009, year-over-year growth of federal spending on goods and services stabilized around 5% in 2010. For 2011, growth of federal spending is expected to slow considerably before turning negative in 2012.

In contrast, year-over-year growth of real outlays by state and local governments has been negative for 10 consecutive quarters. As of April, total employment at the state and local level is down by about 500,000 (2.5%) from its 2008Q3 peak, with the bulk of the decline at the local level. Further cuts in employment are anticipated over 2011, although the rate of decline is likely to slow. The fiscal condition of state and local governments has improved in recent quarters, with total tax receipts in 2010Q4 up 10% from their 2009Q2 low. The 2010Q4 level of state and local government tax receipts was roughly equal to the previous peak level in 2008Q2.

Federal Fiscal Outlook

For FY2010, the deficit was $1.29 trillion or 8.9% of GDP, a modest improvement over the $1.4 trillion (10% of GDP) of FY2009. Debt held by the public ended FY2010 at 62.1% of GDP, the highest level since 1952. The fiscal agreement enacted at the end of 2010 extends the 2001-2003 tax cuts for all taxpayers through 2012, reduces by 2 percentage points the employee's share of the OASDI payroll tax for 2011, and allows immediate expensing of all business investment in equipment and software put in place before the end of 2011. Incorporating these provisions as well as updating the macroeconomic forecast, the Congressional Budget Office projects that the deficit will increase to $1.4 trillion (9.1% of GDP) in FY2011 and then fall to $1.1 trillion (6.9% of GDP) in FY2012. By the end of FY2012, debt held by the public will be up to around 73.4% of GDP.

FRBNY Forecast Summary

	2011 Q1	2011 Q2		2011 Q3		2010 Q4/Q4	2011 Q4/Q4		2012 Q4/Q4	
Summary	*Advance*	11/5	**5/13**	11/5	**5/13**	*Final*	11/5	**5/13**	11/5	**5/13**
Real GDP	*1.8*	3.6	3.6	3.3	4.0	*2.8*	4.0	3.7	4.5	3.9
Total PCE Deflator	*3.8*	1.3	3.8	1.4	2.4	*1.1*	1.4	3.0	1.8	1.7
Core PCE Deflator	*1.5*	1.1	1.4	1.2	1.2	*0.8*	1.2	1.3	1.5	1.5
Fed Funds Rate Target*	*0-0.25*	0-0.25	0-0.25	0-0.25	0-0.25	*0-0.25*	0-0.25	0-0.25	0.5	0.5
Nonfarm Business Sector										
Output	*3.1*	5.5	4.8	5.5	5.3	*3.7*	5.5	5.0	6.2	5.0
Hours	*1.4*	3.8	2.3	3.8	3.1	*1.7*	3.8	3.0	4.4	3.3
Productivity Growth	*1.6*	1.8	2.5	1.8	2.1	*2.0*	1.7	2.0	1.7	1.8
Compensation	*2.6*	1.3	2.5	1.5	2.7	*1.8*	1.4	2.7	2.3	3.4
Unit Labor Costs	*1.0*	-0.5	0.0	-0.3	0.6	*-0.2*	-0.4	0.7	0.6	1.7
Real GDP Growth Contributions**										
Final Sales to Domestic Purchasers	*0.9*	3.2	2.9	3.5	3.1	*3.0*	3.3	2.6	3.9	3.3
Consumption	*1.9*	1.7	2.2	1.9	2.0	*1.9*	1.8	2.0	2.4	2.2
BFI: Equipment and Software	*0.8*	0.6	0.6	0.6	0.7	*1.1*	0.6	0.8	0.6	0.6
BFI: Nonresidential Structures	*-0.6*	0.2	0.0	0.2	0.1	*-0.1*	0.2	-0.1	0.2	0.2
Residential Investment	*-0.1*	0.5	0.1	0.5	0.3	*-0.1*	0.5	0.1	0.5	0.3
Government: Federal	*-0.7*	0.1	0.3	0.1	0.1	*0.4*	0.1	-0.1	0.1	-0.1
Government: State and Local	*-0.4*	0.1	-0.2	0.1	-0.1	*-0.2*	0.1	-0.2	0.1	0.1
Inventory Investment	*0.9*	0.3	0.1	0.0	0.2	*0.4*	0.2	0.5	0.3	0.1
Net Exports	*-0.1*	0.1	0.6	-0.2	0.6	*-0.6*	0.5	0.5	0.4	0.5
Real GDP Components' Growth Rates										
Final Sales to Domestic Purchasers	*0.9*	3.1	2.8	3.4	3.0	*2.9*	3.2	2.6	4.1	3.3
Consumption	*2.7*	2.5	3.1	2.8	2.8	*2.6*	2.6	2.9	3.4	3.1
BFI: Equipment and Software	*11.6*	8.0	8.0	8.0	10.0	*16.9*	8.0	11.1	10.0	8.5
BFI: Nonresidential Structures	*-21.8*	6.0	2.0	8.0	4.0	*-4.0*	6.5	-3.2	8.0	8.0
Residential Investment	*-4.1*	25.0	4.9	23.0	16.7	*-4.6*	21.2	6.4	20.0	13.7
Government: Federal	*-7.9*	1.5	3.2	1.5	1.2	*4.8*	1.5	-0.7	1.6	-0.8
Government: State and Local	*-3.3*	1.0	-2.0	1.0	-1.0	*-1.3*	1.1	-1.5	1.9	0.9
Inventory Investment	*n/a*	n/a	n/a	n/a	n/a	*n/a*	n/a	n/a	n/a	n/a
Net Exports	*n/a*	n/a	n/a	n/a	n/a	*n/a*	n/a	n/a	n/a	n/a
Exports	*5.0*	11.8	12.7	11.9	12.7	*8.9*	11.6	10.8	10.5	10.8
Imports	*4.4*	8.5	6.2	10.2	6.3	*10.9*	5.6	5.3	7.1	6.0
Labor Market										
Nonfarm Payroll Employment (Average per Month, Thousands)	*144*	343	208	346	307	*59*	345	298	445	298
Unemployment Rate***	*8.9*	9.0	8.8	8.6	8.5	*9.6*	8.3	7.9	7.0	7.1
Income										
Real Disposable Personal Income	*2.9*	3.9	3.0	2.3	2.7	*2.4*	3.3	3.4	4.1	2.3
Personal Saving Rate***	*5.7*	5.4	5.6	5.3	5.7	*5.6*	5.7	6.2	6.4	5.5

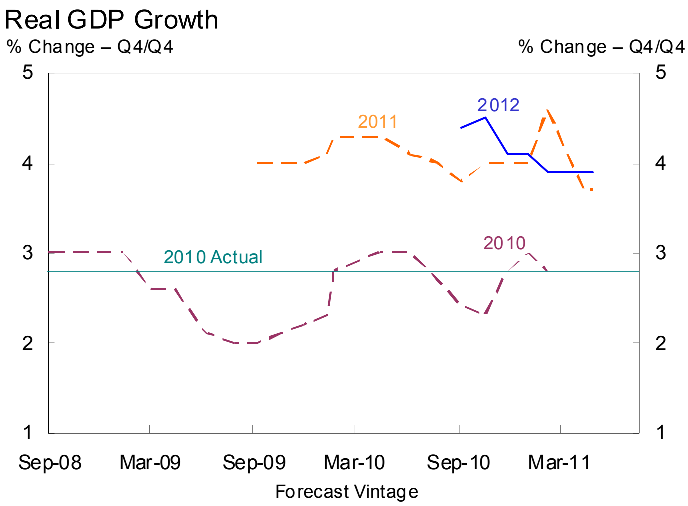
*End-of-period value

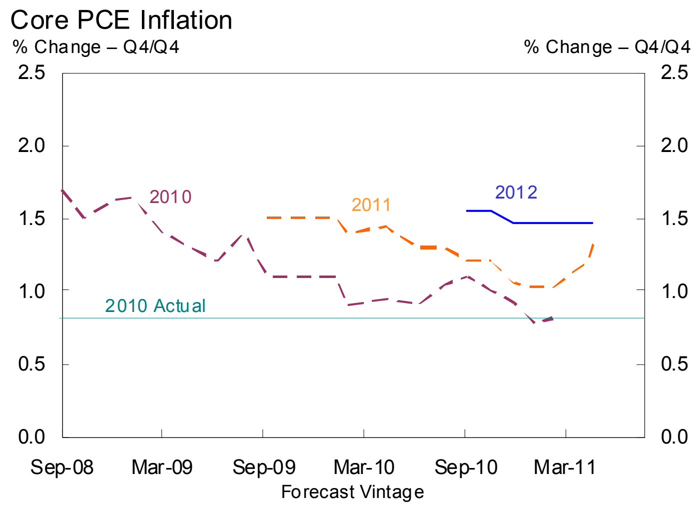
**Growth contributions may not sum to total due to rounding.

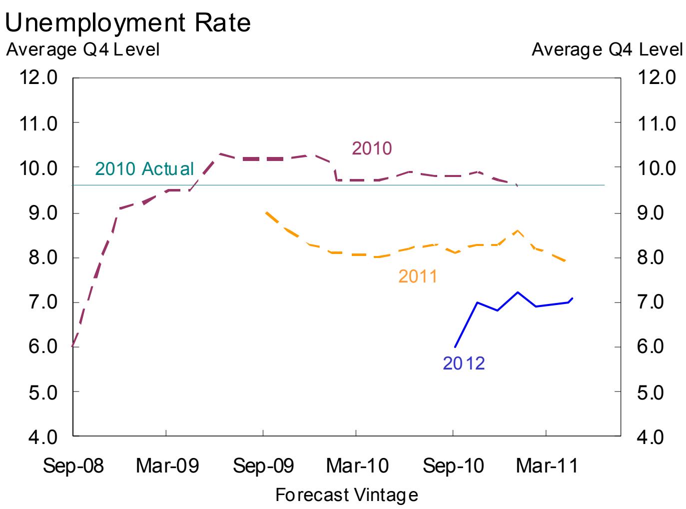
***Quarterly values are the average rate for the quarter. Yearly values are the average rate for Q4 of the listed year.

Blue and *italic* text indicate released data; darker colors indicate the most recent forecast.

Evolution of FRBNY Forecasts







Note: Forecast vintage represents date at which forecast was produced.

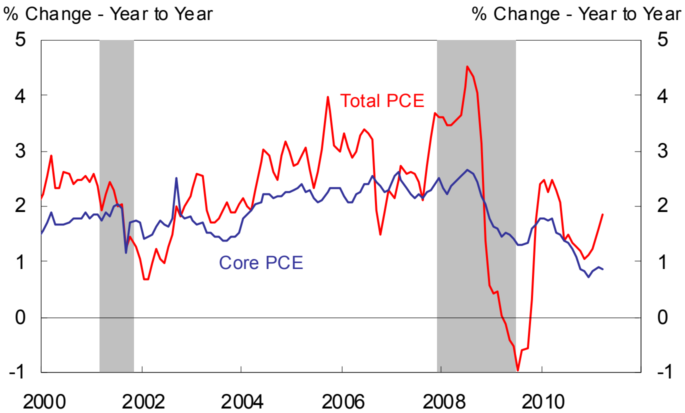
Alternative GDP and Inflation Forecasts

	Release Date	2011Q2	2011Q3	2011 Q4/Q4	2012 Q4/Q4
Real GDP Growth					
FRBNY	5/9/2011	3.6	4.0	3.7	3.9
Blue Chip	5/10/2011	3.2	3.2	2.9	3.1
Median SPF	2/11/2011	3.5	3.1	3.4	--
Macro Advisers	5/6/2011	3.7	3.4	3.2	3.5
Core PCE Inflation					
	Release Date	2011Q2	2011Q3	2011 Q4/Q4	2012 Q4/Q4
FRBNY	5/9/2011	1.4	1.2	1.3	1.5
Median SPF	2/11/2011	1.3	1.3	1.3	1.6
Macro Advisers	5/4/2011	1.5	1.4	1.3	1.3
CPI Inflation					
	Release Date	2011Q2	2011Q3	2011 Q4/Q4	2012 Q4/Q4
FRBNY	5/9/2011	5.1	1.7	3.5	2.1
Blue Chip	5/10/2011	3.6	2.2	3.3	2.2
Median SPF	2/11/2011	1.3	1.8	1.7	2.0
Macro Advisers	5/4/2011	5.2	4.5	3.6	1.6
Core CPI Inflation					
	Release Date	2011Q2	2011Q3	2011 Q4/Q4	2012 Q4/Q4
FRBNY	5/9/2011	2.0	1.5	1.7	1.8
Median SPF	2/11/2011	1.2	1.3	1.3	1.7
Macro Advisers	5/4/2011	1.7	1.8	1.7	1.8

Source: FRBNY, Blue Chip Consensus Forecasts, Survey of Professional Forecasters, and Macro Advisers

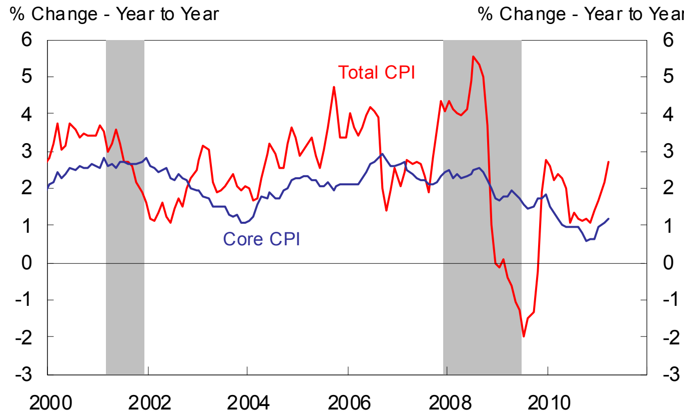
PCE and CPI Measures of Inflation since 2000

Total and Core PCE Deflator



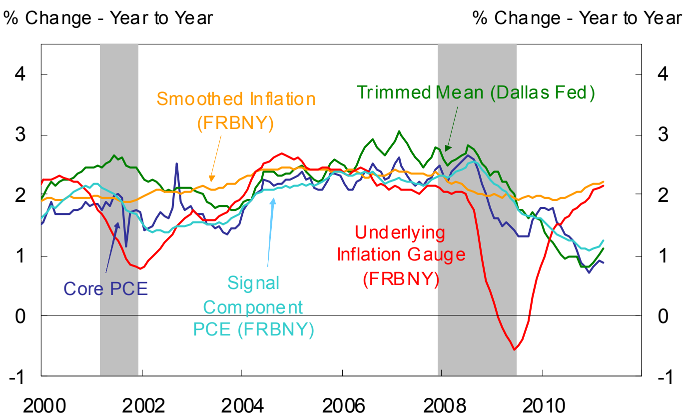
Source: Bureau of Economic Analysis

Total and Core CPI Deflator



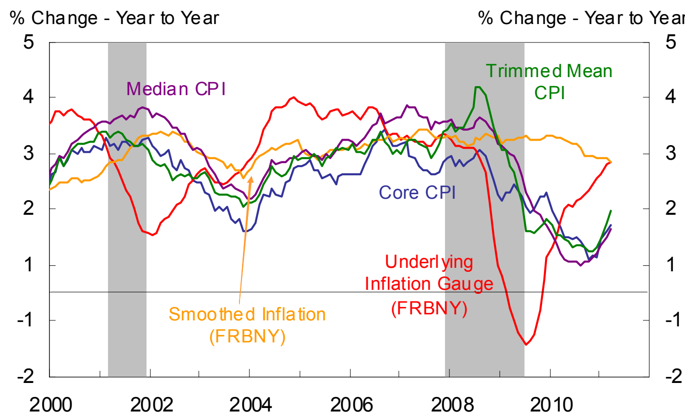
Source: Bureau of Labor Statistics

Measures of PCE Inflation



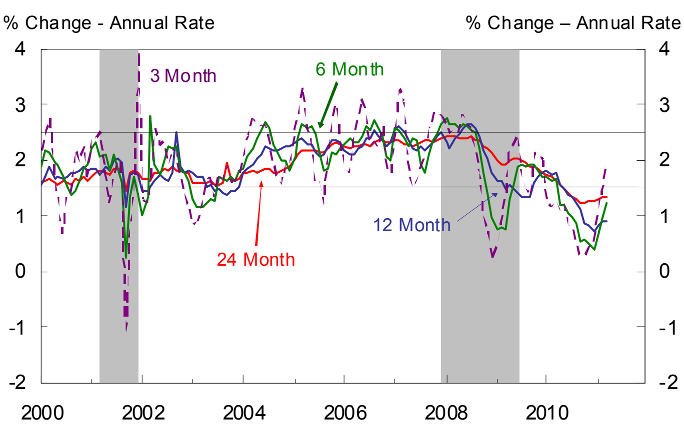
Source: Bureau of Economic Analysis, Dallas Fed, FRBNY and Bank of Switzerland

Measures of CPI Inflation



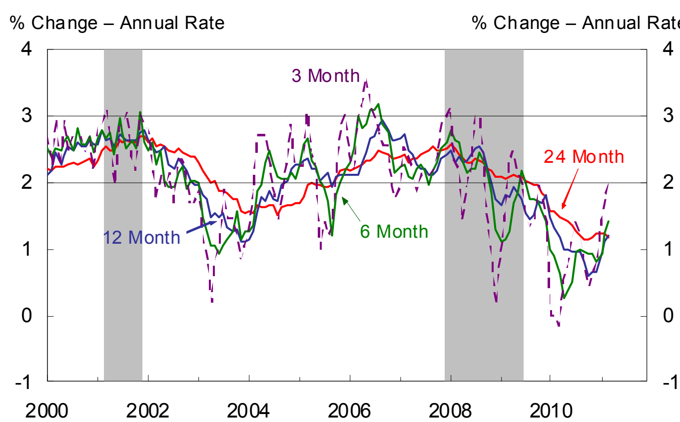
Source: Bureau of Labor Statistics and FRBNY

Core PCE Inflation over Various Horizons



Source: Bureau of Economic Analysis

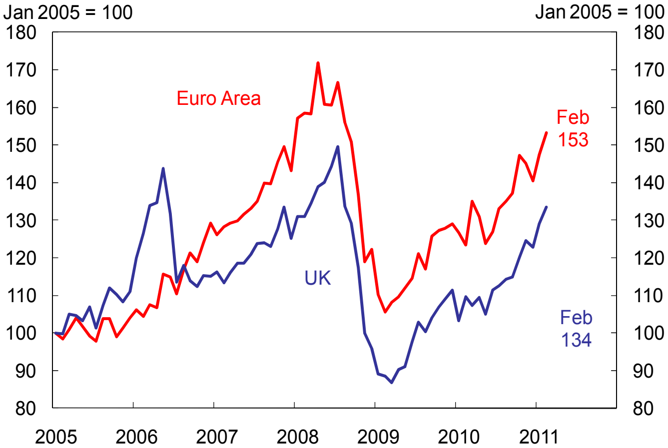
Core CPI Inflation over Various Horizons



Source: Bureau of Labor Statistics

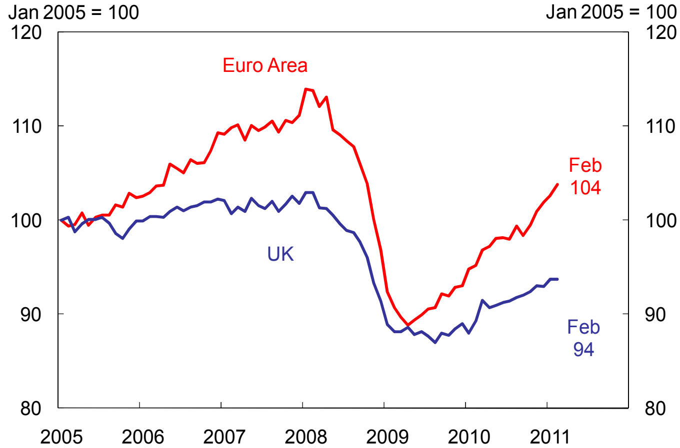
Exports and Industrial Production

Exports



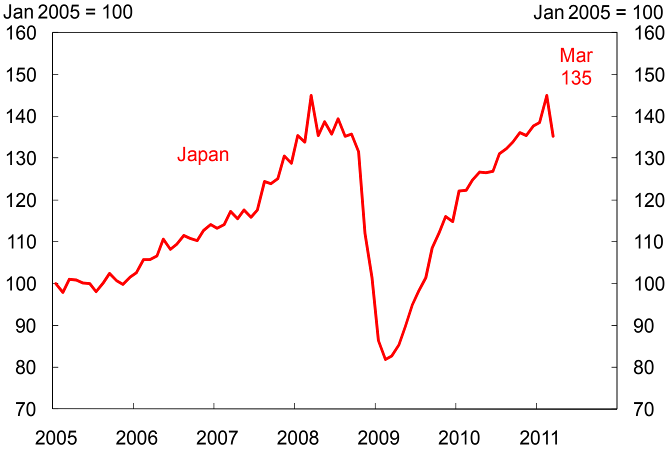
Source: Haver
Note: In Dollar Terms

Industrial Production



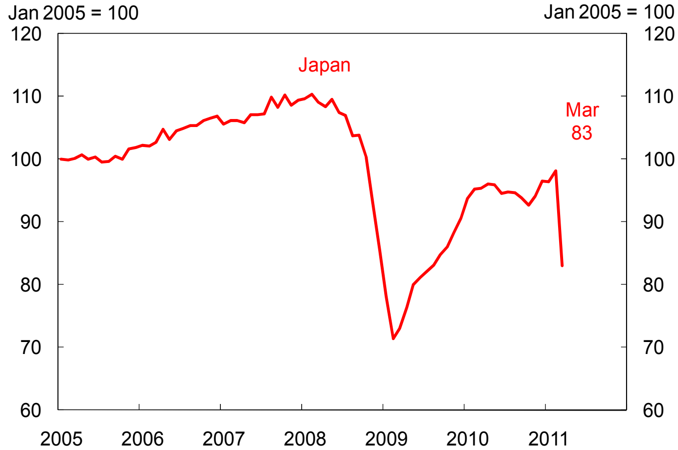
Source: Haver

Exports



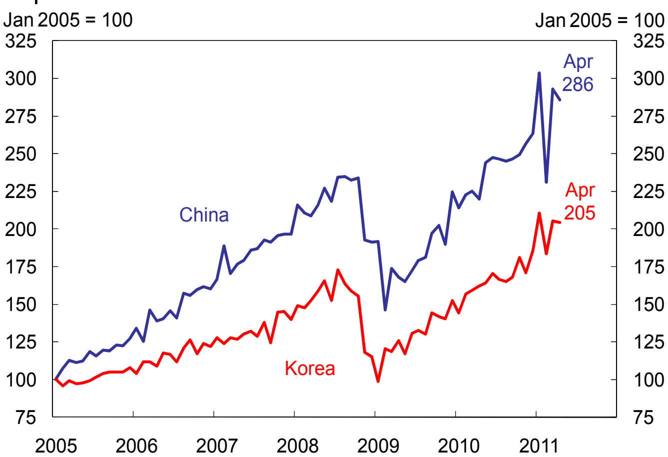
Source: Haver
Note: In Dollar Terms

Industrial Production



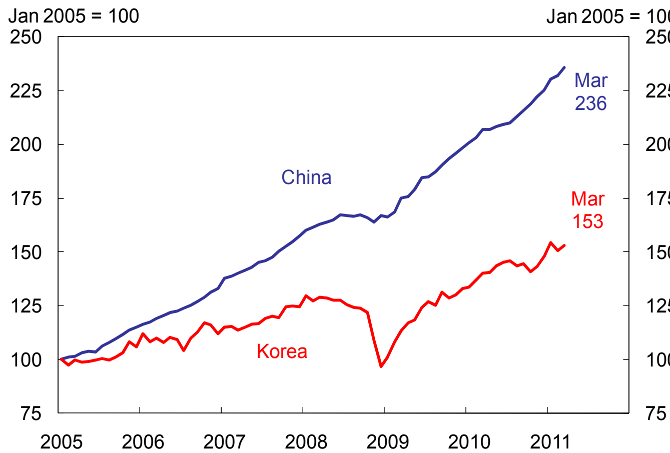
Source: Haver

Exports



Source: Haver
Note: In Dollar Terms

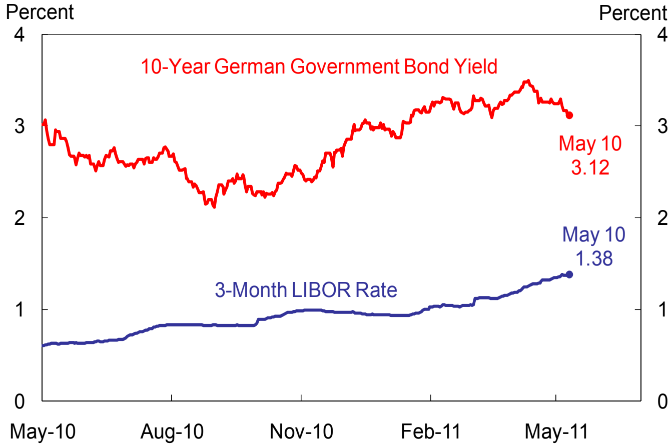
Industrial Production



Source: Haver

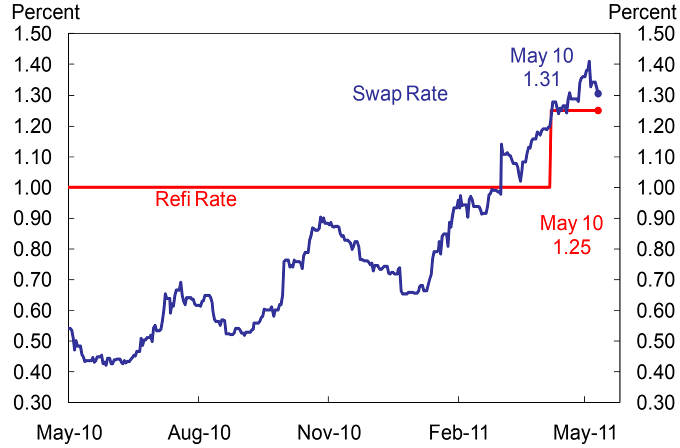
Global Interest Rates and Equity Markets

Euro Area Short- and Long-Term Interest Rates



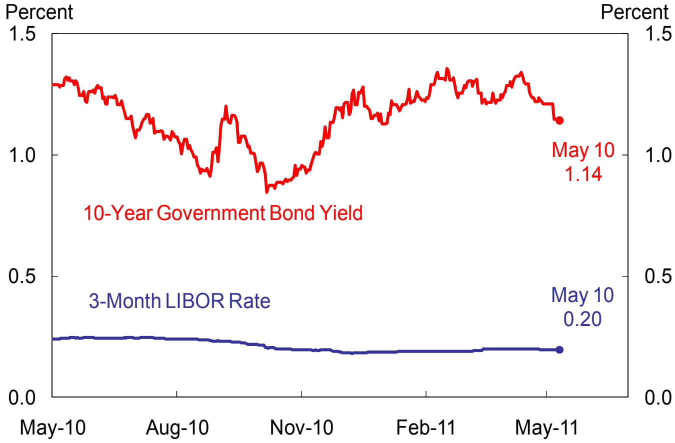
Source: Bloomberg

Euro Area: OIS Rate (Six Months)



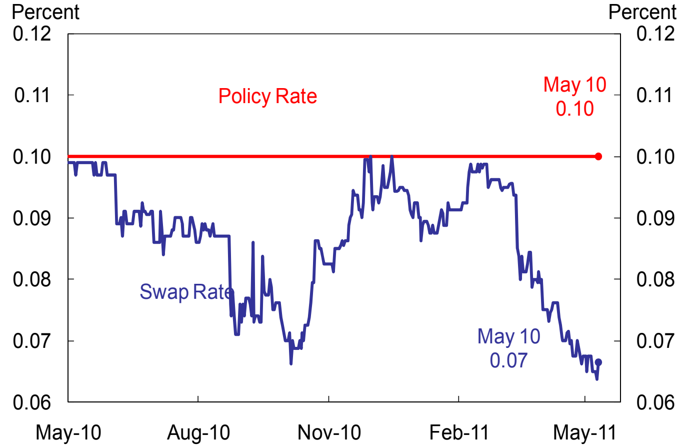
Source: Bloomberg

Japan Short- and Long-Term Interest Rates



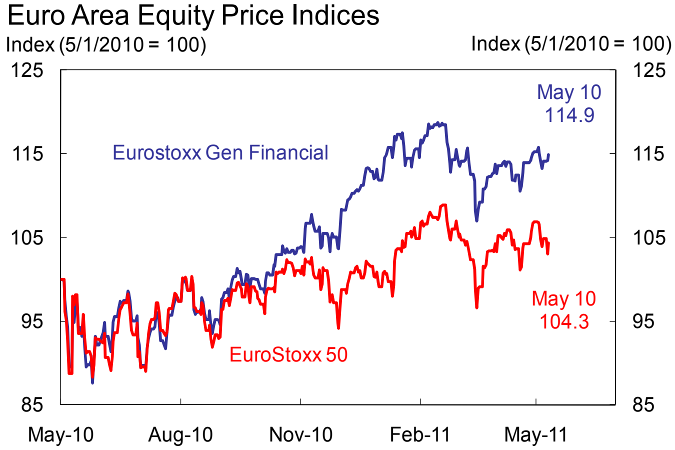
Source: Bloomberg

Japan: OIS Rate (Six Months)



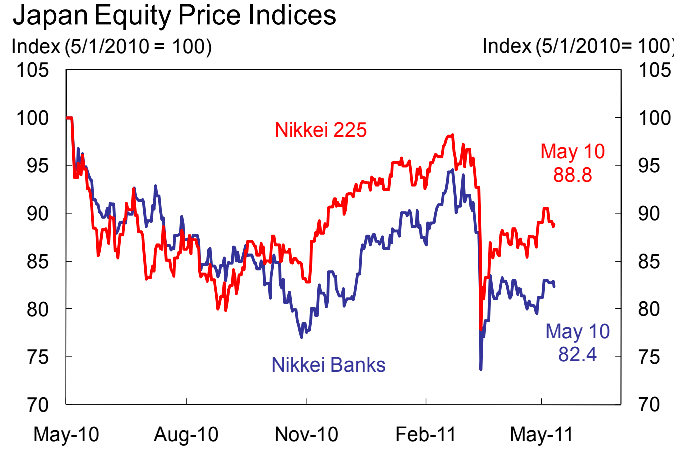
Source: Bloomberg

Euro Area Equity Price Indices



Source: Bloomberg

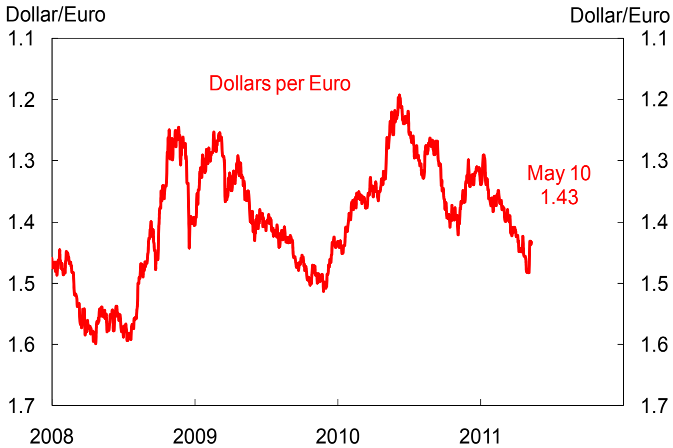
Japan Equity Price Indices



Source: Bloomberg

Exchange Rates

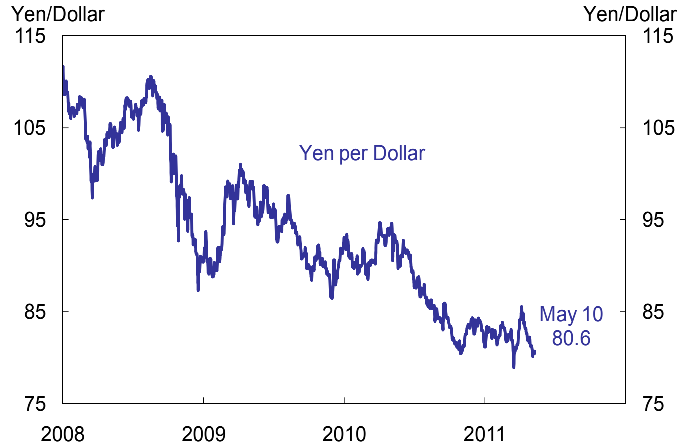
Dollar-Euro Exchange Rate



Source: Bloomberg

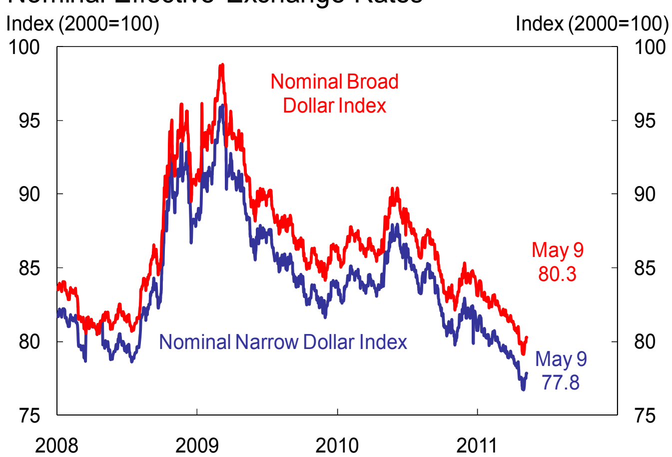
Note: Exchange rate scale is inverted.

Yen-Dollar Exchange Rate



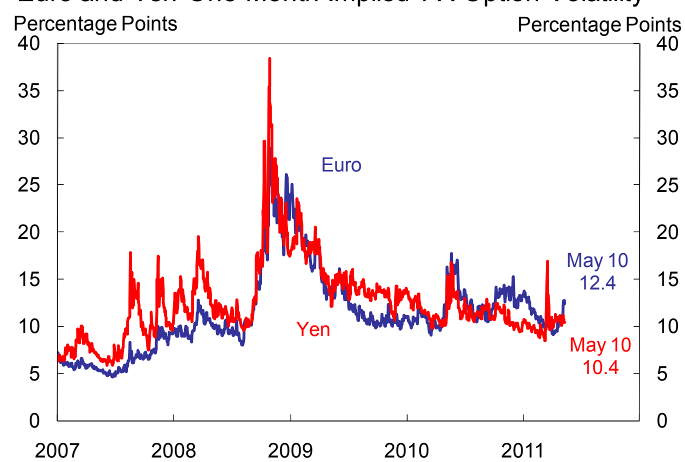
Source: Bloomberg

Nominal Effective Exchange Rates



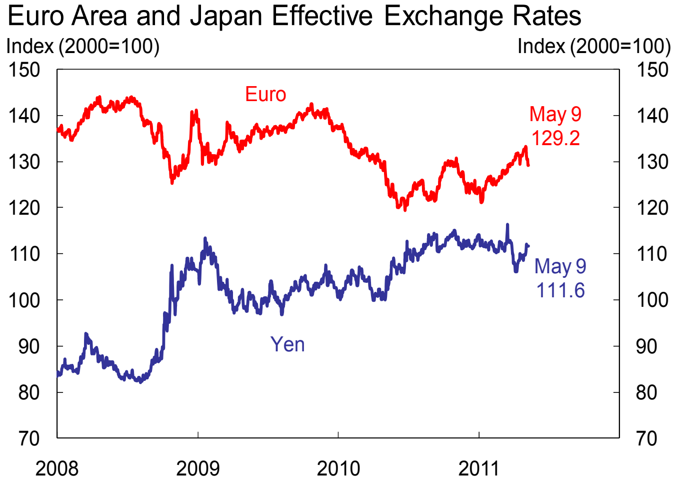
Source: Bloomberg and JPMorgan

Euro and Yen One-Month Implied FX Option Volatility



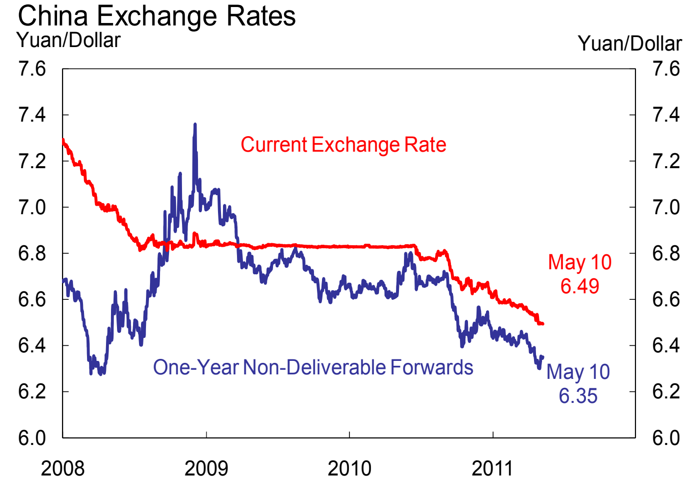
Source: Bloomberg

Euro Area and Japan Effective Exchange Rates



Source: Bloomberg and JPMorgan

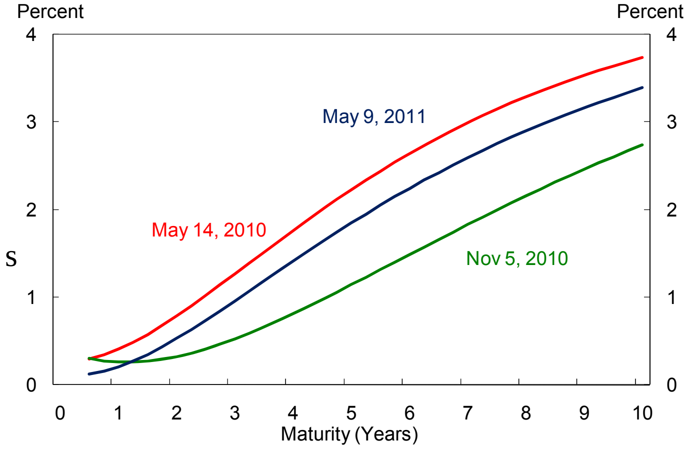
China Exchange Rates



Source: Bloomberg

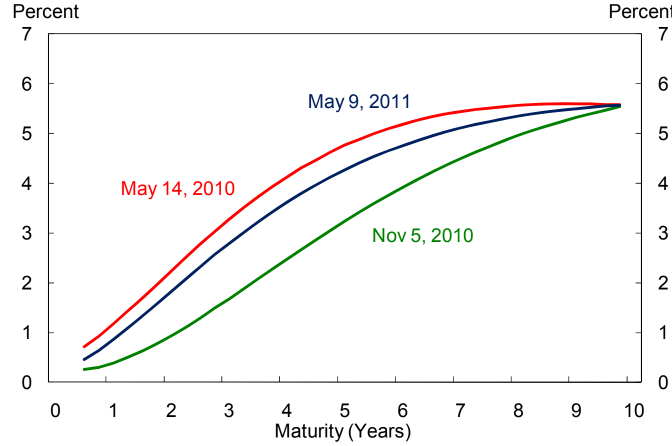
Treasury Yields and Inflation Expectations

Zero Coupon Yield Curves



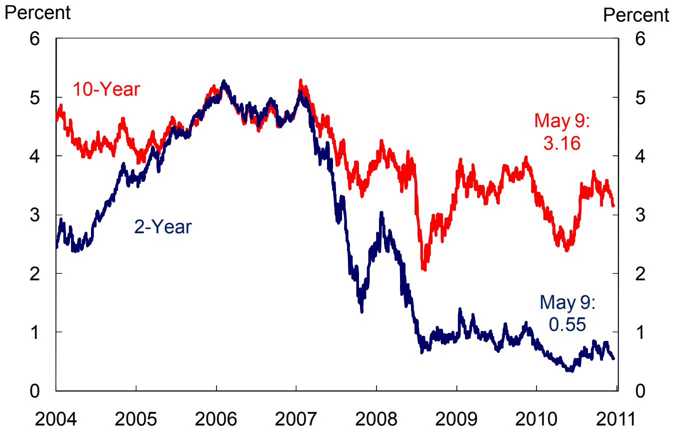
Source: Federal Reserve Board

Zero Coupon Yield Curves: One-Year Forward Rates



Source: Federal Reserve Board

Short- and Long-Term Treasury Yields



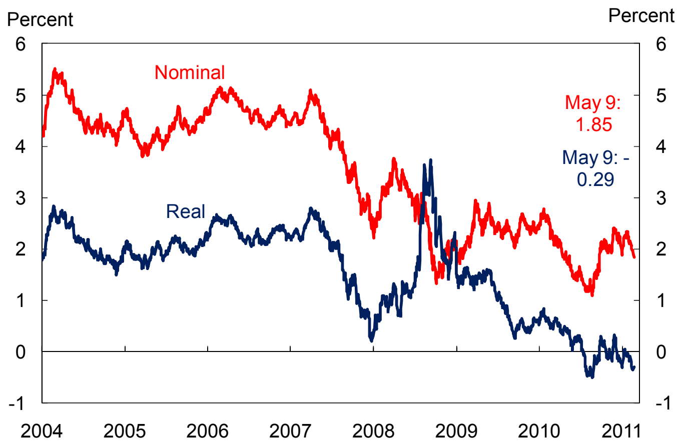
Source: Bloomberg

Note: On-the-run securities.

Option and Swaption Volatility Expectations

Source: Federal Reserve Board, Barclays, and FRBNY

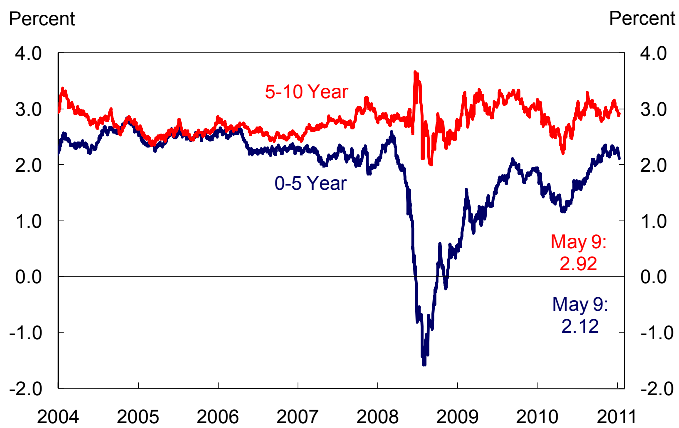
4-5 Year Forward Rates



Source: Federal Reserve Board

Note: Carry-adjusted

TIPS Implied Inflation Compensation: 0-5, 5-10 Year Horizons

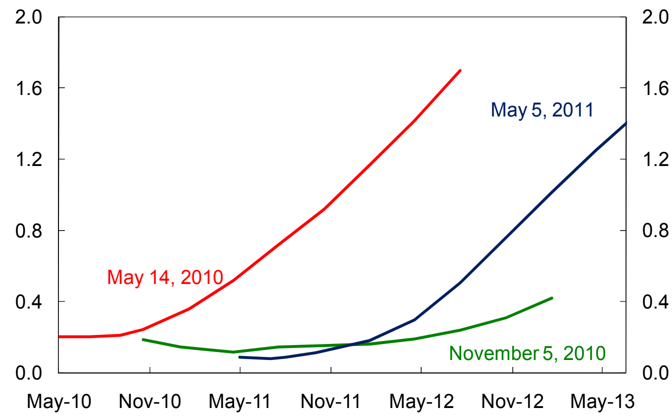


Source: Federal Reserve Board

Note: Carry-adjusted.

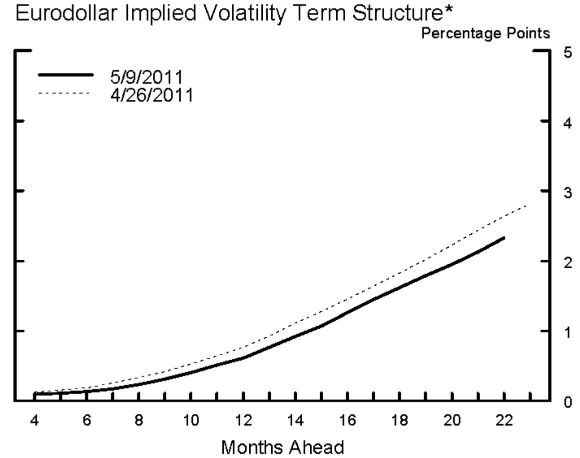
Market Policy Expectations and Uncertainty

Expected Federal Funds Rate



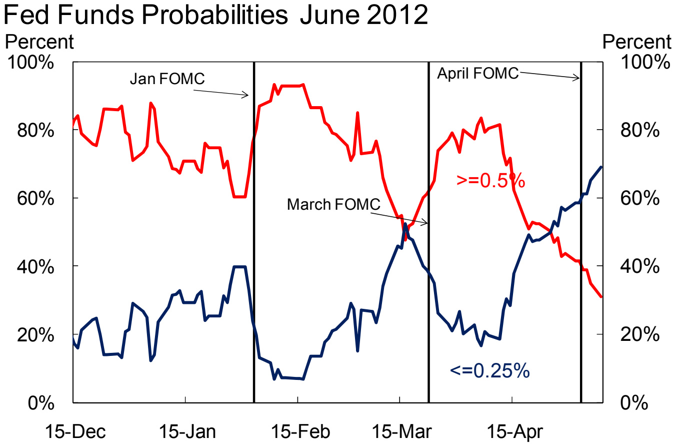
Source: Federal Reserve Board

Eurodollar Implied Volatility Term Structure*



*Width of a 90 percent confidence interval computed from the term structures for the expected federal funds rate and implied volatility.

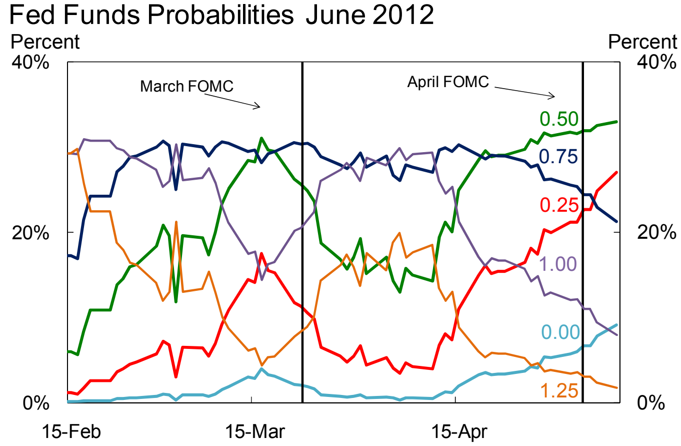
Fed Funds Probabilities June 2012



Source: Bloomberg

Note: Estimated from Fed Funds Futures

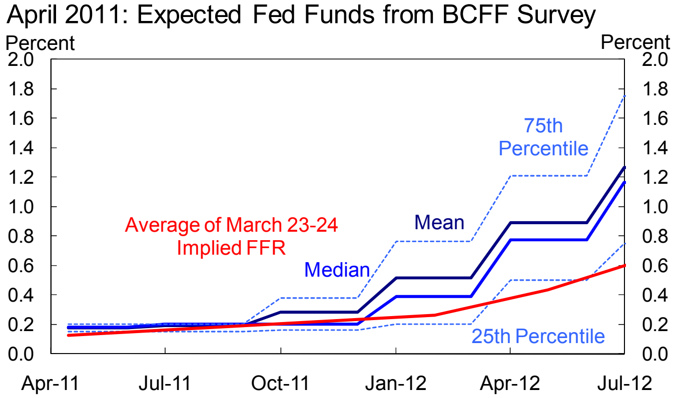
Fed Funds Probabilities June 2012



Source: Bloomberg

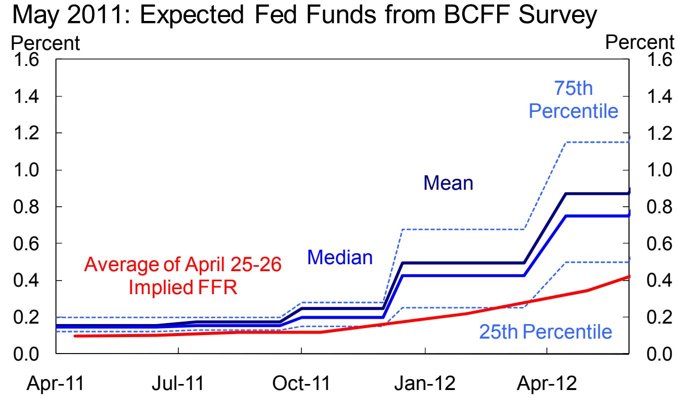
Note: Estimated from Fed Funds Futures

April 2011: Expected Fed Funds from BCFF Survey



Note: Implied FFR are from Fed Funds and Eurodollar futures.
The BCFF survey was conducted on March 23-24.

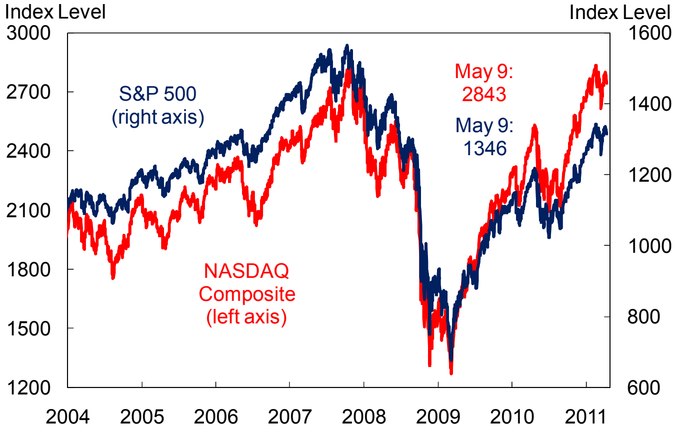
May 2011: Expected Fed Funds from BCFF Survey



Note: Implied FFR are from Fed Funds and Eurodollar futures.
The BCFF survey was conducted on April 25-26.

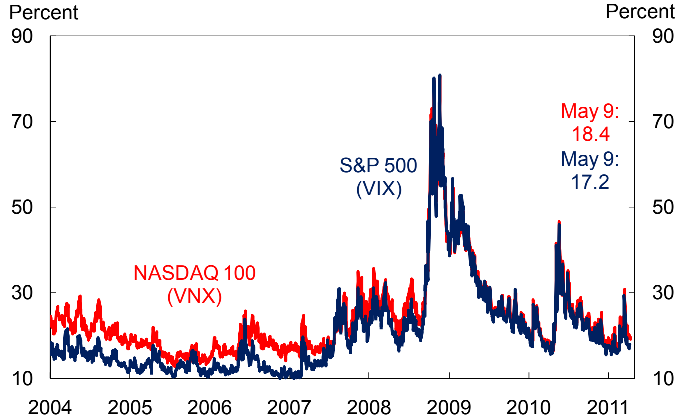
Equity Markets and Corporate Credit Risk

Equity Indices



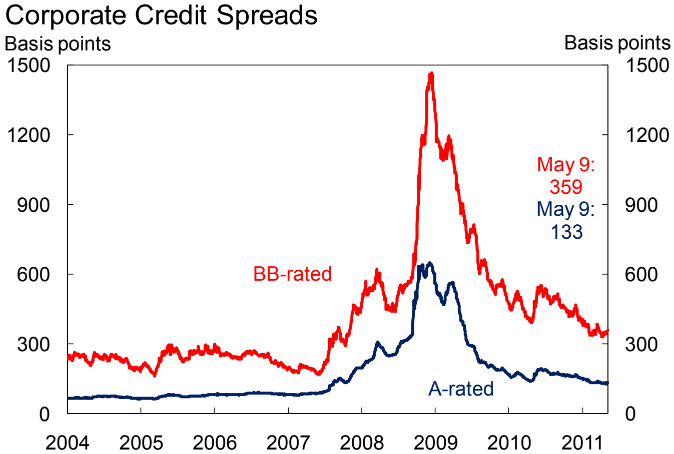
Source: Datastream

Equity Indices: One-Month Implied Volatility



Source: Datastream

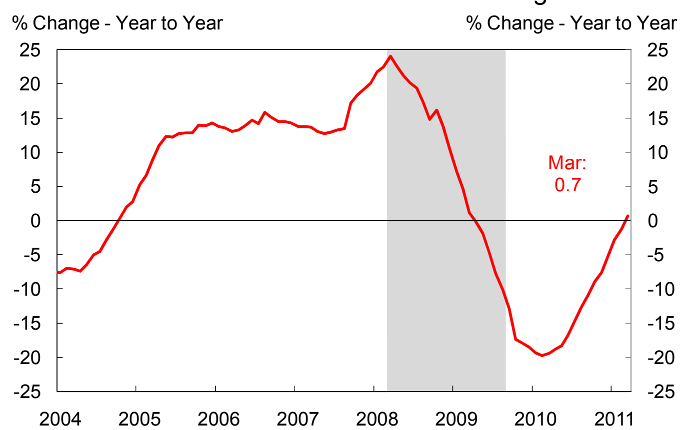
Corporate Credit Spreads



Source: Merrill Lynch

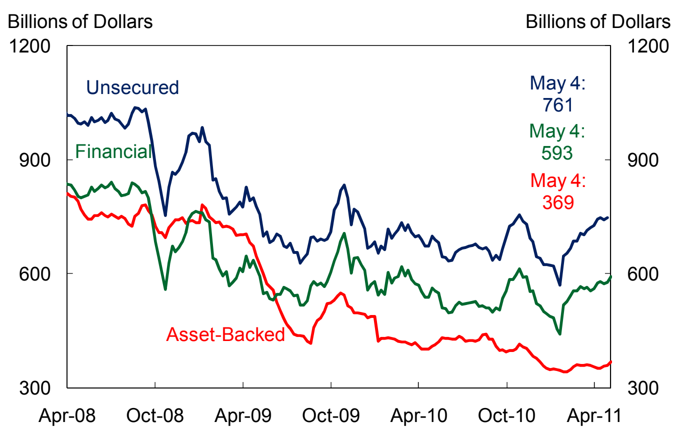
Note: Option-adjusted spreads.

Commercial and Industrial Loans Outstanding



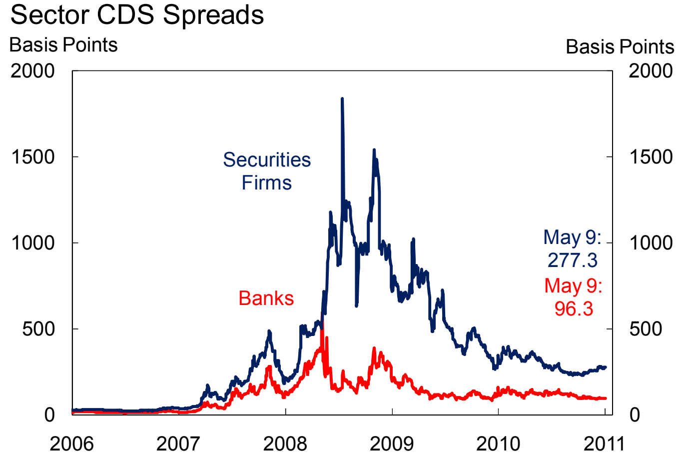
Source: Federal Reserve Board

Commercial Paper Outstanding



Source: Federal Reserve Board

Sector CDS Spreads



Source: CMA

5/12/2011

Some Measures of the Current Stance of Monetary Policy

Vasco Curdia, Marco Del Negro, Jonathan McCarthy, Argia Sbordone

We examine several alternative measures of the stance of monetary policy:

1. Prescriptions of contemporaneous feedback rules -- using 2011Q1 data -- with response coefficients to output and inflation gaps as in Taylor's original work (1993).

2. Prescriptions of forecast-based rules -- using 2012Q1 projections -- with response coefficients to output and inflation gaps taken from Taylor's original work. The forecasts are set equal to either the FRBNY central scenario projection or the FRBNY forecast taking into account our risk assessment.

3. Prescription of the 1993 Taylor rule with neutral rate and output gap estimated from the Curdia-Woodford (2009) structural model (see below for a description of this model).

4. Prescription of two difference rules, where the change in interest rate is related to the inflation gap and the difference between output growth and potential GDP growth. In these rules no assumption is required about the level of the nominal neutral rate and the size of the output gap. In the first rule inflation gap and output growth are contemporaneous values, in the second they are computed from FRBNY central scenario projections. Such rules prescribe changes in the fed funds rate from its previous value.

5. Counterfactual simulations from the medium-scale FRBNY-DSGE model, which includes financial frictions through a mechanism similar to Bernanke, Gertler and Gilchrist (1999). The model is estimated using data since 1984:Q1 on GDP, core PCE deflator, the federal funds rate (FFR), total hours, labor share and the spread between the Baa bond yield and 10-year Treasury yield. The model is estimated imposing the zero lower bound on the nominal interest rate. The counterfactual is constructed by setting the shock to the policy rule to zero.

6. Optimal interest rate policy computed from the DSGE model of Curdia and Woodford (2009), which also includes credit frictions. In addition to GDP, GDP deflator and the FFR, the model is estimated with data on commercial and industrial (C&I) loans rate spread relative to the FFR (to measure a credit spread) and the sum of C&I and consumer loans at banks (to measure bank lending). This model is estimated using data from 1986Q3 to 2011Q1. Optimal interest rate policy is computed imposing the zero lower bound on the nominal interest rate.

These measures are not intended to span the prescription of <u>all</u> policy type rules, optimal policy or robust control.

In particular, none of these rules takes into account the large scale asset purchase programs the Fed has undertaken since November 2008. There are now a number of studies that have calculated a sizable range of estimates of the effects of these purchases on long-term yields (some of these estimates are zero by assumption). Estimates based on the portfolio balance effect (e.g. Gagnon, et al. [2011]) suggest a decrease in long-term Treasury yields of around 3 to 6 bps per $100 billion purchase of assets (so a stock of $2.3 trillion—the combined amount of the two large-scale asset purchase programs--would have reduced the 10 year yield by about 70 to 140bps). It is difficult to reliably translate these effects into the same metric as the standard feedback rules but some simple rule of thumbs can be used. For example, if one looks at evidence from VAR models on the effects of shocks to the FFR on unemployment, an equivalent decrease in long-term yields could be obtained by a one-time surprise decrease in the FFR of about 3.5 times the change in the 10 year yield.

In Taylor's original formulation the policy rate is moved by 1.5 times the size of the inflation gap and 0.5 times the size of the output gap. We assume a 2% objective for core PCE inflation and use the CBO's estimates of the output gap. This leaves the value of intercept (the nominal 'neutral' rate) to be determined. It is difficult to obtain precise estimates of this time varying value. In the past we have assessed the plausible range of values to be between 3.0 and 5.5%. Because of lingering effects of the financial crisis, the neutral rate is likely to be somewhat lower. Thus we focus on policy prescriptions obtained using a range of 2.0 to 4.5% for the neutral rate. For comparison, we also include a prescription from a Taylor rule where the neutral rate and the output gap are estimated from the Curdia-Woodford (2009) model. A summary of the results is presented in the table at the end of this note.

The contemporaneous feedback rule prescribes a policy rate about 430 bps below the neutral rate, a result of an output gap estimated to be about 5.2% and an inflation gap of over 1 percentage point (as core inflation has been quite low over the past year). Using the forecast based rule with the FRBNY modal projections for 2012, the prescription changes somewhat, to about 250 bps below the neutral rate. Taking into account the balance of risks around the FRBNY projection prescribes an additional 20 bps of easing. The differences in the prescriptions of the contemporaneous feedback and forecast-based rules reflect our expectations that the output gap will narrow and core inflation will be nearer the objective over the next year. If we use the estimated neutral rate and output gap from the Curdia-Woodford model, the prescription changes somewhat because the estimated neutral real rate is negative (around -1.5%) while the output gap is smaller than the CBO's estimate (about -0.5%).

The contemporaneous difference rule prescription picks up the slowdown in output growth and core inflation over the past year, and suggests a decline in the fed funds rate of around 70 bps. The forecast-based rule, reflecting the expected increase in output growth and the moderate inflation increase over the next year, prescribes an increase of 40 bps.

The calculations above assume no inertia in the adjustment of the policy rate. The counterfactuals generated by the estimated FRBNY-DSGE model capture instead some of the inertia observed in the policy rates over the last 25 years, as well as the average neutral rate over this period and estimated response coefficients to inflation and output gap. The for the FFR in 2011Q2 is at 0-50 bps and remains near zero through 2012Q1, as it responds to the forecasted low levels of inflation.

Finally, the optimal interest rate computed from the Curdia-Woodford is obtained minimizing a model consistent loss function. Optimal policy prescribes that the FFR should be at zero.

Policy Rule	**Rate Prescription**
Taylor rule, Contemporaneous Feedback	-2.3 to 0.2
Taylor rule, Forecast-Based	-0.75 to 1.75
Taylor rule, Forecast-Based with Risks	-0.8 to 1.7
Taylor rule, Contemporaneous with estimated neutral rate and output gap	-1.95 to -0.95
Contemporaneous Difference Rule	0.7 decrease
Forecast-Based Difference Rule	0.4 increase
Counterfactual with FRBNY DSGE model	0 to 0.5
Optimal rate in Curdia-Woodford model	0