Prefatory Note

The attached document represents the most complete and accurate version available based on original files from the FOMC Secretariat at the Board of Governors of the Federal Reserve System.

Please note that some material may have been redacted from this document if that material was received on a confidential basis. Redacted material is indicated by occasional gaps in the text or by gray boxes around non-text content. All redacted passages are exempt from disclosure under applicable provisions of the Freedom of Information Act.

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Authorized for Public Release

Class II FOMC – Restricted (FR)

Report to the FOMC on Economic Conditions and Monetary Policy

Book A

Economic and Financial Conditions: Current Situation and Outlook

January 23, 2013

Prepared for the Federal Open Market Committee
by the staff of the Board of Governors of the Federal Reserve System

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Domestic Economic Developments and Outlook

The information on economic activity that we have received since the December Tealbook has been a mixed bag. In the labor market, the unemployment rate has come in a little lower than we projected in the December Tealbook, while payroll employment growth has been very close to our expectations. However, we estimate that real GDP was roughly flat in the fourth quarter of 2012, as compared with a projected rise of almost 1 percent in our previous forecast. The weakness in real GDP growth was concentrated in the volatile categories of defense spending, inventories, and net exports, and we do not expect it to persist into 2013. Instead, we estimate that real GDP will step up to a 2¾ percent pace in the first quarter, up 1 percentage point from our previous projection. Most of this upward revision reflects changes in our fiscal policy assumptions—most notably, the one-year extension of the EUC program that was enacted in early January.

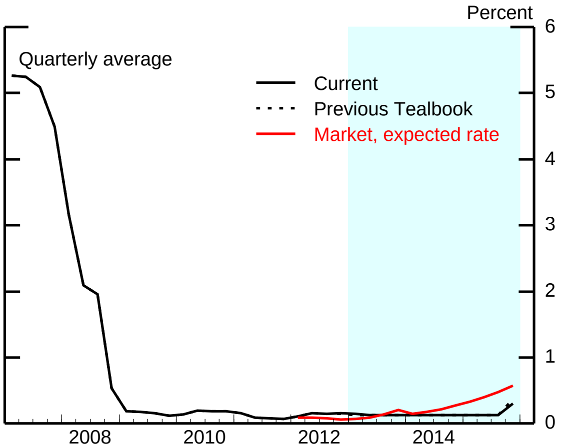
The broad contour of the medium-term projection for real GDP growth is essentially unchanged from the December Tealbook, as the revisions to the key background factors shaping our forecast have been small and largely offsetting. Moreover, although the legislation enacted at the turn of the year to address the "fiscal cliff" left several issues unresolved, the enacted policies were broadly consistent with our previous assumptions. We expect real GDP to increase 2¾ percent this year, 3¼ percent in 2014, and 3½ percent in 2015.

Despite the similar projection for real GDP, our path for the unemployment rate is a little lower in this projection, as we have interpreted the constellation of available evidence as suggesting that the current level of potential output is a bit lower than we had previously assumed (and hence the gap in resource utilization is slightly narrower than we earlier estimated). We now expect that the unemployment rate will decline from 7¾ percent at the end of 2012 to about 6¼ percent at the end of 2015, roughly ¼ percentage point below the path in the December Tealbook.

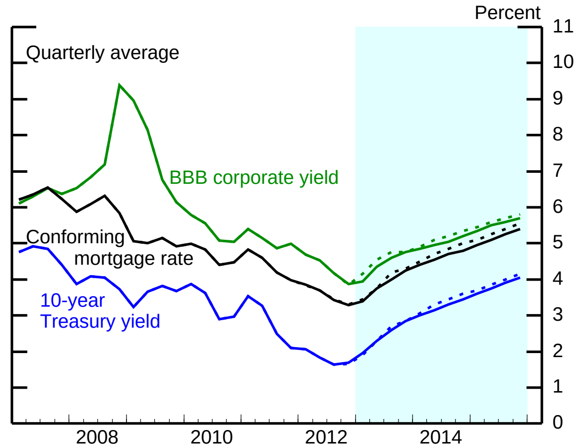
Readings on consumer prices have come in a bit softer than we had expected, but the fundamental inflation picture remains unchanged: With long-term inflation expectations assumed to remain well anchored and slack in resource utilization expected to persist for some time, inflation should remain subdued. In response to the gradual reduction in resource slack over the medium term, core PCE inflation is projected to edge up from 1.6 percent in 2013 to 1.7 percent in both 2014 and 2015, essentially unchanged

Key Background Factors underlying the Baseline Staff Projection

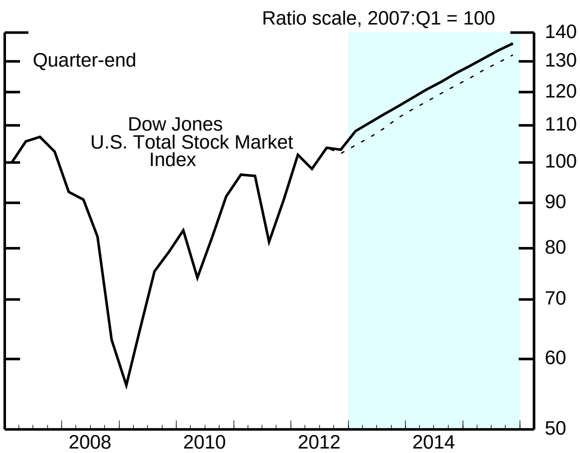
Federal Funds Rate



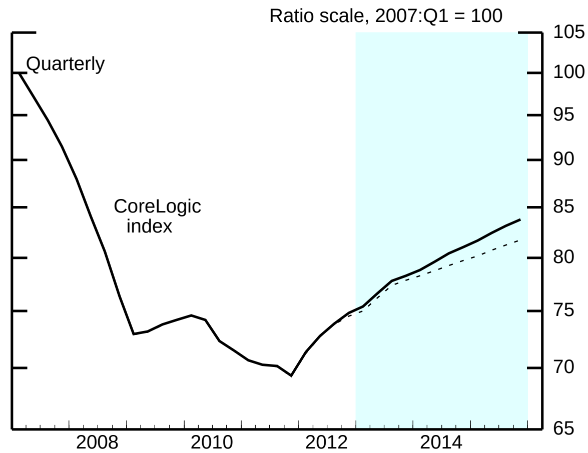
Long-Term Interest Rates



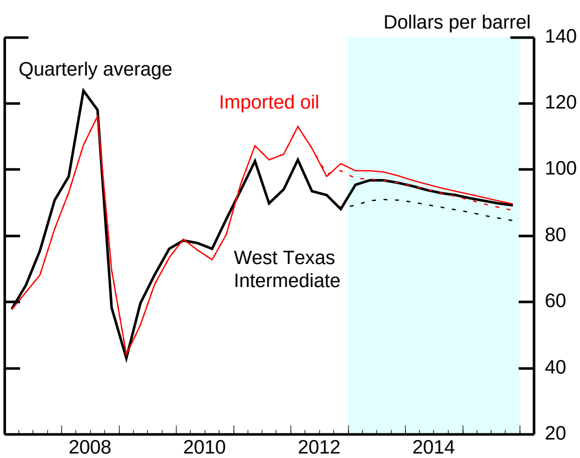
Equity Prices



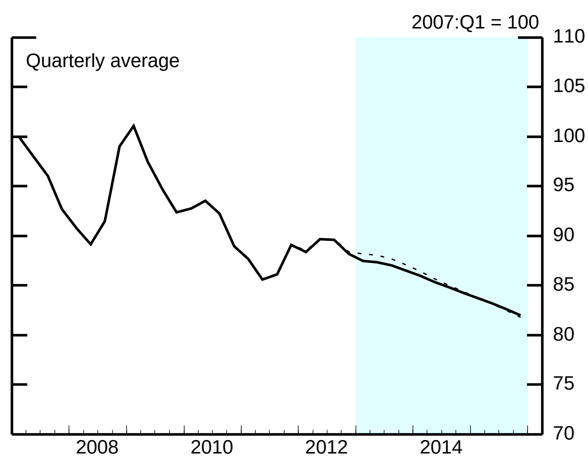
House Prices



Crude Oil Prices



Broad Real Dollar



from the December Tealbook. Total PCE inflation is projected to run a little below core inflation over the medium term as energy prices move down.

In this Tealbook, we have consolidated our discussion of recent developments and the outlook for the labor market and inflation into its own section, which begins on page 17.

Key Background Factors

Monetary Policy

We have adjusted our procedure for setting the federal funds rate trajectory in order to take on board the Committee's guidance in its December statement that the federal funds rate is likely to remain within the current target range of 0 to ¼ percent at least as long as the unemployment rate is above 6.5 percent and inflation between one and two years ahead is projected to be below 2.5 percent. Once either one of these thresholds is crossed, we assume that the federal funds rate will subsequently follow the prescriptions of an inertial version of the Taylor (1999) policy rule.[1] In the current staff forecast, the unemployment rate is below 6.5 percent in the fourth quarter of 2015, so we assume that tightening begins at the end of that year, the same as in the December Tealbook.

Our assumptions about the Federal Reserve's balance sheet are unchanged relative to the December Tealbook. We assume that the Federal Reserve will purchase about $85 billion of longer-term securities per month through June 2013. We also continue to assume that market participants anticipate a longer-lived asset purchase program with cumulative purchases approximately $500 billion higher than our expectations, and that they will gradually learn about the true size of the program during the first half of this year.

Other Interest Rates

The 10-year Treasury yield has increased about 25 basis points since the December Tealbook to a bit more than 1¾ percent. Broadly, this increase was about what we had expected, and we think it mostly reflects a combination of an abatement of investor concerns after the year-end fiscal negotiations and the ongoing movement of the 10-year valuation window through the period of extremely low short-term interest rates.

[1] This rule generates a path for the federal funds rate after mid-2015 that is similar to the one in the December projection.

We project that the yield on 10-year Treasury bonds will rise to about 4 percent in the fourth quarter of 2015, with a somewhat steeper trajectory earlier in the forecast period as investor risk appetite continues to strengthen and investors learn more about the dimensions of the LSAP program.

Yields on investment-grade corporate bonds have edged up only a few basis points since the December Tealbook, reducing their implied risk spread by about 20 basis points. We expect this spread to hold steady through much of 2013, and then to decrease about ½ percentage point by the end of 2015. Conventional 30-year mortgage rates have increased slightly from their December historical low of about 3¼ percent and are expected to rise in line with benchmark Treasury yields to about 5½ percent by the end of 2015.

Equity Prices and Home Prices

A broad index of U.S. stock prices has risen by more than 6½ percent since the December Tealbook, in line with the reduction in investor concerns and encouraging early reads on corporate earnings in the fourth quarter. Equity prices are projected to rise at an average annual rate of about 8 percent over the next three years. On average, the trajectory of equity prices is about 3¼ percent higher than in the December Tealbook.

Recent readings on home prices from CoreLogic, along with other house price indicators, have once again been a little stronger than our expectations, and we have boosted our projection of house price gains a bit throughout the medium-term forecast. In particular, we now forecast that house prices will rise 4½ percent in 2013 and then decelerate to a 3½ percent rate in 2014 and 2015 as higher mortgage rates weigh on housing affordability. At the end of 2015, the level of house prices is about 2½ percent higher than in the previous projection.

Fiscal Policy

The legislation enacted at the turn of the year settled many of the issues associated with the fiscal cliff. The box "Fiscal Policy Developments" describes the key provisions of the legislation and specifies the relatively small adjustments to our policy assumptions that we have made as a result. The key point is that we continue to expect fiscal policy to be a significant drag on economic growth over the projection period. As a result of the improving economy and fiscal consolidation, the federal budget deficit is projected to fall steadily over the projection period, from 7 percent of GDP ($1.1 trillion) in fiscal year 2012 to 3 percent of GDP ($550 billion) by fiscal 2015.

Fiscal Policy Developments

On New Year's Day, the Congress passed the American Taxpayer Relief Act (ATRA), which resolved a large portion of the federal tax and spending policy issues associated with the "fiscal cliff." The provisions of the act were roughly in line with the policy assumptions we had built into recent projections, but considerable uncertainty remains around several important issues that will need to be addressed in the next couple of months.

The new legislation made the 2001–03 tax cuts permanent for most taxpayers, extended the Emergency Unemployment Compensation (EUC) program and the 50 percent bonus depreciation provisions for one year, and increased income tax rates on top-income earners.[1] The new law is estimated to raise tax revenue about $40 billion in 2013 and roughly $600 billion over 10 years. The Congress also allowed the temporary payroll tax cut to expire, a move that is expected to increase revenue an additional $110 billion this year. Notably, the Congress did not resolve this year's scheduled spending sequestration but agreed to delay its implementation until March 1.

Overall, our current fiscal policy assumptions remain quite close to those in the December Tealbook, with the most important change reflecting the extension of the EUC program. With regard to the sequestration, we continue to assume that it will eventually be replaced by a more gradual amount of deficit reduction from a combination of lower spending and additional tax increases. As shown in the table below, the staff's measure of fiscal impetus is now projected to be a little less negative in 2013, largely as a result of the extension of the EUC program, and slightly more negative in 2014, as we assume that the EUC and the bonus depreciation provisions will be allowed to expire at the end of this year.

Although uncertainty about fiscal policy has diminished somewhat with the enactment of ATRA, it remains elevated, as protracted negotiations are likely to ensue on the contentious issues the act did not resolve. The Treasury is expected to be constrained by the current statutory federal debt limit sometime after mid-February, though the House leadership has proposed legislation suspending the debt ceiling until May. In March, in addition to addressing the spending sequestration, the Congress will also need to tackle the expiration of the continuing budget resolution, which appropriates funding for discretionary defense and nondefense programs. The results of the negotiations over these issues are highly uncertain and could have material effects on the staff forecast. For example, if the full sequestration were allowed to take hold, fiscal impetus would show a ½ percentage point greater drag on real GDP growth this year, compared with our current forecast. We expect that wrangling over the debt ceiling will adversely affect consumer and business confidence for a time and could unsettle financial markets; of course, an actual failure to raise the ceiling could have vastly worse consequences.

Total Fiscal Impetus

(Percentage point contributions to real GDP growth, calendar years)

Measure	2012	2013	2014	2015
Current	**-.3**	**-.8**	**-.5**	**-.2**
Previous	-.2	-1.1	-.4	-.2

Source: Staff estimates.

[1] Notably, for joint tax filers with income above $450,000 (and individual filers with income above $400,000), the top marginal tax rate on ordinary income increased from 35 percent to 39.6 percent and the tax rate on capital gains and dividends increased from 15 percent to 20 percent.

Foreign Activity and the Dollar

We currently estimate that foreign economic growth picked up in the fourth quarter of 2012, albeit to a still anemic annual rate of 2¼ percent. Disappointing data in the euro area and Canada were offset by stronger-than-expected indicators in Asia, especially China. We expect overall foreign growth to pick up further, to a pace of 3 percent in the first half of this year, supported by an acceleration of U.S. economic activity, further easing of financial stresses in Europe, a continued strengthening of growth in emerging markets, and generally accommodative monetary policies abroad. The projected easing of fiscal and financial pressures should enable the European recovery to gain traction over the remainder of the forecast period, which helps push foreign growth up to about 3½ percent in 2014 and 2015. We revised up somewhat our projection of foreign activity for 2013, in light of more momentum in the Chinese economy, greater policy stimulus in Japan, and less stressed financial conditions in Europe than we foresaw in December. For the remainder of the forecast period, our outlook is about unchanged.

The broad nominal dollar has declined a bit on net since the time of the December Tealbook, as a modest depreciation against most currencies was partly offset by an 8 percent appreciation against the Japanese yen. We continue to assume that downward revisions over the next few months in market expectations for the Federal Reserve's asset purchases will put some upward pressure on the level of the dollar this year. Over the forecast period as a whole, however, we expect the broad real dollar to depreciate at about a 2½ percent average annual rate. This pace of depreciation is slightly less than projected in the previous Tealbook, as the recent improvement in European financial conditions has brought forward some of the reversal in safe-haven flows that we had expected would take place later in the forecast period.

Oil and Other Commodity Prices

Oil prices are revised up slightly in this projection. The spot price of Brent crude oil closed at about $113 per barrel on January 22, about $2 per barrel higher than in the December Tealbook. The price of West Texas Intermediate (WTI) crude oil has increased about $7 per barrel from the December Tealbook, moving the price of WTI toward the Brent price, as recent pipeline expansions have better integrated the mid-continent oil market with the Gulf Coast and global markets. Our forecast for the price of imported oil has been revised up by $2 per barrel since the December Tealbook. Overall, the price of imported oil is projected to remain at about $100 per barrel for much of 2013 and then slowly decline over the remainder of the forecast period, reaching $90 per barrel at the end of 2015.

Nonfuel commodity prices have increased on net relative to the previous Tealbook, as higher prices for some metals were only partly offset by falling prices for agricultural products. Prices for tin and iron ore have risen sharply, reflecting improvements in Chinese demand and some supply disruptions. Meanwhile, a better-than-expected supply outlook has pushed down agricultural prices, extending their retreat from the drought-induced peak in mid-2012. Nonfuel commodity prices are projected to remain relatively flat through 2015.

Recent Developments and the Near-Term Outlook for Real GDP

As noted earlier, weak readings in the erratic categories of defense spending, inventories, and net exports help inform our estimate that real GDP was about flat in the fourth quarter, rather than rising 1 percent, as in the December projection. In contrast, private domestic final purchases appear to have risen at an annual rate of 3½ percent last quarter, somewhat faster than in our previous forecast. In the first quarter, we now project that real GDP growth will step up to a 2¾ percent pace despite the drag imposed by the end of the payroll tax holiday; growth this quarter should be boosted by a rebound in farm output from last summer's drought and a recovery in activity that had been depressed by the hurricane. Relative to our December projection, the forecast for real GDP growth in the first quarter has been revised up about 1 percentage point, mostly reflecting the extension of EUC benefits.

Household Spending

Real PCE appears to have increased about 2¼ percent in the fourth quarter of last year—about as expected in our December Tealbook projection. Sales of light motor vehicles rose to an annual rate of 15 million units last quarter, and real spending in the retail sales group also posted a solid gain. In contrast, the growth in services spending has been weak and uneven. In the current quarter, we expect real PCE growth to slow somewhat to a 1¾ percent pace as households begin to adjust their spending in light of the substantial increase in payroll and income taxes. Relative to the December Tealbook, our forecast of real PCE growth in the first quarter is up about 1 percentage point, as that earlier projection had not assumed an extension of EUC benefits.

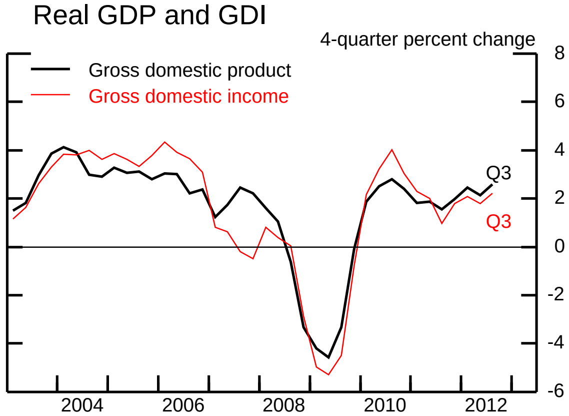
Summary of the Near-Term Outlook
(Percent change at annual rate except as noted)

Measure	2012:Q4 Previous Tealbook	2012:Q4 Current Tealbook	2013:Q1 Previous Tealbook	2013:Q1 Current Tealbook	2013:Q2 Previous Tealbook	2013:Q2 Current Tealbook
Real GDP	**.9**	**.1**	**1.7**	**2.7**	**2.5**	**2.4**
Private domestic final purchases	2.9	3.4	1.1	2.1	3.7	3.5
Personal consumption expenditures	2.1	2.2	.6	1.7	2.6	2.6
Residential investment	14.8	13.1	17.0	15.0	22.6	25.1
Business fixed investment	5.4	9.6	1.1	2.2	6.4	5.0
Government purchases	-3.5	-5.6	-1.8	-1.1	-1.5	-1.5
Contributions to change in real GDP						
Inventory investment[1]	-.8	-1.4	.9	.9	-.3	-.2
Net exports[1]	.0	-.2	.2	.2	.1	.0
Unemployment Rate[2]	**8.0**	**7.8**	**7.9**	**7.8**	**7.9**	**7.7**
PCE Chain Price Index	**1.5**	**1.2**	**1.1**	**.9**	**1.4**	**1.9**
Ex. food and energy	1.2	.8	1.7	1.6	1.6	1.7

1. Percentage points.
2. Percent.

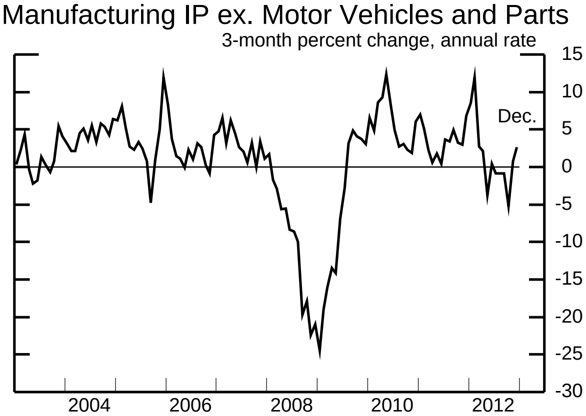
Recent Nonfinancial Developments (1)

Real GDP and GDI



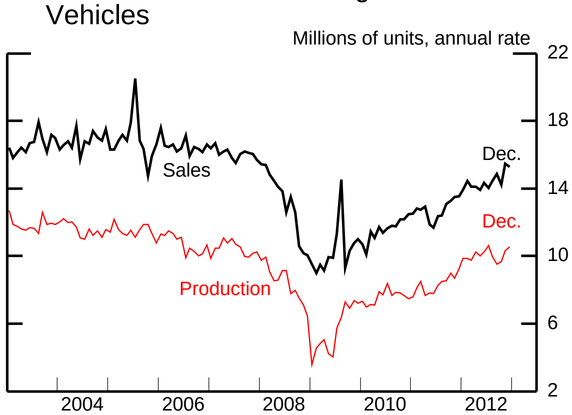
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Manufacturing IP ex. Motor Vehicles and Parts



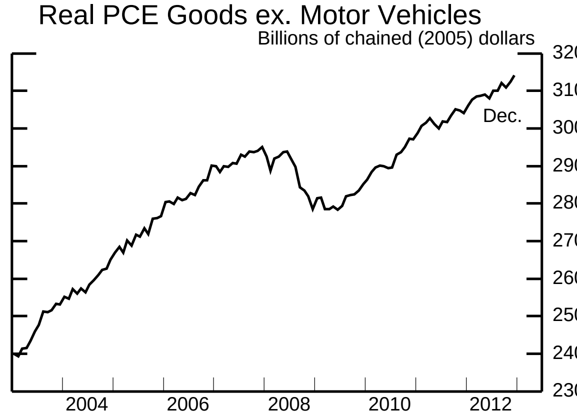
Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Sales and Production of Light Motor Vehicles



Source: Ward's Auto Infobank.

Real PCE Goods ex. Motor Vehicles



Note: Figures for October, November, and December 2012 are staff estimates based on available source data.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Although the recent data on residential construction have been a little stronger, on net, than we had expected, we suspect that most of the upside surprise reflects the unusually warm weather in December. Following a slight dip in November, single-family housing starts rose about 8 percent to an annual rate of approximately 620,000 units in December, about 30,000 higher than we anticipated. By contrast, permits—which provide a better gauge of the underlying pace of new construction and, in particular, are less sensitive to weather anomalies—have increased more gradually. Meanwhile, new and existing home sales have continued to pick up, indicators of homebuilder and realtor sentiment have improved substantially, and—as noted earlier—house prices have risen from their lows in late 2011. All told, we project single-family starts to average about 610,000 units in the first quarter, just a bit below the outsized December reading.

Some of the factors restraining home purchases have fueled demand for rental units, leading to falling vacancy rates and rising rents in the multifamily sector. In response, multifamily starts and permits have trended up relatively strongly. Although we do not expect the spike in multifamily starts in December to be sustained, we do expect to see continued growth in this sector as the supportive fundamentals persist.

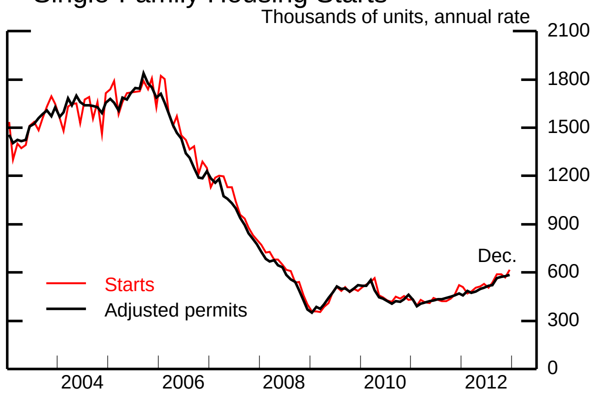
Business Investment

After falling at an annual rate of about 2½ percent in the third quarter, real business spending on equipment and software (E&S) appears to have risen about 14 percent in the fourth quarter. Although the expected expiration of the 50 percent bonus depreciation at the end of last year may have contributed slightly to the sharp turnaround in spending, experience from previous episodes suggests that this factor was not of primary importance. Smoothing through the recent volatility, real E&S spending increased only about 5 percent over the second half of last year, similar to the pace in the first half. We project spending to rise only modestly this quarter, reflecting both the sluggish growth in business output and some continued caution on the part of businesses in response to uncertainty about the European crisis and the U.S. fiscal situation. On balance, forward-looking indicators of business investment appear consistent with continued moderate gains in near-term spending: Although the ISM nonmanufacturing index of business conditions has improved, the manufacturing index remains subdued, and indicators of capital spending plans remain at low levels.

Incoming data suggest that investment in nonresidential structures outside of drilling and mining fell about 2½ percent in the fourth quarter, similar to the pace of

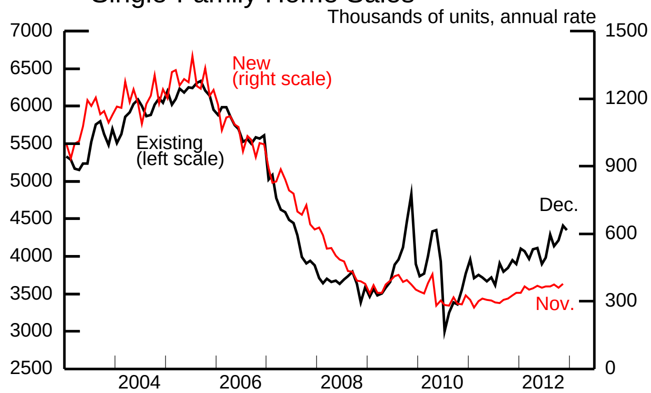
Recent Nonfinancial Developments (2)

Single-Family Housing Starts



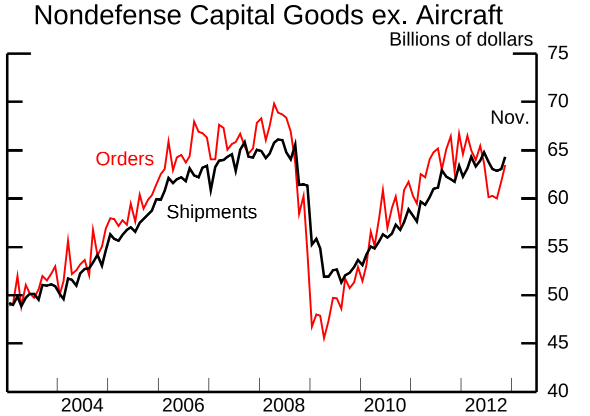
Note: Adjusted permits equal permits plus starts outside of permit-issuing areas.
Source: U.S. Census Bureau.

Single-Family Home Sales



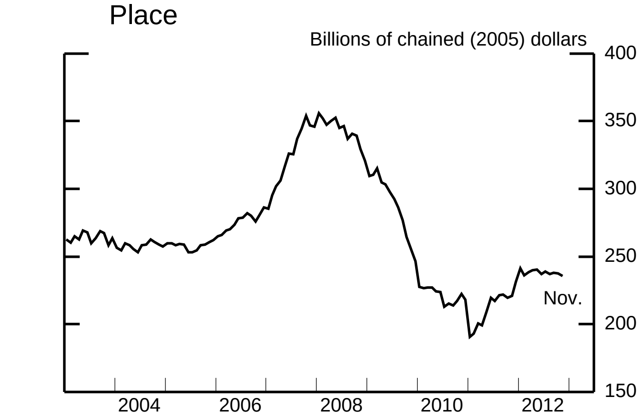
Source: For existing, National Association of Realtors; for new, U.S. Census Bureau.

Nondefense Capital Goods ex. Aircraft



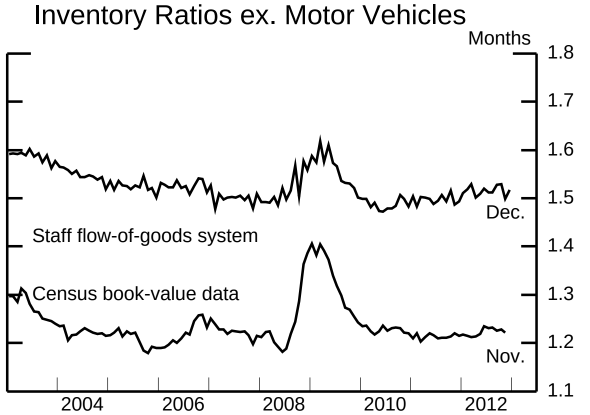
Source: U.S. Census Bureau.

Nonresidential Construction Put in Place



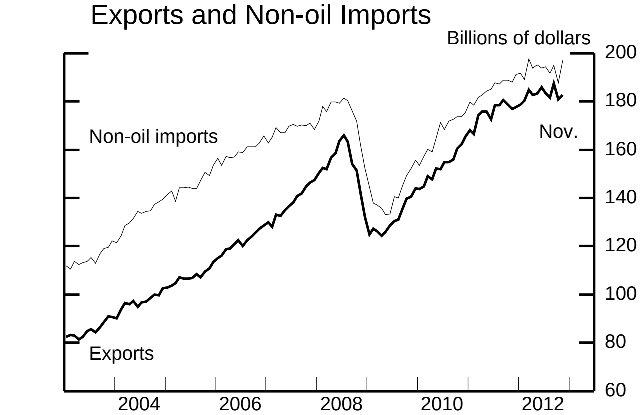
Note: Nominal CPIP deflated by BEA prices through 2012:Q2 and by staff's estimated deflator thereafter.
Source: U.S. Census Bureau.

Inventory Ratios ex. Motor Vehicles



Note: Flow-of-goods system covers total industry ex. motor vehicles and parts, and inventories are relative to consumption. Census data cover manufacturing and trade ex. motor vehicles and parts, and inventories are relative to sales.
Source: U.S. Census Bureau; staff calculation.

Exports and Non-oil Imports



Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; U.S. Census Bureau.

decline in the third quarter. Although we anticipate a small boost to this category of investment from rebuilding after Hurricane Sandy, high vacancy rates and low commercial real estate prices should continue to weigh on investment. Moreover, although there are hints of easing in financing conditions for existing commercial real estate, credit availability for new construction remain tight. All told, nonresidential investment (excluding drilling and mining) is projected to increase only modestly in the near term, in line with leading indicators like the architectural billings index, which has improved lately but remains in neutral territory.

In the drilling and mining sector, investment flattened out in 2012 after posting strong gains in the prior two years. While new drilling techniques and relatively high crude oil prices have kept spending at an elevated level, the decline in natural gas prices has restrained it from moving even higher. We expect outlays for drilling and mining structures to increase modestly in the near term, in line with the projected trajectories of oil and natural gas prices.

After an unusually large increase in the third quarter, real inventory investment in the nonfarm business sector appears to have slowed sharply in the fourth, subtracting nearly 1½ percentage points from the rise in real GDP. Estimates from the staff's flow-of-goods system, book-value measures of inventory-to-sales ratios, reports on dealer inventories of motor vehicles, and surveys of inventory satisfaction all point to stocks that are fairly well aligned with sales. Accordingly, we expect nonfarm inventory investment to have a relatively neutral influence on GDP growth in the current quarter.

Government

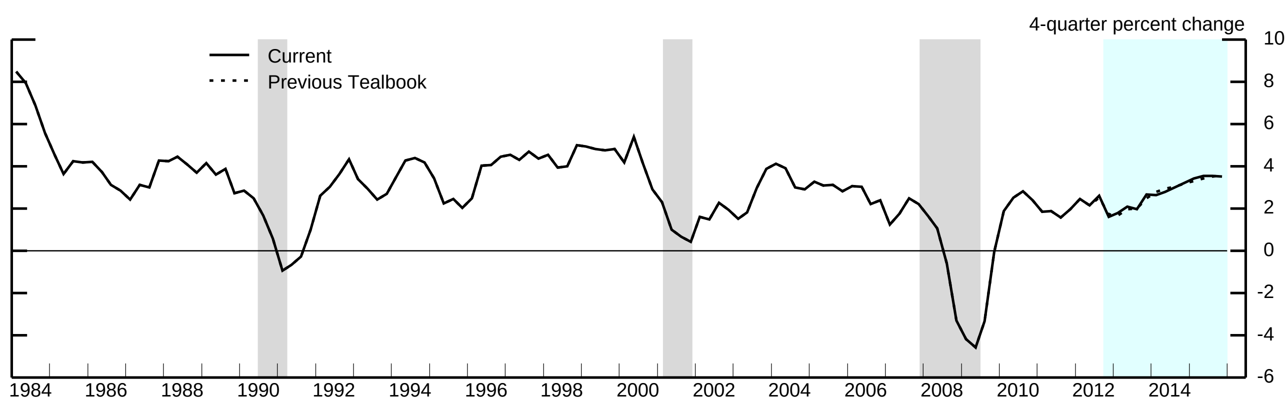
The contraction in the state and local sector continues to abate. After having declined at an annual rate of about 1½ percent in the first half of 2012, we estimate that real state and local purchases edged down just ¼ percent in the second half. We expect real purchases to be about flat in the current quarter, as budget conditions continue to slowly improve.

The defense outlays reported in recent *Monthly Treasury Statement*s suggest that real federal purchases plunged in the fourth quarter, more than reversing the anomalous jump in the third quarter. For 2012 as a whole, we estimate that real federal purchases fell about 2 percent, and we anticipate a similar decline in the first quarter.

Projections of Real GDP and Related Components
(Percent change at annual rate from final quarter
of preceding period except as noted)

Measure	2011	2012 H1	2012 H2	2013	2014	2015
Real GDP	**2.0**	**1.6**	**1.6**	**2.7**	**3.2**	**3.5**
Previous Tealbook	2.0	1.6	1.8	2.5	3.2	3.6
Final sales	1.7	2.1	1.9	2.5	3.0	3.5
Previous Tealbook	1.7	2.1	1.8	2.3	3.1	3.6
Personal consumption expenditures	1.9	2.0	1.9	2.3	3.3	3.5
Previous Tealbook	1.9	2.0	1.8	2.2	3.3	3.6
Residential investment	3.9	14.3	13.3	17.9	12.7	13.8
Previous Tealbook	3.9	14.3	14.3	16.8	11.8	12.7
Nonresidential structures	6.9	6.6	-.2	4.2	2.5	2.1
Previous Tealbook	6.9	6.6	.4	2.9	2.5	2.1
Equipment and software	11.4	5.1	5.3	5.7	5.8	6.0
Previous Tealbook	11.4	5.1	2.0	6.1	7.0	6.2
Federal purchases	-4.2	-2.3	-2.1	-3.9	-4.9	-3.3
Previous Tealbook	-4.2	-2.3	.0	-4.5	-4.3	-2.3
State and local purchases	-2.7	-1.6	-.2	.3	.9	1.2
Previous Tealbook	-2.7	-1.6	.3	.3	.9	1.2
Exports	4.3	4.8	-1.3	5.3	6.1	7.1
Previous Tealbook	4.3	4.8	2.1	5.1	5.9	7.3
Imports	3.5	2.9	-1.5	3.9	4.8	5.3
Previous Tealbook	3.5	2.9	1.3	3.8	4.8	5.2
	Contributions to change in real GDP (percentage points)					
Inventory change	.3	-.4	-.3	.2	.2	.0
Previous Tealbook	.3	-.4	.0	.2	.1	.0
Net exports	.0	.1	.1	.1	.0	.1
Previous Tealbook	.0	.1	.1	.0	.0	.1

Real GDP



Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Foreign Trade

International trade data for October and November suggest that both exports and imports in the final quarter of last year were much weaker than we had been expecting in the December Tealbook. We now estimate that real exports of goods and services fell at an annual rate of 4½ percent in the fourth quarter of 2012, dragged down, in part, by a continued falloff in exports to the euro area. We expect export growth to rebound in the first quarter of this year to an annual rate of 5¼ percent, a pace more in line with our projections for the dollar and foreign activity. Real imports of goods and services are now estimated to have fallen 2½ percent in the fourth quarter, a second consecutive quarter of decline. As with exports, imports were weaker than their key determinants—U.S. GDP and the dollar—would have implied, and we anticipate import growth to bounce back to a 3 percent pace in the first quarter of 2013. We estimate that, in all, the external sector subtracted ¼ percentage point from GDP growth in the fourth quarter, compared with a neutral contribution in the December Tealbook, and that it will add ¼ percentage point to growth in the first quarter.

The Industrial Sector

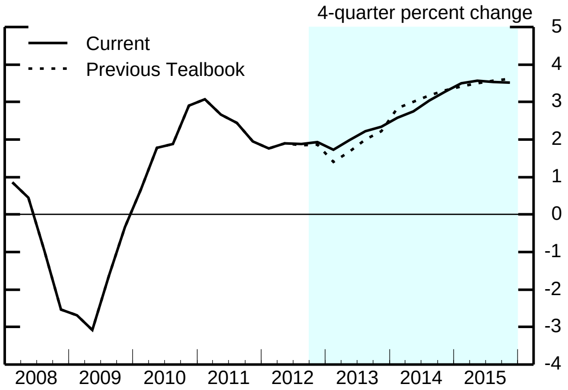
Manufacturing production, which fell sharply in October because of Hurricane Sandy, rebounded in November and December to a level that was a bit more robust than we had expected in the December Tealbook; the upward surprise likely reflected, in part, a larger boost to production from rebuilding efforts and the warm weather last month. Most of our near-term indicators of production—including the new orders indexes from regional manufacturing surveys—suggest little change in factory output in coming months. Nevertheless, a strong reading for manufacturing IP in December sets up a robust first quarter, with factory output now expected to rise at an annual rate of 4 percent following three quarters of little change. This projection is about 1 percentage point stronger than in the December Tealbook.

The Medium-Term Outlook for Real GDP

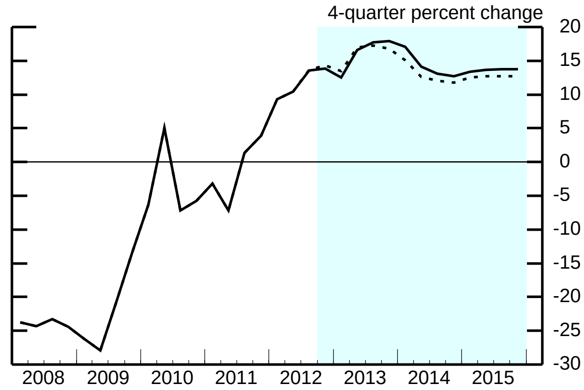
The broad contour of the medium-term projection for real GDP growth is the same as in the December Tealbook, as the revisions to our fiscal policy assumptions affect only the timing of the projected recovery and the changes to our other conditioning assumptions are small and offsetting. As in previous Tealbooks, we are projecting real GDP to accelerate over the forecast period, supported by further improvements in financial conditions, an easing of the financial crisis in Europe, a reduction of uncertainty related to fiscal policy at home, and rising household and business confidence. Even so,

Components of Final Demand

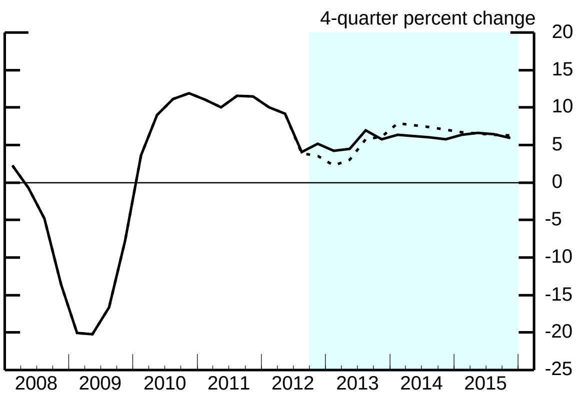
Personal Consumption Expenditures



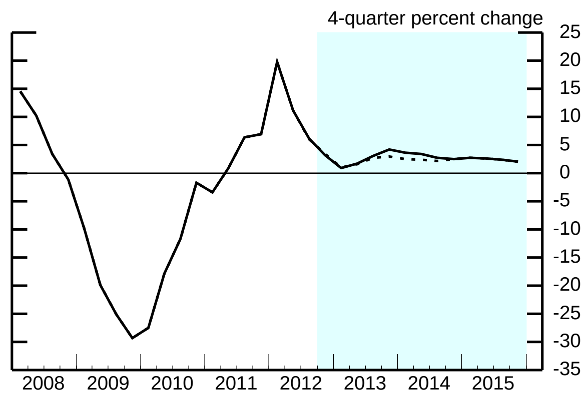
Residential Investment



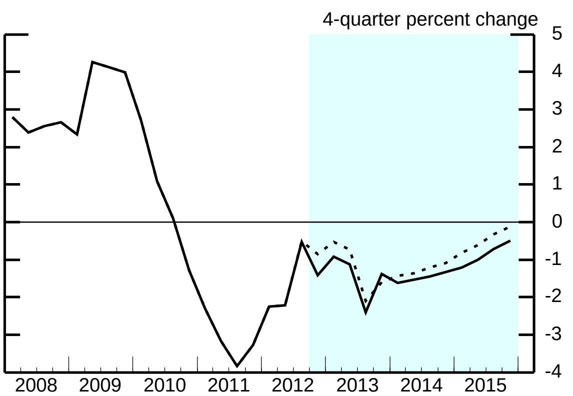
Equipment and Software



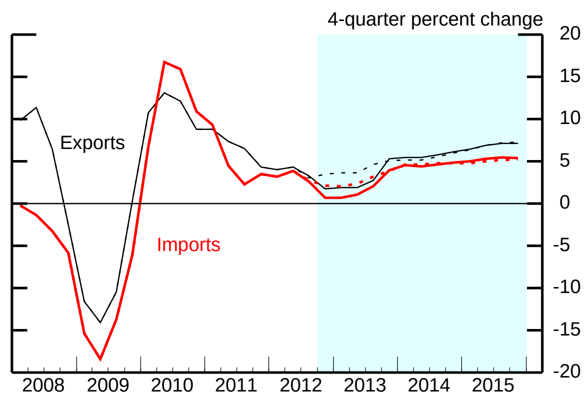
Nonresidential Structures



Government Consumption & Investment



Exports and Imports



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

we continue to anticipate that several headwinds will restrain the pace of economic activity over the medium term, including fiscal policy that will remain restrictive (even if less uncertain) and still-tight credit conditions for some households and businesses. All told, real GDP is projected to increase 2¾ percent this year, 3¼ percent in 2014, and 3½ percent in 2015. Relative to the December projection, growth is a bit stronger in 2013 and a bit weaker in 2015, leaving the level of real GDP at the end of 2015 essentially unchanged from the December Tealbook.

Part of the fiscal restraint in our forecast is reflected in the projected contraction in government purchases. In particular, after falling an estimated 2 percent in 2012, real federal expenditures are expected to decline at an average pace of 4 percent per year over the next three years, owing to ongoing fiscal consolidation efforts and the winding down of overseas military operations. Meanwhile, despite slowly improving budget conditions, growth in the real purchases of state and local governments is projected to remain sluggish throughout the medium term, averaging less than 1 percent per year.

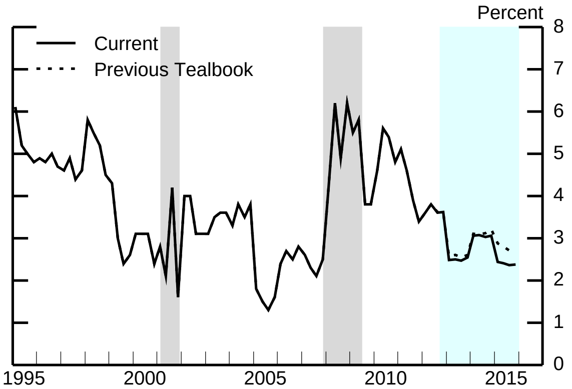
Another significant part of the drag from fiscal policy shows through in the form of restraint on the growth of the after-tax incomes of households and hence their spending. The main elements of this restraint are the expiration of the temporary payroll tax cut that has now gone into effect, an increase in income taxes—including both the already enacted taxes on high-income households and some additional tax increases that we assume will be enacted as part of an agreement to replace the automatic sequestration—and the eventual expiration of the EUC program.[2] Despite this significant fiscal restraint, we are projecting a solid recovery in consumer spending, as the drag from fiscal policy is more than offset by rising household wealth, increasing consumer confidence, and an improving labor market. In total, real PCE is expected to rise 2¼ percent this year before stepping up to an average pace of about 3½ percent per year in 2014 and 2015; this projection is little changed, on net, from the December Tealbook.

Growth in residential construction spending is projected to benefit from the same factors that are supporting consumer spending, including increasing confidence and rising income and wealth. However, these effects are offset to some extent by the substantial increase in mortgage interest rates that we project over the medium term as well as by a continued tight supply of mortgage credit to borrowers with lower credit scores. Moreover, although the homeowner vacancy rate has declined noticeably, the stock of

[2] As noted previously, the one-year extension of EUC benefits changes the timing of the fiscal restraint relative to our earlier assumptions but not its overall magnitude.

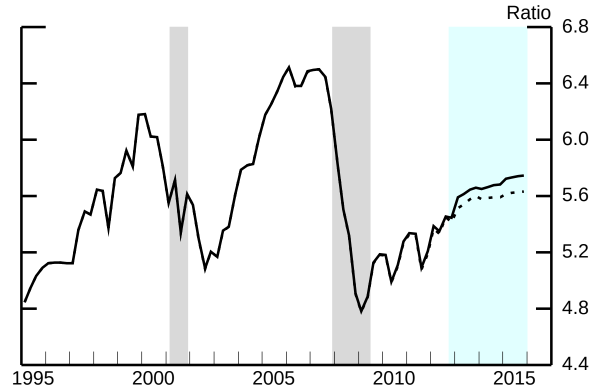
Aspects of the Medium-Term Projection

Personal Saving Rate



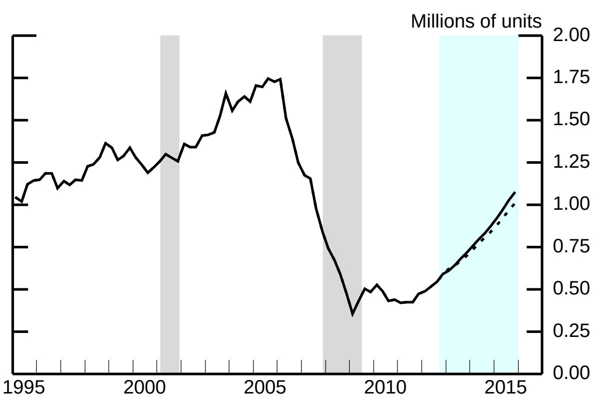
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Wealth-to-Income Ratio



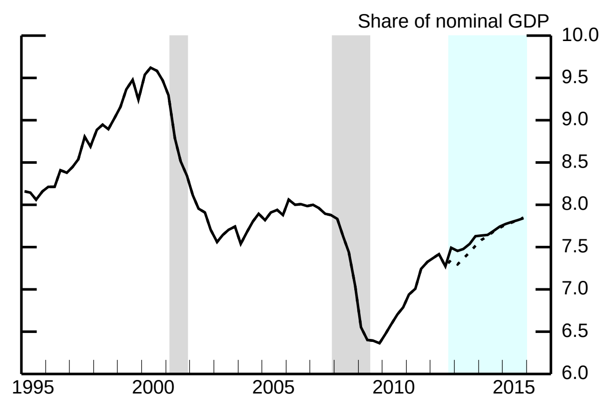
Note: Household net worth as a ratio to disposable personal income.
Source: For net worth, Federal Reserve Board, flow of funds data; for income, Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



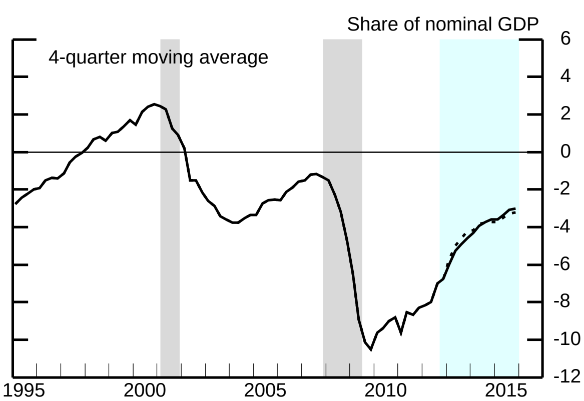
Source: U.S. Census Bureau.

Equipment and Software Spending



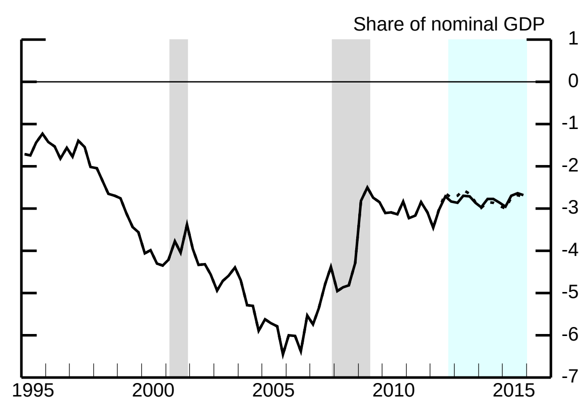
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Federal Surplus/Deficit



Source: *Monthly Treasury Statement*.

Current Account Surplus/Deficit



Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

vacant homes held off the market remains quite elevated. Once put on the market, this "shadow" inventory, which includes many bank-owned properties, may redirect some demand from new construction to existing homes, although the magnitude and timing of this effect are quite uncertain. As a result, we expect the recovery in residential construction to take place gradually. Although residential investment is projected to increase an average of 15 percent per year over the medium term, the pace of total housing starts rises only to about 1.5 million units in 2015, still below its long-run trend.

The external sector is expected to be about neutral for real GDP growth over the medium term. Both exports and imports are projected to accelerate, reflecting strengthening economic growth at home and abroad, while the dollar's expected depreciation helps support exports over imports. Our projection for net exports is essentially unrevised from the December Tealbook.

With rising demand emanating from the consumer and foreign sectors, and with businesses' concerns about Europe and the U.S. fiscal situation anticipated to wane over time, we project a slight acceleration in real E&S spending, from about 5¼ percent in 2012 to an average of about 6 percent over the medium term. We are projecting a modest rise in nonresidential building investment, as we expect only very gradual improvement in vacancy rates, commercial real estate prices, and credit availability.

THE OUTLOOK FOR LABOR MARKETS AND INFLATION

On the whole, conditions in the labor market appear to have improved at a somewhat faster pace in the past couple of months than we had expected in the December Tealbook. Increases in private payroll employment averaged 180,000 per month in the fourth quarter of 2012, a little above our expectation in the previous forecast, although government employment came in a little softer than expected. In addition, the unemployment rate declined to 7.8 percent in November and held steady at that rate in December, whereas we had projected it to be 8 percent in both months.[3] Meanwhile, the average workweek moved up from 34.3 hours in October to 34.5 hours in December, also a little higher than we had anticipated. In contrast, the labor force participation rate fell to 63.6 percent in November and was unchanged in December, whereas we had expected it to stay flat at 63.8 percent in both months. Given these labor market readings and our

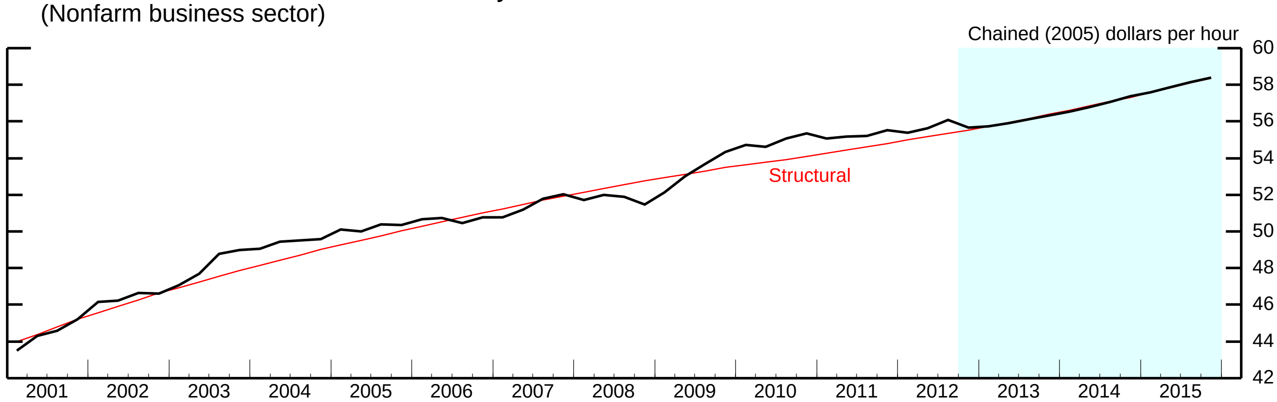
[3] At the end of each calendar year, the BLS updates the seasonal-adjustment factors for the household survey. The latest update caused the unemployment rate in November to be revised from 7.7 percent to 7.8 percent.

Decomposition of Potential GDP
(Percent change, Q4 to Q4, except as noted)

Measure	1974-1995	1996-2000	2001-2010	2011	2012	2013	2014	2015
Potential real GDP	3.0	3.4	2.2	1.5	1.8	1.9	2.1	2.1
Previous Tealbook	3.0	3.4	2.2	1.5	1.8	2.0	2.1	2.2
Selected contributions[1]								
Structural labor productivity	1.4	2.6	2.1	1.3	1.4	1.5	1.7	1.8
Previous Tealbook	1.4	2.6	2.1	1.3	1.4	1.6	1.7	1.8
Capital deepening	.7	1.5	.7	.4	.5	.6	.7	.8
Previous Tealbook	.7	1.5	.7	.4	.5	.6	.7	.8
Multifactor productivity	.5	.8	1.2	.8	.8	.8	.9	.9
Previous Tealbook	.5	.8	1.2	.8	.9	.9	.9	.9
Structural hours	1.5	1.0	.6	.5	.6	.6	.6	.6
Previous Tealbook	1.5	1.0	.6	.5	.6	.6	.6	.7
Labor force participation	.4	.0	-.3	-.4	-.3	-.3	-.3	-.3
Previous Tealbook	.4	.0	-.3	-.4	-.3	-.3	-.3	-.4
Memo:								
GDP gap[2]	-2.4	1.9	-4.2	-3.8	-4.0	-3.3	-2.2	-.9
Previous Tealbook	-2.4	1.9	-4.2	-4.0	-4.1	-3.6	-2.6	-1.3

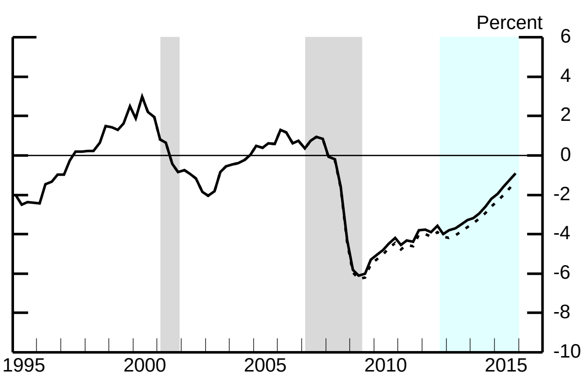
Note: For multiyear periods, the percent change is the annual average from Q4 of the year preceding the first year shown to Q4 of the last year shown.
1. Percentage points.
2. Percent difference between actual and potential GDP in the final quarter of the period indicated. A negative number indicates that the economy is operating below potential.

Structural and Actual Labor Productivity
(Nonfarm business sector)



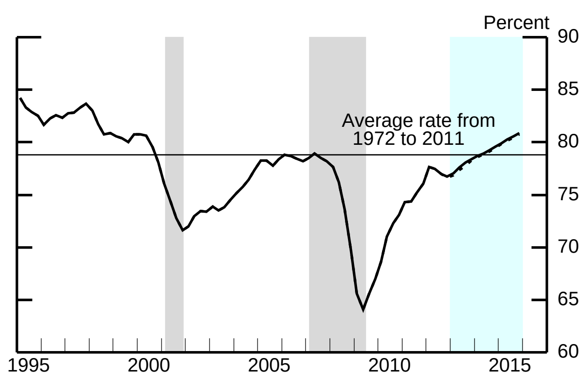
Source: U.S. Department of Labor, Bureau of Labor Statistics; Bureau of Economic Analysis; and staff assumptions.

GDP Gap



Note: The GDP gap is the percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.
Source: U.S. Dept. of Commerce, BEA; staff assumptions.

Manufacturing Capacity Utilization Rate



Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

estimate of real GDP growth, it appears that labor productivity in the fourth quarter of 2012 was lower than we had expected in the December Tealbook.

Potential GDP and the Natural Rate of Unemployment

The decline in the unemployment rate since mid-2012 in the face of relatively modest output gains led us to make some further small modifications to our supply-side assumptions; these revisions help to alleviate the tension between our estimates of the GDP gap and the unemployment gap. (See the box "The Recent Decline in the Unemployment Rate" for further discussion.)

We made two adjustments. First, we revised down our estimates of structural productivity over the past several years by enough to lower the level of potential output by ¼ percent at the end of 2012. We carried forward some of this slower productivity growth into this year, trimming potential output growth by roughly 0.1 percentage point in 2013. Second, the faster-than-expected decline in the unemployment rate led us to reconsider our path for the natural rate of unemployment. We have assumed for some time that the natural rate was boosted during the recession by mismatches between labor demand and labor supply, and that, when the labor market strengthened sufficiently, the natural rate would begin to fall back toward its pre-recession level. In previous Tealbooks, we assumed that this decline in the natural rate would not begin until 2015. However, some indications of declines in mismatch, while not conclusive, now hint at the possibility that the natural rate has already started to decline.[4] Accordingly, we have nudged our estimates in that direction. In particular, although we have continued to assume that the natural rate reaches 5¾ percent by the end of 2015 (and decreases further thereafter), we now assume that a very gradual decline began in 2012, which helps to account for last year's drop in the unemployment rate.

[4] See, for example, the recent papers by Lazear and Spletzer (Edward P. Lazear and James R. Spletzer (2012), "The United States Labor Market: Status Quo or a New Normal?" paper delivered at "The Changing Policy Landscape," a symposium sponsored by the Federal Reserve Bank of Kansas City, held in Jackson Hole, Wyo., August 30–September 1) and Şahin, Song, Topa, and Violante (Ayşegül Şahin, Joseph Song, Giorgio Topa, and Giovanni L. Violante (2012), "Mismatch Unemployment," NBER Working Paper Series 18265 (Cambridge, Mass.: National Bureau of Economic Research, August)). That said, other analyses we look to for guidance on the evolution of the natural rate, such as the decomposition of the Beveridge curve by Barnichon and Figura (Regis Barnichon and Andrew Figura (2012), "The Determinants of the Cycles and Trends in U.S. Unemployment," unpublished paper, Board of Governors of the Federal Reserve System, Division of Research and Statistics, October) and the staff's state-space model, do not yet show any decline in the natural rate.

The Recent Decline in the Unemployment Rate

During the second half of last year, the unemployment rate declined nearly ½ percentage point, from an average of 8.2 percent in the second quarter to an average of 7.8 percent in the fourth quarter. (See the top figures of the "Labor Market Developments and Outlook" exhibit.) In our view, this decline in the unemployment rate reflects an improvement in labor market conditions, as it was accompanied by relatively solid gains in payroll employment (the bottom figures). However, this improvement in the labor market appears at odds with the tepid pace of real GDP growth in the second half evaluated against our December Tealbook assumptions for potential output growth and the natural rate of unemployment. What might account for this discrepancy?

One possible explanation is that our supply-side assumptions in the December Tealbook were wrong. Indeed, we cannot observe either potential output or the natural rate of unemployment, and we must instead infer them from the joint behavior of the unemployment rate and real GDP as well as other indicators. The observed decline in unemployment—along with some evidence suggesting that labor market mismatch might be beginning to improve—was an important factor causing us to think that the natural rate may be starting to reverse the modest increase that we think occurred during the recession. We now assume that the natural rate began to edge down in 2012 and will continue to decline slowly to reach 5¾ percent at the end of 2015, the same level as in the December Tealbook. In addition, we made a further downward adjustment to our estimate of structural productivity growth in recent years, which is how we had typically resolved these discrepancies in previous Tealbooks. All told, after taking into account our new supply-side assumptions—and also the staff's estimates of the effects on the unemployment rate of the decline in the number of people receiving emergency and extended Unemployment Insurance benefits—GDP growth appears consistent with much, but not all, of the decline in the unemployment rate during the second half of last year.

To be sure, misalignments between unemployment and real GDP growth are relatively commonplace, and we did not feel compelled to make large enough revisions to our supply-side assumptions to fully eliminate the discrepancy. For one thing, some of the discrepancy may reflect changes in labor supply, such as labor force exits by unemployed workers who have become discouraged by their job prospects. In addition, real GDP is subject to considerable measurement errors, and, importantly, the Bureau of Economic Analysis has not yet published an estimate for the fourth quarter. Finally, it is possible that the unemployment rate has "gotten ahead of itself," and we could see unemployment coming down a bit less over the medium term than one might have otherwise predicted in response to the projected narrowing of the GDP gap. For these reasons, our projection for continuing declines in the unemployment rate through the medium term depends crucially on our anticipated pickup in real GDP growth.

The Outlook for the Labor Market and Productivity

Given our revision to the level of structural productivity, the level of actual productivity in the fourth quarter stood about ½ percent above our estimate of its longer-run trend, suggesting that firms continue to be stressing their workforces in a way that they will not be able to sustain over the medium term. As in previous projections, we expect firms to step up their hiring to reduce these pressures as they become less apprehensive about the economic outlook.

Our projected path for gains in private payroll employment reflects this fading apprehension as well as the anticipated acceleration in real GDP. In particular, we expect private job gains to step up from 160,000 per month in the current quarter to about 170,000 per month in the second half of this year.[5] As real GDP accelerates further after 2013, net hiring continues to strengthen to about 200,000 per month in 2014 and 250,000 per month in 2015. With this pace of hiring, the unemployment rate falls throughout the projection period, dropping below the Committee's threshold of 6½ percent on a quarterly average basis in the fourth quarter of 2015.

The top-right figure of the "Labor Market Developments and Outlook" exhibit compares our unemployment projection with our projection from September 2012, when the Committee first tied its asset purchase decisions to an improvement in the outlook for labor market conditions. Since last September, we have revised down our forecast for the unemployment rate by 0.4 percentage point, on average, both over the second half of 2013 and over the whole of next year.[6] By the fourth quarter of 2014, we now have the unemployment rate reaching 7.1 percent, down from the 8.1 percent rate that prevailed last August, the latest reading available to the Committee at the time of the September FOMC meeting. Meanwhile, as shown in the middle-right figure in the exhibit, the outlook for payroll employment growth has changed relatively little.

Resource Utilization

Labor market slack is expected to persist throughout the medium-term forecast, with the unemployment rate at the end of 2015 still ½ percentage point above our

[5] The slight deceleration in job growth in the first quarter relative to the fourth quarter largely reflects distortions to seasonal adjustments because of the timing of the recession, which we think exaggerated the reported pace of job growth in the fourth quarter. Adjusting for this distortion would lower average employment growth in the fourth quarter to about 160,000 per month.

[6] Because we now assume that the decline in the natural rate of unemployment begins in 2012 rather than 2015, the revision to the forecast of the unemployment rate slightly overstates the revision in the projection of labor market slack during the intervening quarters.

The Outlook for the Labor Market
(Percent change from final quarter of preceding period at annual rate)

Measure	2011	2012		2013	2014	2015
		H1	H2			
Output per hour, nonfarm business	.6	.7	.1	1.2	1.8	1.8
Previous Tealbook	.6	.7	1.2	1.0	1.8	1.9
Nonfarm private employment[1]	175	157	160	165	205	253
Previous Tealbook	175	157	153	158	200	262
Labor force participation rate[2]	64.1	63.7	63.7	63.6	63.5	63.4
Previous Tealbook	64.0	63.7	63.8	63.7	63.7	63.5
Civilian unemployment rate[2]	8.7	8.2	7.8	7.6	7.1	6.3
Previous Tealbook	8.7	8.2	8.0	7.8	7.4	6.5

1. Thousands, average monthly changes.
2. Percent, average for the final quarter in the period.
Source: U.S. Department of Labor, BLS; staff assumptions.

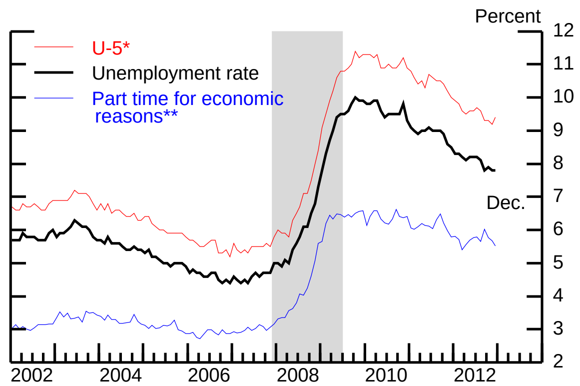
Inflation Projections
(Percent change at annual rate from final quarter of preceding period)

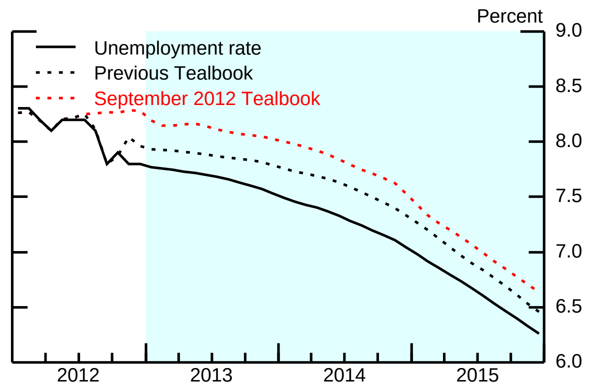
Measure	2011	2012		2013	2014	2015
		H1	H2			
PCE chain-weighted price index	2.5	1.6	1.4	1.4	1.5	1.6
Previous Tealbook	2.5	1.6	1.6	1.3	1.4	1.5
Food and beverages	5.1	1.0	1.3	2.2	1.1	1.5
Previous Tealbook	5.1	1.0	1.5	2.3	1.1	1.5
Energy	11.9	-3.3	8.0	-3.2	-1.5	-1.1
Previous Tealbook	11.9	-3.3	7.5	-4.4	-1.7	-1.6
Excluding food and energy	1.7	2.0	1.0	1.6	1.7	1.7
Previous Tealbook	1.7	2.0	1.2	1.6	1.6	1.7
Prices of core goods imports[1]	4.3	.5	-.5	1.7	1.5	1.5
Previous Tealbook	4.3	.5	-.1	1.1	1.5	1.5

1. Core goods imports exclude computers, semiconductors, oil, and natural gas.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Labor Market Developments and Outlook

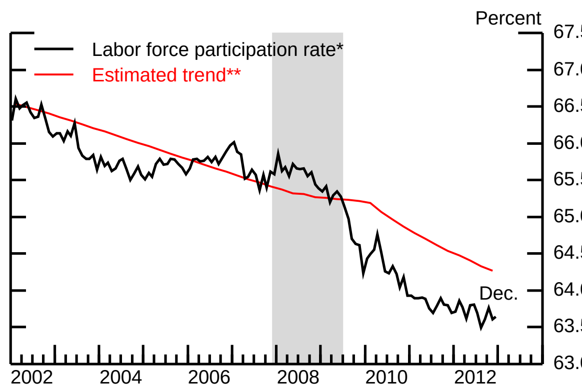
Measures of Labor Underutilization

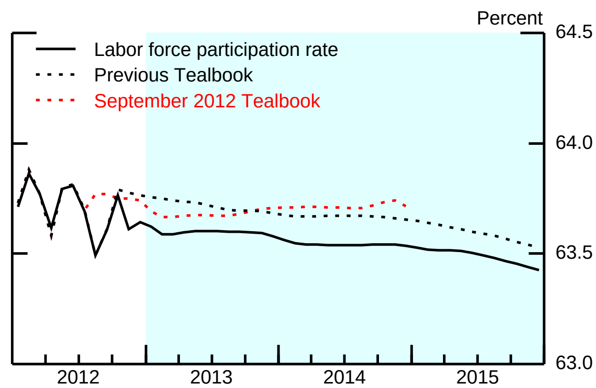




* U-5 measures total unemployed plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force.
** Percent of Current Population Survey employment.

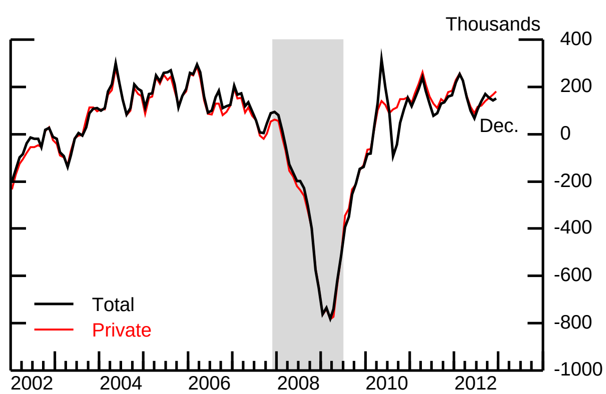
Labor Force Participation Rate

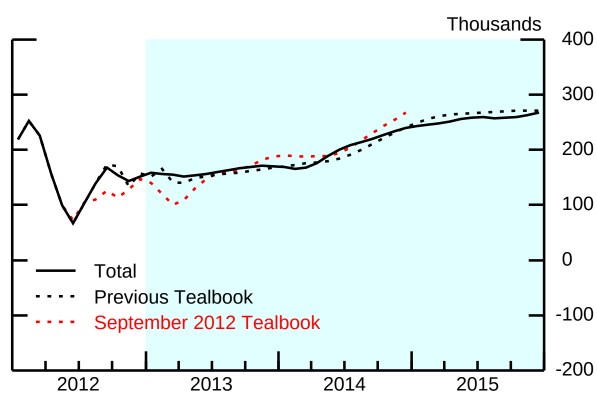




* Published data adjusted by staff to account for changes in population weights.
** Includes staff estimate of the effect of Extended Employment Benefits.

Change in Payroll Employment*



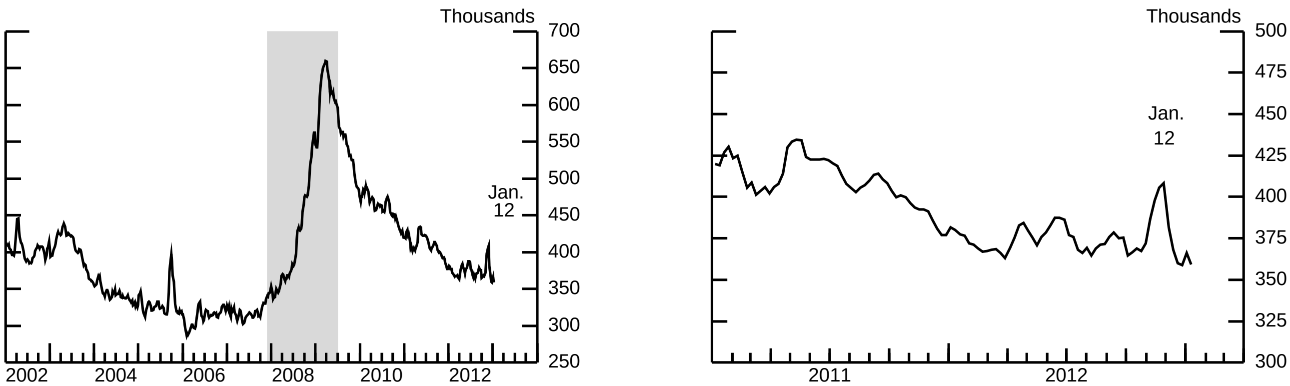


* 3-month moving averages in history; average monthly changes in each quarter during the forecast period.

Note: In September 2012, judgmental projections were prepared through 2015 for the Summary of Economic Projections variables including the unemployment rate, while projections for other variables, including the labor force participation rate and payroll employment, were prepared only through 2014. This exhibit therefore reports a 2015 projection from the September 2012 Tealbook only for the unemployment rate.

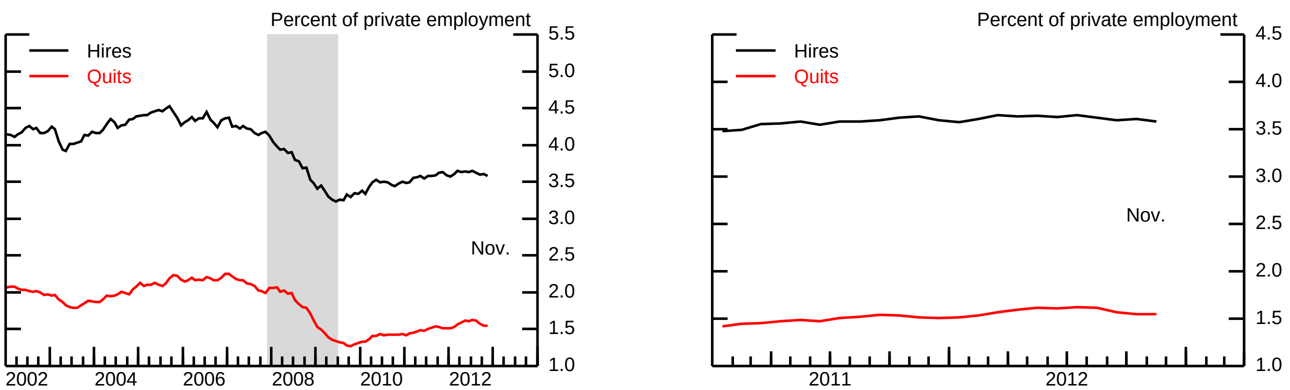
Labor Market Developments and Outlook (2)

Initial UI Claims*



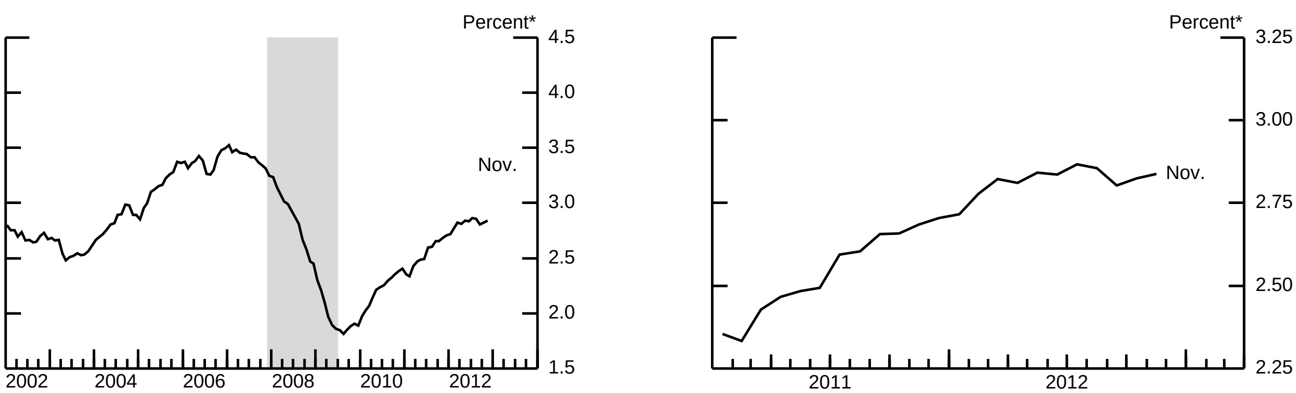
* 4-week moving average.
Source: U.S. Dept. of Labor, Employment and Training Administration

Hires and Quits*



* 3-month moving average.
Source: Job Openings and Labor Turnover Survey.

Job Openings



* Percent of nonfarm payroll employment plus unfilled jobs, 3-month moving average.
Source: Job Openings and Labor Turnover Survey.

estimate of the natural rate. We estimate that the level of real GDP was 4 percent below its potential level at the end of 2012, and this gap is projected to narrow slowly to 1 percent by the end of 2015.

There appears to be less slack in the manufacturing sector than in the broader economy, largely because of unprecedented declines in production capacity from 2007 to 2010.[7] In particular, capacity utilization in manufacturing stood at 77.4 percent in December, only about 1½ percentage points below its long-run average. The factory operating rate is projected to move up to about its long-run average by the end of this year.

The Outlook for Prices and Compensation

Recent data on consumer prices have been a bit softer than expected. Based on the December CPI and PPI, we estimate that core PCE prices rose at an annual rate of about ¾ percent in the fourth quarter, about ½ percentage point below the December Tealbook and a substantial deceleration from the 2 percent pace in the first half of 2012. The deceleration in prices since midyear was reasonably broad based. However, we believe that some transitory factors have been holding down inflation recently, and we anticipate core prices to increase about 1½ percent in the current quarter.[8]

Recent readings on inflation expectations have remained in the relatively narrow range occupied over the past several years. Median 5-to-10-year expected inflation from the Michigan survey ticked up to 2.9 percent in December—in line with its average over the past 5 years—and remained at that level in the preliminary January survey. Meanwhile, TIPS-based measures of inflation compensation for the next 5 years and for 5-to-10 years ahead have both edged up about 0.1 percentage point from their values at the time of the December Tealbook.

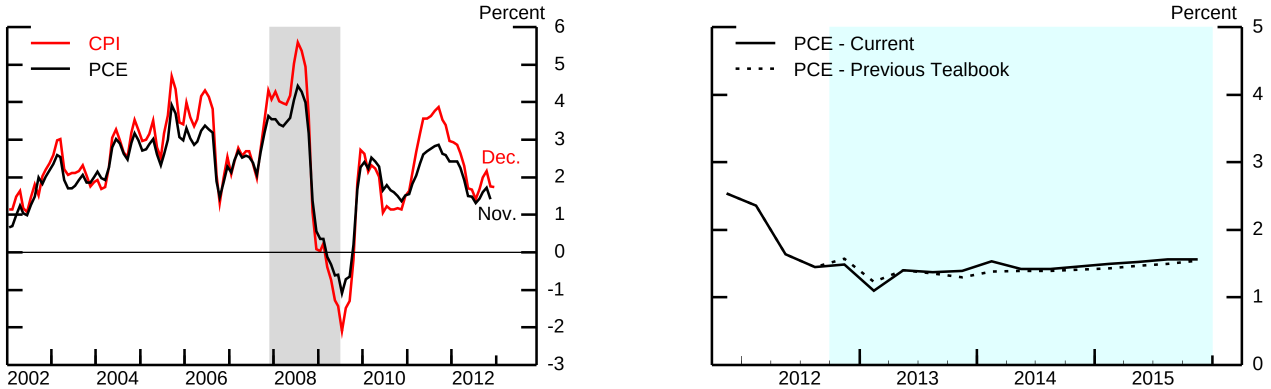
Core import prices declined, on net, in the second half of 2012, likely contributing to the softness in consumer price inflation in the past few months. Recent dollar depreciation and higher commodity prices are expected to push up core import prices by 2½ percent in the current quarter; over the remainder of the projection, we expect core

[7] We estimate capacity in the industrial sector based largely on survey data that attempt to capture the highest level of output that plants can sustainably maintain based on realistic work schedules and assuming that inputs like materials and labor are sufficiently available.

[8] Some of the pickup in inflation over the near term reflects the observation that, for the past few years, there has been a pattern of low inflation late in the year followed by higher readings early in the next year, which we attribute to residual seasonality in the price data.

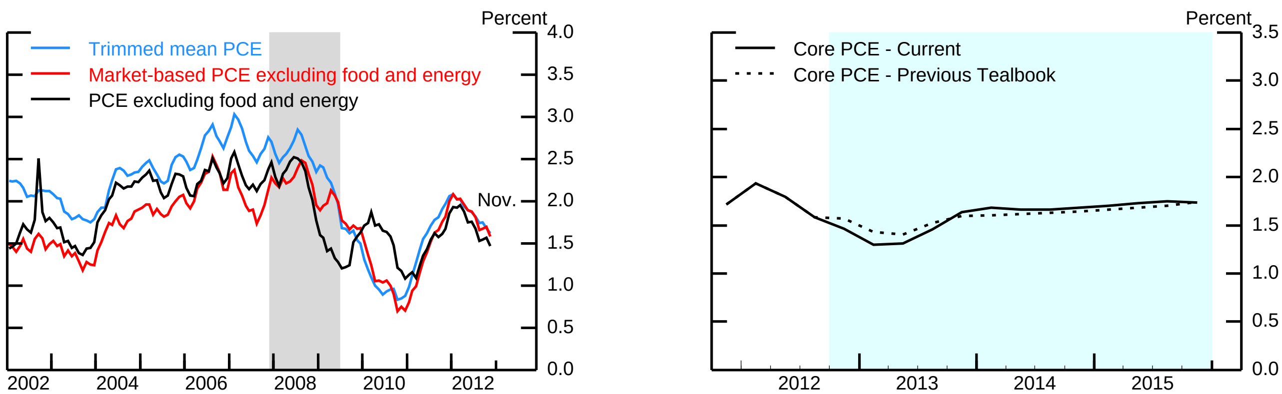
Inflation Developments and Outlook
(Percent change from year-earlier period)

Headline Consumer Price Inflation



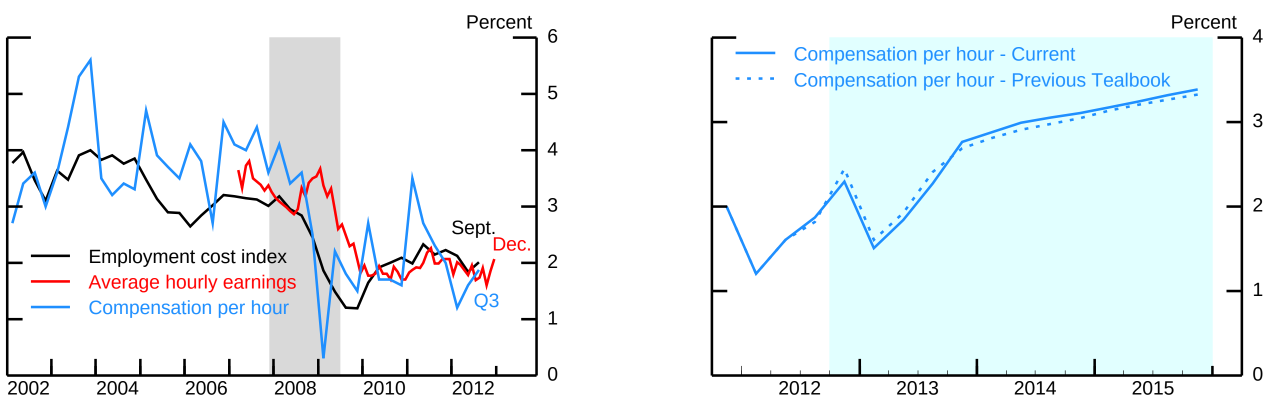
Source: For CPI, U.S. Dept. of Labor, Bureau of Labor Statistics; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Measures of Underlying PCE Price Inflation



Source: For trimmed mean PCE, Federal Reserve Bank of Dallas; otherwise, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Labor Cost Growth (Private Industry)



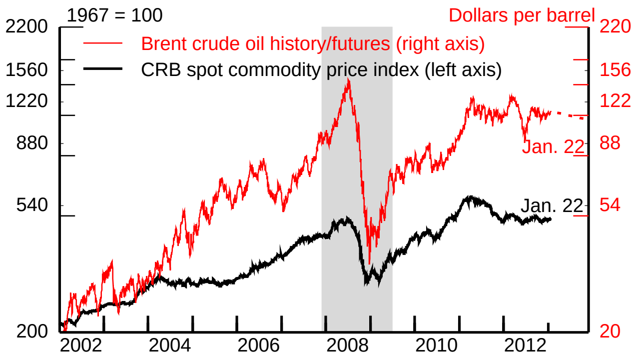
Note: Compensation per hour value for 2012:Q3 is a staff estimate.
Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

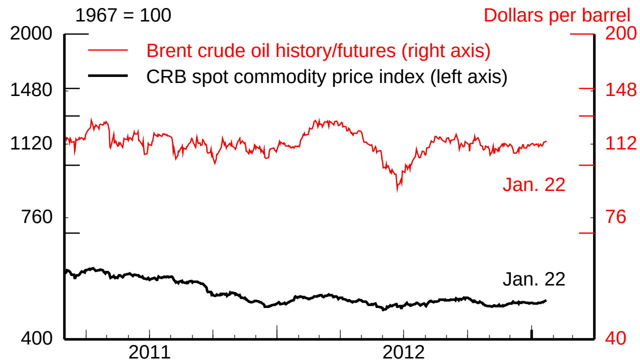
Domestic Econ Devel & Outlook

Inflation Developments and Outlook (2)

(Percent change from year-earlier period, except as noted)

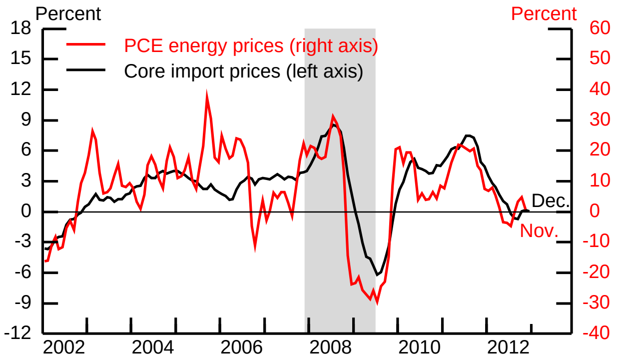
Commodity and Oil Price Levels

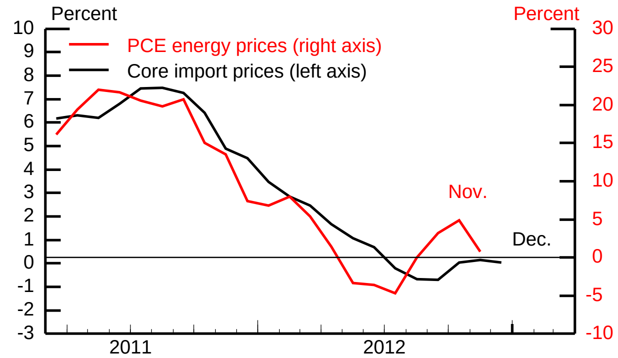




Note: Futures prices are the latest observations on monthly futures contracts.
Source: For oil prices, U.S. Dept. of Energy, Energy Information Agency; for commodity prices, Conference Research Board (CRB).

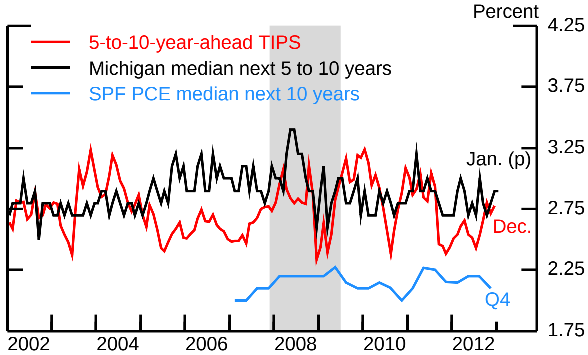
Energy and Import Price Inflation

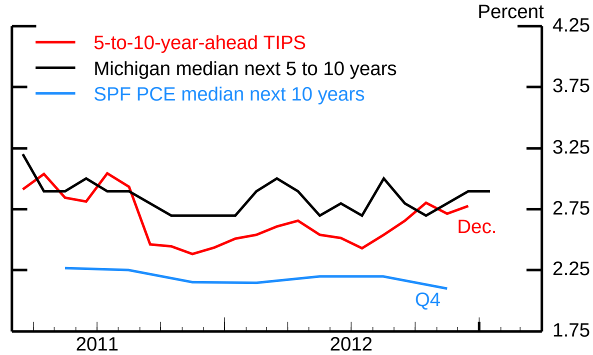




Source: For core import prices, U.S. Dept. of Labor, Bureau of Labor Statistics; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Long-Term Inflation Expectations





Note: Based on a comparison of an estimated TIPS (Treasury inflation-protected securities) yield curve with an estimated nominal off-the-run Treasury yield curve, with an adjustment for the indexation-lag effect.
p Preliminary.
SPF Survey of Professional Forecasters.
Source: For Michigan, Thomson Reuters/University of Michigan Surveys of Consumers; for SPF, the Federal Reserve Bank of Philadelphia; for TIPS, FRB staff calculations.

import prices to increase at a 1½ percent pace, in line with the relatively flat trajectory for commodity prices and the assumed pace of dollar depreciation.

We continue to expect that inflation will remain subdued over the medium term due to stable long-run inflation expectations, relatively small movements projected for commodity and import prices, and persistent slack in resource utilization. In response to a modest reduction in resource slack, core PCE inflation edges up from 1.6 percent in 2013 to 1.7 percent in both 2014 and 2015, essentially unchanged from the December projection.

Food prices, after increasing at an annual rate of only ½ percent in the third quarter, are estimated to have increased about 2 percent in the fourth quarter, likely reflecting some pass-through to retail prices of the sharp run-up in crop prices associated with last summer's drought. We expect food price inflation to remain elevated in the first half of this year but then to slow thereafter as the effects of the drought wane. Meanwhile, our forecast for consumer energy prices—a moderate rise in the fourth quarter and a sharp drop-off in the first, followed by gradual reductions throughout the remainder of the projection—reflects the projected path of crude oil prices and is little revised from the December Tealbook.

All told, after registering at an annual rate of 1½ percent in the third quarter of 2012, total PCE price inflation appears on track to slow to 1¼ percent in the fourth quarter and 1 percent in the current quarter—both about ¼ percentage point below our December projection. In contrast, our medium-term projection is just a touch higher than in the December Tealbook, with total PCE price inflation averaging 1.5 percent per year. Thus, throughout the medium term, the projection for PCE inflation remains well below the Committee's threshold level of 2½ percent.

Increases in labor compensation remain subdued. Average hourly earnings (AHE) in November and December were slightly higher than expected; nevertheless, recent data on personal income suggest that compensation per hour, which includes additional sources of labor income and covers a broader range of workers than the AHE measure, advanced at an annual rate of 1 percent in the fourth quarter, ¾ percentage point less than our December Tealbook forecast. For the first quarter of this year, our forecast for compensation growth is little revised at an annual rate of about 2½ percent. We expect growth in compensation per hour to rise gradually over the medium term, from 2¾ percent in 2013 to 3½ percent in 2015, as the labor market gradually tightens.

The Long-Term Outlook

We have extended the staff's forecast through 2020 using the FRB/US model and our assumptions about long-run supply-side conditions, fiscal policy, and other factors. The contour of the long-term outlook depends on the following key assumptions:

- Monetary policy seeks to stabilize PCE inflation at 2 percent over the longer term, consistent with the Committee's strategy statement after the January 2012 meeting. As was noted earlier, the Committee's threshold for unemployment is crossed in the baseline projection in late 2015. In the extension period, the federal funds rate is therefore set according to the inertial Taylor (1999) rule.

- The Federal Reserve's holdings of securities continue to put downward pressure on longer-term interest rates in 2016 and 2017, albeit to a diminishing extent. By 2018, the process of portfolio normalization is essentially complete.

- Risk premiums on corporate equities and bonds continue to decrease gradually to normal levels, and financial institutions further ease their lending standards.

- The federal budget deficit (measured on a NIPA basis) begins to widen after 2016, primarily reflecting fast-rising transfer payments for retirement and health-care programs. Federal debt stabilizes temporarily at around 75 percent of GDP but then rises to 78 percent of GDP by the end of the decade.

- The real foreign exchange value of the dollar depreciates 1¾ percent per year in 2016 and 2017 and moves down more slowly thereafter. The price of crude oil declines slightly in 2016 and then holds steady in real terms. Foreign real GDP growth is 3¼ percent in 2016 and slows to a 3 percent annual rate late in the decade.

- The natural rate of unemployment continues to decline in 2016 and 2017, from 5¾ percent at the end of 2015 to 5¼ percent in the fourth quarter of 2017, as labor market functioning improves further; it remains at that level in the longer run. Potential GDP increases at an average annual rate of just over 2 percent in the 2016–20 period and moves up to a 2¼ percent pace in the

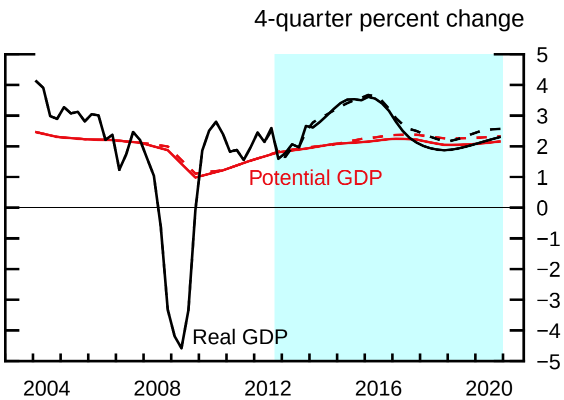
The Long-Term Outlook

(Percent change, Q4 to Q4, except as noted)

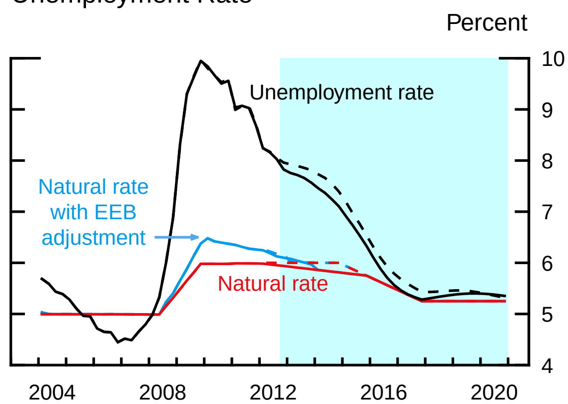
Measure	2012	2013	2014	2015	2016	2017	Longer run
Real GDP	1.6	2.7	3.2	3.5	3.2	2.1	2.3
Previous Tealbook	1.7	2.5	3.2	3.6	3.2	2.5	2.5
Civilian unemployment rate[1]	7.8	7.6	7.1	6.3	5.6	5.3	5.2
Previous Tealbook	8.0	7.8	7.4	6.5	5.8	5.4	5.2
PCE prices, total	1.5	1.4	1.5	1.6	1.8	2.0	2.0
Previous Tealbook	1.6	1.3	1.4	1.5	1.8	1.9	2.0
Core PCE prices	1.5	1.6	1.7	1.7	1.8	2.0	2.0
Previous Tealbook	1.6	1.6	1.6	1.7	1.8	1.9	2.0
Federal funds rate[1]	.2	.1	.1	.3	1.8	2.8	4.0
Previous Tealbook	.2	.1	.1	.4	2.0	3.2	4.3
10-year Treasury yield[1]	1.7	2.8	3.5	4.1	4.3	4.2	4.8
Previous Tealbook	1.7	2.8	3.6	4.2	4.4	4.4	5.1

1. Percent, average for the final quarter of the period.

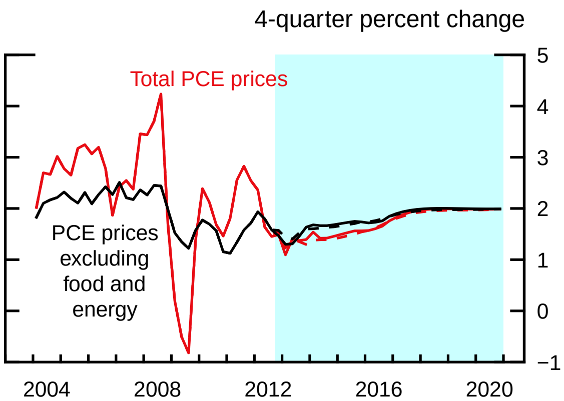
Real GDP



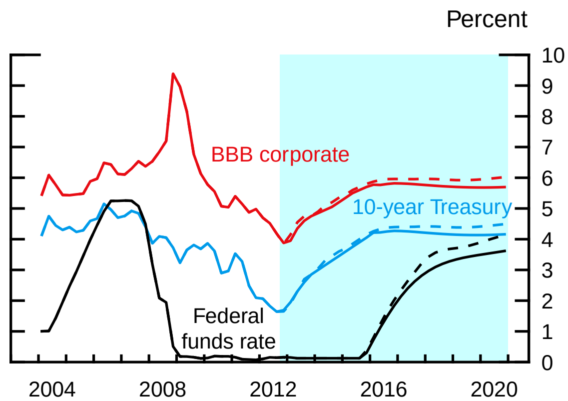
Unemployment Rate



PCE Prices



Interest Rates



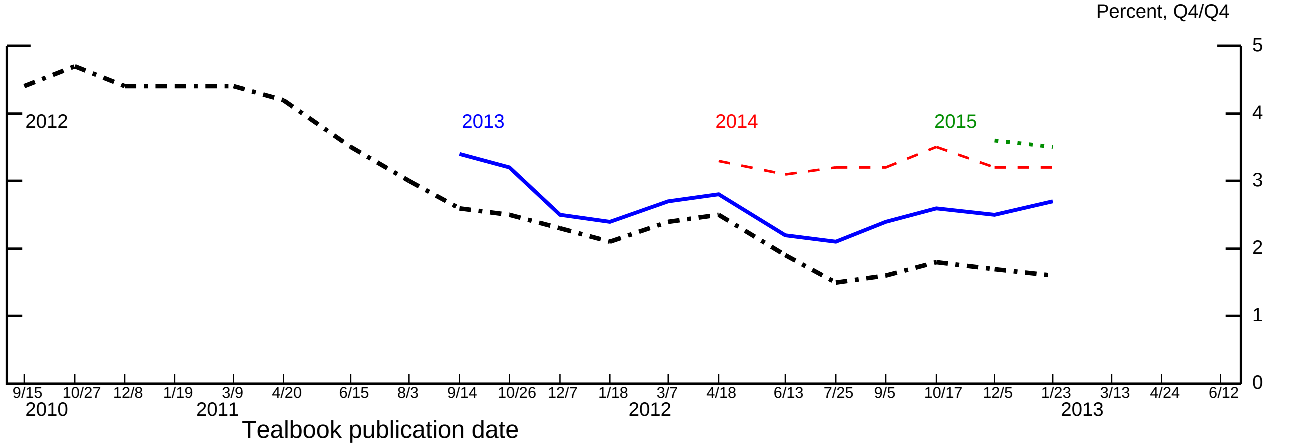
Note: In each panel, shading represents the projection period, and dashed lines are the previous Tealbook.

longer run, which is ¼ percentage point lower than in the previous Tealbook due to an adjustment in our projection of capital deepening.

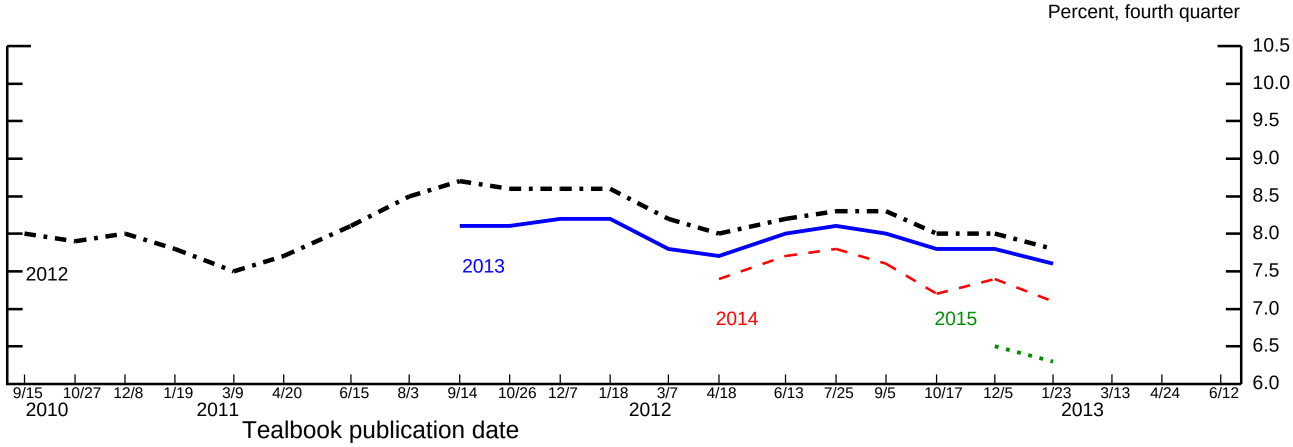
The economy is projected to enter 2016 with output below its potential level, unemployment above its natural rate, and inflation below the long-run objective of the Committee. In the staff's long-term forecast, further improvements in household and business confidence, diminishing uncertainty, and supportive financial conditions enable real GDP to rise 3¼ percent in 2016. Thereafter, gains in GDP move down closer to their potential pace, reflecting the progressive withdrawal of monetary accommodation. Unemployment falls through 2017 to 5¼ percent. Long-run inflation expectations are assumed to remain well anchored, and with the margin of slack in labor and product markets diminishing, consumer price inflation is close to 2 percent in 2017. The nominal federal funds rate is above 3½ percent by the end of the decade and eventually stabilizes at around 4 percent, ¼ percentage point lower than in the previous Tealbook, reflecting the downward revision to long-run potential GDP growth.

Evolution of the Staff Forecast

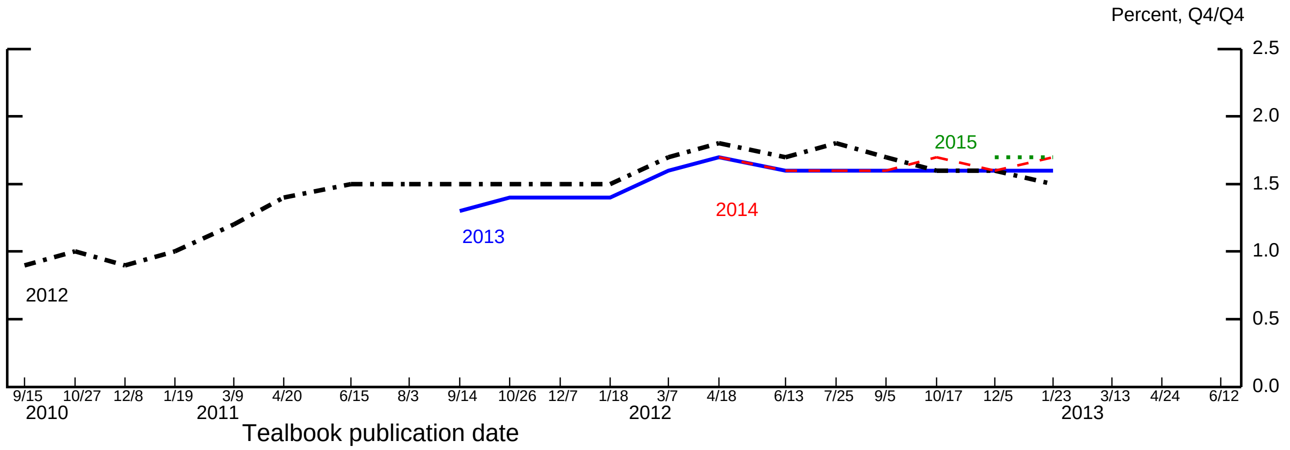
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy



International Economic Developments and Outlook

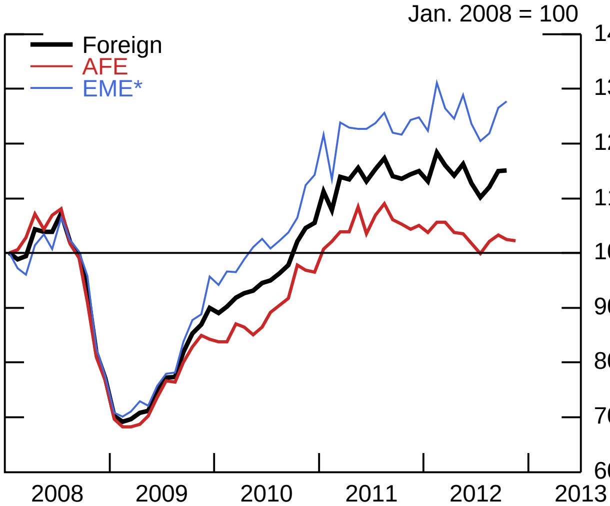
Recent indicators suggest a modest pickup in foreign economic growth in the fourth quarter, albeit to a still sluggish pace of 2¼ percent. This reading is little changed from our December Tealbook projection, as disappointing data in some regions were offset by positive surprises in others. Economic activity in Europe appears to have contracted a bit more in the fourth quarter than we had anticipated, and we also revised down our estimate of Canadian GDP growth in light of weak exports. In contrast, the fourth-quarter GDP release from China was very strong, and Japanese consumption was surprisingly resilient.

In the first half of this year, we expect overall foreign growth to pick up further to nearly 3 percent, as easing of financial stresses leads output in the euro area to level out and the recent strength in the Chinese economy spills over into other emerging Asian economies. Subsequently, as fiscal and financial headwinds wane, monetary policy remains accommodative, and U.S. economic activity accelerates, foreign growth should increase to 3½ percent in 2014 and 2015. Our projection for 2013 is revised up a bit based on more momentum in the Chinese economy and greater policy stimulus in Japan. For the remainder of the forecast period, our foreign outlook is about unchanged.

The risk of a slump in global economic activity has diminished amid continuing improvement of European financial conditions and more-solid evidence of a pickup in Asian growth, particularly in China. Nonetheless, Europe continues to face formidable economic and political challenges in implementing fiscal consolidation, especially during its recession. Accordingly, there remains a danger that the European crisis could intensify with severe spillovers to the rest of the world, as discussed in the Risks and Uncertainty section. Moreover, although the resurgence of the Chinese economy has, for now, eased fears of a hard landing, we remain alert to the fact that still-inflated property markets in China and in several of its neighbors pose a threat to the region's growth. All that said, the reduction of tail risks in Europe and China, as well as perceived progress in addressing the U.S. fiscal cliff, have buoyed investor sentiment around the globe. This improvement in sentiment could lead to higher spending and growth abroad than we have written down in our baseline forecast, a scenario also described in the Risks and Uncertainty section.

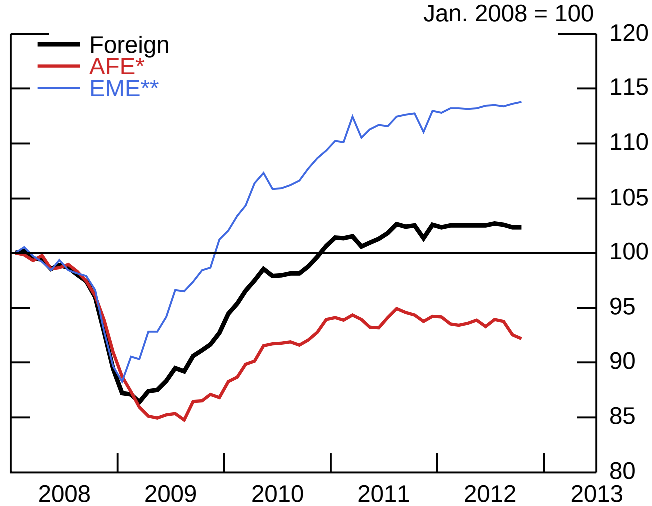
Recent Foreign Indicators

Nominal Exports



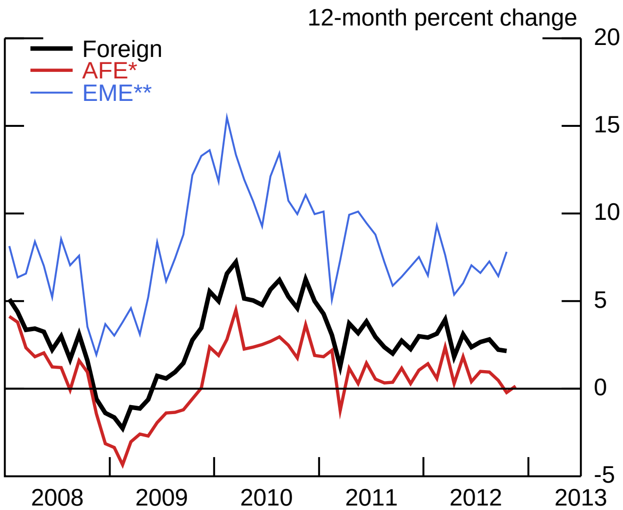
* Excludes Venezuela.

Industrial Production



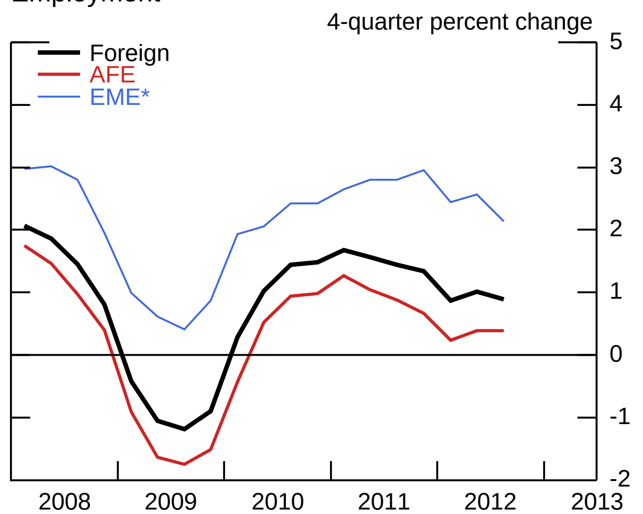
* Excludes Australia and Switzerland.
** Excludes Colombia, Hong Kong, Philippines, and Venezuela.

Retail Sales



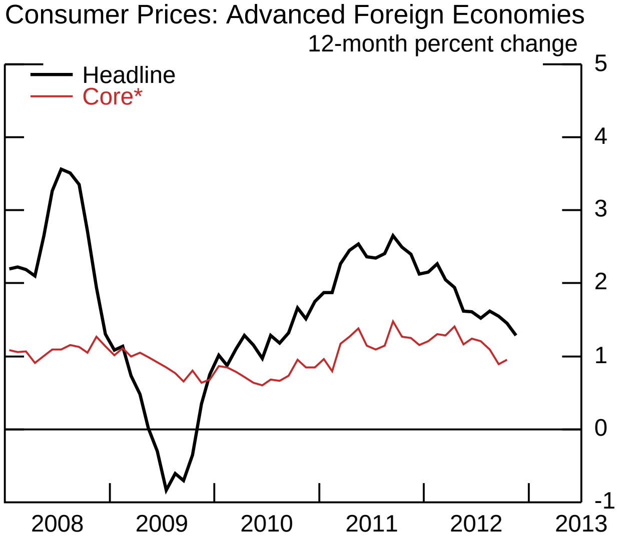
* Excludes Australia and Switzerland.
** Includes Brazil, China, Indonesia, Korea, Singapore, and Taiwan.

Employment

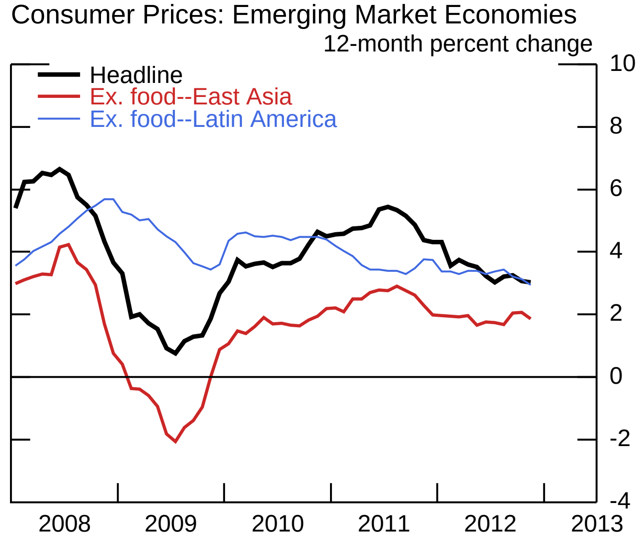


* Excludes Argentina and Mexico.

Consumer Prices: Advanced Foreign Economies



Consumer Prices: Emerging Market Economies



Note: Excludes Australia, Sweden, and Switzerland.
* Excludes all food and energy; staff calculation.
Source: Haver Analytics and CEIC.

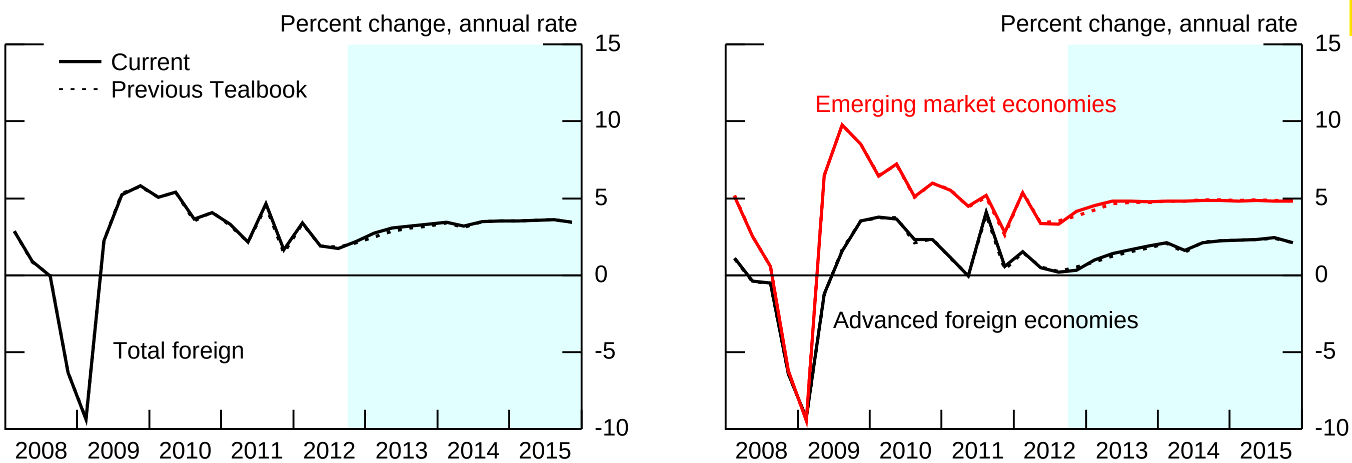
The Foreign Outlook

(Percent change, annual rate)

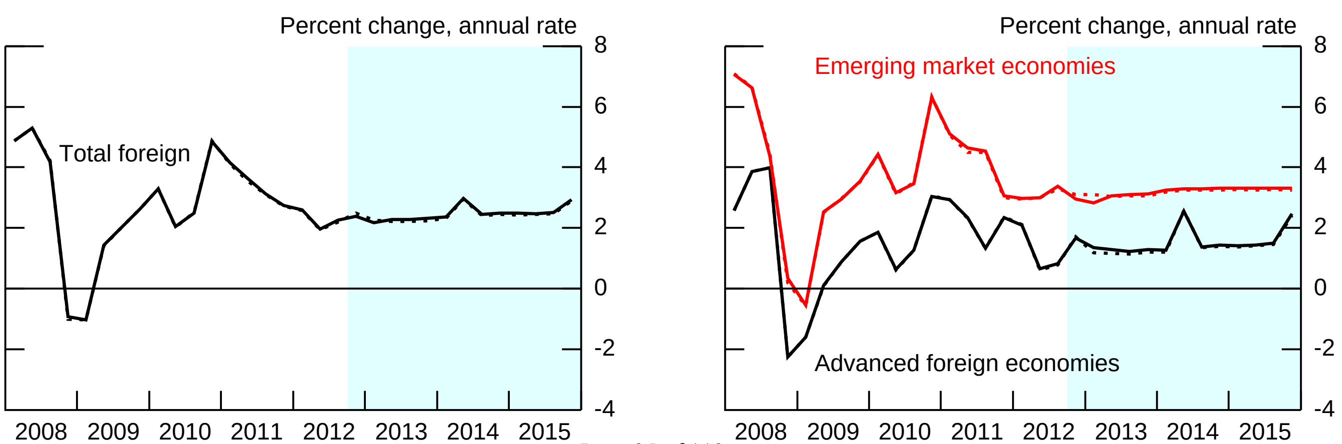
	2012			2013			2014	2015
	H1	Q3	Q4	Q1	Q2	H2		
Real GDP								
Total foreign	2.7	1.8	2.2	2.7	3.1	3.3	3.4	3.5
Previous Tealbook	2.6	1.8	2.1	2.5	2.9	3.1	3.4	3.5
Advanced foreign economies	1.0	.2	.3	1.0	1.4	1.8	2.0	2.3
Previous Tealbook	1.0	.2	.5	.8	1.2	1.6	2.0	2.3
Emerging market economies	4.4	3.3	4.1	4.5	4.8	4.8	4.8	4.8
Previous Tealbook	4.4	3.5	3.9	4.2	4.6	4.7	4.9	4.9
Consumer Prices								
Total foreign	2.3	2.3	2.4	2.2	2.3	2.3	2.6	2.6
Previous Tealbook	2.3	2.2	2.5	2.3	2.2	2.2	2.5	2.6
Advanced foreign economies	1.4	.8	1.7	1.3	1.3	1.3	1.7	1.7
Previous Tealbook	1.4	.8	1.7	1.2	1.2	1.2	1.6	1.7
Emerging market economies	3.0	3.4	3.0	2.8	3.1	3.1	3.3	3.3
Previous Tealbook	3.0	3.3	3.1	3.1	3.0	3.1	3.2	3.3

Note: Annualized percent change from final quarter of preceding period to final quarter of period indicated.

Real GDP



Consumer Prices



We estimate that foreign inflation in the fourth quarter came in at an annual rate of a little under 2½ percent, about the same rate that prevailed in the third quarter, with an increase in inflation in the advanced foreign economies (AFEs) and emerging Asia being roughly offset by a steep decline in inflation in Mexico (which has a large weight in our aggregate of total foreign prices). We expect foreign inflation to remain quiescent over the forecast period, continuing to average about 2½ percent, held down by substantial economic slack in the AFEs and only muted commodity price pressures.

Advanced Foreign Economies

We estimate that real GDP in the AFEs rose only ¼ percent in the fourth quarter, a bit below our December Tealbook projection. Indicators suggest that activity in Europe contracted a little more than we had assumed, and Canadian export and production data also proved disappointing. Only partially offsetting these data, in Japan, consumer spending held up surprisingly well, leading us to erase the small contraction we had penciled in.

In the coming quarters, gradual progress in the resolution of the euro-area crisis and a pickup in demand in the United States and emerging market economies (EMEs) should help recovery in the AFEs gain traction, leading to an increase in real GDP growth in these economies to about 1½ percent this year. The outlook for this year is revised up a touch, largely based on more-stimulative policies in Japan and easier financial conditions in Europe than we anticipated in December. We see AFE growth picking up further to 2 percent in 2014 and 2¼ percent in 2015, about unchanged from the previous Tealbook projection. Although these growth rates represent a considerable improvement from last year's paltry pace of under ¾ percent, they are still too low to eliminate the substantial resource slack in these economies.

Data on consumer prices confirm our projection in the December Tealbook that AFE inflation stepped up from ¾ percent at an annual rate in the third quarter to 1¾ percent in the fourth, reflecting a bounceback in inflation readings in Canada, a large hike in university tuition fees in the United Kingdom, and the stabilization of Japanese food prices following sharp declines. Thereafter, we project that AFE inflation will settle around 1½ percent, held down by sizable resource slack and subdued commodity price pressures. We expect the major AFE central banks to maintain their policy rates and asset purchase programs at current levels through much of the forecast period, with the major exception of Japan, where we anticipate further easing.

Euro Area

Financial conditions in the euro area have eased further since the December Tealbook, as European authorities made additional progress in addressing the fiscal and banking crisis. Last month, the Greek government successfully exchanged about €30 billion of its debt held by private investors at a discounted price, thus fulfilling a key requirement of the agreement reached with the European Union and the International Monetary Fund (IMF) in late November. As a result, euro-area governments and the IMF were able to resume Greece's financial assistance. The agreement also improved the terms on official debt, thus lightening Greece's debt burden and greatly alleviating concerns, at least for the time being, over a possible Greek exit from the euro area. European governments also made some progress in their protracted negotiations regarding European banking union, agreeing in December on key details of a single supervisory mechanism for European banks. In early 2014, the European Central Bank (ECB) is slated to take over the supervision of large euro-area banks from national authorities and be empowered to issue supervisory directives to any euro-area bank, although many details remain to be worked out.

Over the next couple of years, we envision further moderate easing of financial stresses against the backdrop of additional steps toward banking union, progress by the Spanish government in reducing its deficit and shoring up its banking system, and further fiscal adjustment in other peripheral economies. However, the process of financial normalization will likely be interrupted by periods of heightened financial tensions. In the near term, uncertainty about Spain's fiscal performance and the outcome of Italy's upcoming national election could weigh on investors' sentiment. Further down the road, Greece will require additional assistance, and more generally, peripheral economies will face severe challenges balancing their budgets in the face of continuing economic weakness. These developments could prompt more adverse reactions by investors than we currently anticipate, leaving open the possibility of more severe outcomes than in our baseline.

Recent data point to a somewhat sharper-than-expected contraction of 1¼ percent at an annual rate in euro-area GDP in the fourth quarter. Industrial production and retail sales in November remained significantly below their third-quarter levels, and the unemployment rate edged up to a record-high 11.8 percent. Activity in Germany weakened noticeably; authorities noted that German GDP may have contracted as much as 2 percent in the fourth quarter. Other indicators, however, have been more positive.

In December, euro-area economic sentiment improved further and the composite PMI, while still in contractionary territory, popped up to a level not seen since early 2012. Accordingly, we expect euro-area GDP to stabilize in the first half of 2013. Thereafter, the pickup in global demand, the gradual normalization of financial conditions, and reduced fiscal drag should help growth increase to 1 percent in the second half of the year, 1½ percent in 2014, and 2 percent in 2015. This outlook is a bit more optimistic than in the December Tealbook but is still quite anemic in light of the region's substantial resource slack.

Euro-area inflation increased slightly to 2½ percent at an annual rate in the fourth quarter, reflecting increases in energy and food prices. Looking ahead, amid declining energy prices and a large output gap, we expect inflation to hover around 1½ percent, little changed from the December Tealbook. The Governing Council of the ECB at its January meeting unanimously decided to keep its benchmark policy rate at ¾ percent. As financial tensions slowly abate and the economy gradually recovers, we expect the ECB to keep rates on hold through 2015 while providing ample liquidity support to banks. This assumption is a change from our December Tealbook assumption, which called for a policy rate cut by the ECB in early 2013. Although the euro-area outlook is not substantially stronger than it was last month, comments by ECB officials after their January meeting indicated no appetite for near-term rate cuts.

Japan

Parliamentary elections in Japan in December resulted in a new government, bringing the Liberal Democratic Party back to power. Newly elected Prime Minister Shinzo Abe (who also previously served as prime minister from September of 2006 to September of 2007) introduced a large fiscal stimulus program to revive the economy and called for aggressive monetary easing to end deflation. These developments contributed to a stock market rally and a substantial depreciation of the yen. (See the box "Recent Policy Developments in Japan.")

Recent data suggest that Japanese economic activity, after declining for two quarters, edged up at an annual pace of ¼ percent in the fourth quarter, an improvement relative to the further contraction we had projected in the December Tealbook. Even though industrial production and exports continued to decline early in the quarter and the manufacturing PMI pointed to further contraction through December, real consumption increased at a surprisingly solid pace in October and November. In addition, manufacturers reported plans for output expansion in December and January. In light of the weaker yen and greater policy stimulus being provided by the new government, we now call for Japanese growth to increase to 1¾ percent in 2013, up about ¾ percentage point from the December Tealbook. However, growth will then likely fall back to an average pace of only ½ percent in 2014 and 2015, a touch lower than in the previous forecast, as the stimulus measures wind down and planned hikes in the consumption tax go into effect.

With food prices leveling off after earlier declines, we estimate that Japanese deflation moderated from an annual rate of 2 percent in the third quarter to ½ percent in the fourth. On December 20, the Bank of Japan (BOJ) announced a moderate expansion of its Asset Purchase Program, and on January 22, amid mounting political pressure, it took further actions, including the introduction of a 2 percent inflation target. We deem that these recent measures fall well short of what is needed to break from a long history of persistent deflation. Indeed, with substantial resource slack and recent core inflation readings below negative 1 percent, we project that consumer prices—abstracting from the temporary boost from the consumption tax hikes—will remain about flat over the forecast period. This projection represents only a slight upward revision to our previous inflation forecast. However, the BOJ may well take bolder action to boost prices once new leadership is appointed by Prime Minister Abe, as the terms of Governor Shirakawa and his two deputies expire soon.

United Kingdom

Recent data suggest that real GDP growth in the United Kingdom dropped from 3¾ percent in the third quarter to slightly negative in the fourth, as the boost from the summer Olympics disappeared. Notably, retail sales declined through December, industrial production and goods exports through November stood below their third-quarter averages, and the composite PMI lingered near 50 throughout the quarter. We continue to project that U.K. real GDP will expand at about a 1½ percent pace this year, supported by an abatement of European financial stresses and stronger global activity. Accommodative monetary policy and diminished fiscal drag should help GDP growth increase further to 2¼ percent in 2014 and 2½ percent in 2015, unchanged from our projection in the December Tealbook.

The latest hikes in retail energy prices and university tuition fees lifted inflation to 4¾ percent at an annual rate in the fourth quarter. We expect abundant resource slack to

Recent Policy Developments in Japan

Following parliamentary elections on December 16, the Liberal Democratic Party (LDP) returned to power in Japan, and its leader, Shinzo Abe, became the new prime minister. Mr. Abe, who previously served as prime minister from 2006 to 2007 but did not initiate any important economic programs at the time, swiftly put forward a large fiscal stimulus program aimed at reviving economic growth and forcefully called for aggressive monetary policy easing to overcome deflation. These moves have prompted strong responses in financial markets and further actions by the Bank of Japan (BOJ), but absent additional stimulus as well as structural reforms, these actions are unlikely to end Japan's prolonged economic slump.

The Japanese government's initiatives follow two years of very weak growth. Real GDP, shown in the upper-left figure on the next page, has yet to regain its level before the global financial crisis, held down by a weak global recovery, a stronger yen, and the disastrous March 2011 earthquake and tsunami. To jumpstart the economy, the new LDP government unveiled a ¥10.3 trillion (about 2 percent of GDP) stimulus package, with the bulk of the spending directed to construction projects. With only half of the package consisting of genuine increases in spending, we estimate that these measures will boost the level of GDP by about 1 percent by mid-2014. However, the new stimulus package also exacerbates Japan's fiscal problems, pushing the public deficit from 10 percent of GDP in 2012 to nearly 11 percent in 2013. With the gross public debt projected to exceed 220 percent of GDP this year, the LDP government has stressed that it will adhere to the medium-term fiscal goals laid out by the previous administration, which call for the government to halve its deficit by 2015 and achieve a fiscal surplus by 2020. Accordingly, we anticipate that the previously legislated plan to double the consumption tax rate over 2014 and 2015 will still be implemented and, thus, that the fiscal impulse will turn negative next year.

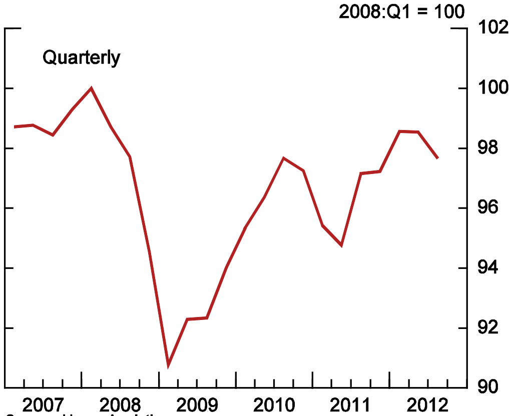
Japan also continued to experience persistent deflation over the past year, despite the BOJ's implementation of its large Asset Purchase Program (APP) and its adoption in February 2012 of a 1 percent inflation goal (see upper-right figure on the next page.) On December 20, the BOJ increased the size of its APP from ¥91 trillion to ¥101 trillion, pointing to a weakening economic situation. Amid mounting pressures from the new government, the BOJ announced further measures on January 22. First, it introduced an inflation target of 2 percent. Second, starting in January 2014, the BOJ intends to conduct open-ended purchases at a monthly rate of ¥13 trillion rather than fixing the total purchase amount. However, this should result in only a modest expansion of its APP, as most of the purchases would merely replace maturing assets in the BOJ's portfolio. The BOJ stopped short of more aggressive measures, such as a significant lengthening of the maturity of assets targeted by the APP, which is now only one to three years, or explicitly linking the conduct of future monetary policy to the achievement of an economic target, such as sustained inflation above 1 or 2 percent.

The statements and actions of the Abe government, along with more general improvements in global risk sentiment, prompted a strong financial market response. Since the time of the December Tealbook, the yen depreciated 8 percent against the U.S. dollar, and the Nikkei outperformed other stock markets, soaring more than 13 percent (see the two bottom figures on this page). In contrast, Japanese sovereign bond yields (not shown) rose just a little, suggesting that investors' concerns about fiscal sustainability have not increased despite the large new stimulus program.

Although the stimulus package and the BOJ easing measures should help support economic growth over the near term, they amount to modest expansions of policies tried before with limited success. Accordingly, these initiatives alone will likely prove inadequate to achieve the new 2 percent inflation target and restore the dynamism of Japan's economy over the longer term. The BOJ will likely take bolder steps to overcome deflation once a new leadership is in place—the terms of Governor Shirakawa and his two deputies expire by early April—though much uncertainty remains.

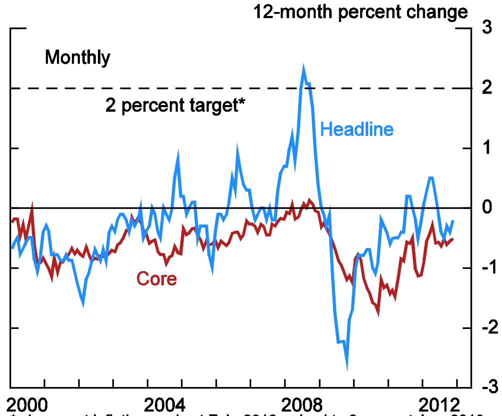
Japan also faces deep structural problems—the growth rate of potential GDP has fallen to ½ percent—and the new administration has so far shown little intention of tackling these problems. Measures aimed at improving potential output growth—such as enabling more immigration and more women in the labor force to offset a rapidly aging population, deregulation of the services sector to boost productivity, and closer integration with emerging Asia to sustain exports—should be top priorities for Japanese policymakers.

Real GDP



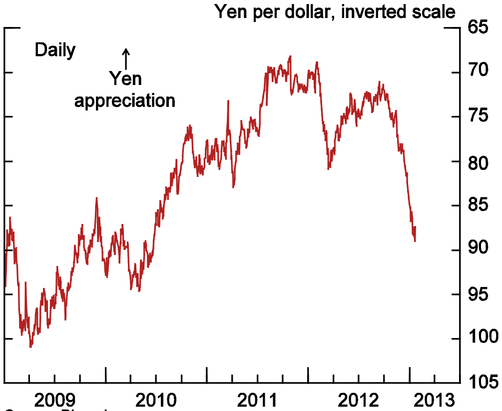
Source: Haver Analytics.

Japanese Consumer Prices



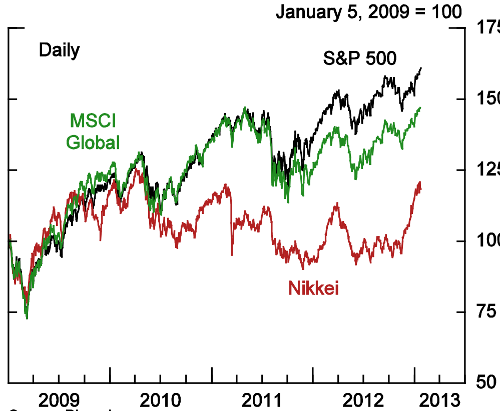
* 1 percent inflation goal set Feb. 2012; raised to 2 percent Jan. 2013.
Source: Haver Analytics; staff estimates.

Yen-Dollar Exchange Rate



Source: Bloomberg.

Equity Prices



Source: Bloomberg.

Int'l Econ Devel & Outlook

help bring inflation down to 2 percent in 2013 and about 1¾ percent over the remainder of the forecast period. As anticipated, the Bank of England (BOE) kept the Bank Rate at ½ percent and the size of its quantitative easing program, now completed, at £375 billion over the intermeeting period. We expect the BOE to keep policy on hold over the forecast period, although the Funding for Lending Scheme initiated last August may provide further stimulus.

Canada

We now estimate that real GDP growth in Canada stepped up to an annual rate of only 1½ percent in the fourth quarter, ½ percentage point less than previously anticipated. Monthly GDP in October and exports through November were weak. However, data from late in the fourth quarter were somewhat better. In December, the unemployment rate inched down to a four-year low of 7.1 percent, and the manufacturing PMI edged up following five consecutive monthly declines. Also, the most recent Bank of Canada *Business Outlook Survey* reports a small improvement in business sentiment. The positive tone of the most recent domestic data, along with the projected acceleration in U.S. GDP, leads us to forecast growth of 2 percent in 2013, rising to nearly 3 percent by the end of the forecast period. This projection is little changed from the December Tealbook.

Recent price data suggest that fourth-quarter CPI inflation, at an estimated 1¾ percent, was somewhat lower than we had expected. We project that inflation will gradually increase to 2 percent by the end of the forecast period. This outlook is ¼ percentage point higher in 2013 due to higher oil prices and firmer growth. Given contained inflation pressures and a persistent though modest output gap, we continue to expect the Bank of Canada to wait until mid-2014 before initiating a slow rise in its main policy rate from the current level of 1 percent.

Emerging Market Economies

We now estimate that real GDP growth in the EMEs stepped up to an annual rate of more than 4 percent in the fourth quarter from 3¼ percent in the third. The pickup reflects both stronger domestic demand as well as a recovery of EME exports; across-the-board weakness in EME exports appears to be behind us, although exports to the euro area remain weak. The fourth-quarter GDP growth estimate is ¼ percentage point higher than we wrote down in the December Tealbook, largely reflecting stronger data from emerging Asia—especially China's surprisingly high fourth-quarter GDP release—which more than offset a downward revision in Mexico.

We anticipate that EME growth will step up further to 4¾ percent in the first half of this year, supported by an acceleration of activity in the United States, the spillover of the strength in China to the rest of emerging Asia, and continued accommodative macroeconomic policies. This forecast is ¼ percentage point higher than in the December Tealbook, reflecting a more positive outlook for U.S. activity—including U.S. manufacturing production, which is especially relevant for Mexico—and some carry-forward of the stronger tone that incoming data are suggesting. We look for EME growth to increase only slightly over the remainder of the forecast period. Although demand from the advanced economies is expected to pick up further, EME output is already close to potential and policy accommodation is assumed to be gradually withdrawn. Beyond the near term, the EME growth outlook is little changed from the December Tealbook.

Headline inflation in several EMEs increased in the fourth quarter because of idiosyncratic food price increases and other country-specific factors. But the effect of these developments on aggregate EME inflation was more than offset by a sharp decline in Mexican inflation, reflecting an unwinding of a previous rapid run-up in food prices. Thus, we estimate that overall inflation in the EMEs tapered off to 3 percent in the fourth quarter from about 3½ percent in the third. This year, we expect overall EME inflation to average about 3 percent before edging up to 3¼ percent in 2014 and 2015. Monetary policy remained generally accommodative in these economies, and the central banks of Israel and Colombia lowered policy rates, responding to concerns about economic growth.

China

By our estimate, Chinese real GDP grew 9½ percent at an annual rate in the fourth quarter, 1¼ percentage points higher than we projected in December.[1] This pace of activity appears to be quite consistent with other recent indicators. Industrial

[1] There is no official series for the level of Chinese real GDP and thus estimates of Chinese economic growth from various sources can differ significantly. The staff's quarter-on-quarter growth estimates are constructed from the official series of four-quarter changes in real GDP, and should be viewed as having relatively wide confidence bands.

production accelerated in the fourth quarter, supported in part by an improvement in external demand as exports grew briskly after stagnating in the previous quarter. In addition, retail sales and fixed-asset investment continued to grow at their relatively robust third-quarter rates. Given the increased momentum in the economy, we marked up the forecast for Chinese growth about ½ percentage point over the first half of this year, to 8½ percent. We project that Chinese growth will taper off to 8 percent by 2015, reflecting a gradual decline in trend growth in the economy. Although problems in the property market and the banking sector persist, the risk of a hard landing appears to have faded somewhat in light of the strong recent readings on economic activity.

In the fourth quarter, Chinese headline inflation came in at an annual rate of 2 percent, up from 1¾ percent in the previous quarter, reflecting a sharp increase in pork and vegetable prices in December. Although we believe the recent increase in food prices will be reversed, we expect the solid economic expansion and associated strong wage growth to lead inflation to gradually edge up, averaging 2¾ percent this year and 3 percent thereafter.

Other Emerging Asia

In the rest of emerging Asia, data suggest that real GDP growth moved up from 2¾ percent in the third quarter to a still below-trend 3¾ percent in the fourth, about ½ percentage point higher than the December Tealbook. Industrial production, PMIs, and exports rebounded in East Asia during the fourth quarter from their weakness earlier in the year. India's economy also appears to be gaining momentum, with growth estimated to have risen to 6 percent in the fourth quarter after bottoming out at 3¼ percent in the third. We project growth in emerging Asia excluding China to increase further to about 4¼ percent this year and 4¾ percent in 2014 and 2015, supported by positive spillovers from Chinese growth, a recovery of demand from the advanced economies, and accommodative macroeconomic policies. In the near term, this outlook is about ¼ percentage point higher than in the December Tealbook but is unchanged for 2014 and 2015.

We estimate that inflation in the region increased to an annual rate of 3¾ percent in the fourth quarter from 3 percent in the third. The increase was largely driven by a steep rise in inflation in Hong Kong after the removal of a public housing subsidy and also a moderate rise in Korea, reflecting a resumption of food price inflation and increases in transportation costs. We project that headline inflation in the region will fall back a bit and average about 3¼ percent over the forecast period, roughly in line with our previous Tealbook forecast.

Latin America

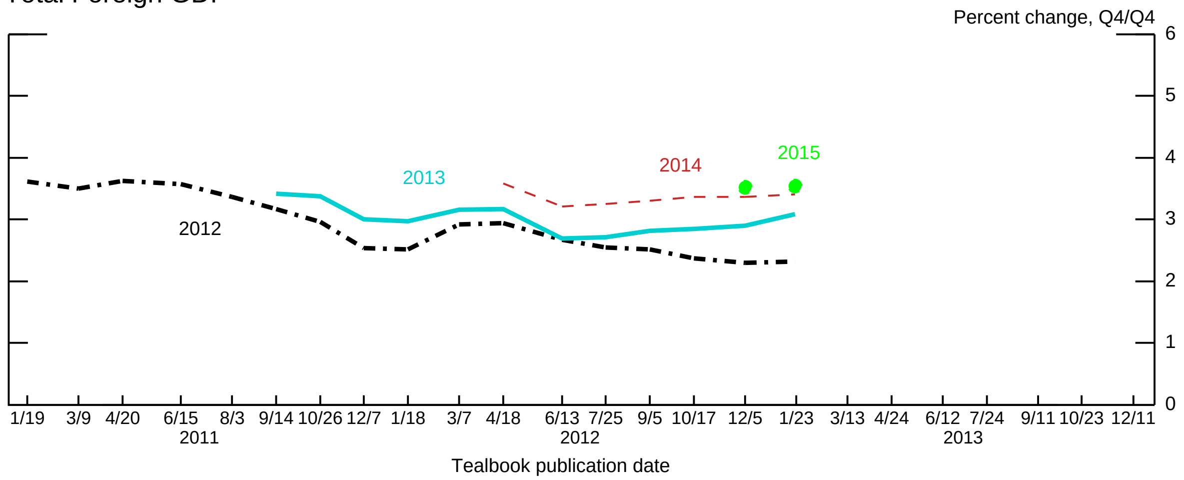
We estimate that real GDP growth in Mexico picked up to a still-lackluster pace of 2¼ percent in the fourth quarter from 1¾ percent in the third. We project that, consistent with the pickup in U.S. manufacturing production, growth will increase to 4 percent this year and remain at about that pace in 2014 and 2015. The fourth-quarter estimate is revised down ¼ percentage point relative to the December Tealbook, given weaker-than-expected readings on Mexican industrial production. Nonetheless, we marked up Mexican GDP growth about ¼ percentage point this year, in light of the upward revision to U.S. manufacturing.

We believe that real GDP growth in South America increased to an annual rate of 3¼ percent in the fourth quarter from a downward-revised 2¼ percent in the third. We expect growth in the region to increase to 3½ percent this year and further to 3¾ percent in 2014 and 2015. In Brazil, the data have been mixed. Both the PMI and exports increased in the fourth quarter and retail sales continued to show robust growth through November. However, industrial production remained weak. On balance, these data are consistent with a rise in real GDP growth to about 3¼ percent in the fourth quarter. We continue to project Brazilian growth to increase gradually over the forecast period, to 3¾ percent this year and about 4 percent in 2014 and 2015, as the recovery strengthens, supported by the effects of policy accommodation and a pickup in the advanced economies.

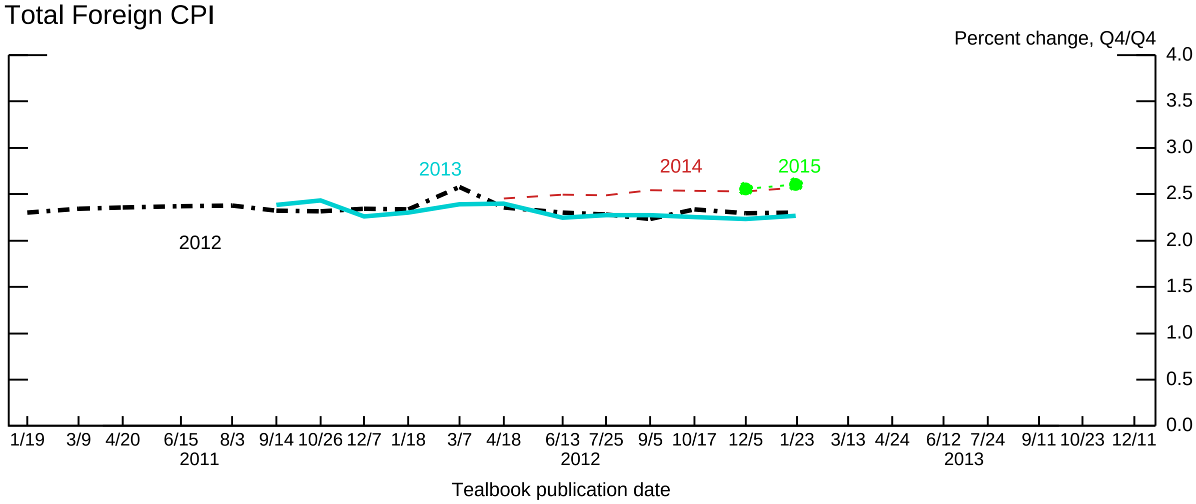
Mexican inflation declined to an estimated annual rate of 3 percent in the fourth quarter from 6½ percent in the third. Much of this decline was related to the expected unwinding of third-quarter food price increases, but the fourth-quarter reading was still ¾ percentage point lower than previously anticipated. We see Mexican inflation moderating a bit further in the current quarter but then, after the food price cycle plays out, increasing to about 3½ percent in 2014 and 2015. In Brazil, inflation remained elevated in the fourth quarter at an annual rate of 7½ percent, somewhat higher than previously expected, as food price pressures remained and services prices rose more than expected. As food price increases abate, we expect Brazilian inflation to decline to about 5½ percent over the forecast period.

Evolution of Staff's International Forecast

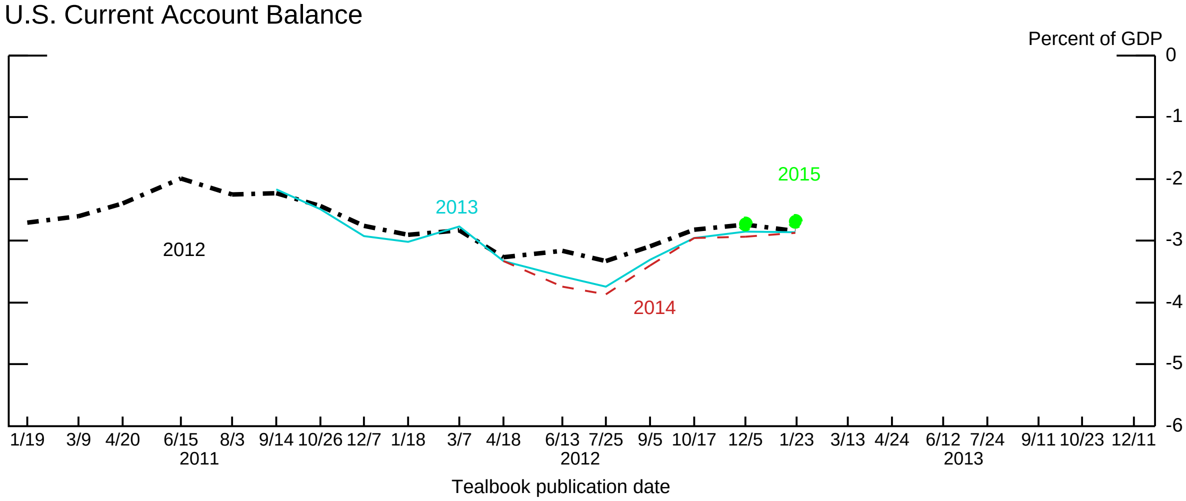
Total Foreign GDP



Total Foreign CPI



U.S. Current Account Balance



Financial Developments

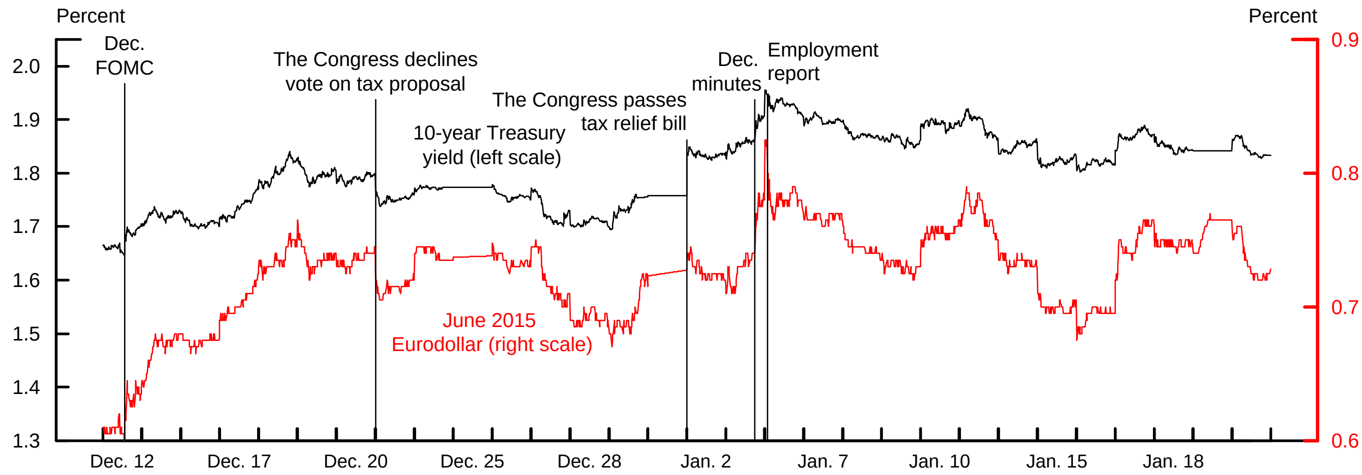
Sentiment in financial markets improved, on net, over the intermeeting period, largely in response to the partial resolution of the "fiscal cliff," a positive start to the corporate earnings reporting season in early January, and reassuring policy developments in Europe. As a result, broad stock price indexes were up 4½ percent on balance, near-term option-implied volatility on the S&P 500 index fell further to a very low level, and corporate bond spreads narrowed. Nevertheless, market participants reportedly remain closely attuned to fiscal developments, particularly those related to the debt ceiling, possible sequestration of spending, and the expiration of the continuing resolution.

Over the intermeeting period, market-based measures of the path of the federal funds rate edged up, and the implied expected value of the federal funds rate now rises above ¼ percent in the fourth quarter of 2014, one quarter earlier than at the time of the December FOMC meeting. Yields on longer-term nominal and inflation-protected Treasury securities also moved higher. In addition to the somewhat-more-optimistic tone to the outlook, yields were likely boosted in part by a reversal of flight-to-quality flows after the resolution of the fiscal cliff and by the release of the minutes of the December meeting, which investors reportedly read as suggesting that asset purchases may not continue for as long as they had previously expected. Near-term inflation compensation was slightly higher over the intermeeting period, while the foreign exchange value of the dollar was little changed on balance.

Interest rates near historical lows continued to support the pace of borrowing in the nonfinancial corporate sector. Net debt financing by nonfinancial firms surged in the fourth quarter, with outstanding volumes of corporate bonds, commercial and industrial (C&I) loans, and nonfinancial commercial paper (CP) all expanding. The household sector also appeared to benefit from the low interest rate environment, as consumer credit expanded further in October and November, reflecting growth in student and auto loans, and mortgage refinancing remained quite strong. The January Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS) suggested that, over the past three months, banks eased their credit standards and terms somewhat for most types of loans and that demand for many types of loans increased further (see appendix).

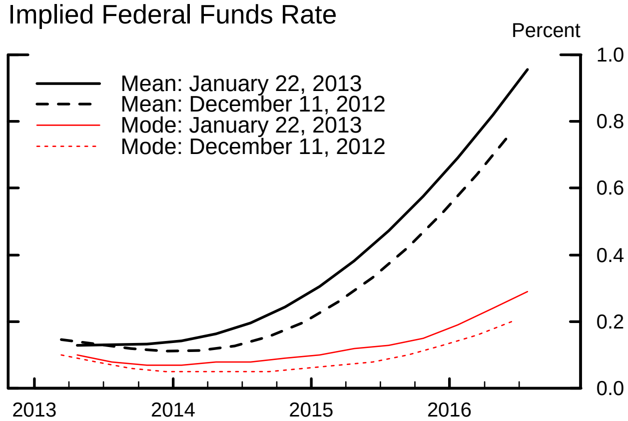
Policy Expectations and Treasury Yields

Selected Interest Rates



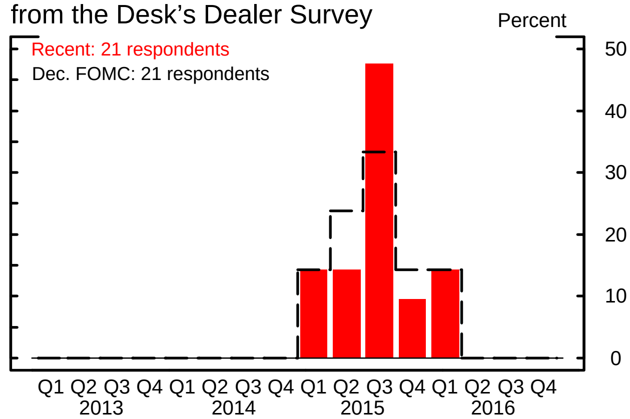
Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m. No adjustments for term premiums.
Source: Bloomberg.

Implied Federal Funds Rate



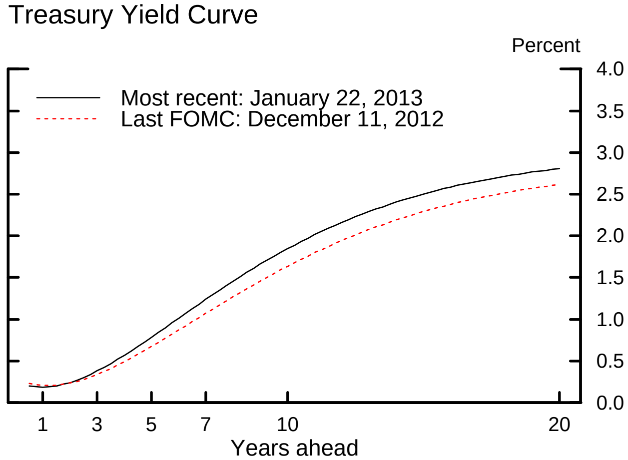
Note: Mean is estimated using overnight index swap quotes. Mode is estimated from the distribution of federal funds rate implied by interest rate caps. Both include a term premium of zero basis points per month.
Source: Bloomberg and CME Group.

Distribution of Modal Timing of First Rate Increase from the Desk's Dealer Survey



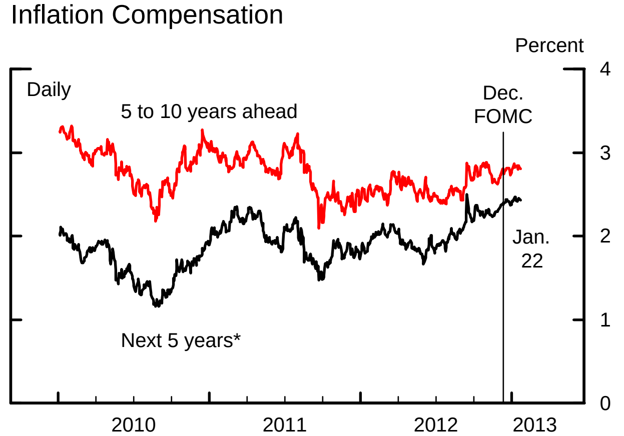
Source: Desk's dealer survey from January 22, 2013.

Treasury Yield Curve



Note: Smoothed yield curve estimated from off-the-run Treasury coupon securities. Yields shown are those on notional par Treasury securities with semiannual coupons.
Source: Federal Reserve Board.

Inflation Compensation



Note: Estimates based on smoothed nominal and inflation-indexed Treasury yield curves.
* Adjusted for the indexation-lag (carry) effect.
Source: Barclays PLC and staff estimates.

POLICY EXPECTATIONS AND TREASURY YIELDS

Expected policy rates based on market quotes moved up, on balance, over the intermeeting period, likely reflecting in part some attenuation of concerns about the fiscal cliff and the attendant downside risks to the economic outlook. Overall, the December FOMC statement and the Chairman's press conference following the meeting were characterized by market participants as largely in line with expectations. Some investors expressed surprise that thresholds for unemployment and inflation were introduced in the forward guidance at the December meeting, although many had reportedly anticipated that roughly similar thresholds would be adopted at some point relatively soon. Economic data releases over the period, including the December employment report, were reportedly seen as about in line with expectations and elicited little price reaction. On net, the expected path of the federal funds rate derived from overnight index swap (OIS) rates steepened over the intermeeting period and now rises above the current target range in the fourth quarter of 2014, one quarter earlier than at the time of the December FOMC meeting. Some measures of policy uncertainty ticked up over the period, suggesting that some of the increase in OIS rates could reflect an increase in term premiums. The modal policy path—the most likely values for future federal funds rates based on caps-implied risk-neutral distributions—also shifted up somewhat and now indicates that the current range will prevail through the first quarter of 2016. Results from the Open Market Desk's latest survey of primary dealers showed a slight downward shift in modal policy rate expectations beyond the first half of 2015, although dealers continued to view the third quarter of 2015 as the most likely time of the first increase in the target rate.[1]

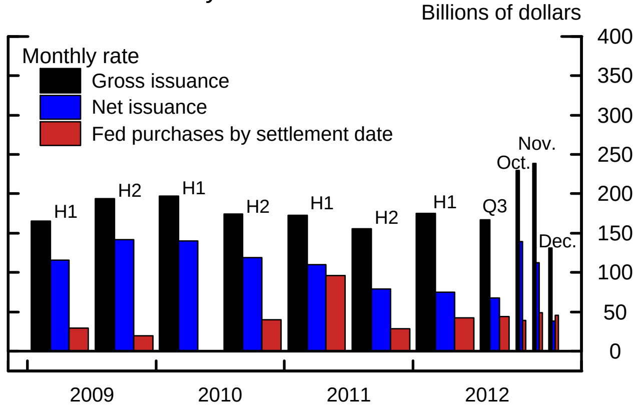
Reflecting in part the change in the market-implied path of policy, Treasury coupon yields increased moderately over the period. The FOMC announcement regarding asset purchases may have contributed to the upward rise in yields: The announced pace of purchases of longer-term Treasury securities was widely anticipated, but the specific maturity distribution for those purchases reportedly placed slightly more weight on intermediate-maturity securities, as opposed to longer-term securities, than some investors had expected. Yields increased again following the release of the December FOMC minutes, which were reportedly interpreted by some market

[1] The effective federal funds rate averaged 16 basis points over the intermeeting period, with the intraday standard deviation averaging about 4 basis points.

Financial Developments

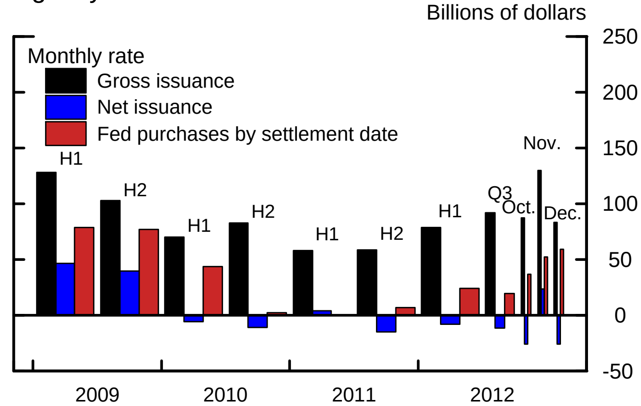
Treasury and Agency MBS Market Functioning

Nominal Treasury Issuance and Fed Purchases



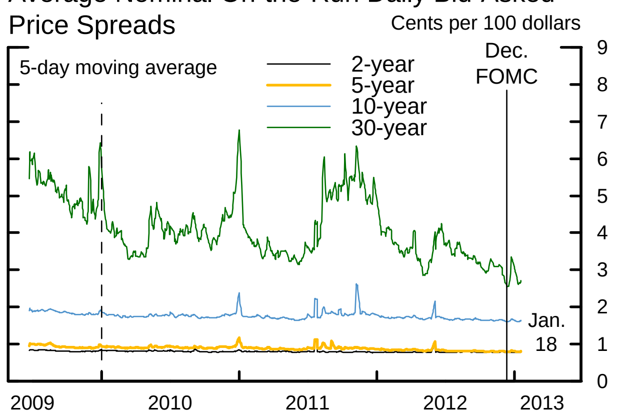
Note: Excludes bills.
Source: U.S. Department of the Treasury; Federal Reserve Bank of New York.

Agency MBS Issuance and Fed Purchases



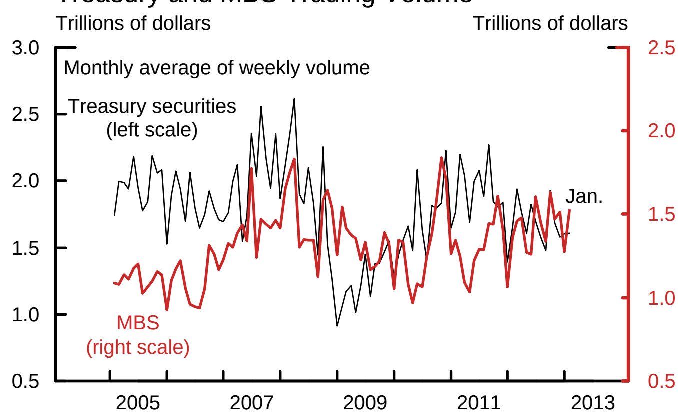
Note: Issuance and purchases of 30-year fixed-rate agency MBS.
Source: Federal Reserve Bank of New York.

Average Nominal On-the-Run Daily Bid-Asked Price Spreads



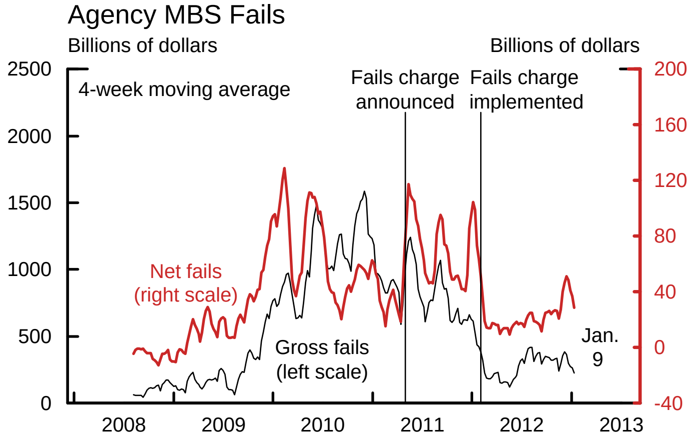
Note: Series contain breaks and are considered more reliable starting on January 1, 2010 (the dashed line), and going forward.
Source: BrokerTec.

Treasury and MBS Trading Volume



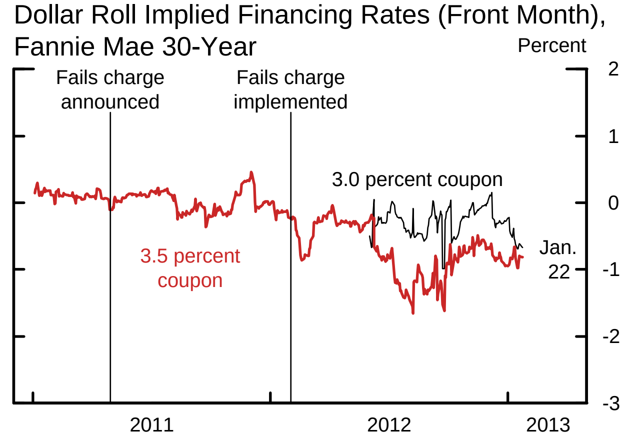
Note: Excludes bills.
Source: Federal Reserve Board, FR 2004, Government Securities Dealers Reports.

Agency MBS Fails



Note: Par value. Gross fails are the sum of fails to receive and fails to deliver, while net fails are the difference.
Source: Federal Reserve Board, FR 2004, Government Securities Dealers Reports.

Dollar Roll Implied Financing Rates (Front Month), Fannie Mae 30-Year



Note: For 3.0 percent coupon, data are omitted for January 6-10, 2012.
Source: J.P. Morgan.

Financial Developments

participants as signaling that the Federal Reserve might end asset purchases earlier than previously expected as a result of concerns about the efficacy and costs of additional purchases. Indeed, results from the most recent primary dealer survey indicate that far fewer dealers now expect asset purchases to continue beyond 2014 than at the time of the December survey, although median estimates suggest that dealers continue to view the first quarter of 2014 as the most likely time for the end of those purchases. Dealer expectations for the level of SOMA holdings at the end of 2013 were largely unchanged from the December survey.

The passage of the American Taxpayer Relief Act of 2012 eased concerns about the risk of substantially higher fiscal drag on growth in the near term; the reduced odds of a sharp slowing in the economy, and the associated unwinding of safe-haven demand, prompted a notable increase in Treasury yields. Nonetheless, investors reportedly remain attuned to other fiscal developments, including those related to the debt ceiling, possible sequestration, and expiration of the continuing resolution. (See the box “Debt Ceiling.”) On net, Treasury yields rose over the intermeeting period, with 5-year yields increasing 12 basis points and 10-year yields up 21 basis points. Both TIPS- and swaps-based inflation compensation over the next 5 years edged slightly higher. Five to 10 years ahead, TIPS-based inflation compensation was unchanged, while the swaps-based measure fell a bit.

Treasury and Agency MBS Market Functioning

The Desk completed the maturity extension program, continued its monthly purchases of agency MBS, and began the flow-based Treasury purchases announced following the December FOMC meeting.[2] Current-coupon yields on 30-year agency MBS rose 17 basis points over the intermeeting period, reaching their highest level since September of last year. Liquidity conditions in Treasury and agency MBS markets displayed typical seasonal patterns associated with the year-end, with bid-asked spreads widening somewhat and trading volumes edging lower in advance of the turn of the year. However, liquidity conditions largely returned to normal in both markets early in the new

[2] Over the intermeeting period, the Desk purchased $98 billion in agency MBS under the flow-based MBS program and the reinvestment program. In addition, the Desk has purchased $31 billion of Treasury securities since the start of the new Treasury purchase program at the beginning of the year. Finally, as part of the maturity extension program, $28 billion of Treasury securities were purchased and $23 billion were sold over the intermeeting period. The average maturity of SOMA Treasury holdings increased by about 4¼ years over the course of the program.

Debt Ceiling

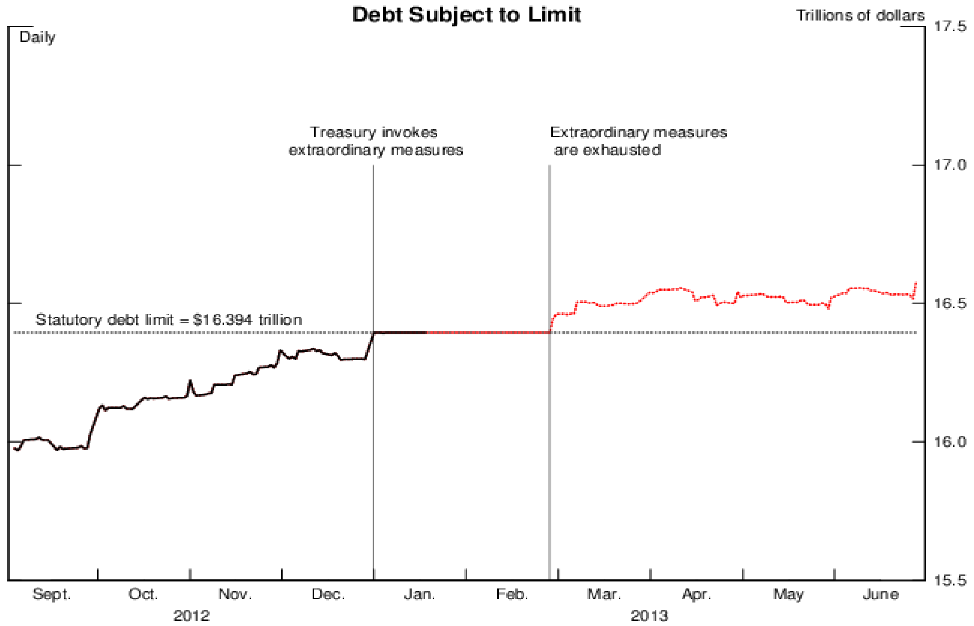
Over the intermeeting period, the Treasury announced a two-month Debt Issuance Suspension Period and began using extraordinary measures to avoid breaching the $16.394 trillion debt limit. As of January 22, the Board staff estimated that these measures provided the Treasury with approximately $180 billion of remaining capacity, implying, as shown in the top figure on the next page, that the debt ceiling will not be breached until February 28.[1] On January 18, House Republican leaders announced a proposal to temporarily raise the debt ceiling for three months; the proposed act would suspend the debt ceiling until May 18, 2013.

Investor concerns about the debt ceiling appear to have left, as yet, only a modest imprint on financial markets. As shown in the bottom figure on the next page, spreads on both one- and five-year U.S. credit default swaps (CDS) have increased recently, and the front end of the CDS curve has flattened. Nevertheless, both spreads remain considerably below levels at the time of the debt ceiling impasse in 2011, although this measure of investor expectations could be noisy due to the illiquidity of this market. Signals of broader financial market strains are not evident, perhaps reflecting market participants' belief that the Congress will increase the debt limit before default becomes a significant risk. Near-term interest rate uncertainty measured by implied volatility from interest rate options is subdued, and near-term implied volatility for the S&P 500 stock price index fell to a five-year low over the intermeeting period (as noted in the main Financial Developments text). That said, in past debt limit episodes, stresses in some of these measures often did not appear until the debt limit breach date was imminent.

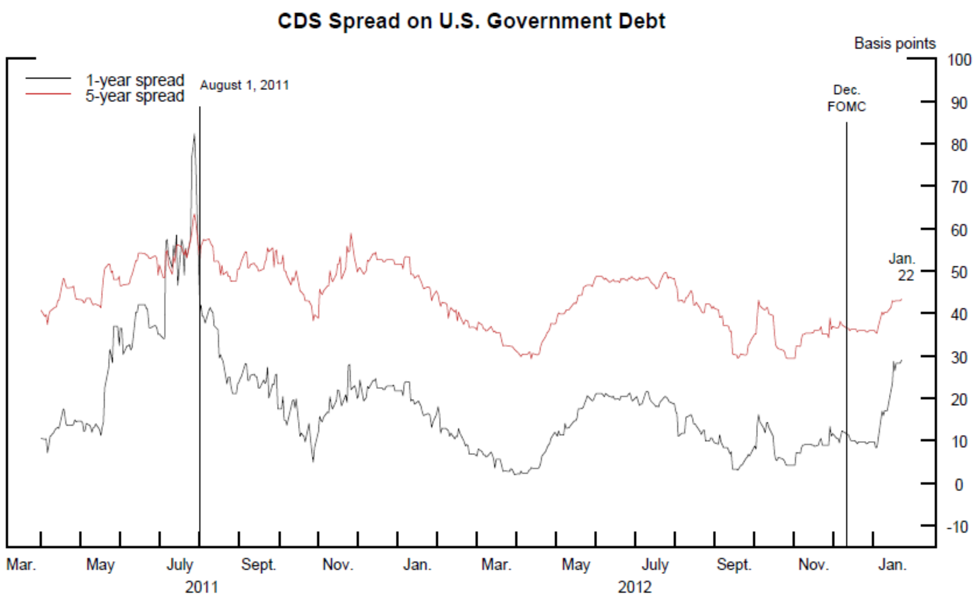
Fitch Ratings recently stated that a failure to reach agreement on raising the debt ceiling in a timely manner would undermine confidence in the United States as a reliable borrower and prompt a review of its U.S. sovereign credit ratings. Last September, Moody's stated that the government's rating would likely be placed under review after the debt limit is reached but several weeks before the exhaustion of the Treasury's resources, similar to the actions Moody's took in 2011. Standard & Poor's Ratings Services downgraded the U.S. credit rating following the 2011 debt ceiling debates but has not made any statement on the current debt ceiling negotiations.

Financial Developments

[1] Although forecasts for the breach date are inherently uncertain, there is a higher-than-usual degree of uncertainty in the current episode because the Debt Issuance Suspension Period coincides with the tax-filing season, when the amounts and timing of tax payments and refunds are exceptionally volatile. Against this backdrop, in a letter to the Congress on January 14, the Treasury Secretary noted that the Treasury expects to exhaust the extraordinatry measures between mid-February and early March.



Source: Department of Treasury, staff estimate.

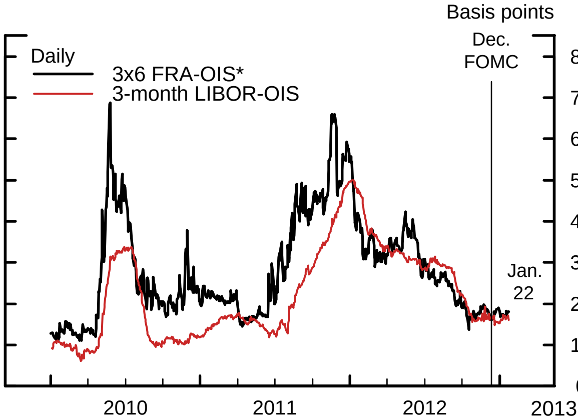


Source: Markit.

Financial Developments

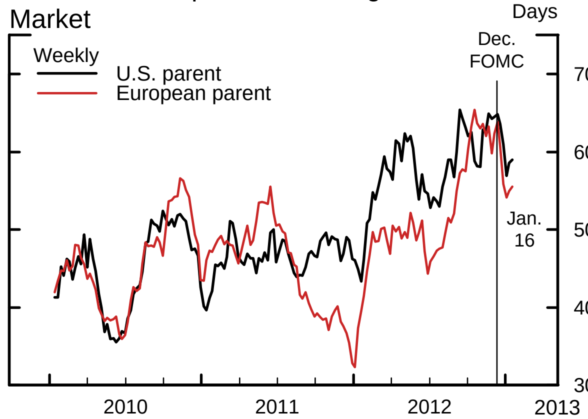
Financial Institutions and Short-Term Dollar Funding Markets

Funding Spreads



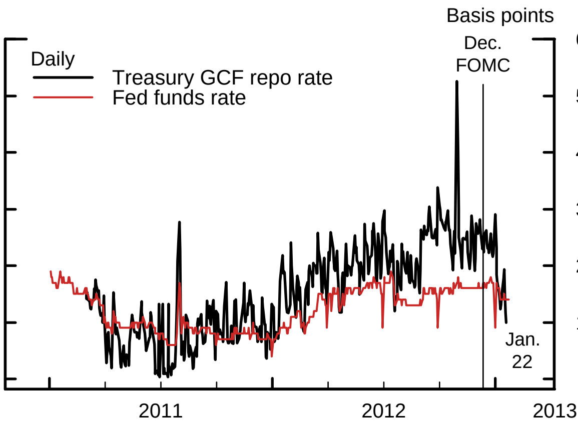
* Spread is calculated from a LIBOR forward rate agreement (FRA) 3 to 6 months in the future and the forward overnight index swap (OIS) rate for the same period.
Source: Bloomberg.

Average Maturity for Unsecured Financial Commercial Paper Outstanding in the U.S. Market



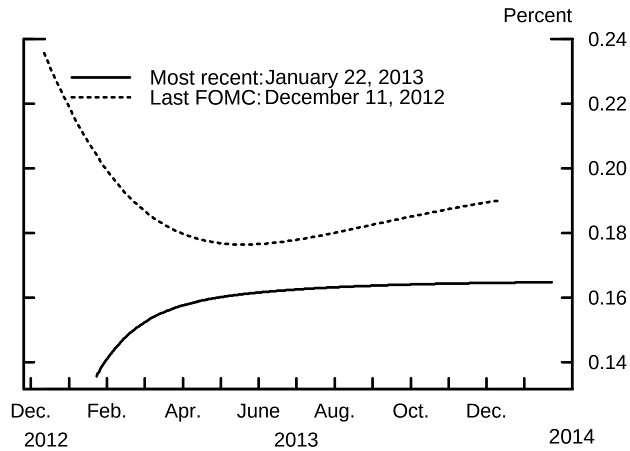
Source: Federal Reserve Board staff calculations based on data from the Depository Trust & Clearing Corporation.

Overnight Funding Rate



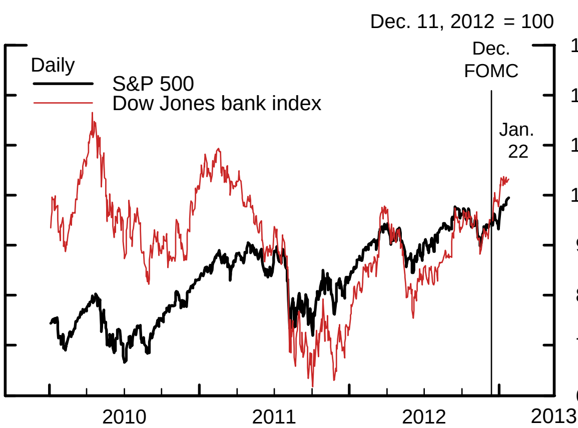
Note: GCF is general collateral finance; repo is repurchase agreement.
Source: Depository Trust & Clearing Corporation; Federal Reserve.

Expected Overnight Treasury Repo Rate



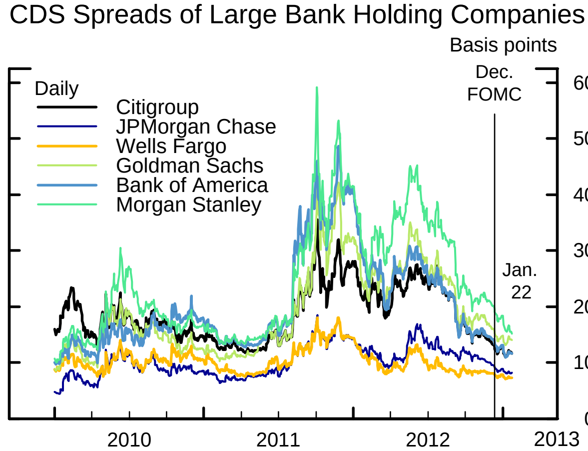
Source: Bloomberg; staff calculations based on GCF Treasury repurchase agreement (repo) futures quotes.

Stock Prices



Source: Bloomberg.

CDS Spreads of Large Bank Holding Companies



Source: Markit.

Financial Developments

year, and fails-to-deliver in the MBS market remained at low levels. That said, there are some signs of scarcity in the TBA market for production-coupon MBS. For example, the dollar-roll-implied financing rate for Fannie Mae 30-year 3.0 percent–coupon TBAs—a coupon in which significant portions of new issuance and of the Desk's purchases are concentrated—reached its most negative levels since September, possibly reflecting light MBS issuance around year-end. In response, the Desk rolled about 12 percent of the expected settlements of Fannie Mae 30-year 3.0 percent–coupon securities in January. The Desk also conducted dollar roll operations in the 3.5 percent coupon, though this coupon represents a significantly smaller portion of SOMA purchases. All told, the Desk postponed settlement on 16 percent of its total purchases from January to February, a proportion within the range of its dollar roll activity in recent months.

Financial Institutions and Short-Term Funding Markets

Conditions in short-term dollar funding markets were generally little changed, on balance, since the December FOMC meeting, although some money market rates edged down on net. Year-end pressures were modest overall and roughly in line with expectations. Data through early January show limited evidence of reallocation out of deposits, in the aggregate, following the expiration of unlimited deposit insurance on noninterest-bearing transaction accounts at the end of December. (See the box "Expiration of Unlimited FDIC Deposit Insurance.")

Over the intermeeting period, the spread between three-month LIBOR and comparable-maturity OIS rates was about unchanged, on net, as was the spread between the three-month forward rate agreement three months ahead and the corresponding forward OIS rate (a forward-looking measure of potential funding strains). The outstanding amount of unsecured CP issued by European financial institutions increased noticeably over the period, with most of the increase attributable to financial institutions with parents domiciled in France, Germany, and other "core" European countries. In contrast, the outstanding amount of unsecured CP issued by U.S. financial institutions was about unchanged. European financial institutions appeared able to issue unsecured CP at maturities similar to those of such CP issued by their U.S. counterparts, and spreads on U.S. and European financial CP remained stable. In asset-backed commercial paper (ABCP) markets, amounts outstanding have changed little for programs with sponsors domiciled in the United States and Europe. Overnight spreads on ABCP were about flat, on net, and spreads on most European ABCP issues remain close to those on U.S. issues.

Expiration of Unlimited FDIC Deposit Insurance

The unlimited FDIC insurance of noninterest-bearing transaction accounts at insured depository institutions provided under the Dodd–Frank Wall Street Reform and Consumer Protection Act expired as scheduled on December 31, 2012. Anecdotal reports had suggested that the expiration could prompt investors to shift deposits from banks to money market mutual funds (particularly government-only money market funds) and other money market instruments, moves that could push down Treasury bill yields and repo rates.[1] In addition, these reports also suggested that some depositors might shift balances from smaller to the largest banking institutions, which may be perceived as "too big to fail."[2]

Data through early January do not show an aggregate runoff of liquid deposits as the unlimited deposit insurance expired.[3] In December, liquid deposits grew at a robust seasonally adjusted annual rate exceeding 15 percent. The largest institutions in the banking sector saw strong inflows, but deposits at smaller banks also grew in aggregate (see the top figure on the next page). In the first week of January, liquid deposits were about unchanged.[4]

Institutional money market funds, particularly government-only money market funds, which normally see net inflows around year-end, received strong inflows late in December (see the bottom figure on the next page).[5] The effect of this new cash invested by money funds, combined with typical year-end balance sheet management activities, may have contributed in part to declines in money market rates around the turn of the year. However, the strong growth in December did not continue into the first part of January.

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[1] A survey by the Association for Financial Professionals conducted in November 2012 indicated that of those anticipating reducing deposit balances in response to the FDIC insurance expiration, the anticipated destination was Treasury-based money market funds, outright holdings of Treasury or agency securities, as well as prime money market funds and repo holdings. See also the appendix "Senior Credit Officer Opinion Survey on Dealer Financing Terms" (SCOOS) in the December 2012 Tealbook, which included a special question on the FDIC insurance expiration.

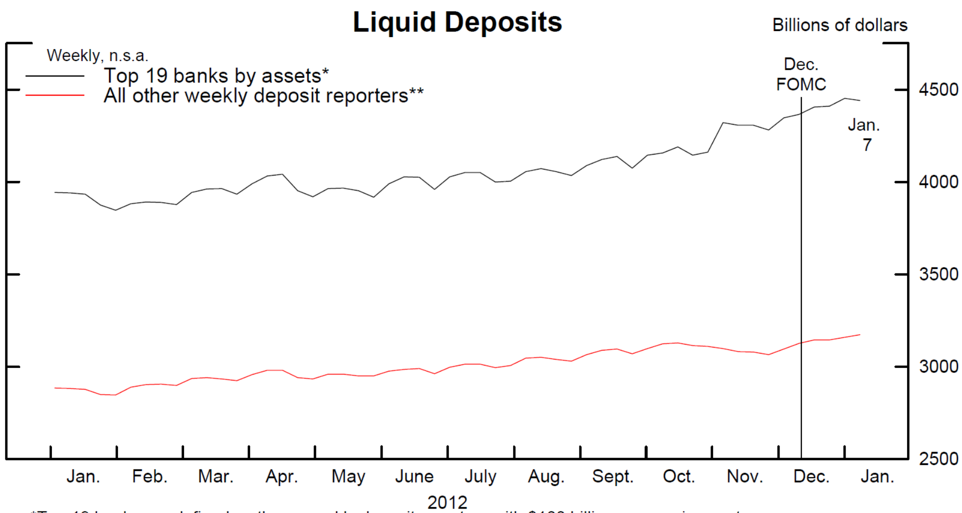
[2] The Board staff expected flows out of deposits related to insurance expiration to be a small fraction of the level of insured deposits. See the box "Expiration of Unlimited FDIC Deposit Insurance" in the December 2012 Tealbook; the SCOOS appendix in the December 2012 Tealbook, which included a special question on the FDIC insurance expiration; and the box "Bank Funding Consultations" in the September 2012 Tealbook for more information on these projections.

[3] Liquid deposits consist of demand deposits, other checkable deposits, and savings deposits. The Board staff focuses on liquid deposits because automatic sweeping activity conducted by banks between customers' transactions accounts and savings accounts contributes to volatility among these components. After contracting in November, demand deposits grew 24 percent at an annual rate in December on a seasonally adjusted basis.

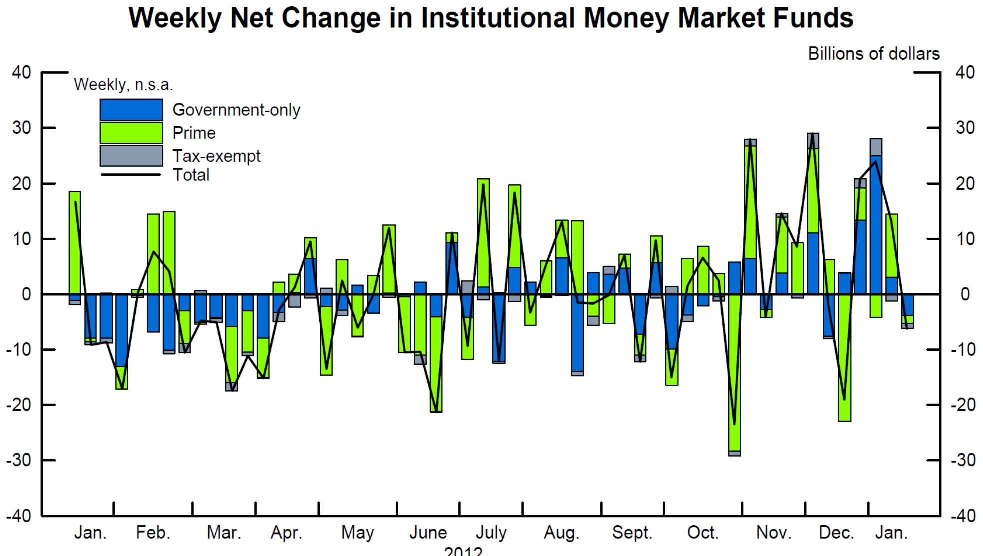
[4] Data from the January 18, 2013, Statistical Release H.8, "Selected Assets and Liabilities of Commercial Banks in the United States," showed a seasonally adjusted $39 billion decline in "other deposits" (which include additional deposit types to liquid deposits) at large banks for the week ending January 9; however, these U.S. banks have reported that only a fraction of this amount was related to the insurance expiration.

[5] In December, institutional money market fund balances grew about 6 percent at an annual rate on a seasonally adjusted basis and more than 28 percent at an annual rate on an unadjusted basis.

Although there is limited evidence to date of significant reallocations due to the expiration of unlimited deposit insurance, anecdotal reports indicate that some individual banks have been affected. A small number of banks have reported that they had prepared for liquid deposit runoffs at year-end by issuing alternative liabilities, such as time deposits.[6] Additionally, a few small institutions indicated that they have seen modest transfers out of previously insured deposits to alternative products within the bank or out of the bank to larger banks.



*Top 19 banks are defined as those weekly deposit reporters with $100 billion or more in assets; these top 19 banks hold approximately 56 percent of total M2 deposits.
**All other weekly deposit reporters consist of 2,540 institutions and represent approximately 39 percent of total M2 deposits.
Source: FR 2900.



Source: Investment Company Institute.

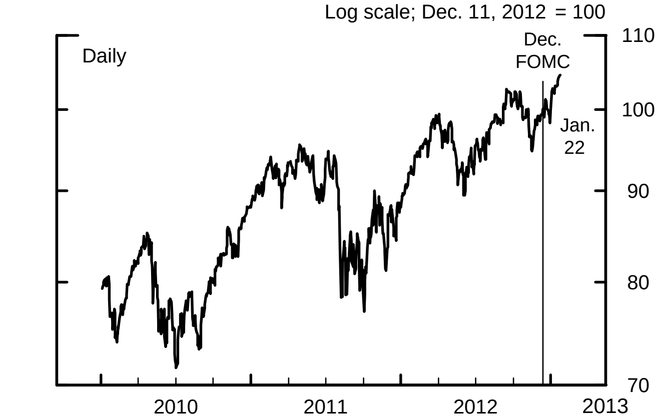
[6] Large time deposits grew about 25 percent at an annual rate at domestic commercial banks in December but contracted in early January.

Financial Developments

Other Domestic Asset Market Developments

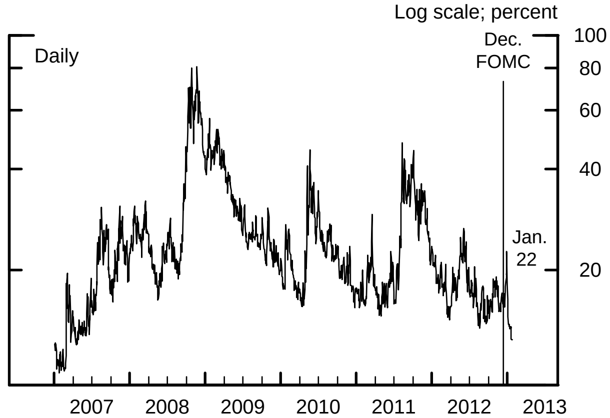
Financial Developments

S&P 500 Stock Price Index



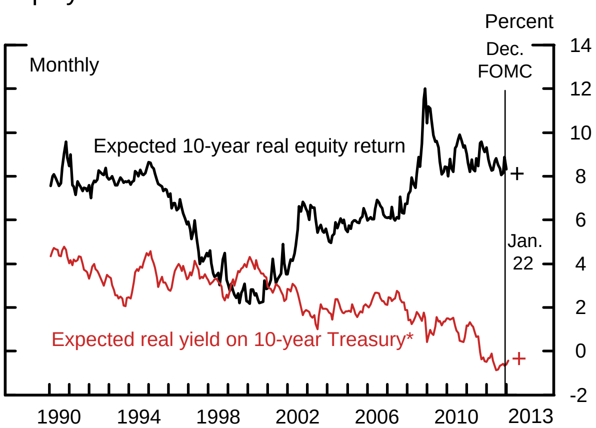
Source: Bloomberg.

Implied Volatility on S&P 500 (VIX)



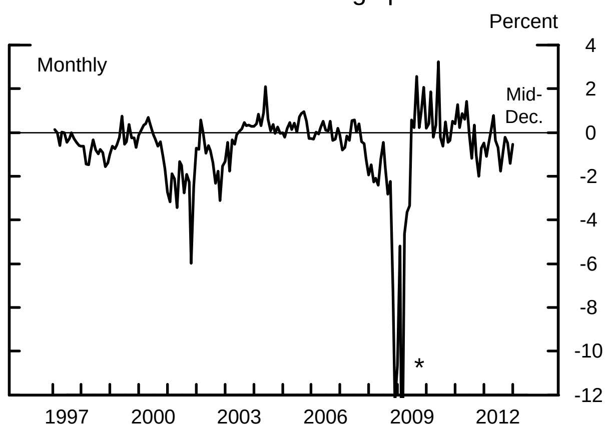
Note: Option-implied 1-month-ahead volatility on the S&P 500 index.
Source: Chicago Board Options Exchange.

Equity Risk Premium



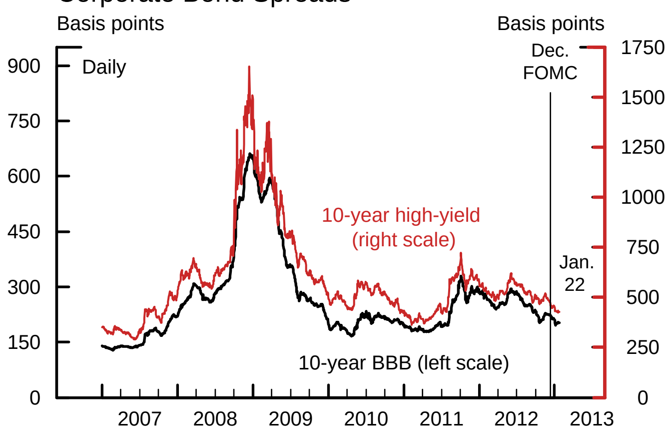
* Off-the-run 10-year Treasury yield less Philadelphia Fed 10-year expected inflation.
+ Denotes the latest observation using daily interest rates and stock prices and latest earnings data.
Source: Thomson Reuters.

Revisions to S&P 500 Earnings per Share



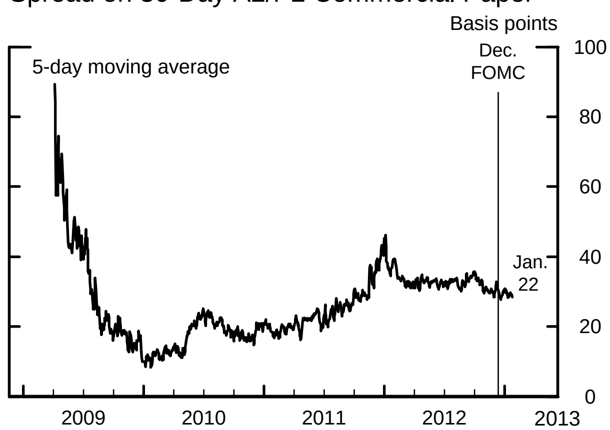
Note: Weighted average of the percent change in the consensus forecasts of current-year and following-year earnings per share.
* EPS revision is -17.22 percent in Feb. 2009.
Source: Thomson Reuters.

Corporate Bond Spreads



Note: Spreads are measured relative to a smoothed nominal off-the-run Treasury yield curve.
Source: Merrill Lynch; staff calculations.

Spread on 30-Day A2/P2 Commercial Paper



Note: The A2/P2 spread is the A2/P2 nonfinancial rate minus the AA nonfinancial rate.
Source: Depository Trust & Clearing Corporation.

The GCF repo rate for Treasury collateral declined, on balance, after the start of the new year, averaging 15 basis points over the first three weeks of January, compared with 25 basis points during the month of December. Prior to year-end, GCF futures quotes had indicated that market participants anticipated a decrease in repo rates in early 2013, reflecting a number of factors, including the end of the maturity extension program, expiration of unlimited deposit insurance, and increased demand for high-quality collateral. The actual decrease in repo rates was apparently a bit larger and more abrupt than had been expected, and futures quotes now suggest that the overnight Treasury GCF repo rate is expected to increase slightly in coming months but to remain below the levels observed late last year. The amount of financing provided by primary dealers against Treasury and agency collateral fell some, on net, over the intermeeting period, consistent with typical patterns around the turn of the year, and financing in the triparty repo market moved down by a similar percentage.

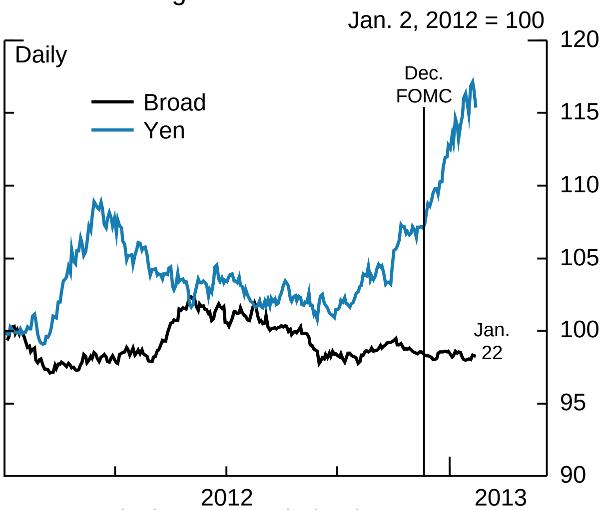
A broad index of bank stock prices has risen 8 percent since the December FOMC meeting—outperforming the S&P 500 index—and the median CDS spread of six large banking organizations has decreased 16 basis points. Sentiment toward domestic financial firms improved in response to the decline in tail risk following the fiscal negotiations and to continued recovery in the housing market. Market reaction to large domestic banks' announcements of fourth-quarter earnings was mixed. Market participants reportedly focused on strong loan growth and investment banking results. However, investors also noted a decrease in net interest margins at some large banks. Several banks announced mortgage-related settlements, most notably Bank of America's settlement with Fannie Mae to resolve agency mortgage repurchase claims; the settlements were in line with expectations and reportedly removed some legal uncertainty surrounding the banking sector.

Other Domestic Asset Market Developments

Broad U.S. equity price indexes increased, on net, over the intermeeting period, reflecting in part an easing of concerns about the U.S. fiscal situation and a positive start to the fourth-quarter earnings reporting season. The VIX, which measures option-implied volatility for 30-day returns on the S&P 500 index, dropped sharply at the turn of the year, after increasing early in the intermeeting period, and has subsequently dipped to its lowest level since early 2007. The staff's estimate of the spread between the expected real equity return for the S&P 500 index and the real 10-year Treasury yield—a

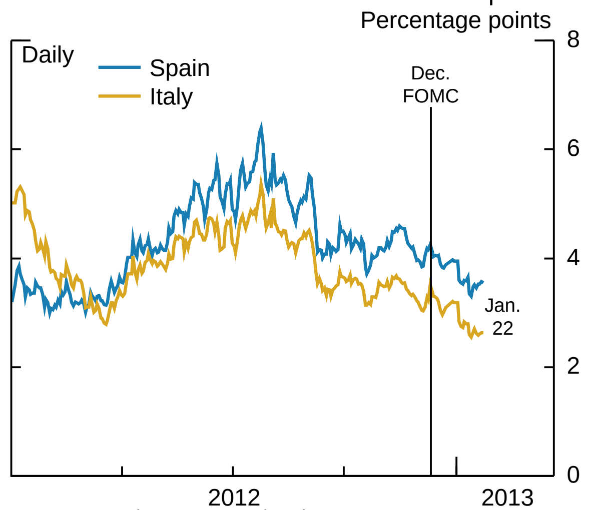
Foreign Developments

Dollar Exchange Rates



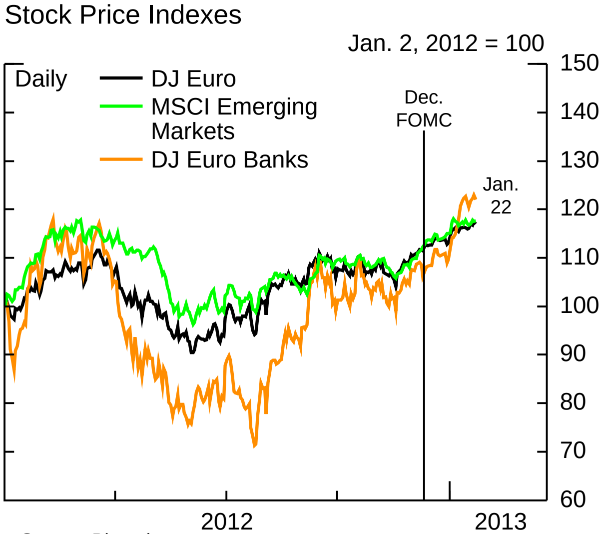
Source: Federal Reserve Board; Bloomberg.

Euro-Area 10-Year Government Bond Spreads



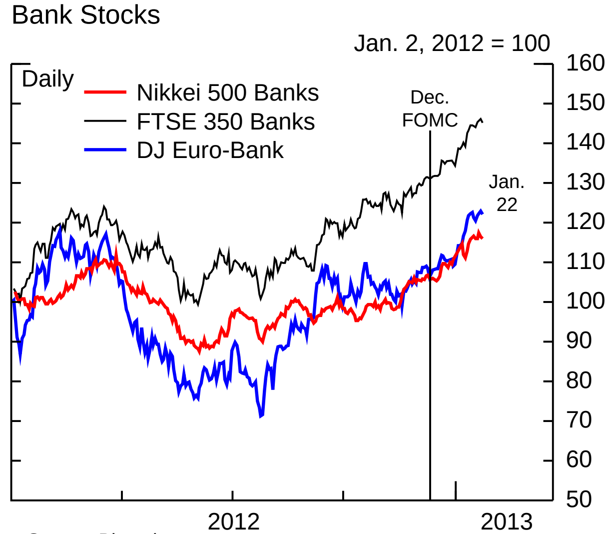
Note: Spread over German bunds.
Source: Bloomberg.

Stock Price Indexes



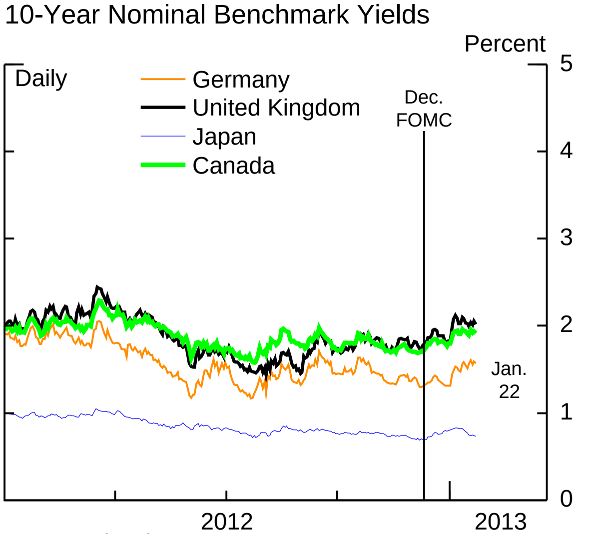
Source: Bloomberg.

Bank Stocks



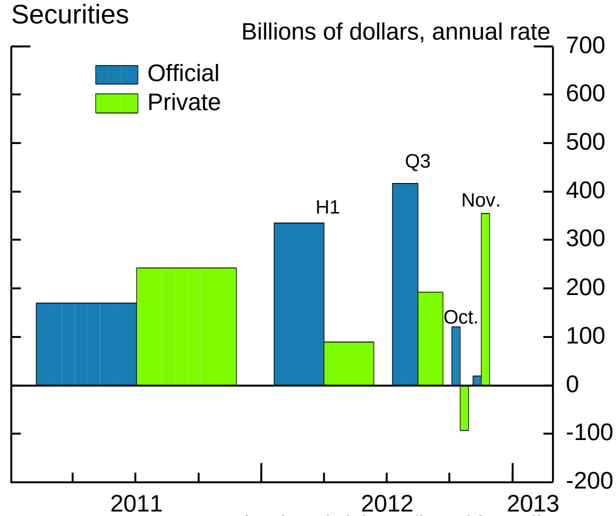
Source: Bloomberg.

10-Year Nominal Benchmark Yields



Source: Bloomberg.

Foreign Net Purchases of U.S. Treasury Securities



Source: Treasury International Capital data adjusted for staff estimates.

gauge of the risk premium embedded in equity prices—narrowed some over the past few weeks but continued to remain very wide by historical standards.

To date, about 100 firms in the S&P 500 have reported their fourth-quarter earnings. Expectations from Wall Street analysts indicate that earnings per share for S&P 500 firms declined a bit on a quarterly basis, dragged down by the large loss incurred by Bank of America. However, an elevated share of firms in the nonfinancial sector posted earnings above Wall Street expectations. An index of revisions to analysts' forecasts of year-ahead earnings for S&P 500 firms was slightly negative for the four-week period ending in mid-December.

Over the intermeeting period, yields on speculative-grade corporate bonds decreased, and yields on investment-grade corporate bonds were about flat. Risk spreads on speculative-grade bonds narrowed substantially, consistent with an increase in risk appetite over the period. In the secondary market for leveraged loans, the average bid price was up a bit since the December FOMC meeting. The spreads of yields on A2/P2 unsecured CP issued by nonfinancial firms over yields on AA-rated nonfinancial issues were about flat, on net, over the period amid year-end pressures that were mild by historical standards.

On a total return basis, the HFR Global Hedge Fund Index modestly trailed the S&P 500 index over the intermeeting period. Market participants suggested that, since the beginning of the year, appetite for risk on the part of levered investors has increased somewhat as concerns about tail risk have continued to diminish.

FOREIGN DEVELOPMENTS

Foreign financial market conditions also improved over the intermeeting period. Markets responded favorably to the partial resolution of the fiscal cliff negotiations, incremental but reassuring European policy developments, and the decision to slow the implementation of Basel III liquidity regulations. On net, benchmark sovereign yields rose, European peripheral spreads declined, and bank stocks generally outperformed broader indexes.

Over the intermeeting period, the staff's broad index of the trade-weighted foreign exchange value of the dollar was little changed. The dollar appreciated against the Japanese yen as financial markets responded to statements from recently elected Prime

Minister Shinzo Abe, who pressured the Bank of Japan to ease policy more aggressively and to adopt a formal inflation target of 2 percent; the new government also announced additional fiscal stimulus measures. (See the box "Recent Policy Developments in Japan" in the International Economic Developments and Outlook section.) In contrast, the dollar depreciated against most emerging market currencies and the euro, as global risk sentiment improved and financial tensions in the euro area eased further. Early in the period, Greece successfully completed a bond exchange that reduced its outstanding debt, and official financial assistance to Greece resumed. European leaders also continued to make progress toward a banking union, agreeing that the ECB would supervise the largest banks in the euro area as of next year. Peripheral sovereign spreads continued to decline over the period, and Ireland took another step toward full capital market access with a successful syndicated bond sale.

Japanese equity prices increased significantly over the period; equity prices in other countries also rose, though generally less sharply. European banking stocks outperformed broader indexes and increased notably on the announcement by the Basel Committee on Banking Supervision that it would give banks more time and flexibility to implement the Basel III liquidity standard. Funding conditions improved somewhat for euro-area banks; notably, Irish, Portuguese, and small Spanish banks, which had difficulty accessing capital markets for much of last year, recently issued unsecured debt.

Yields on foreign benchmark sovereign bonds increased over the period, reflecting both the improvement in global sentiment and reduced expectations for additional monetary easing in some of the advanced economies. Although the Bank of Japan announced some further accommodation, the ECB and the Bank of England kept their policy rates on hold and appeared to signal a lower likelihood of further easing. Most emerging market central banks left their policy rates on hold, though a few eased their policy rates further on growth concerns.

Foreign private demand for U.S. securities was particularly strong in November, according to the latest TIC data. Although foreign official demand for U.S. securities was weak in November, data on custody holdings at the Federal Reserve Bank of New York indicate a considerable pickup in December, leaving official inflows for 2012 well above their 2011 level.

Business Finance

Available indicators suggest that the credit quality of nonfinancial corporations continues to be solid. In the third quarter, the aggregate liquid asset ratio remained near its highest level in at least 20 years, while the aggregate ratio of debt to assets stayed quite low. The volume of nonfinancial corporate bonds upgraded by Moody's Investors Service in the fourth quarter increased and was somewhat larger than the volume of downgrades. The six-month trailing default rate for nonfinancial corporate bonds ticked up in December but remained low by historical standards. The KMV expected year-ahead default rate for nonfinancial firms also stayed low in January.

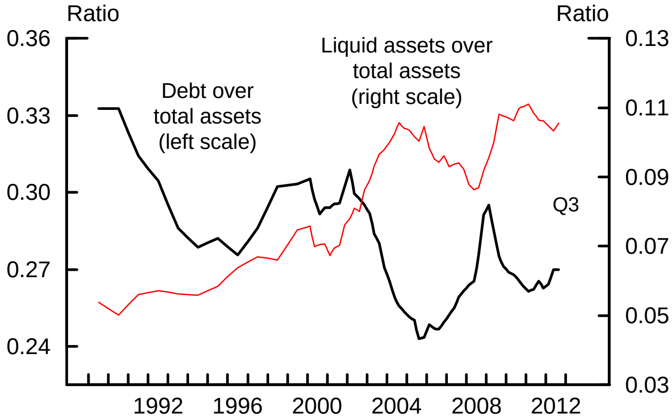
Nonfinancial firms continued to tap debt markets at a prodigious pace over the intermeeting period, as interest rates remained very favorable and investors displayed strong appetite for fixed-income products. Bond issuance by nonfinancial firms increased in the final quarter of last year from its robust third-quarter pace, boosted by a pickup in investment-grade issuance, and appears to have remained strong in January. C&I loans also expanded briskly in the fourth quarter, and the the volume of nonfinancial CP outstanding rose notably over the intermeeting period. In the syndicated leveraged loan market, institutional loan issuance was very strong in December, and fourth-quarter gross issuance totaled nearly $140 billion, almost the same quarterly pace as in the first half of 2007. Issuance of CLOs accelerated in the fourth quarter, pushing overall 2012 issuance above $50 billion. Interest on the part of institutional investors appears to have remained strong in the first few weeks of 2013.

Recent issuance in both the corporate bond and the leveraged loan markets continued to be driven importantly by firms borrowing in order to refinance existing debt obligations. In addition, borrowing to issue dividends, a practice referred to as dividend recapitalization, rose further in the fourth quarter, as some firms made dividend payments in advance of expected tax changes. At $47 billion, the volume of such deals for the year was the largest since at least 2004 (when data were first collected). The average debt-to-earnings ratio for firms issuing highly leveraged loans continued to rise, reaching its highest level since 2007 but still remaining below the 2007 peak. Nonetheless, spreads on newly issued loans stayed quite elevated relative to their pre-crisis levels.

The pace of gross public issuance of equity by nonfinancial firms was subdued in January, likely owing to seasonal factors, but remained solid in the fourth quarter. Net equity issuance was again deeply negative in the final quarter of 2012, as retirements of

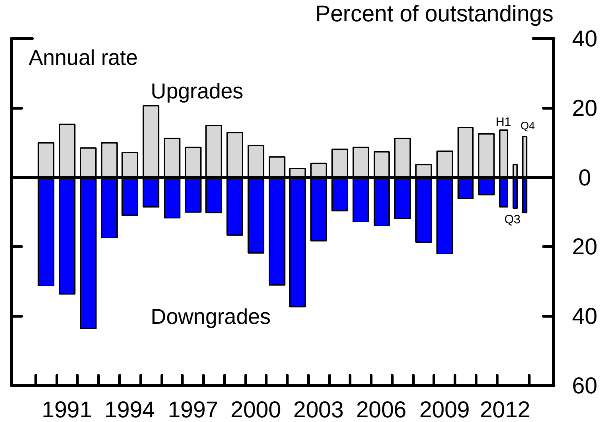
Business Finance

Financial Ratios for Nonfinancial Corporations



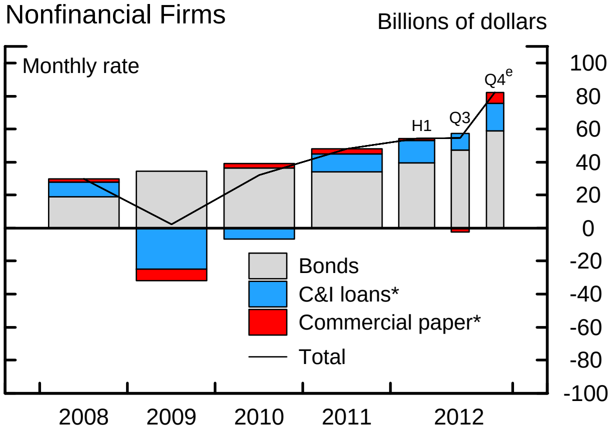
Note: Data are annual through 1999 and quarterly thereafter.
Source: Compustat.

Bond Ratings Changes of Nonfinancial Firms



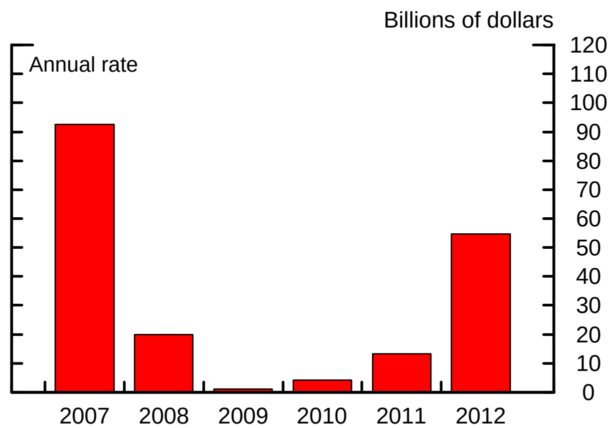
Source: Calculated using data from Moody's Investors Service.

Selected Components of Net Debt Financing, Nonfinancial Firms



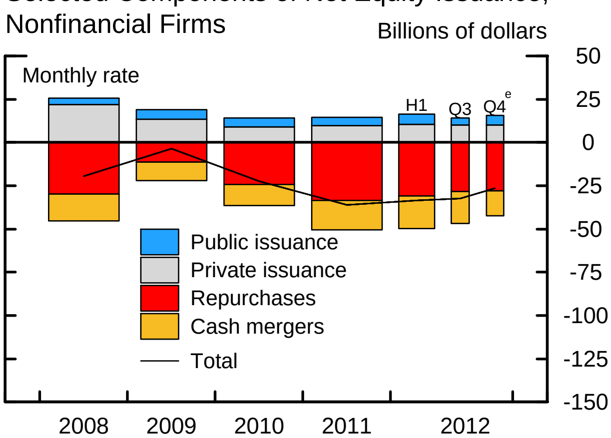
* Period-end basis, seasonally adjusted.
e Estimate.
Source: Depository Trust & Clearing Corporation; Thomson Financial; Federal Reserve Board.

U.S. CLO Issuance



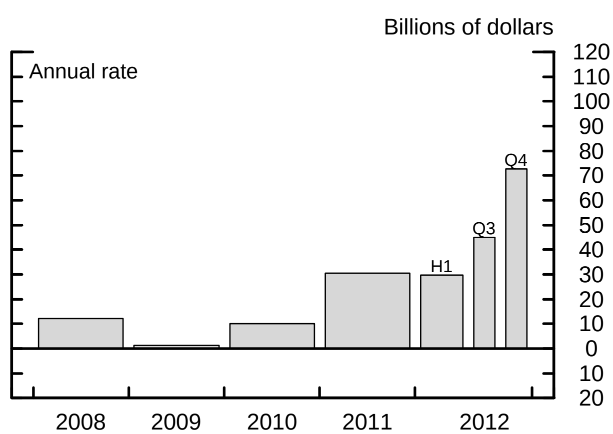
Note: CLO is collateralized loan obligation.
Source: Thomson Reuters LPC LoanConnector.

Selected Components of Net Equity Issuance, Nonfinancial Firms



e Estimate.
Source: Thomson Financial, Investment Benchmark Report; Money Tree Report by PricewaterhouseCoopers, National Venture Capital Association, and Venture Economics.

CMBS Issuance



Note: CMBS is commercial mortgage-backed securities.
Source: Commercial Mortgage Alert.

Financial Developments

equity from share repurchases and cash-financed mergers continued to outpace issuance. Announcements of share repurchases and cash-financed mergers picked up a bit, suggesting that equity retirements are likely to maintain their rapid pace in the near future.

Conditions in the commercial real estate (CRE) sector continued to be strained. Delinquency rates on commercial mortgages at banks remained elevated in the third quarter, and those on CMBS stayed near historical highs in December. Vacancy rates also continued to be relatively high in the third quarter, causing rents to stagnate or decline over the same period. Investor demand for CMBS remained a bright spot for the sector. CMBS issuance during the fourth quarter was robust, capping off the strongest year for issuance since 2007 (but still well below its 2007 levels). CMBS spreads narrowed 18 basis points over the intermeeting period. In addition, the January SLOOS indicated that moderate fractions of banks had eased some terms on CRE loans over the past year, such as maximum maturity and spreads of loan rates over banks' cost of funds. However, banks reported that policies related to loan-to-value ratios, debt service coverage ratios, and takeout financing requirements were about unchanged on net.

HOUSEHOLD FINANCE

Conforming home mortgage rates touched new lows during the intermeeting period but have edged up 4 basis points, on net, since the December FOMC meeting. Yields on MBS rose by more, leaving the spread between primary and secondary rates 13 basis points narrower and at its lowest level since before the September FOMC meeting. However, the spread still remained wide by historical standards due in part to heavy workloads at the major mortgage originators.

Indeed, refinance originations in December and January stayed near their highest levels since the housing market began to recover, supported by low interest rates and, to some extent, HARP (the Home Affordable Refinance Program). Nonetheless, originations remain below predictions from staff models based on past refinancing behavior, as very tight underwriting conditions, consolidation among mortgage originators, and low levels of home equity continue to limit access to credit for many households. Capacity constraints in the mortgage market may also be having an effect on the ability of some borrowers, especially those with lower-than-average credit scores, to obtain mortgage credit. (See the box "Crowding Out in the Mortgage Market.") Earlier this month, the Consumer Financial Protection Bureau finalized the ability-to-repay rules

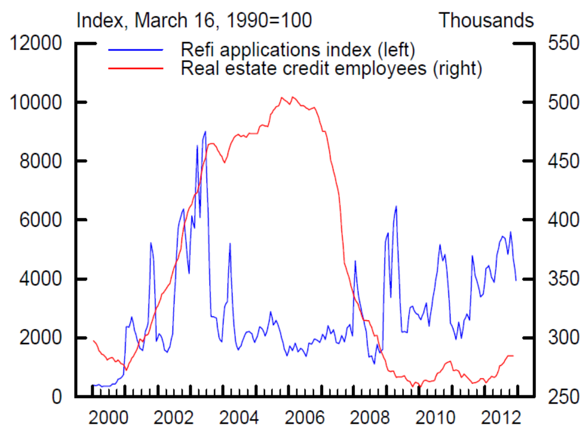
Crowding Out in the Mortgage Market

Some market analysts and Federal Reserve staff have argued that the recent large spreads between mortgage rates and the yields on agency MBS are at least partly attributable to "capacity constraints" in the mortgage finance industry. Indeed, mortgage industry employment (the red line in the bottom-left figure) plummeted over 40 percent between 2006 and 2010, and hiring has rebounded only modestly despite the heavy pace of mortgage refinancing activity (the blue line). The resultant strain on industry processing capacity is thought to convey temporary market power to originators, which may be reflected not only in a higher primary–secondary market interest rate spread, but also in restraint on the quantity of loans originated. Moreover, that restraint would likely be more binding on potential borrowers with less-than-pristine credit scores, owing to the increased time and scrutiny now required for underwriting such loans.

These forces would compound the effects of the dramatic shift to tighter credit standards that took hold in 2008. That shift is exhibited in the bottom-right figure, which shows the monthly number of originations of prime mortgages for financing home purchases divided into five groups according to borrower credit scores. Loans to borrowers with credit scores of 621 to 680 (the black line), which represented a sizable share of the market before 2008, have nearly disappeared. But there was also a dramatic falloff in the number of loans made to borrowers with fairly typical credit scores, such as those in the range of 721 to 750 (the purple line). In contrast, purchase mortgages for borrowers with the highest credit scores (above 780, the orange line) have continued to run at only a slightly slower pace than during the boom years.

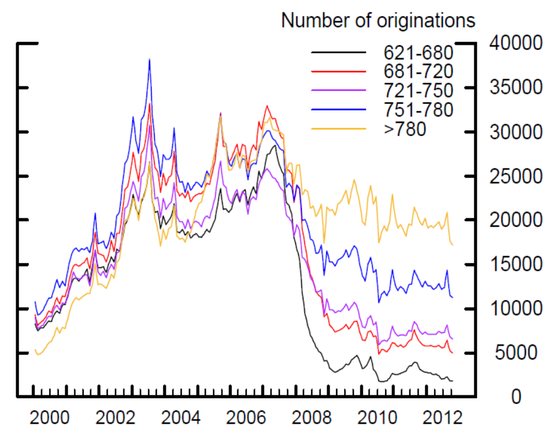
In an environment in which origination capacity appears so stretched, the boon to refinancing activity as a result of historically low mortgage interest rates might have the unfortunate side effect of exacerbating the difficulties that borrowers without stellar credit scores face in obtaining purchase and refinance mortgages. In particular, lenders might be prone to focus their resources on easier-to-complete, but just as lucrative, refinance applications of borrowers with very high credit scores, many of whom are repeat refinancing customers.

Refi Applications vs Real Estate Credit Employees



Source: For refinance (refi) applications index, Mortgage Bankers Association; for real estate credit employees, Bureau of Labor Statistics.

Prime Purchase Originations



Source: Staff calculations from Lender Processing Services data.

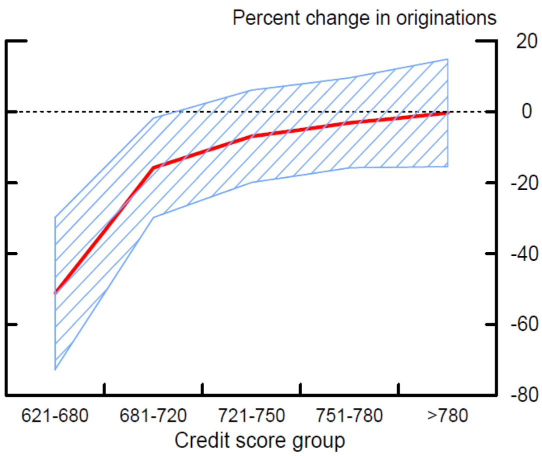
Financial Developments

To look for evidence of congestion effects on purchase mortgage originations, we constructed a measure of the mortgage employee "refinance workload" using recent months' total refinance applications divided by the number of real estate credit industry employees. We then examined the relationship between that measure and the quantity of purchase mortgage originations for borrowers in different credit score ranges. The result is shown in the bottom-left figure, which plots the estimated effects (along with standard error bands) from the increase in the refinance workload seen over the past 18 months. Our estimates suggest that such a rise in the refinance workload depresses monthly purchase originations about 50 percent for borrowers with credit scores of 621 to 680 and 15 percent for borrowers with credit scores of 681 to 720. In contrast, there is no statistically significant effect for credit scores above 720.

We also explored the effects of our refinance workload measure on the monthly credit score distribution for purchase mortgage originations. Indeed, the 10th percentile of credit scores among newly originated purchase mortgages (the blue line in the bottom-right figure) exhibits a strong positive correlation with our refinance workload measure (the red line). Our results suggest that an increase in the refinance workload like that seen over the past 18 months pushes the 10th percentile of the credit score distribution 12 points higher and pushes up the median credit score about 3½ points. This effect of higher workloads is not confined to purchase mortgages; we find similar results for the credit score distribution of newly originated refinance mortgages.

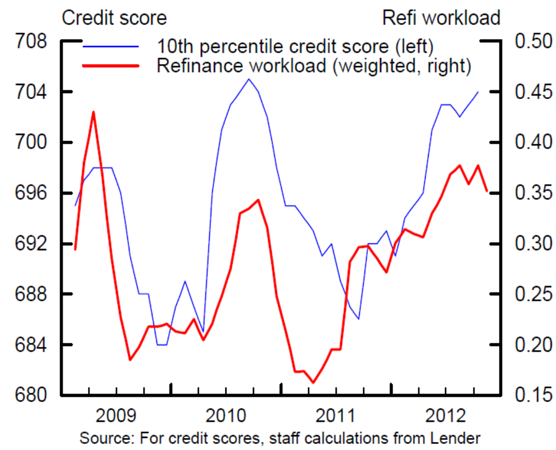
One implication of this analysis is that assessing the net effect of a modest rise in market interest rates on home purchase and refinancing activity is more complicated than one might expect. Higher rates will tend to depress home purchase and refinance activity through the usual channels. But at least some of those direct effects might be offset to the extent that the rise in rates curtails the demand for mortgage refinancing and so leaves lenders more willing to provide purchase mortgages to borrowers with lower credit scores. Moreover, the disappearance of "serial refinancers" could free up some capacity to refinance more applicants with less-than-pristine credit scores.

Effects of Increased Refinance Workload



Note: Shaded area denotes standard error bands.
Source: Staff estimates.

Prime Purchase Credit Scores vs Refinance Workload

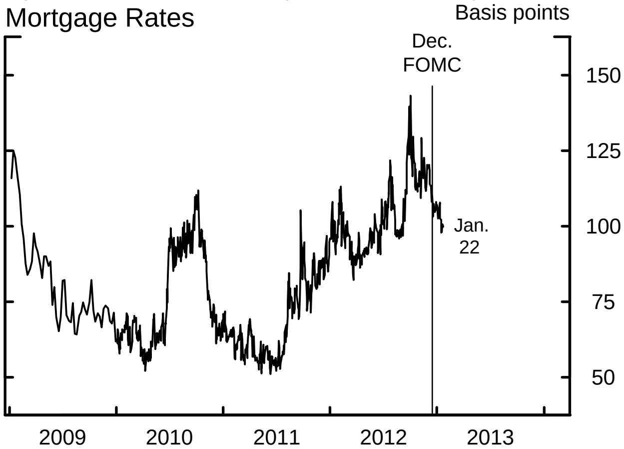


Source: For credit scores, staff calculations from Lender Processing Services data; for refinance workload, staff calculations from Mortgage Bankers Association and Bureau of Labor Statistics data.

Financial Developments

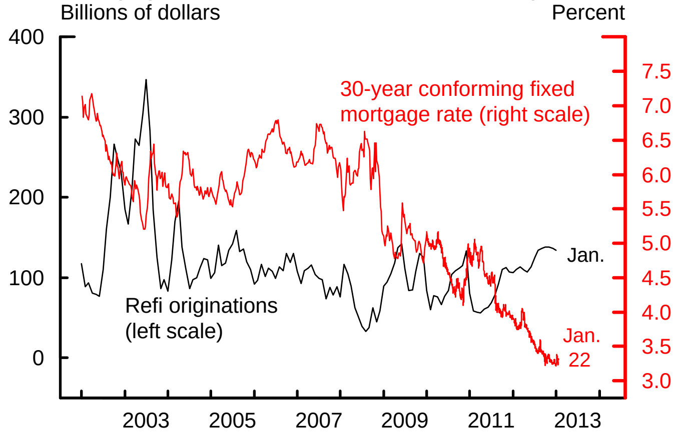
Household Finance

Spread between Primary and Secondary Mortgage Rates



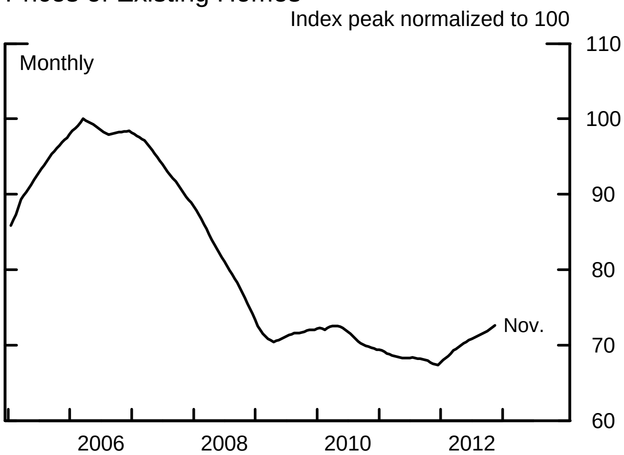
Note: Spread is calculated as the difference between the Loansifter 30-year conforming mortgage interest rate and the Fannie Mae 30-year current-coupon MBS yield.
Source: For MBS yield, Barclays; for mortgage rate, Freddie Mac (before 2010) and Loansifter (from 2010).

Mortgage Rate and Refinance Loan Originations



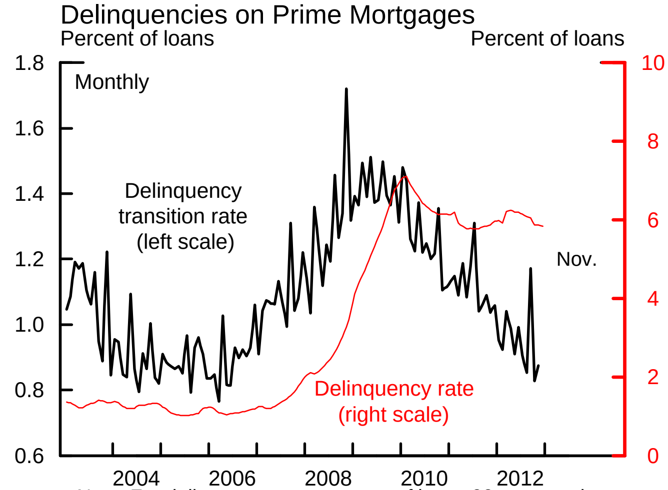
Note: For mortgage rate, the data are weekly before 2010 and daily thereafter; for refinance (refi) originations, the data are seasonally adjusted by FRB staff.
Source: For mortgage rate, Freddie Mac (before 2010) and Loansifter (from 2010); for refi originations, staff estimates.

Prices of Existing Homes



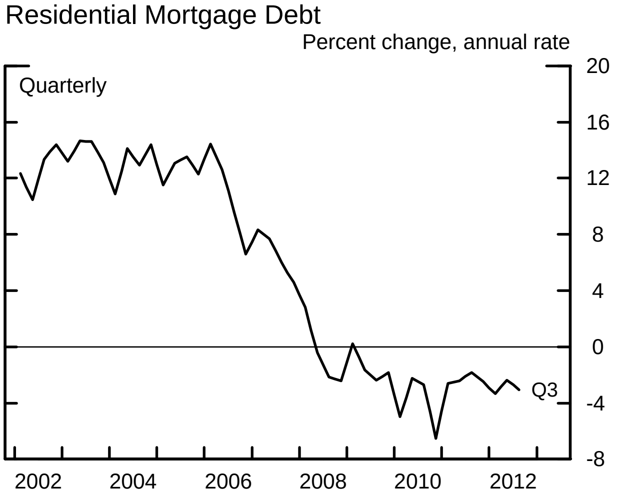
Source: CoreLogic.

Delinquencies on Prime Mortgages



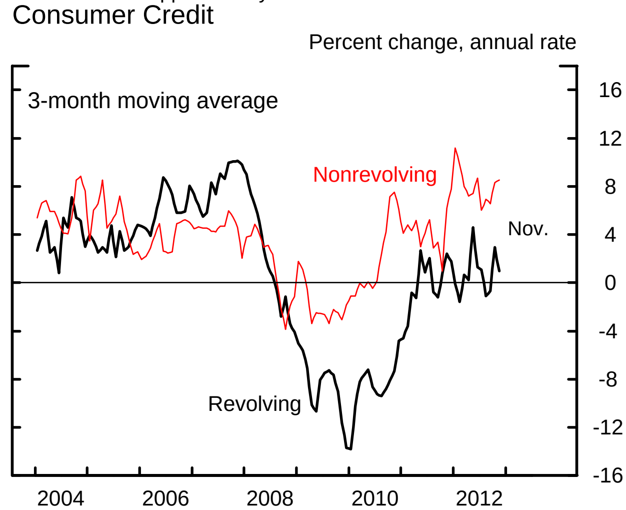
Note: For delinquency rate, percent of loans 90 or more days past due or in foreclosure. For transition rate, percent of previously current mortgages that transition to being at least 30 days delinquent each month.
Source: LPS Applied Analytics.

Residential Mortgage Debt



Source: Federal Reserve Board.

Consumer Credit



Source: Federal Reserve Board.

Financial Developments

required by the Dodd–Frank Act, which delineates the types of "qualified mortgages" for which mortgage originators will be provided legal safeguards from borrower lawsuits. Publication of the rules, which go into effect at the beginning of 2014, had little effect on market prices.

Residential mortgage debt continued to contract in the third quarter because of high foreclosure and short-sale activity, low home sales, and tight mortgage credit. Aggregate indexes of house prices increased further in November, leaving home prices roughly 7½ percent above their year-earlier levels. The rate at which mortgages entered delinquency continued to trend down in October and November, but overall, serious delinquency rates on the stock of loans only edged down from a very high level.

Consumer credit expanded briskly again in October and November. Nonrevolving credit continued to increase at a robust pace because of growth in student and auto loans, while revolving credit moved roughly sideways. Consumer asset-backed securities (ABS) issuance totaled about $35 billion in the fourth quarter, capping off the strongest year for ABS issuance since prior to the crisis (but still well below 2007 levels).

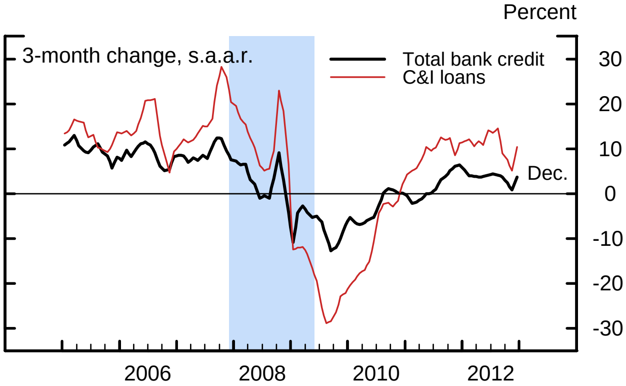
Government Finance

Since the December FOMC meeting, the Treasury auctioned $199 billion in nominal securities and $14 billion in five-year TIPS. On balance, the auctions were about in line with expectations, although bid-to-cover ratios exhibited their usual seasonal decline.

Amid continued fiscal pressures facing state and local governments, net issuance of long-term municipal bonds was again negative in the fourth quarter, and partial data indicate that it likely remained negative in January. In the third quarter, downgrades of municipal bonds slowed with respect to the first half of the year but continued to far outpace upgrades. CDS spreads for states narrowed a bit, on net, over the intermeeting period, consistent with movements in corporate CDS spreads and a general increase in investors' risk appetite. Yields on 20-year general obligation municipal bonds did not rise as much as those on comparable-maturity Treasury securities, leaving their ratio a bit lower on net.

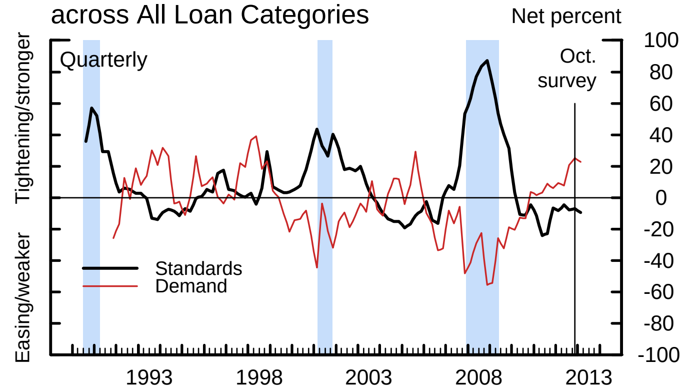
Commercial Banking and Money

Change in Bank Credit



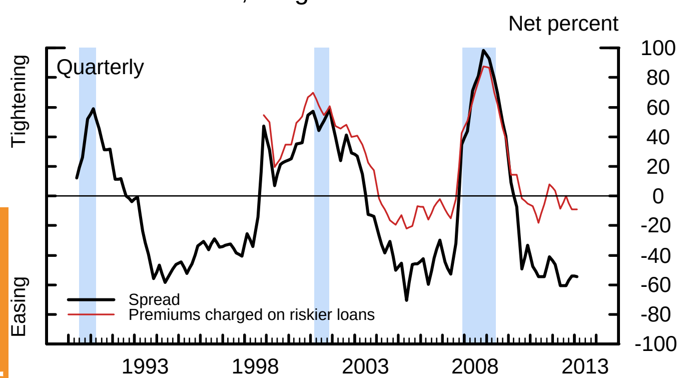
Note: The data have been adjusted to remove the estimated effects of certain changes to accounting standards and nonbank structure activity of $5 billion or more. C&I is commercial and industrial.
Source: Federal Reserve Board.

Change in Standards and Demand across All Loan Categories



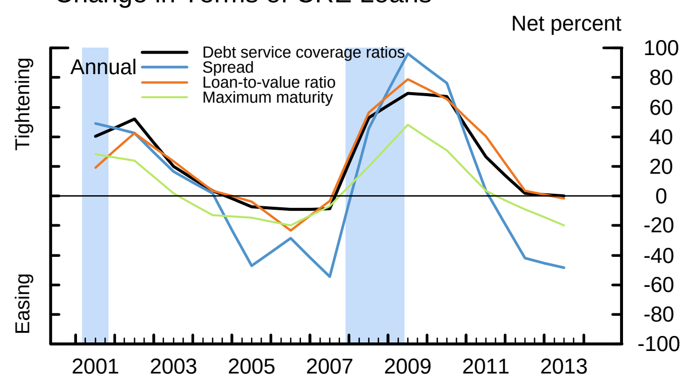
Note: A composite index that represents the net percentage of loans on respondents' balance sheets that were in categories for which banks reported tighter lending standards or stronger loan demand over the past 3 months, with results weighted by survey respondents' holdings of loans in each category.
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

C&I Loan Terms, Large and Middle-Market Firms



Note: Spread is defined as spreads of loan rates over a bank's cost of funds. Data for premiums start in 1998. C&I is commercial and industrial.
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Change in Terms of CRE Loans



Note: Spread is defined as spreads of loan rates over a bank's cost of funds. CRE is commercial real estate.
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

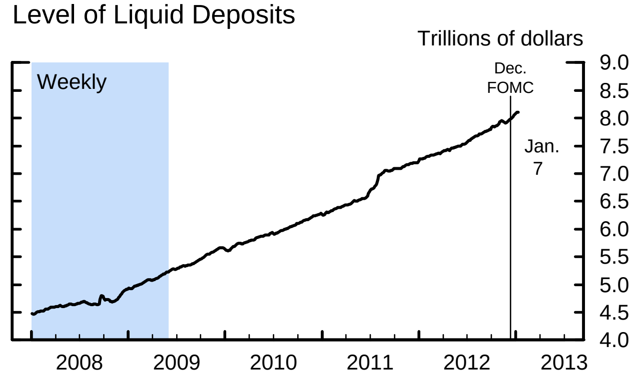
Growth of M2 and Its Components

Percent, s.a.a.r.

	M2	Liquid deposits	Small time deposits	Retail MMFs	Curr.
2012	7.5	11.1	-16.8	-5.7	9.0
2012:H1	5.7	9.2	-16.7	-10.1	9.1
2012:H2	9.0	12.5	-18.5	-1.4	8.6
2012:Q4	9.1	12.2	-19.8	2.6	9.0
Dec.	12.7	15.6	-20.7	17.1	8.6

Note: Retail MMFs are retail money market funds.
Source: Federal Reserve Board.

Level of Liquid Deposits



Note: Seasonally adjusted.
Source: Federal Reserve Board.

Note: The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.

Financial Developments

COMMERCIAL BANKING AND MONEY

Growth of bank credit in the fourth quarter slowed to about half the pace it registered over the first three quarters of the year, as securities holdings continued to advance at a moderate rate and loan growth slowed. Gains in bank loans continued to be concentrated in C&I loans, especially at domestic banks. In contrast, C&I loans contracted at foreign-related institutions in the fourth quarter, the first such decline in more than two years. CRE loans were about flat over that period. Closed-end residential loans held on banks' books decreased over the quarter, and home equity loans continued to run off at a rate that was comparable to that of the previous quarter. Consumer loans increased modestly in the fourth quarter, reportedly boosted by auto loans, while credit card loans were flat. Meanwhile, noncore loans increased only marginally during the quarter.

Growth in banks' securities during the fourth quarter remained roughly on par with that during the previous quarter. Banks reduced their portfolios of agency MBS, on balance, over the quarter but continued to increase their holdings of Treasury securities and "other" (non-Treasury and non-agency) securities. Detailed data available from the Call Report for the third quarter suggest that municipal bonds account for an important portion of the recent sustained growth in other securities.

According to the January SLOOS, domestic banks continued to report having somewhat eased their lending standards and some terms, on balance, and having experienced a net increase in demand across most major loan categories in the fourth quarter. Regarding business loans, large fractions of banks again reported having reduced spreads of rates on C&I loans over their cost of funds, while much smaller fractions indicated that the premiums charged on riskier loans had decreased. Regarding credit policies on loans to households, a few banks reported having eased standards on prime residential mortgages, including a large bank that reported having eased considerably. On a loan-weighted basis, domestic banks indicated little change in their credit card lending standards and generally reported weaker demand for credit card loans. In contrast, standards and terms on auto loans reportedly were eased somewhat, while demand for such loans reportedly continued to strengthen.

M2 and its largest component, liquid deposits, expanded robustly in December. Anectodal evidence suggests that at the end of the year, in anticipation of the possibility of higher tax rates next year, investors sought to incur tax liabilities in 2012 rather than

2013 and firms increased dividend payments to shareholders. These actions likely contributed to the growth in liquid deposits in December and played a role in the robust growth in retail money market funds over the month. The monetary base expanded at a 13 percent annual rate in December, reflecting solid growth in currency and an increase in reserve balances. The rise in reserve balances was due in part to the settlement of the Federal Reserve's ongoing MBS purchases.

Appendix

Senior Loan Officer Opinion Survey on Bank Lending Practices

In the January Senior Loan Officer Opinion Survey on Bank Lending Practices, generally modest fractions of domestic banks reported having eased their standards across major loan categories over the fourth quarter on net.[1] Larger fractions reportedly had eased pricing terms on commercial and industrial (C&I) loans over the past three months, and terms on some types of consumer loans also had been eased somewhat. Respondent banks indicated that demand for business loans, prime residential mortgages, and auto loans had strengthened, on balance, while demand for other types of loans was about unchanged. U.S. branches and agencies of foreign banks, which mainly lend to businesses, reported little change in their lending standards, while demand for their loans was reportedly stronger on net. The January survey included a set of special questions on lending to and competition from banks headquartered in Europe as well as annual special questions on commercial real estate (CRE) lending policies and the outlook for asset quality in major loan categories during 2013.

On balance, although domestic and foreign respondents reported that standards on C&I loans were about unchanged over the past three months, domestic banks indicated that most C&I loan terms had been eased for firms of all sizes, reportedly in part because of increased competition for such loans. On balance, respondents reported that demand for C&I loans, especially from large and middle-market firms, had strengthened over the survey period.[2] Several banks noted that an important reason for this strengthening in C&I loan demand was firms' increased use of loans to finance payments to investors and employees ahead of year-end, driven by anticipated changes in tax policy. CRE lending standards reportedly remained about the same over the past three months while large fractions of domestic and foreign respondents experienced stronger demand for such loans on net. In addition, in their responses to an annual special question on CRE lending policies, banks indicated that they had eased some loan terms over the past 12 months.

In response to a set of special questions on lending to and competition from banks headquartered in Europe, respondents indicated that lending standards to European banks and

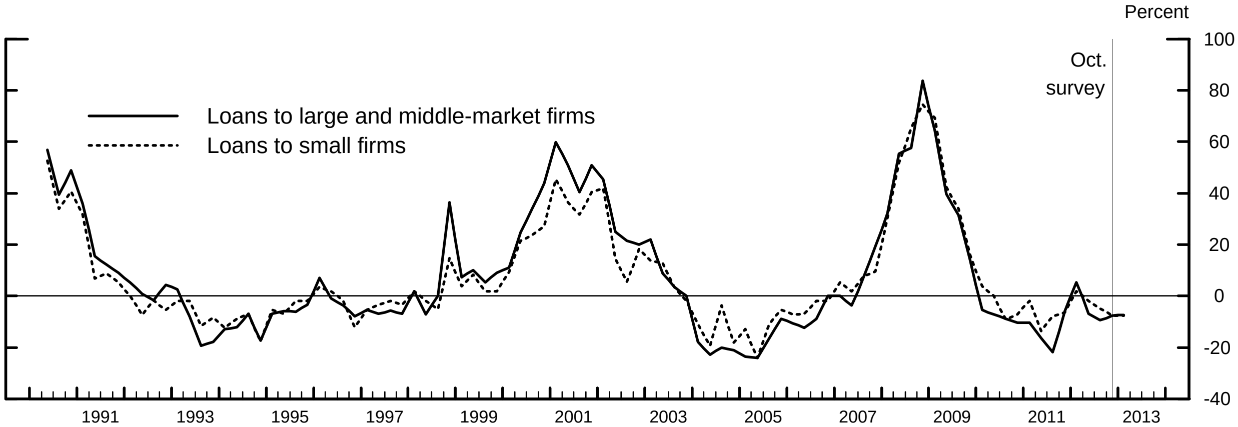
[1] The January 2013 survey addressed changes in the supply of and demand for loans to businesses and households over the past three months. This appendix is based on responses from 68 domestic banks and 22 U.S. branches and agencies of foreign banks. Respondent banks received the survey on or after December 27, 2012, and responses were due by January 15, 2013.

For questions that ask about lending standards or terms, reported net fractions equal the fraction of banks that reported having tightened standards minus the fraction of banks that reported having eased standards. For questions that ask about demand, reported net fractions equal the fractions of banks that reported stronger demand minus the fraction of banks that reported weaker demand.

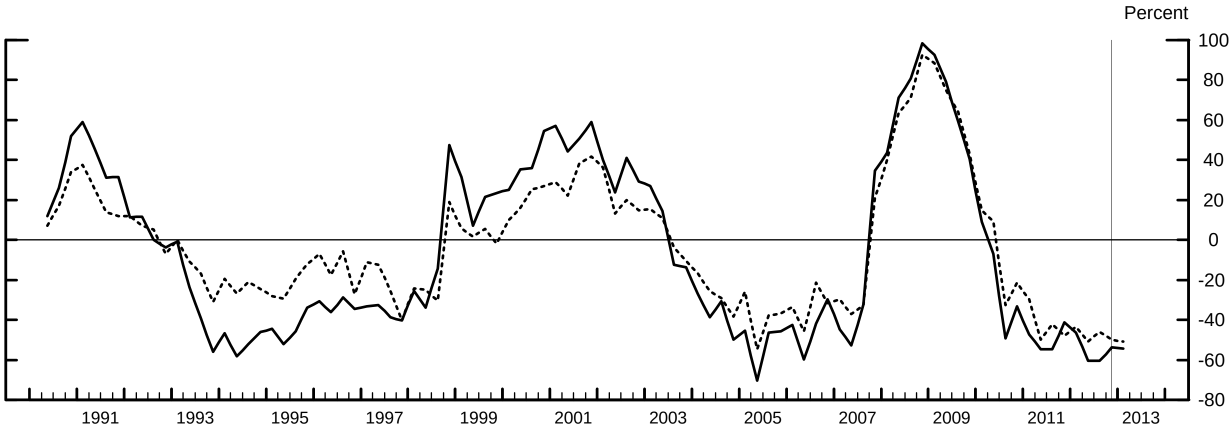
[2] Large and middle-market firms are generally defined as firms with annual sales of $50 million or more and small firms as those with annual sales of less than $50 million.

Measures of Supply and Demand for Commercial and Industrial Loans, by Size of Firm Seeking Loan

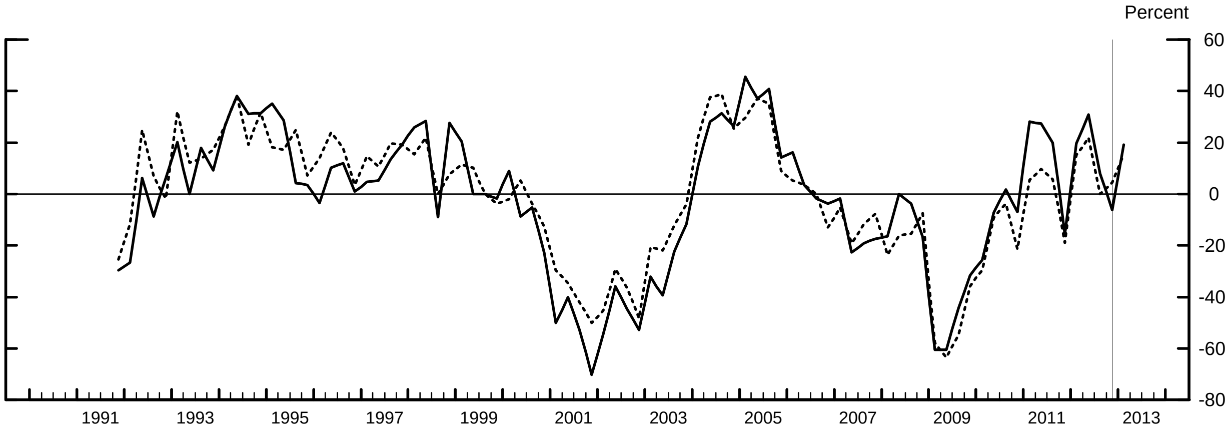
Net Percentage of Domestic Respondents Tightening Standards for Commercial and Industrial Loans



Net Percentage of Domestic Respondents Increasing Spreads of Loan Rates over Bank's Cost of Funds



Net Percentage of Domestic Respondents Reporting Stronger Demand for Commercial and Industrial Loans



Financial Developments

their affiliates (hereafter, European banks) were little changed over the previous three months, the first time that no net tightening was observed since the inception of this special question in the October 2011 survey. On balance, the demand for loans from European banks was reportedly unchanged.

On the household side, a few domestic banks reported having eased standards on prime residential mortgages over the past three months, on net, including a large bank that reported having eased such standards considerably. On a portfolio-weighted basis, respondents reported that demand for prime residential mortgage loans had strengthened further on net. According to portfolio-weighted responses, a modest fraction of banks had eased standards for home equity lines of credit (HELOCs), on net, while demand was reportedly unchanged. A moderate fraction of respondents had eased standards on auto loans over the past three months, on net, while standards on credit card and other consumer loans had remained about unchanged. On balance, banks reported having eased selected terms on consumer loans other than credit card loans over the past three months. A moderate fraction of respondents reported weaker demand for credit card loans on a portfolio-weighted basis, while a large fraction indicated that demand for auto loans increased on net.

A set of special questions regarding respondents' outlook for asset quality in 2013 revealed that moderate to large net fractions of domestic banks expect improvements in credit quality in most major loan categories.

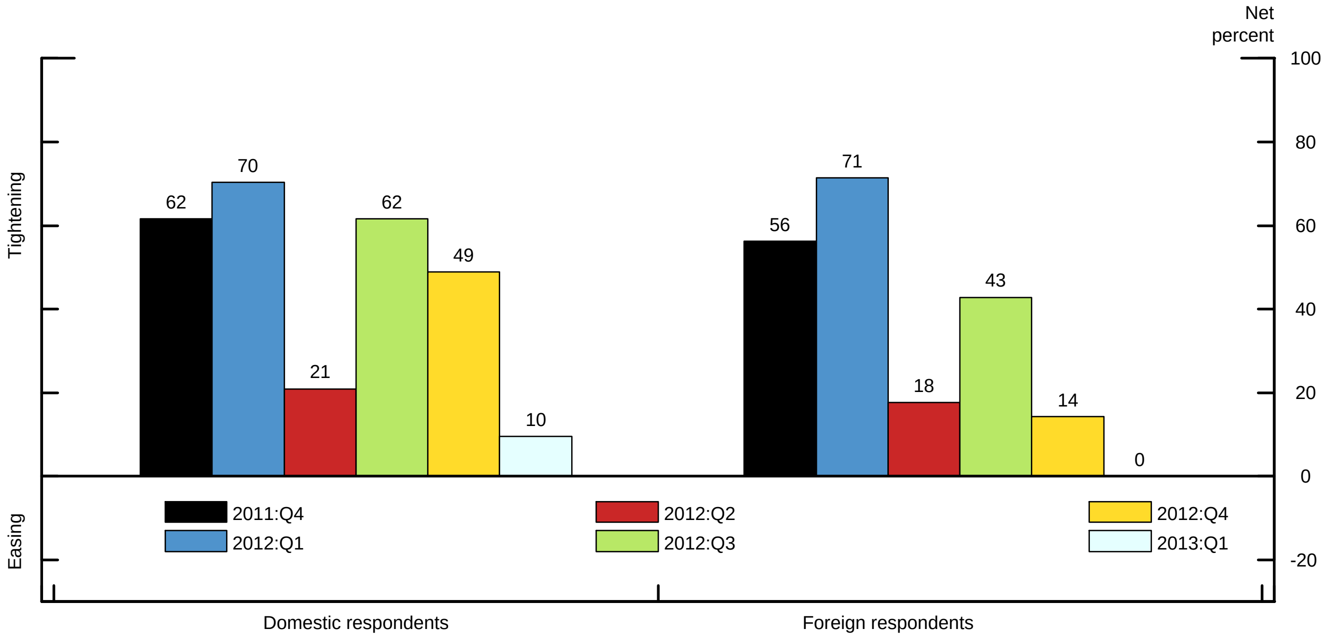
Lending to Businesses

Questions on Commercial and Industrial Lending

A modest fraction of domestic survey respondents, on net, indicated that their C&I lending standards had eased somewhat for all firm sizes over the past three months. On balance, most loan terms were eased regardless of firm size, and none was tightened, but a large degree of variation in the extent of easing across different loan terms was evident. Moderate to large fractions of banks again reported having reduced the cost of credit lines, spreads of loan rates over their banks' cost of funds, and the use of interest rate floors for all firm sizes. Additionally, the net fraction of domestic banks reportedly easing policies on loan covenants for large and middle-market firms increased notably from the previous survey, to about 20 percent. However, much smaller fractions had been indicating in recent surveys that the premiums charged on riskier loans have decreased and collateral requirements have reportedly changed little. Of the respondents that reported having eased either standards or terms over the past three months, almost all cited more-aggressive competition from other banks or nonbank lenders as an important reason for having done so. Moreover, the number of domestic banks citing more-aggressive competition as an important reason for the change in their bank's lending position has been increasing since the October 2011 survey. As in the previous survey, no other reasons were broadly cited as important.

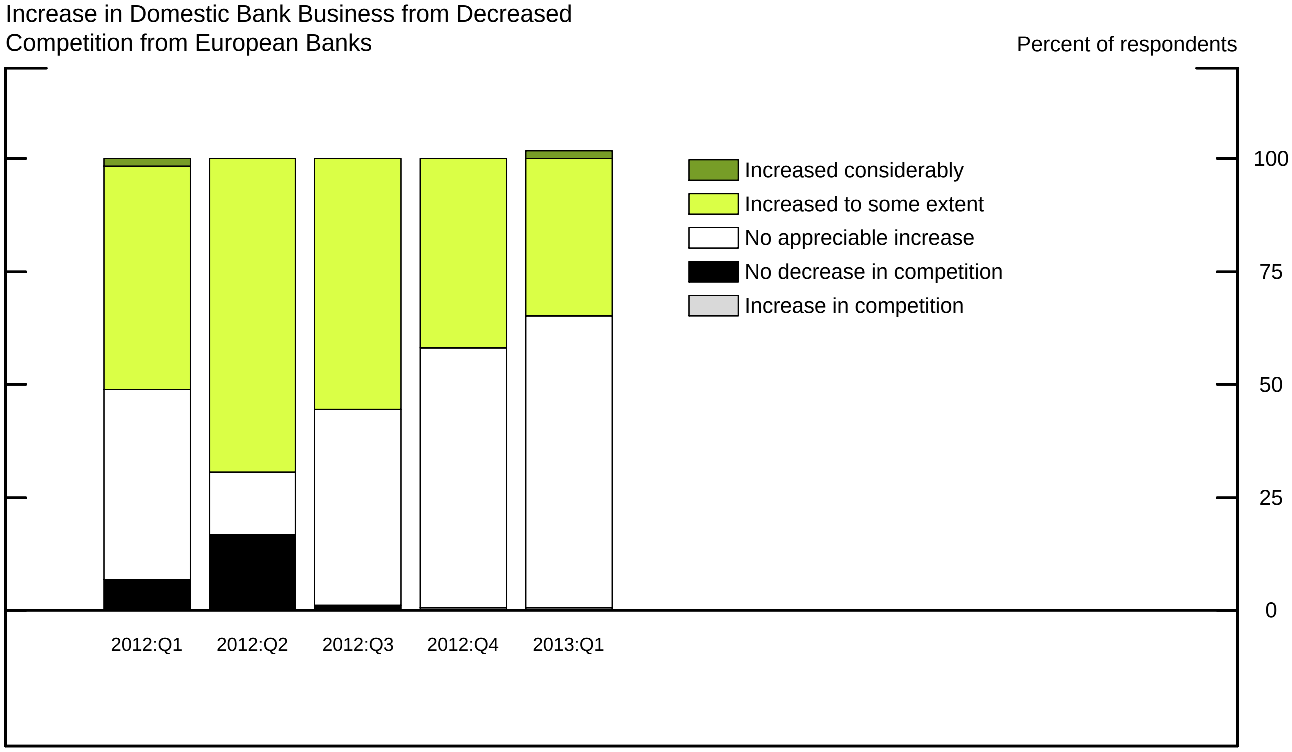
Special Questions on Lending to and Competition from European Banks

Changes in Standards and Terms for Lending to European Banks*



* Includes affiliates and subsidiaries.
Note: Domestic responses are weighted by survey respondents' holdings of C&I loans; because the C&I loans originated by a branch or agency of a foreign bank may not be sufficiently correlated with the loans the foreign bank chooses to hold on the balance sheet of that subsidiary, foreign responses are unweighted.

Increase in Domestic Bank Business from Decreased Competition from European Banks



Note: Responses are weighted by survey respondents' holdings of C&I loans.

Financial Developments

Moderate fractions of banks indicated stronger demand for C&I loans by firms of all sizes, on net, and cited their customers' increased investment in plant or equipment and increased need to finance mergers or acquisitions and accounts receivable as the top reasons for increased loan demand. Demand from large and middle-market firms was notably stronger than that from small firms according to portfolio-weighted responses. Several banks acknowledged tax-related distributions to investors and employees ahead of year-end as an important reason for strengthening loan demand. Furthermore, inquiries from businesses about new or expanded credit lines reportedly changed little over the past three months, suggesting that the increase in C&I loans outstanding during the fourth quarter may have largely reflected draws on existing credit lines.

Similar to the previous survey, branches and agencies of foreign banks reported that their C&I lending standards had remained about the same, on net, over the past three months. A moderate net fraction of foreign respondents reported having reduced loan spreads over their cost of funds. On balance, some foreign respondents also reportedly eased their policies on the size of credit lines. Maximum loan maturity was the only category for which a modest net fraction of foreign respondents reported having tightened. As was true for domestic respondents, the reason most widely cited by foreign respondents for easing standards or terms was more-aggressive competition from other lenders. Some foreign respondents also pointed to a more favorable or less uncertain economic outlook and increased liquidity in the secondary market for C&I loans as reasons for easing standards or terms. About 20 percent of foreign respondents reported stronger demand for C&I loans, on net, over the past three months, the highest fraction observed among those respondents since the July 2011 survey. A few foreign respondents deemed their customers' increased merger or acquisition financing needs as a very important reason for stronger demand.

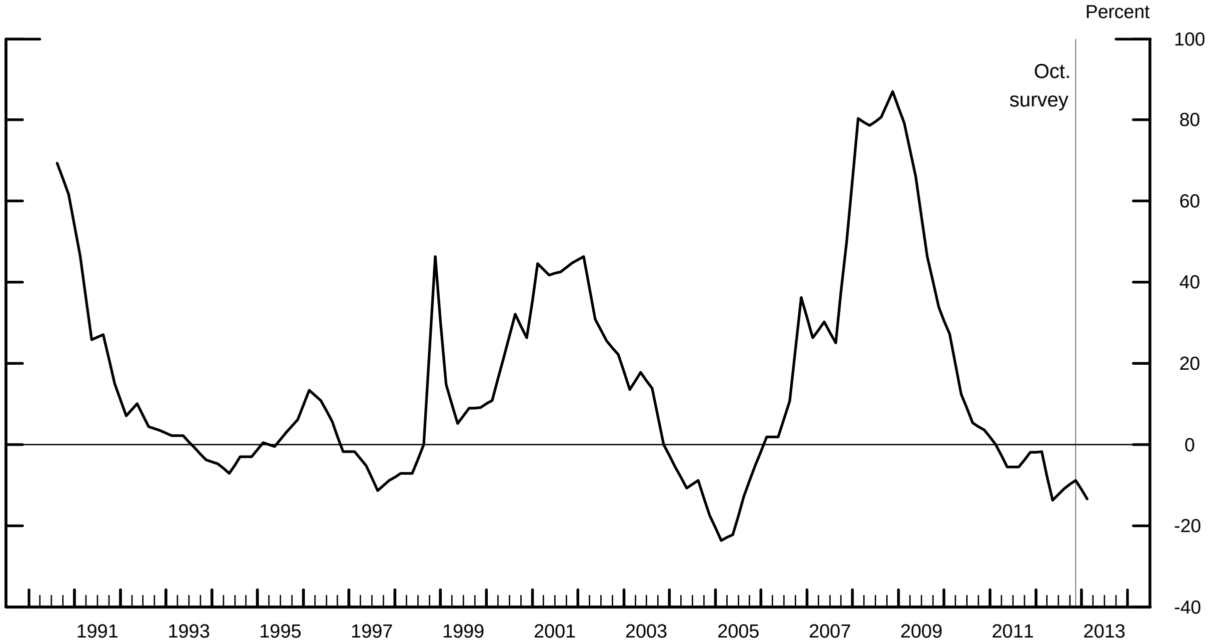
Special Questions on Lending to and Competition from European Banks

The January survey again included special questions about lending to European banks. On balance, only about 10 percent of domestic respondents reported that their standards for loans to European banks had tightened over the past three months, the smallest net fraction observed since the introduction of this special question in the October 2011 survey. Furthermore, foreign respondents indicated that their standards on such loans were essentially unchanged, which was also the first time in the survey that such standards had not reportedly been tightened on net. As in the October 2012 survey, domestic banks reported that they had experienced little change in demand for loans from European banks.

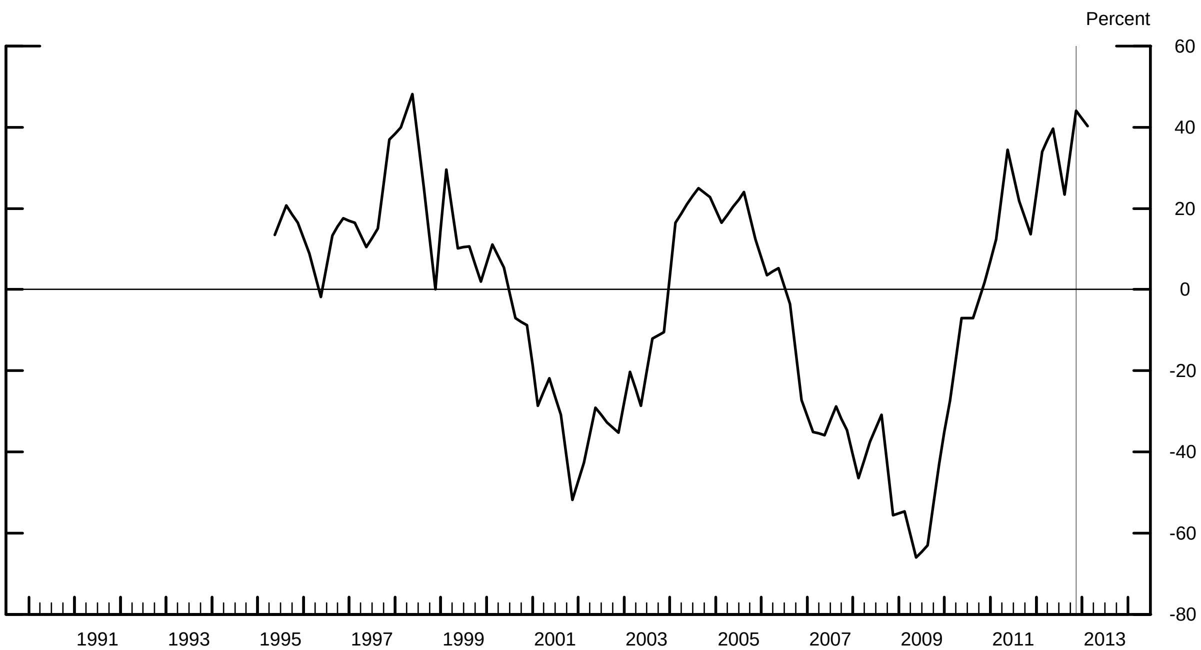
The share of domestic banks that have observed an expansion of C&I lending business as a result of a decrease in competition from European banks continued to trend down. After responses were weighted by outstanding C&I loans, about one-third of domestic banks indicated that they had experienced a decrease in competition from European banks that had resulted in some increase in business at their institution. Most of the remaining domestic respondents that compete with European banks reported having experienced a decrease in competition from such institutions, but the decrease did not appreciably boost their business.

Measures of Supply and Demand for Commercial Real Estate Loans

Net Percentage of Domestic Respondents Tightening Standards for Commercial Real Estate Loans



Net Percentage of Domestic Respondents Reporting Stronger Demand for Commercial Real Estate Loans



Financial Developments

Questions on Commercial Real Estate Lending

A modest net fraction of domestic respondents to the January survey reported that they had eased standards on CRE loans over the previous three months and a large share indicated that demand for such loans had increased. Overall, the continued strengthening in demand for CRE loans in recent surveys has corresponded with a gradual slowing in the pace of runoff in CRE loans on domestic banks' books.

On balance, foreign respondents reported similar trends in CRE lending conditions in the fourth quarter; a small fraction indicated that they had eased lending standards and a large fraction reportedly experienced stronger demand for CRE loans.

Annual Question on Commercial Real Estate Loan Terms

The January survey also included a special question regarding changes in lending policies for CRE loans over the past year (repeated annually since 2001). During the past 12 months, on net, several domestic banks reportedly had eased policies regarding the maximum size and maturity of CRE loans and many had reduced the spreads on such loans. In particular, compared with the responses from last year, there was a notable increase in the net fraction of respondents reporting having increased maximum loan maturity. However, banks indicated no change in their policies for debt service coverage ratios or loan-to-value ratios, which reportedly still have not been eased since the height of the financial crisis. Foreign respondents also indicated that policies on maximum loan size and spreads for CRE loans were eased somewhat, on balance, and those on other terms were about unchanged.

LENDING TO HOUSEHOLDS

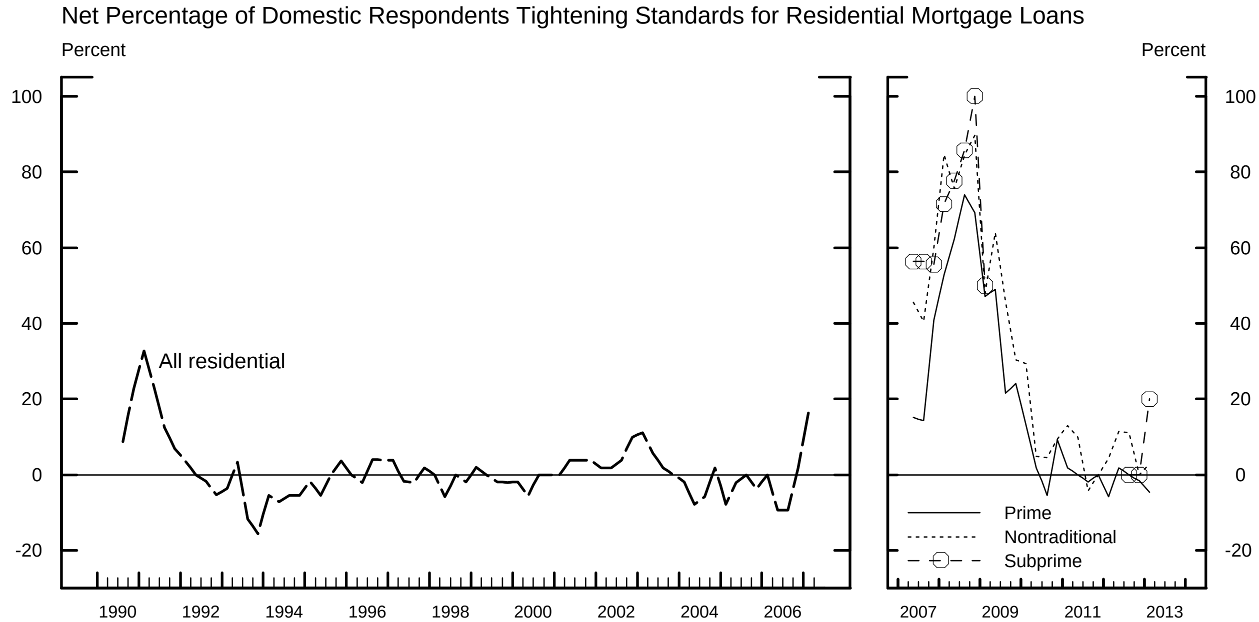
Questions on Residential Real Estate Lending

A few domestic banks reported having eased standards on prime residential mortgages, including a large bank that reported having eased such standards considerably. When responses were weighted by outstanding closed-end mortgages on the respondents' books, the net fraction of banks that reported an increase in demand for prime residential mortgage loans remained substantial, though slightly below its level in the previous survey.[3] In contrast, standards for nontraditional mortgages were reportedly little changed and weighted responses continued to indicate that demand for such mortgages declined. According to the portfolio-weighted responses, a modest fraction of banks had eased standards for HELOCs, on net, while demand for such loans was reportedly unchanged.[4]

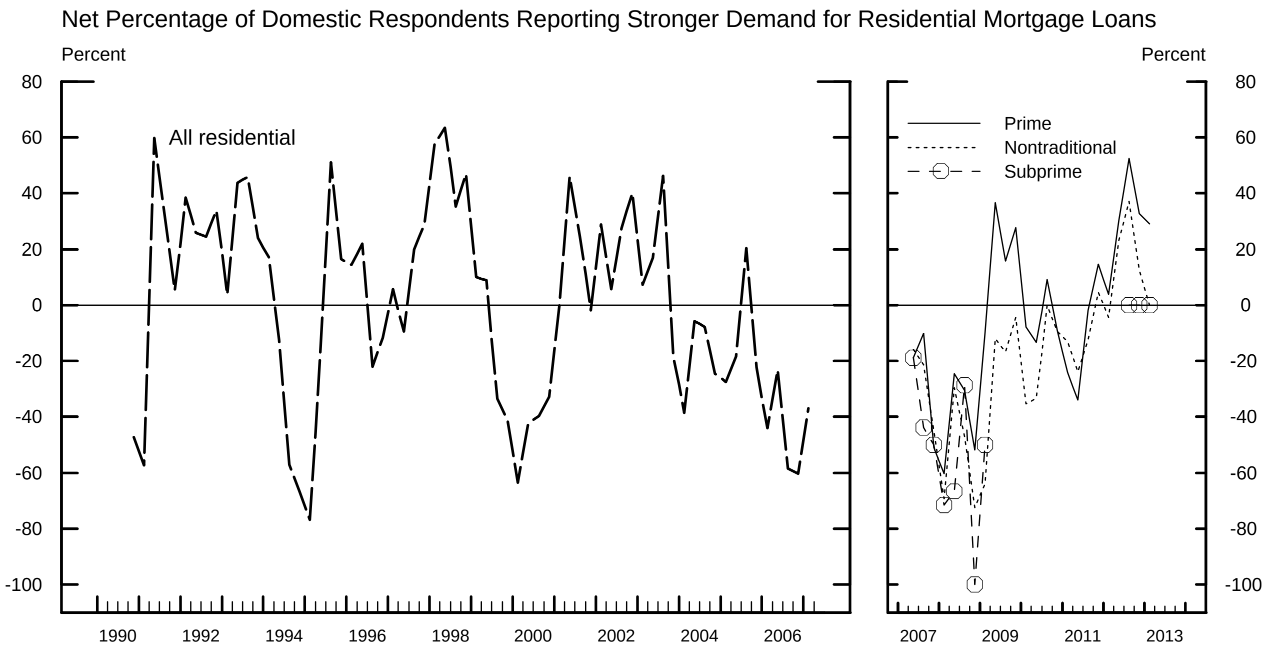
[3] Although the survey instructs respondents to exclude refinancing from their considerations about demand for residential mortgages, responses to the query about changes in demand may have been influenced by the volume of refinance applications that banks received over the past three months.

[4] Unweighted responses indicate no change in standards and a modest weakening in demand for such loans on balance.

Measures of Supply and Demand for Residential Mortgage Loans



Note: For data starting in 2007:Q2, changes in standards for prime, nontraditional, and subprime mortgage loans are reported separately. Series are not reported when the number of respondents is three or fewer.

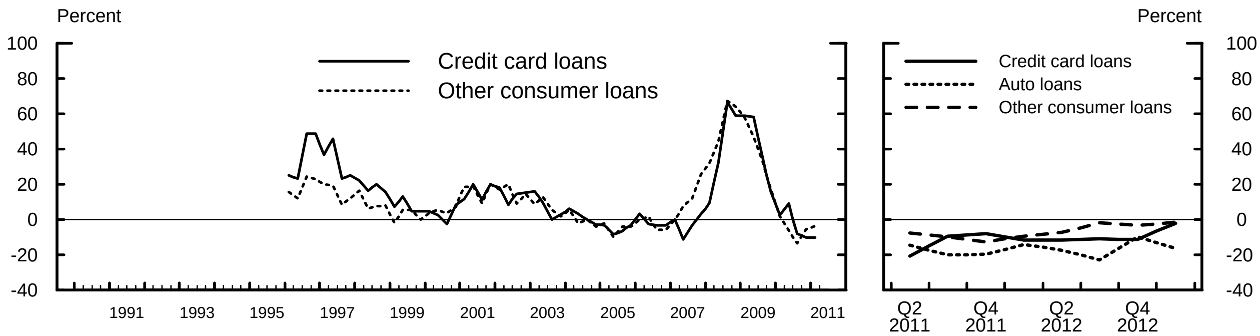


Note: For data starting in 2007:Q2, changes in demand for prime, nontraditional, and subprime mortgage loans are reported separately. Series are not reported when the number of respondents is three or fewer.

Financial Developments

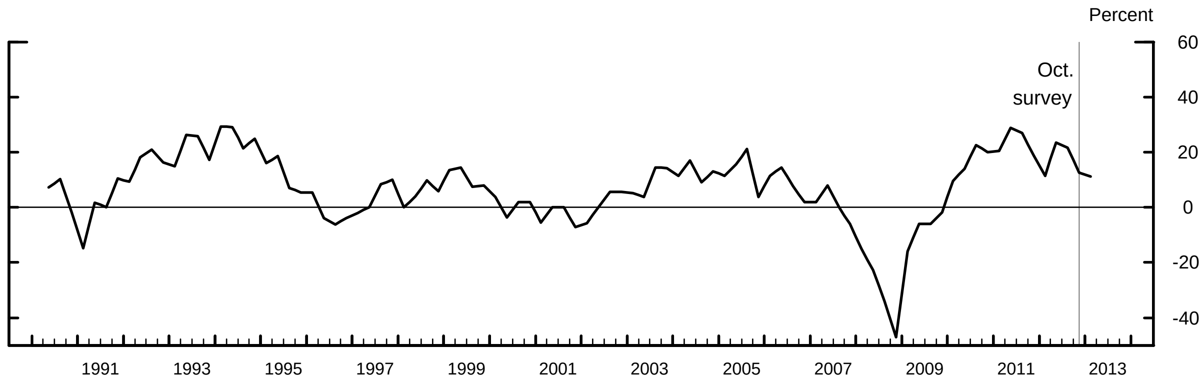
Measures of Supply and Demand for Consumer Loans

Net Percentage of Domestic Respondents Tightening Standards for Consumer Loans

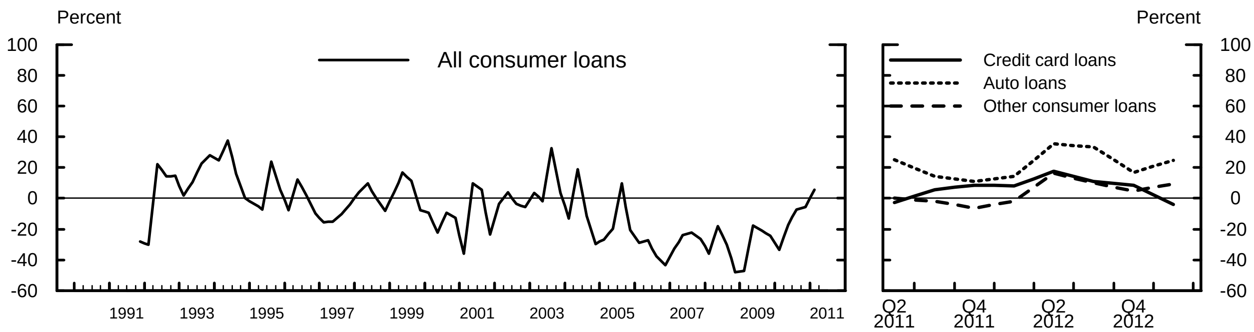


Note: For data starting in 2011:Q2, changes in standards for auto loans and consumer loans excluding credit card and auto loans are reported separately. In 2011:Q2 only, new and used auto loans are reported separately and equally weighted to calculate the auto loans series.

Net Percentage of Domestic Respondents Reporting Increased Willingness to Make Consumer Installment Loans



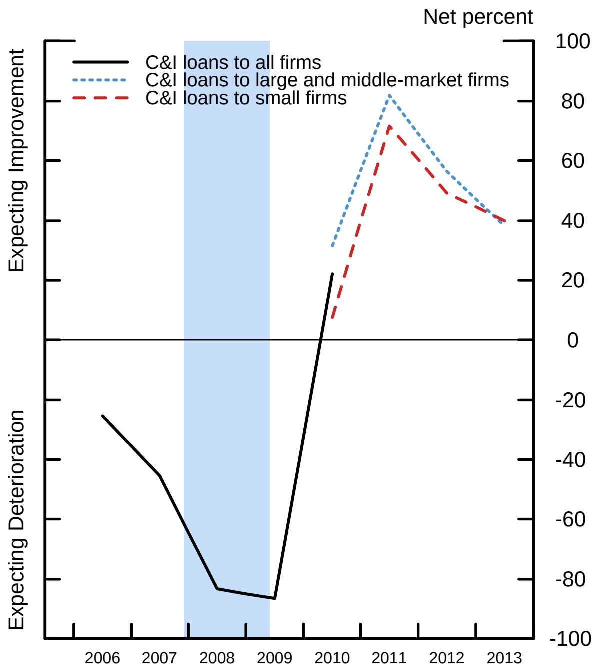
Net Percentage of Domestic Respondents Reporting Stronger Demand for Consumer Loans



Note: For data starting in 2011:Q2, changes in demand for credit card loans, auto loans, and consumer loans excluding credit card and auto loans are reported separately.

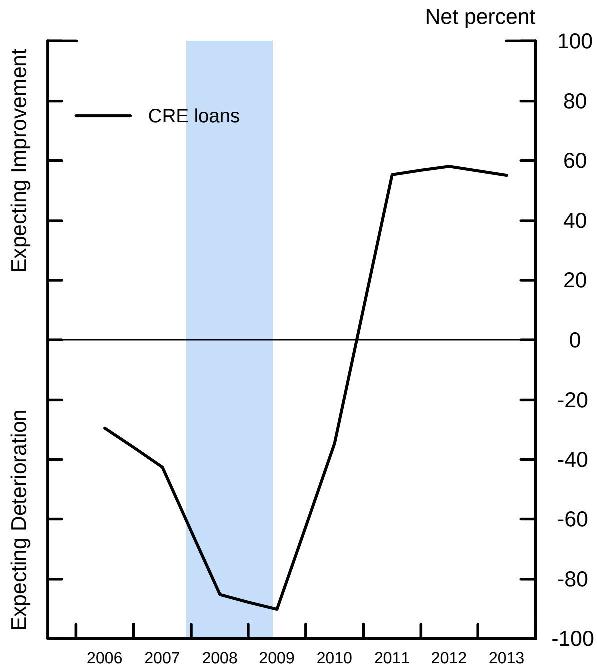
Special Questions on Asset Quality

Loans to Business, Commercial and Industrial

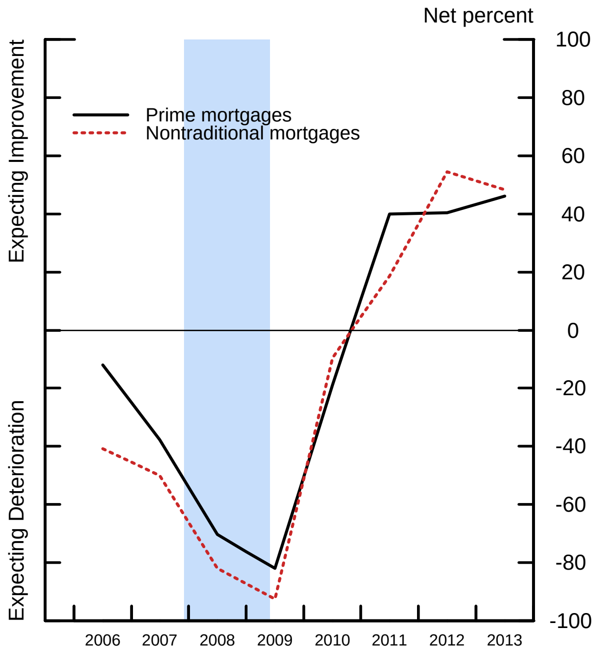


Note: Beginning from 2010, C&I Loans were split into large and middle-market firms versus small firms.

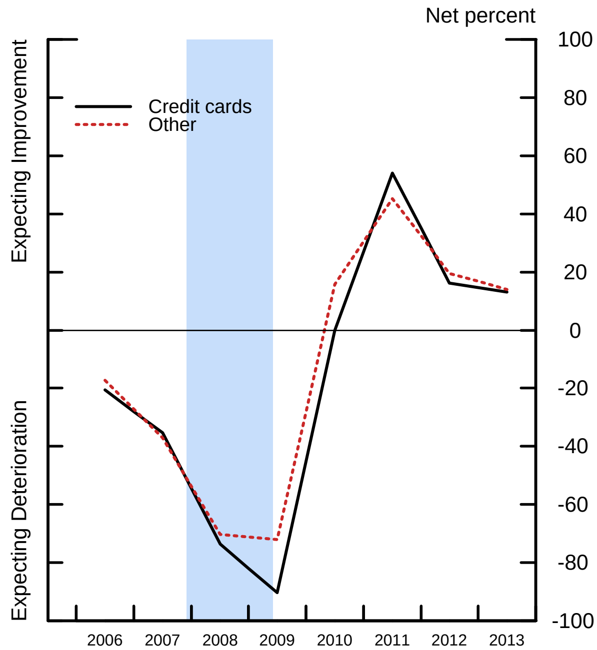
Loans to Business, Commercial Real Estate



Loans to Households, Residential Mortgages



Loans to Households, Consumer Loans



Note: Other is the average of "Other consumer excluding auto" and "Auto" for 2013.

Note: All data are annual. Domestic respondents only.
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Financial Developments

Questions on Consumer Lending

Responses from domestic banks indicated that they had again eased standards on auto loans over the past three months. However, standards on credit card loans were reportedly little changed, whereas banks had been reporting a net easing of standards on such loans in recent surveys. Standards on other consumer loans also were little changed. On balance, several banks reported that they had reduced spreads on consumer loans other than credit card loans. A modest fraction of banks also reported having increased the maximum maturity of auto loans on net. Other terms for consumer loans were little changed over the past three months.

On a portfolio-weighted basis, banks reported moderately weaker demand for credit card loans, on net, in contrast to the moderate net strengthening of demand reported in the previous survey. Demand for auto loans and other consumer loans reportedly increased on balance.

Annual Questions on Asset Quality Expectations

The January survey contained a set of special questions on respondents' expectations for loan quality in 2013 (repeated annually since 2006). Overall, large fractions of domestic banks, on net, expected improvements in delinquency and charge-off rates during 2013 for most loan categories included in the survey, assuming that economic activity progresses in line with consensus forecasts. Expectations for improvement in most loan categories were in line with the corresponding responses from a year ago with the exception of C&I loans, for which a smaller fraction of banks expected improvement in credit quality in 2013.

Regarding the outlook for the quality of business loans, about 40 percent of domestic banks, on net, reportedly expect delinquency and charge-off rates on their C&I loans to all sizes of firms to decline in 2013. While still considerable, these responses indicate a less widespread expected improvement in the quality of C&I loans relative to the 2012 survey, consistent with already very low delinquency and charge-off rates on such loans by historical standards. Similar to last year, about 55 percent of domestic banks indicated that they expect improvement in the quality of CRE loans in 2013. Turning to foreign respondents, about 20 percent, on net, anticipate improvement in the quality of C&I loans to large and middle-market firms this year. Meanwhile, about 45 percent of foreign respondents forecast improvement in the quality of CRE loans, on balance, a sizable increase from the 25 percent that reportedly expected improvement last year.

About 45 percent of domestic banks expect the delinquency and charge-off rates on prime and nontraditional residential real estate loans to improve in 2013, on net, about the same fractions reported in last year's survey. None of the six banks that responded to the question on subprime residential real estate loans expected a change in the quality of such loans in 2013. Expectations for improvements this year in the quality of HELOCs stayed roughly the same as last year, with about one-third of the respondents anticipating an improvement in the quality of such loans. The discrepancy between respondents' expectations of improvements in the quality of residential real estate loans and HELOCs in last January's survey and the observed delinquency and charge-off rates for such loans in 2012 may, in part, be attributed to widespread mortgage putbacks by GSEs, reported delays in the foreclosure process in many states, and changes in regulatory guidance on junior lien loan loss allowances. As the effects of these factors dissipate, the expected improvements in the quality of residential real estate loans and HELOCs may prove to be more aligned with actual changes in delinquency and charge-off rates for such loans in 2013.

Among major loan categories, domestic banks were least likely to expect improvement in the quality of consumer loans in 2013. Only about 10 percent of banks, on net, expected improvement in credit card loans, and similar fractions projected improvement in auto and other consumer loans. However, the current credit quality of these types of loans appears to be high. According to Call Report data available through the third quarter of 2012, the aggregate rate of credit card delinquencies reached a historical low for the period on record since 1991, and delinquency rates for other consumer loans are near their historical averages over the corresponding period. Moreover, charge-off rates for these types of loans are near or below their pre-recession levels.

Risks and Uncertainty

Alternative Scenarios

To illustrate some of the risks to the outlook, we construct a number of alternatives to the baseline projection using simulations of the staff's models. The first two scenarios examine risks to the supply side. In particular, the first scenario assumes that the natural rate of unemployment declines to a greater extent than we have assumed in the baseline because discouraged workers are leaving the workforce permanently. The second scenario explores a different way to rationalize a more rapid near-term decline in the unemployment rate, namely that potential GDP is growing less rapidly because of weaker structural productivity growth in both the recent past and in the future. The third scenario focuses on the risk that a near-term increase in actual inflation could feed into higher inflation expectations, resulting in inflation that is persistently above the FOMC's longer-run objective through the rest of the decade. The next two scenarios focus on contrasting risks to domestic spending—first, that we have underestimated the persistence of the headwinds restraining the recovery and, second, that a strong recovery in residential construction and house prices will spark broad improvements in the overall economy. The final two scenarios consider downside and upside risks to the domestic economy from foreign economic developments—first, that the European crisis could intensify with severe spillovers to the U.S. economy and, second, that the pace of economic growth abroad could increase more rapidly than assumed in the baseline.

We generate the first five scenarios using the FRB/US model and the last two scenarios using the multicountry SIGMA model. In the FRB/US simulations, we use an inertial version of the Taylor (1999) rule, subject to the thresholds for the unemployment rate and inflation announced by the FOMC following its December 2012 meeting. For the SIGMA simulations, we use a broadly similar policy rule, subject to the same unemployment and inflation thresholds but employing an alternative concept of resource utilization.[1] In these scenarios, we have assumed that the size and composition of the SOMA portfolio follow their baseline paths.

[1] The SIGMA policy rule uses a measure of slack equal to the difference between actual output and the model's estimate of the level of output that would occur in the absence of slow adjustment of wages and prices.

Alternative Scenarios

(Percent change, annual rate, from end of preceding period except as noted)

Measure and scenario	2012 H2	2013	2014	2015	2016-17
Real GDP					
Extended Tealbook baseline	1.6	2.7	3.2	3.5	2.6
Lower natural rate	1.6	2.6	3.1	3.5	2.5
Supply-side damage	1.6	2.5	2.9	3.1	2.3
Unanchored expectations	1.6	2.6	2.9	2.3	2.1
Headwinds	1.6	2.4	2.4	2.6	2.8
Housing-led recovery	1.6	5.0	4.4	1.9	.9
European crisis with severe spillovers	1.6	-1.6	1.2	3.6	3.6
Faster recovery abroad	1.6	3.5	4.0	3.5	2.1
Unemployment rate[1]					
Extended Tealbook baseline	7.8	7.6	7.1	6.3	5.3
Lower natural rate	7.8	7.4	6.8	6.0	5.4
Supply-side damage	7.8	7.5	6.7	5.8	5.2
Unanchored expectations	7.8	7.6	7.2	6.9	6.5
Headwinds	7.8	7.7	7.5	7.2	6.1
Housing-led recovery	7.8	6.8	5.5	5.1	6.3
European crisis with severe spillovers	7.8	8.9	9.5	8.7	6.7
Faster recovery abroad	7.8	7.4	6.5	5.6	4.9
Total PCE prices					
Extended Tealbook baseline	1.4	1.4	1.5	1.6	1.9
Lower natural rate	1.4	1.3	1.4	1.4	1.6
Supply-side damage	1.4	1.4	1.5	1.7	2.1
Unanchored expectations	1.4	2.7	3.2	3.0	2.8
Headwinds	1.4	1.4	1.4	1.4	1.5
Housing-led recovery	1.4	1.5	1.8	2.0	2.1
European crisis with severe spillovers	1.4	-.7	.9	1.9	2.4
Faster recovery abroad	1.4	2.2	2.4	2.0	1.8
Core PCE prices					
Extended Tealbook baseline	1.0	1.6	1.7	1.7	1.9
Lower natural rate	1.0	1.5	1.6	1.5	1.6
Supply-side damage	1.0	1.6	1.7	1.8	2.1
Unanchored expectations	1.0	2.5	3.0	2.8	2.5
Headwinds	1.0	1.6	1.6	1.5	1.5
Housing-led recovery	1.0	1.7	2.0	2.1	2.1
European crisis with severe spillovers	1.0	.6	1.2	1.7	2.1
Faster recovery abroad	1.0	1.9	2.1	2.0	2.0
Federal funds rate[1]					
Extended Tealbook baseline	.2	.1	.1	.3	2.8
Lower natural rate	.2	.1	.1	.8	2.4
Supply-side damage	.2	.1	.1	.8	2.2
Unanchored expectations	.2	.1	1.4	2.3	2.6
Headwinds	.2	.1	.1	.1	.7
Housing-led recovery	.2	.1	2.0	3.4	3.0
European crisis with severe spillovers	.2	.1	.1	.1	.1
Faster recovery abroad	.2	.1	.1	.9	3.6

1. Percent, average for the final quarter of the period.

Risks & Uncertainty

Lower Natural Rate

Over the past several quarters, the unemployment rate has declined somewhat faster than we had expected despite relatively subdued output growth. The Tealbook projection attributes only a small part of this surprise to a somewhat earlier decline of the natural rate than we had previously anticipated. In this scenario, we consider the possibility that the natural rate of unemployment started to decline substantially earlier and more rapidly than assumed in the baseline, and that it will reach 5¼ percent by late 2013—several years earlier than in the baseline. However, the more rapid decline in the natural rate is assumed to reflect not an improvement in labor market functioning, but rather a greater number of the long-term unemployed permanently leaving the labor force. The combination of a more rapidly falling natural rate and a steeper downward trend in labor force participation implies little change in potential labor input—and thus only a small revision from the baseline in potential GDP—through 2015.[2] Under these conditions, real GDP and employment fall slightly relative to the baseline, but the unemployment rate falls more quickly because more of the long-term unemployed become discouraged and leave the labor force permanently. As a result, the unemployment rate falls below its threshold value in mid-2015, and so the federal funds rate reverts to the prescriptions of the inertial Taylor rule and begins to rise one quarter earlier than in the baseline.

Supply-Side Damage

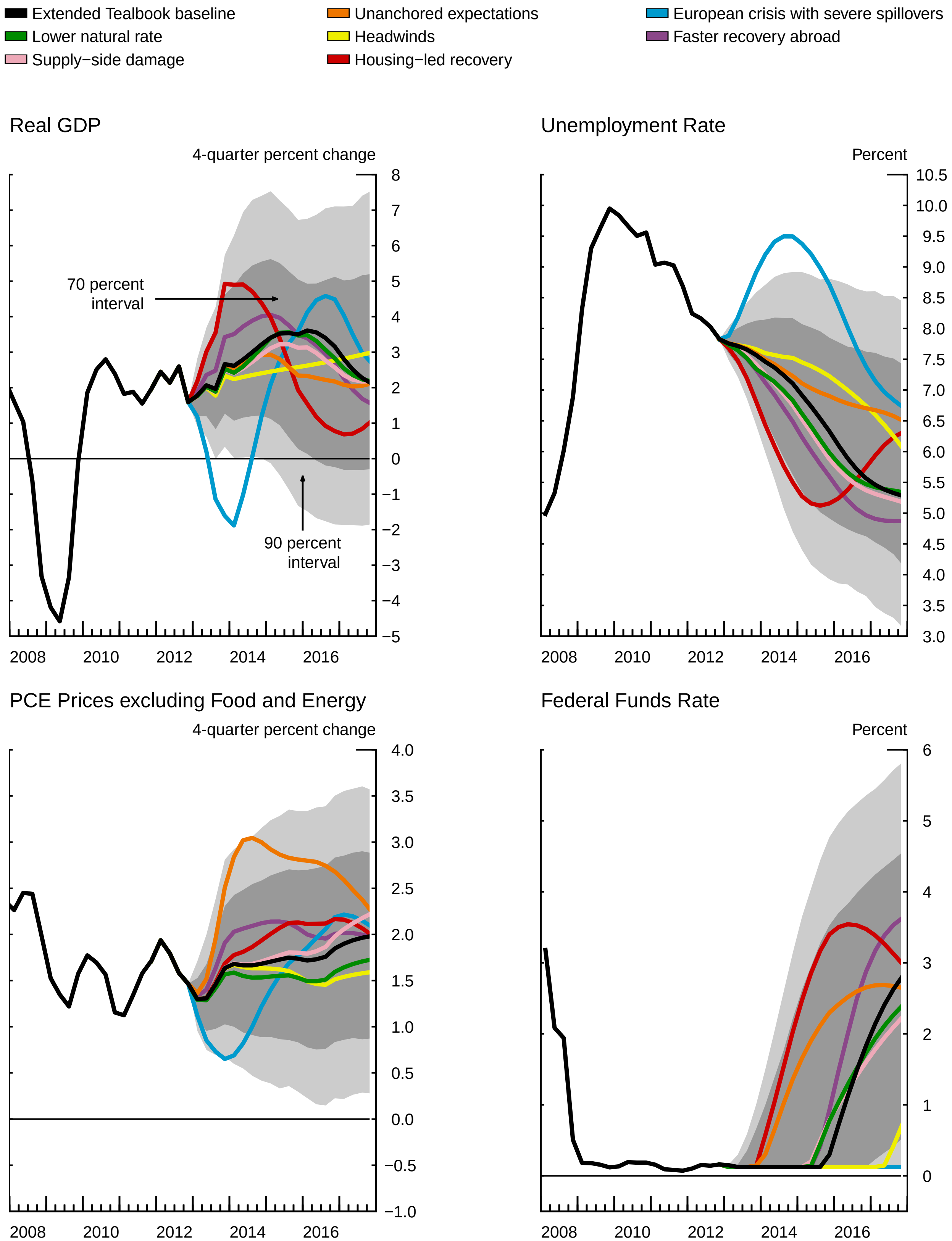
Another possible explanation for the surprisingly rapid decline in the unemployment rate during 2012 is that potential GDP has been expanding more slowly than the staff estimates, perhaps because the financial crisis caused greater structural damage than the staff has assumed. This scenario assumes that the current level of potential output is actually 1 percent lower than in the baseline because of smaller-than-estimated gains in structural productivity over the past few years, and that these smaller gains will continue, shaving 0.3 percentage point off the average annual growth rate of potential GDP going forward. As a result, real GDP rises only 2¾ percent per year, on average, in 2013 and 2014, and economic growth remains below baseline throughout the simulation period. Given the downward revision to potential output in 2012 and beyond in this scenario, Okun's law implies a more rapid decline in the unemployment rate than in the baseline. Inflation runs above baseline later in the decade,

[2] Alternatively, the natural rate of unemployment could decline, reflecting an improvement in labor market functioning. In this case, the natural rate would fall but labor force participation would not, resulting in higher potential output.

Risks & Uncertainty

Forecast Confidence Intervals and Alternative Scenarios

Confidence Intervals Based on FRB/US Stochastic Simulations



reflecting both the direct effect of lower productivity on firms' costs and a smaller margin of slack. With the unemployment rate falling below its threshold value in mid-2015, the federal funds rate lifts off one quarter earlier than in the baseline.

Unanchored Expectations

In recent years, inflation has sometimes spiked on account of sharp increases in the prices of oil, other commodities, or imported goods, but these developments have proved to be temporary as longer-term inflation expectations have remained stable. In this scenario, consumer prices rise significantly, pushing headline inflation up to 3¼ percent by 2014. But in this case, long-run inflation expectations become unmoored, possibly facilitated by a loss of confidence associated with the large and expanding Federal Reserve balance sheet and a misinterpretation of the Committee's stated intention of keeping monetary policy highly accommodative for a period of time after the recovery has strengthened. As a result, both headline and core inflation run substantially above baseline for several years, and projected inflation one-to-two years ahead exceeds the 2½ percent threshold in early 2014, prompting a liftoff of the federal funds rate under the inertial Taylor rule. The federal funds rate then rises steeply and remains above baseline until late 2017. Yields on Treasury securities and corporate bonds rise in response to both higher expected short-term interest rates and an assumed increase in inflation risk premiums. Real GDP rises only 2¾ percent per year, on average, in 2013 and 2014 because of these tighter financial conditions, and growth remains below baseline throughout the simulation period.

Headwinds

In this scenario, the unfavorable baseline assumptions for foreign economic conditions and credit availability, the remaining uncertainty about the fiscal outlook, and the dysfunction in the mortgage lending market turn out to have a more restrictive effect on aggregate demand than anticipated in the baseline. As a result, the pace of the recovery does not pick up: Real GDP rises only 2½ percent per year, on average, in 2013 and 2014, and growth remains below baseline until late 2016. The unemployment rate runs about a percentage point above its baseline trajectory from mid-2015 through 2017. Because margins of resource slack remain high, inflation stays close to 1½ percent through late 2015. With inflation persistently below the FOMC's longer-run objective

Selected Tealbook Projections and 70 Percent Confidence Intervals Derived from Historical Tealbook Forecast Errors and FRB/US Simulations

Measure	2012	2013	2014	2015	2016	2017
Real GDP						
(percent change, Q4 to Q4)						
Projection	1.6	2.7	3.2	3.5	3.2	2.1
Confidence interval						
Tealbook forecast errors	1.4–1.8	1.1–4.2	1.4–5.0	. . .	. . .	. . .
FRB/US stochastic simulations	1.4–1.8	1.3–4.6	1.2–5.6	.3–5.0	-.2–5.1	-.3–5.2
Civilian unemployment rate						
(percent, Q4)						
Projection	7.8	7.6	7.1	6.3	5.6	5.3
Confidence interval						
Tealbook forecast errors	7.8–7.8	7.0–8.2	6.2–8.0	. . .	. . .	. . .
FRB/US stochastic simulations	7.8–7.9	6.8–8.1	5.6–8.2	4.9–7.8	4.6–7.6	4.2–7.4
PCE prices, total						
(percent change, Q4 to Q4)						
Projection	1.5	1.4	1.5	1.6	1.8	2.0
Confidence interval						
Tealbook forecast errors	1.4–1.6	.4–2.4	.3–2.6	. . .	. . .	. . .
FRB/US stochastic simulations	1.4–1.6	.5–2.4	.4–2.6	.4–2.8	.5–3.0	.6–3.1
PCE prices excluding						
food and energy						
(percent change, Q4 to Q4)						
Projection	1.5	1.6	1.7	1.7	1.8	2.0
Confidence interval						
Tealbook forecast errors	1.3–1.6	1.1–2.2	.9–2.5	. . .	. . .	. . .
FRB/US stochastic simulations	1.4–1.5	1.0–2.3	.9–2.6	.8–2.7	.8–2.8	.9–2.9
Federal funds rate						
(percent, Q4)						
Projection	.2	.1	.1	.3	1.8	2.8
Confidence interval						
FRB/US stochastic simulations	.2–.2	.1–.7	.1–2.2	.1–3.5	.1–4.1	.5–4.6

Note: Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1969–2011 set of model equation residuals.

Intervals derived from Tealbook forecast errors are based on projections made from 1979–2011, except for PCE prices excluding food and energy, where the sample is 1981–2011.

. . . Not applicable. The Tealbook forecast horizon has typically extended about 2 years.

and the unemployment rate far above its natural rate, the federal funds rate remains at its effective lower bound until mid-2017, almost two years longer than in the baseline.[3]

Housing-Led Recovery

The increases in house prices, housing starts, and home sales seen over the past year may be pointing to a more robust recovery in the housing market than is assumed in the baseline. In this scenario, the stronger housing recovery, along with the resolution of some of the uncertainty pervading the economic environment, spark a cycle of increased consumer and business confidence, faster hiring, and improved financial conditions that leads to stronger spending by households and firms. As a result, real GDP rises at an average annual rate of 4¾ percent in 2013 and 2014, and the unemployment rate falls below 6½ percent in early 2014 and below 5¼ percent by mid-2015. Upward pressure on inflation is initially tempered by the effects of increased capital investment on labor productivity and unit labor costs. But, with less resource slack, unit labor costs eventually rise more rapidly than in the baseline, and inflation is slightly above 2 percent in 2015 and 2016. In response to higher inflation and the stronger pace of real activity, the federal funds rate lifts off in early 2014 and stays higher than in the baseline.

European Crisis with Severe Spillovers

In this scenario, the improvements witnessed in European financial markets over the past few months are assumed to be short-lived, and Europe plunges into a bout of severe stress, much worse than seen to date during this crisis. While we think that the likelihood of such an outcome has declined somewhat in recent months, it could still occur, possibly triggered by a disorderly sovereign default, the failure of a large European financial institution, or a loss of confidence by the public in the ability of European governments to resolve the crisis. In this scenario, the greater stress prompts both private and most sovereign borrowing costs in Europe to soar, with corporate bond spreads rising 400 basis points above baseline; in addition, the confidence of European households and businesses plummets. Real GDP in Europe declines about 8 percent

[3] As noted earlier, we assume that the size and composition of the SOMA portfolio in these alternative scenarios are the same as in the baseline. However, if the recovery were to prove as anemic as shown in the "Headwinds" scenario, the FOMC might choose to purchase a larger amount of securities than assumed in the baseline. One ad hoc way to account for this possibility might be to assume that the FOMC continues adding to its SOMA portfolio through late this year, increasing the amount of purchases in 2013 by $500 billion relative to the baseline. FRB/US simulations as well as judgmental assessments of the effect of large-scale asset purchases on the economy suggest that these purchases would lower the unemployment rate by slightly less than ¼ percentage point by late 2015 relative to the "Headwinds" scenario. Similar considerations could apply to all of the scenarios.

relative to the baseline by the second half of 2014, despite a 25 percent depreciation of the real effective exchange value of the euro. Europe's difficulties are assumed to have important financial and economic spillovers to the rest of the world, including the United States. U.S. economic activity contracts sharply, as U.S. corporate bond spreads rise more than 300 basis points, equity prices plunge, credit availability is restricted, and household and business confidence erodes. In addition, weaker foreign economic activity and the stronger exchange value of the dollar depress U.S. net exports. In all, because of greater resource slack and lower import prices, total U.S. consumer prices fall in 2013, before beginning to rise in 2014 as economic activity starts to recover. U.S. real GDP falls 1½ percent this year and increases only 1¼ percent in 2014. The unemployment rate rises to 9½ percent in 2014 and then gradually declines. With inflationary pressures subdued and the unemployment rate above its 6½ percent threshold value until late 2018, the federal funds rate does not lift off from its effective lower bound until 2019.

Faster Recovery Abroad

In this scenario, output growth across our major trading partners turns out to be stronger than anticipated, as favorable policy developments in the United States and Europe and the strengthening of global economic activity envisaged in our forecast contribute to a more rapid return of consumer and investor confidence. Specifically, foreign output expands about 1½ percentage points faster than the baseline pace through late 2014, as sentiment improves and corporate risk spreads fall about 100 basis points; in addition, the broad real dollar depreciates about 5 percent relative to the baseline because of a faster reversal of both safe-haven flows and monetary accommodation abroad. The stronger foreign activity and the weaker dollar stimulate U.S. real net exports. All told, U.S. real GDP rises 3½ percent in 2013, about ¾ percentage points faster than in the baseline, while the unemployment rate falls to about 6½ percent by late 2014. Higher import prices and stronger activity boost core PCE inflation to close to 2 percent in 2013 and 2014. The policy rule does not call for a liftoff until the third quarter of 2015, one quarter earlier than in the baseline, even though the unemployment threshold is crossed three quarters earlier.

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Alternative Projections
(Percent change, Q4 to Q4, except as noted)

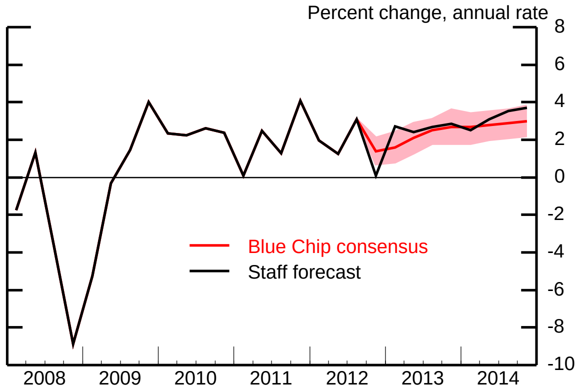
Measure and projection	2012 Previous Tealbook	2012 Current Tealbook	2013 Previous Tealbook	2013 Current Tealbook	2014 Previous Tealbook	2014 Current Tealbook
Real GDP						
Staff	1.7	1.6	2.5	2.7	3.2	3.2
FRB/US	1.7	1.6	1.4	2.0	2.9	2.2
EDO	1.7	1.6	3.0	3.0	3.3	3.2
Blue Chip	1.7	1.9	2.3	2.2	. . .	2.8
Unemployment rate[1]						
Staff	8.0	7.8	7.8	7.6	7.4	7.1
FRB/US	8.0	7.8	8.3	8.0	8.1	8.0
EDO	8.0	7.8	7.7	7.6	7.3	7.3
Blue Chip	7.9	7.8	7.6	7.5	. . .	7.0
Total PCE prices						
Staff	1.6	1.5	1.3	1.4	1.4	1.5
FRB/US	1.6	1.5	1.0	1.3	1.1	1.0
EDO	1.6	1.5	1.3	1.2	1.5	1.4
Blue Chip[2]	2.0	1.9	2.0	1.9	. . .	2.2
Core PCE prices						
Staff	1.6	1.5	1.6	1.6	1.6	1.7
FRB/US	1.6	1.5	1.3	1.5	1.3	1.3
EDO	1.6	1.5	1.3	1.2	1.5	1.4
Blue Chip	. . .	. . .	. . .	. . .	. . .	. . .
Federal funds rate[1]						
Staff	.2	.2	.1	.1	.1	.1
FRB/US	.2	.2	.2	.1	1.3	.1
EDO	.2	.2	.9	.9	1.7	1.7
Blue Chip[3]	.1	.1	.2	.1	. . .	.3

Note: Blue Chip forecast completed on January 10, 2013.
1. Percent, average for Q4.
2. Consumer price index.
3. Treasury bill rate.
... Not applicable. The Blue Chip forecast typically extends about 2 years.

Risks & Uncertainty

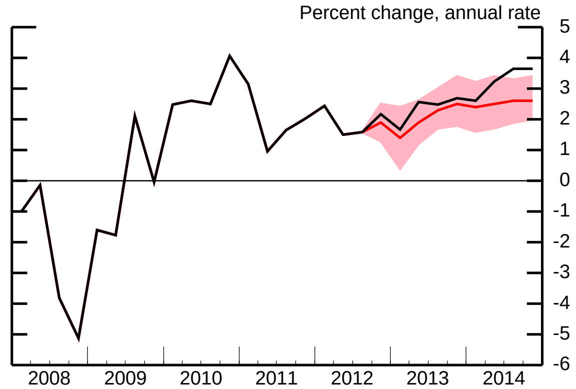
Tealbook Forecast Compared with Blue Chip
(Blue Chip survey released January 10, 2013)

Real GDP

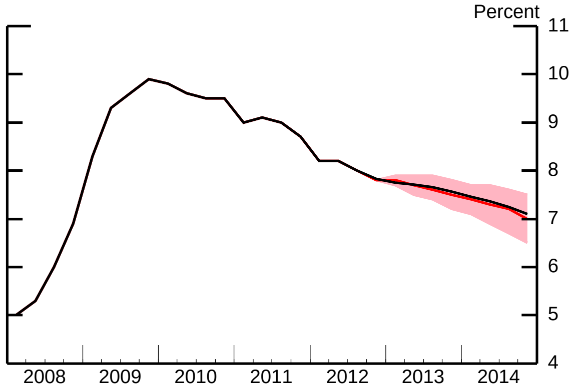


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

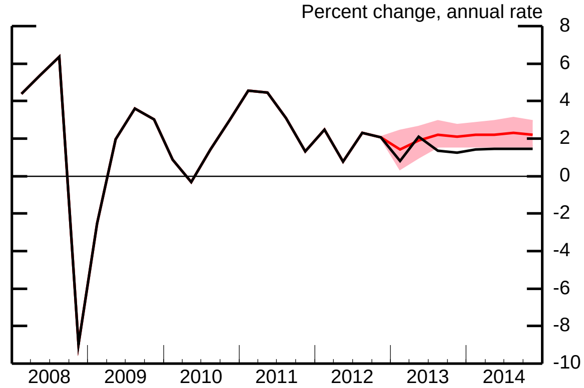
Real PCE



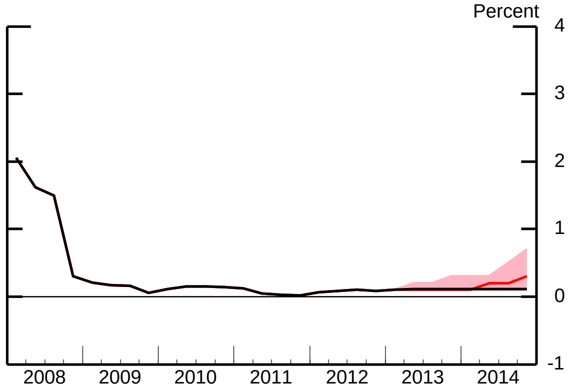
Unemployment Rate



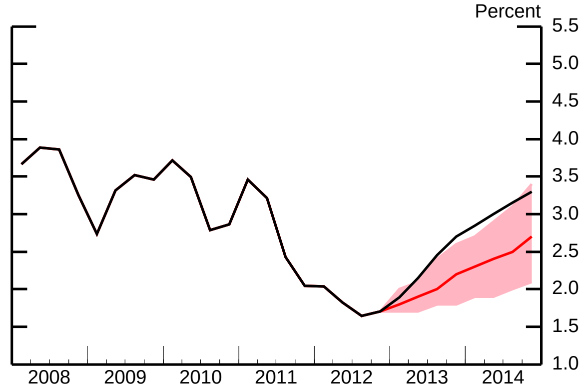
Consumer Price Index



Treasury Bill Rate



10-Year Treasury Yield



Note: The yield is for on-the-run Treasury securities. Over the forecast period, the staff's projected yield is assumed to be 15 basis points below the off-the-run yield.

Assessment of Key Macroeconomic Risks (1)

Probability of Inflation Events

(4 quarters ahead—2013:Q4)

Probability that the 4-quarter change in total PCE prices will be ...	Staff	FRB/US	EDO	BVAR
Greater than 3 percent				
Current Tealbook	.05	.04	.09	.06
Previous Tealbook	.04	.03	.10	.09
Less than 1 percent				
Current Tealbook	.31	.36	.33	.18
Previous Tealbook	.36	.47	.30	.13

Probability of Unemployment Events

(4 quarters ahead—2013:Q4)

Probability that the unemployment rate will ...	Staff	FRB/US	EDO	BVAR
Increase by 1 percentage point				
Current Tealbook	.02	.07	.16	.01
Previous Tealbook	.02	.13	.17	.02
Decrease by 1 percentage point				
Current Tealbook	.11	.03	.28	.21
Previous Tealbook	.04	.00	.28	.18

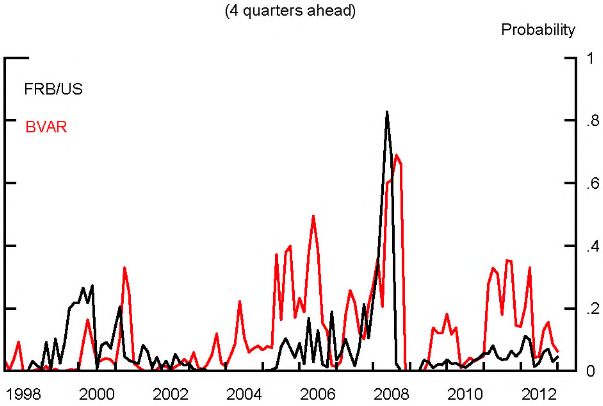
Probability of Near-Term Recession

Probability that real GDP declines in each of 2013:Q1 and 2013:Q2	Staff	FRB/US	EDO	BVAR	Factor Model
Current Tealbook	.04	.08	.04	.08	.10
Previous Tealbook	.03	.05	.05	.04	.25

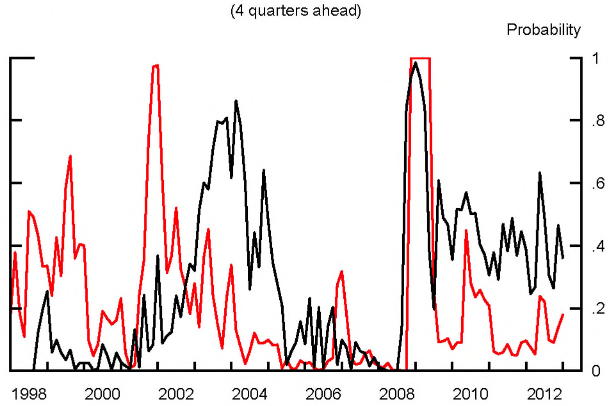
Note: "Staff" represents Tealbook forecast errors applied to the Tealbook baseline; baselines for FRB/US, BVAR, EDO, and the factor model are generated by those models themselves, up to the current-quarter estimate. The current quarter is taken as data from the staff estimate for the second Tealbook in each quarter, otherwise the preceding quarter is taken as the latest historical observation.

Assessment of Key Macroeconomic Risks (2)

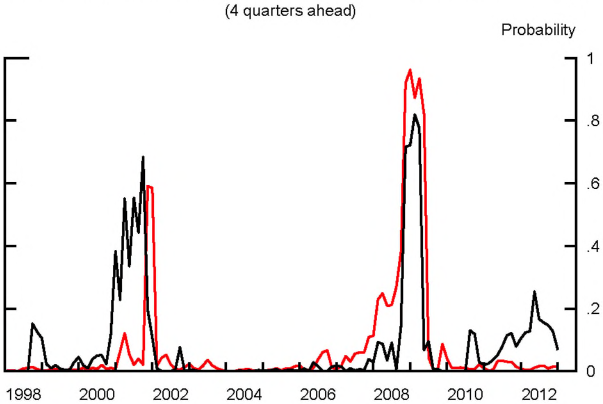
Probability that Total PCE Inflation Is above 3 Percent
(4 quarters ahead)



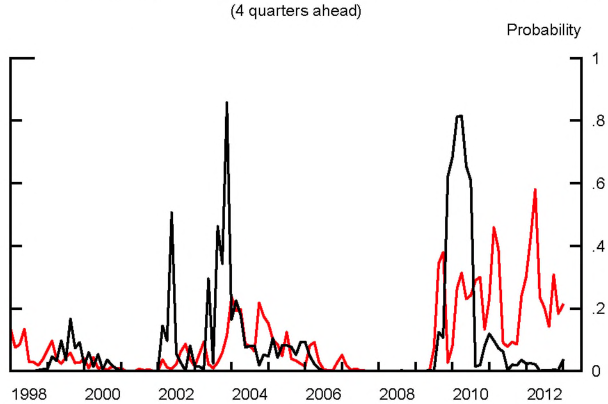
Probability that Total PCE Inflation Is below 1 Percent
(4 quarters ahead)



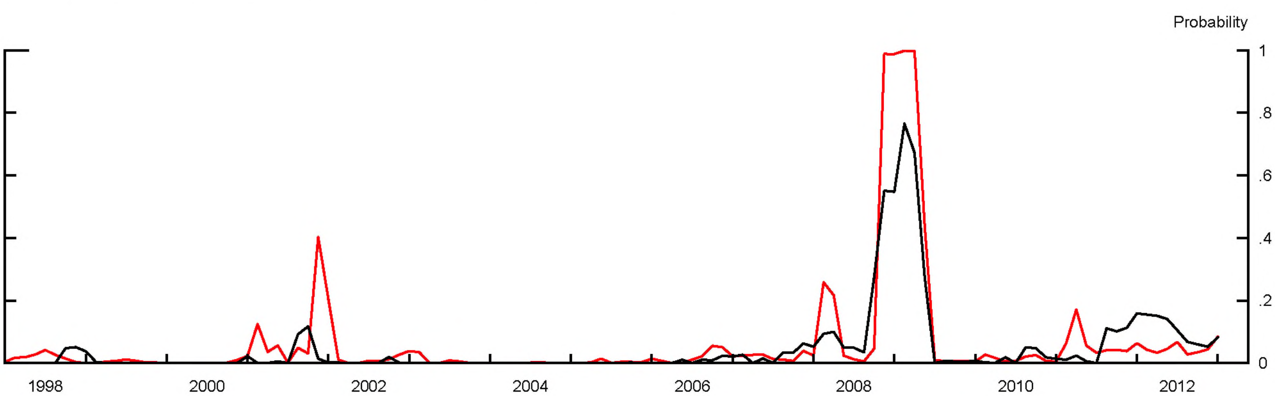
Probability that the Unemployment Rate Increases 1 ppt
(4 quarters ahead)



Probability that the Unemployment Rate Decreases 1 ppt
(4 quarters ahead)



Probability that Real GDP Declines in each of the Next Two Quarters



Note: See notes on facing page. Recession and inflation probabilities for FRB/US and the BVAR are real-time estimates. See Robert J. Tetlow and Brian Ironside (2007), "Real−Time Model Uncertainty in the United States: The Fed, 1996− 2003," *Journal of Money and Banking*, vol. 39 (October), pp. 1533−61.

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Risks & Uncertainty

Changes in GDP, Prices, and Unemployment
(Percent, annual rate except as noted)

Interval	Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate[1]	
	12/05/12	01/23/13	12/05/12	01/23/13	12/05/12	01/23/13	12/05/12	01/23/13	12/05/12	01/23/13
Quarterly										
2012:Q1	4.2	4.2	2.0	2.0	2.5	2.5	2.2	2.2	8.2	8.2
Q2	2.8	2.8	1.3	1.3	.7	.7	1.7	1.7	8.2	8.2
Q3	5.7	5.9	2.8	3.1	1.6	1.6	1.1	1.1	8.1	8.0
Q4	2.6	1.3	.9	.1	1.5	1.2	1.2	.8	8.0	7.8
2013:Q1	3.1	3.7	1.7	2.7	1.1	.9	1.7	1.6	7.9	7.8
Q2	3.9	4.2	2.5	2.4	1.4	1.9	1.6	1.7	7.9	7.7
Q3	4.2	4.1	2.8	2.7	1.4	1.5	1.6	1.7	7.9	7.7
Q4	4.2	4.2	2.9	2.8	1.3	1.3	1.5	1.5	7.8	7.6
2014:Q1	4.4	4.1	2.9	2.5	1.5	1.5	1.7	1.7	7.7	7.5
Q2	4.6	4.7	3.1	3.1	1.4	1.4	1.6	1.7	7.7	7.4
Q3	4.7	5.1	3.3	3.5	1.4	1.5	1.7	1.7	7.5	7.2
Q4	4.9	5.3	3.4	3.7	1.4	1.4	1.6	1.6	7.4	7.1
Two-quarter[2]										
2012:Q2	3.5	3.5	1.6	1.6	1.6	1.6	2.0	2.0	-.5	-.5
Q4	4.1	3.6	1.8	1.6	1.6	1.4	1.2	1.0	-.2	-.4
2013:Q2	3.5	4.0	2.1	2.6	1.2	1.4	1.6	1.7	-.1	-.1
Q4	4.2	4.2	2.8	2.8	1.3	1.4	1.6	1.6	-.1	-.1
2014:Q2	4.5	4.4	3.0	2.8	1.4	1.5	1.7	1.7	-.1	-.2
Q4	4.8	5.2	3.3	3.6	1.4	1.4	1.6	1.7	-.3	-.3
Four-quarter[3]										
2011:Q4	4.0	4.0	2.0	2.0	2.5	2.5	1.7	1.7	-.9	-.8
2012:Q4	3.8	3.5	1.7	1.6	1.6	1.5	1.6	1.5	-.7	-.9
2013:Q4	3.9	4.1	2.5	2.7	1.3	1.4	1.6	1.6	-.2	-.2
2014:Q4	4.6	4.8	3.2	3.2	1.4	1.5	1.6	1.7	-.4	-.5
2015:Q4	5.2	5.1	3.6	3.5	1.5	1.6	1.7	1.7	-.9	-.8
Annual										
2011	4.0	4.0	1.8	1.8	2.4	2.4	1.4	1.4	8.9	8.9
2012	4.1	4.0	2.2	2.2	1.8	1.7	1.7	1.7	8.1	8.1
2013	3.7	3.7	2.0	2.1	1.3	1.3	1.5	1.4	7.9	7.7
2014	4.4	4.4	3.0	2.9	1.4	1.5	1.6	1.7	7.6	7.3
2015	5.0	5.1	3.4	3.5	1.5	1.5	1.7	1.7	6.9	6.6

1. Level, except for two-quarter and four-quarter intervals.
2. Percent change from two quarters earlier; for unemployment rate, change is in percentage points.
3. Percent change from four quarters earlier; for unemployment rate, change is in percentage points.

Greensheets

Changes in Real Gross Domestic Product and Related Items
(Percent, annual rate except as noted)

Item	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2012[1]	2013[1]	2014[1]	2015[1]
Real GDP	1.3	3.1	.1	2.7	2.4	2.7	2.8	2.5	3.1	3.5	3.7	1.6	2.7	3.2	3.5
Previous Tealbook	1.3	2.8	.9	1.7	2.5	2.8	2.9	2.9	3.1	3.3	3.4	1.7	2.5	3.2	3.6
Final sales	1.7	2.4	1.5	1.8	2.6	2.8	2.6	2.0	3.0	3.6	3.4	2.0	2.5	3.0	3.5
Previous Tealbook	1.7	2.0	1.7	.8	2.8	2.8	2.6	2.6	3.1	3.5	3.3	1.9	2.3	3.1	3.6
Priv. dom. final purch.	1.9	1.5	3.4	2.1	3.5	3.5	3.6	3.0	3.7	4.2	4.3	2.6	3.2	3.8	4.1
Previous Tealbook	1.9	1.3	2.9	1.1	3.7	3.6	3.7	3.6	3.9	4.0	4.1	2.4	3.0	3.9	4.1
Personal cons. expend.	1.5	1.6	2.2	1.7	2.6	2.5	2.7	2.6	3.2	3.6	3.6	1.9	2.3	3.3	3.5
Previous Tealbook	1.5	1.4	2.1	.6	2.6	2.7	2.9	3.1	3.3	3.4	3.5	1.9	2.2	3.3	3.6
Durables	-.2	8.9	12.0	2.2	9.6	8.9	9.2	8.7	9.1	8.5	8.9	7.9	7.4	8.8	8.4
Nondurables	.6	1.2	.5	.9	1.4	1.4	1.7	1.7	2.5	3.0	2.9	1.0	1.3	2.5	2.8
Services	2.1	.6	1.2	1.8	1.8	1.8	2.0	1.9	2.5	3.0	3.0	1.3	1.9	2.6	2.9
Residential investment	8.5	13.5	13.1	15.0	25.1	17.9	14.1	11.6	13.2	13.4	12.6	13.8	17.9	12.7	13.8
Previous Tealbook	8.5	13.8	14.8	17.0	22.6	14.7	13.0	10.3	12.3	12.7	11.9	14.3	16.8	11.8	12.7
Business fixed invest.	3.6	-1.8	9.6	2.2	5.0	6.7	7.3	3.4	4.1	5.6	6.3	4.6	5.3	4.8	4.8
Previous Tealbook	3.6	-2.2	5.4	1.1	6.4	6.7	6.5	5.7	5.5	5.9	5.7	3.5	5.2	5.7	5.0
Equipment & software	4.8	-2.6	13.8	1.7	5.5	7.1	8.6	4.2	4.7	6.7	7.5	5.2	5.7	5.8	6.0
Previous Tealbook	4.8	-3.1	7.3	.4	7.9	7.8	8.5	7.5	6.7	7.0	6.8	3.5	6.1	7.0	6.2
Nonres. structures	.6	.0	-.4	3.6	3.7	5.5	4.0	1.4	2.6	3.0	3.1	3.1	4.2	2.5	2.1
Previous Tealbook	.6	-.2	.9	2.9	2.8	4.0	1.8	1.3	2.6	3.0	3.1	3.4	2.9	2.5	2.1
Net exports[2]	-407	-395	-403	-396	-396	-390	-394	-397	-393	-387	-388	-405	-394	-391	-379
Previous Tealbook[2]	-407	-403	-403	-395	-393	-390	-396	-403	-402	-393	-391	-407	-393	-397	-379
Exports	5.3	1.9	-4.5	5.2	5.3	5.3	5.4	5.7	5.4	6.3	6.8	1.7	5.3	6.1	7.1
Imports	2.8	-.6	-2.4	3.0	4.4	3.2	5.1	5.3	3.9	4.1	6.0	.7	3.9	4.8	5.3
Gov't. cons. & invest.	-.7	3.9	-5.6	-1.1	-1.5	-1.4	-1.5	-2.0	-1.2	-1.0	-1.0	-1.4	-1.4	-1.3	-.5
Previous Tealbook	-.7	4.0	-3.5	-1.8	-1.5	-1.6	-1.5	-1.1	-1.2	-1.0	-1.0	-.8	-1.6	-1.1	-.1
Federal	-.2	9.5	-12.4	-2.8	-4.2	-4.1	-4.5	-6.5	-4.4	-4.2	-4.4	-2.2	-3.9	-4.9	-3.3
Defense	-.2	12.9	-17.1	-3.2	-4.9	-4.7	-5.4	-8.2	-5.3	-4.9	-5.2	-3.5	-4.6	-5.9	-3.6
Nondefense	-.4	3.0	-2.2	-2.0	-2.7	-2.7	-2.8	-3.1	-2.8	-2.8	-2.8	.5	-2.6	-2.9	-2.8
State & local	-1.0	.3	-.8	.1	.3	.3	.4	.8	.9	.9	1.0	-.9	.3	.9	1.2
Change in bus. inventories[2]	41	60	16	57	50	46	52	67	71	69	80	44	51	72	84
Previous Tealbook[2]	41	61	35	75	66	66	74	83	83	77	81	49	70	81	75
Nonfarm[2]	53	88	44	49	42	38	44	62	66	64	75	62	43	67	83
Farm[2]	-8	-19	-19	7	7	7	7	5	5	5	5	-12	7	5	1

1. Change from fourth quarter of previous year to fourth quarter of year indicated.
2. Billions of chained (2005) dollars.

Changes in Real Gross Domestic Product and Related Items
(Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted)

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Real GDP	2.4	2.2	-3.3	-.1	2.4	2.0	1.6	2.7	3.2	3.5
Previous Tealbook	2.4	2.2	-3.3	-.1	2.4	2.0	1.7	2.5	3.2	3.6
Final sales	2.8	2.4	-2.6	-.5	1.7	1.7	2.0	2.5	3.0	3.5
Previous Tealbook	2.8	2.4	-2.6	-.5	1.7	1.7	1.9	2.3	3.1	3.6
Priv. dom. final purch.	2.4	1.2	-4.5	-2.8	3.2	2.9	2.6	3.2	3.8	4.1
Previous Tealbook	2.4	1.2	-4.5	-2.8	3.2	2.9	2.4	3.0	3.9	4.1
Personal cons. expend.	3.2	1.7	-2.5	-.3	2.9	1.9	1.9	2.3	3.3	3.5
Previous Tealbook	3.2	1.7	-2.5	-.3	2.9	1.9	1.9	2.2	3.3	3.6
Durables	7.0	4.6	-13.0	3.0	9.5	5.9	7.9	7.4	8.8	8.4
Nondurables	2.9	.8	-3.1	.4	3.0	1.4	1.0	1.3	2.5	2.8
Services	2.6	1.4	-.5	-1.1	1.9	1.5	1.3	1.9	2.6	2.9
Residential investment	-15.7	-20.7	-24.4	-13.3	-5.7	3.9	13.8	17.9	12.7	13.8
Previous Tealbook	-15.7	-20.7	-24.4	-13.3	-5.7	3.9	14.3	16.8	11.8	12.7
Business fixed invest.	7.8	7.9	-9.4	-15.7	7.7	10.2	4.6	5.3	4.8	4.8
Previous Tealbook	7.8	7.9	-9.4	-15.7	7.7	10.2	3.5	5.2	5.7	5.0
Equipment & software	6.0	3.9	-13.6	-7.8	11.9	11.4	5.2	5.7	5.8	6.0
Previous Tealbook	6.0	3.9	-13.6	-7.8	11.9	11.4	3.5	6.1	7.0	6.2
Nonres. structures	13.0	17.3	-1.2	-29.4	-1.8	6.9	3.1	4.2	2.5	2.1
Previous Tealbook	13.0	17.3	-1.2	-29.4	-1.8	6.9	3.4	2.9	2.5	2.1
Net exports[1]	-729	-649	-495	-355	-420	-408	-405	-394	-391	-379
Previous Tealbook[1]	-729	-649	-495	-355	-420	-408	-407	-393	-397	-379
Exports	10.2	10.1	-2.5	.3	8.8	4.3	1.7	5.3	6.1	7.1
Imports	4.1	.8	-5.9	-6.1	10.9	3.5	.7	3.9	4.8	5.3
Gov't. cons. & invest.	1.5	1.9	2.7	4.0	-1.3	-3.3	-1.4	-1.4	-1.3	-.5
Previous Tealbook	1.5	1.9	2.7	4.0	-1.3	-3.3	-.8	-1.6	-1.1	-.1
Federal	2.2	3.1	8.8	5.1	2.3	-4.2	-2.2	-3.9	-4.9	-3.3
Defense	4.4	2.6	9.8	4.1	1.0	-4.0	-3.5	-4.6	-5.9	-3.6
Nondefense	-2.3	4.2	6.8	7.2	5.2	-4.6	.5	-2.6	-2.9	-2.8
State & local	1.2	1.2	-.9	3.3	-3.6	-2.7	-.9	.3	.9	1.2
Change in bus. inventories[1]	59	28	-36	-139	51	31	44	51	72	84
Previous Tealbook[1]	59	28	-36	-139	51	31	49	70	81	75
Nonfarm[1]	63	29	-38	-138	58	36	62	43	67	83
Farm[1]	-4	-1	1	-1	-6	-4	-12	7	5	1

1. Billions of chained (2005) dollars.

Contributions to Changes in Real Gross Domestic Product
(Percentage points, annual rate except as noted)

Item	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2012[1]	2013[1]	2014[1]	2015[1]
Real GDP	1.3	3.1	.1	2.7	2.4	2.7	2.8	2.5	3.1	3.5	3.7	1.6	2.7	3.2	3.5
Previous Tealbook	1.3	2.8	.9	1.7	2.5	2.8	2.9	2.9	3.1	3.3	3.4	1.7	2.5	3.2	3.6
Final sales	1.7	2.4	1.4	1.8	2.6	2.8	2.6	2.0	3.0	3.6	3.4	2.0	2.5	3.0	3.5
Previous Tealbook	1.7	2.0	1.7	.8	2.8	2.8	2.6	2.6	3.1	3.4	3.3	1.9	2.3	3.1	3.6
Priv. dom. final purch.	1.6	1.3	2.8	1.8	2.9	2.9	3.0	2.5	3.1	3.6	3.6	2.1	2.7	3.2	3.5
Previous Tealbook	1.6	1.1	2.4	1.0	3.0	3.0	3.1	3.0	3.2	3.4	3.4	2.0	2.5	3.3	3.5
Personal cons. expend.	1.1	1.1	1.5	1.2	1.8	1.8	1.9	1.8	2.3	2.6	2.6	1.4	1.7	2.3	2.5
Previous Tealbook	1.1	1.0	1.5	.4	1.8	1.9	2.1	2.2	2.3	2.4	2.5	1.3	1.6	2.3	2.6
Durables	.0	.7	.9	.2	.7	.7	.7	.7	.7	.7	.7	.6	.6	.7	.7
Nondurables	.1	.2	.1	.1	.2	.2	.3	.3	.4	.5	.5	.2	.2	.4	.4
Services	1.0	.3	.6	.9	.9	.9	.9	.9	1.2	1.4	1.4	.6	.9	1.2	1.4
Residential investment	.2	.3	.3	.4	.6	.5	.4	.3	.4	.4	.4	.3	.5	.4	.4
Previous Tealbook	.2	.3	.3	.4	.6	.4	.4	.3	.4	.4	.4	.3	.4	.3	.4
Business fixed invest.	.4	-.2	.9	.2	.5	.7	.8	.4	.4	.6	.7	.5	.5	.5	.5
Previous Tealbook	.4	-.2	.5	.1	.6	.7	.7	.6	.6	.6	.6	.4	.5	.6	.5
Equipment & software	.4	-.2	1.0	.1	.4	.5	.6	.3	.4	.5	.6	.4	.4	.4	.5
Previous Tealbook	.4	-.2	.5	.0	.6	.6	.6	.5	.5	.5	.5	.3	.4	.5	.5
Nonres. structures	.0	.0	.0	.1	.1	.2	.1	.0	.1	.1	.1	.1	.1	.1	.1
Previous Tealbook	.0	.0	.0	.1	.1	.1	.1	.0	.1	.1	.1	.1	.1	.1	.1
Net exports	.2	.4	-.2	.2	.0	.2	-.1	-.1	.1	.2	-.1	.1	.1	.0	.1
Previous Tealbook	.2	.1	.0	.2	.1	.1	-.2	-.2	.0	.2	.0	.1	.0	.0	.1
Exports	.7	.3	-.6	.7	.7	.7	.7	.8	.8	.9	1.0	.2	.7	.8	1.0
Imports	-.5	.1	.4	-.5	-.7	-.5	-.9	-.9	-.7	-.7	-1.0	-.1	-.7	-.8	-.9
Gov't. cons. & invest.	-.1	.8	-1.1	-.2	-.3	-.3	-.3	-.4	-.2	-.2	-.2	-.3	-.3	-.2	-.1
Previous Tealbook	-.1	.8	-.7	-.3	-.3	-.3	-.3	-.2	-.2	-.2	-.2	-.2	-.3	-.2	.0
Federal	.0	.7	-1.0	-.2	-.3	-.3	-.3	-.5	-.3	-.3	-.3	-.2	-.3	-.3	-.2
Defense	.0	.6	-1.0	-.2	-.3	-.2	-.3	-.4	-.2	-.2	-.2	-.2	-.2	-.3	-.2
Nondefense	.0	.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	.0	-.1	-.1	-.1
State & local	-.1	.0	-.1	.0	.0	.0	.0	.1	.1	.1	.1	-.1	.0	.1	.1
Change in bus. inventories	-.5	.7	-1.4	.9	-.2	-.1	.2	.5	.1	.0	.3	-.4	.2	.2	.0
Previous Tealbook	-.5	.8	-.8	.9	-.3	.0	.3	.3	.0	-.2	.1	-.2	.2	.1	.0
Nonfarm	-.3	1.1	-1.4	.2	-.2	-.1	.2	.5	.1	-.1	.3	-.2	.0	.2	.1
Farm	-.2	-.4	.0	.8	.0	.0	.0	-.1	.0	.0	.0	-.1	.2	.0	.0

1. Change from fourth quarter of previous year to fourth quarter of year indicated.

Changes in Prices and Costs
(Percent, annual rate except as noted)

Item	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2012[1]	2013[1]	2014[1]	2015[1]
GDP chain-wt. price index	1.6	2.7	1.2	1.0	1.8	1.4	1.3	1.5	1.5	1.5	1.5	1.9	1.4	1.5	1.6
Previous Tealbook	1.6	2.7	1.7	1.4	1.4	1.4	1.3	1.5	1.4	1.4	1.4	2.0	1.3	1.4	1.5
PCE chain-wt. price index	.7	1.6	1.2	.9	1.9	1.5	1.3	1.5	1.4	1.5	1.4	1.5	1.4	1.5	1.6
Previous Tealbook	.7	1.6	1.5	1.1	1.4	1.4	1.3	1.5	1.4	1.4	1.4	1.6	1.3	1.4	1.5
Energy	-13.6	10.5	5.6	-11.0	3.6	-2.7	-2.2	-1.6	-1.5	-1.6	-1.3	2.2	-3.2	-1.5	-1.1
Previous Tealbook	-13.6	10.5	4.6	-9.3	-3.7	-2.4	-1.9	-1.4	-1.7	-2.0	-1.8	1.9	-4.4	-1.7	-1.6
Food	.7	.6	2.1	3.1	2.8	2.0	1.0	.9	1.0	1.1	1.2	1.2	2.2	1.1	1.5
Previous Tealbook	.7	.6	2.4	3.4	2.8	2.1	1.1	.9	1.0	1.1	1.3	1.2	2.3	1.1	1.5
Ex. food & energy	1.7	1.1	.8	1.6	1.7	1.7	1.5	1.7	1.7	1.7	1.6	1.5	1.6	1.7	1.7
Previous Tealbook	1.7	1.1	1.2	1.7	1.6	1.6	1.5	1.7	1.6	1.7	1.6	1.6	1.6	1.6	1.7
Ex. food & energy, market based	1.8	1.3	.8	1.4	1.6	1.6	1.4	1.6	1.6	1.6	1.5	1.6	1.5	1.6	1.6
Previous Tealbook	1.8	1.3	1.3	1.6	1.5	1.5	1.4	1.6	1.5	1.5	1.4	1.7	1.5	1.5	1.6
CPI	.8	2.3	2.1	.8	2.1	1.3	1.3	1.4	1.4	1.4	1.4	1.9	1.4	1.4	1.6
Previous Tealbook	.8	2.3	2.3	1.2	1.3	1.4	1.3	1.4	1.4	1.4	1.4	2.0	1.3	1.4	1.5
Ex. food & energy	2.6	1.5	1.6	1.9	1.8	1.7	1.6	1.8	1.8	1.8	1.7	1.9	1.7	1.8	1.8
Previous Tealbook	2.6	1.5	1.8	2.0	1.7	1.7	1.6	1.8	1.8	1.8	1.7	2.0	1.7	1.7	1.8
ECI, hourly compensation[2]	2.1	1.7	2.1	2.3	2.6	2.7	2.7	2.9	3.0	3.0	3.0	1.9	2.6	2.9	3.1
Previous Tealbook[2]	2.1	1.7	2.1	2.3	2.5	2.6	2.7	2.7	2.8	2.9	2.9	1.9	2.5	2.8	3.0
Nonfarm business sector															
Output per hour	1.9	3.3	-3.0	.5	1.2	1.6	1.6	1.3	1.8	2.1	2.3	.4	1.2	1.8	1.8
Previous Tealbook	1.9	3.0	-.6	-1.0	1.9	1.7	1.5	1.7	1.9	1.8	1.9	.9	1.0	1.8	1.9
Compensation per hour	1.3	1.1	1.0	2.6	2.7	2.9	3.0	3.1	3.1	3.1	3.2	2.3	2.8	3.1	3.4
Previous Tealbook	1.3	.9	1.8	2.4	2.6	2.8	2.9	2.9	3.0	3.1	3.2	2.4	2.7	3.0	3.3
Unit labor costs	-.5	-2.1	4.1	2.1	1.4	1.3	1.4	1.7	1.3	1.0	.9	1.9	1.5	1.2	1.6
Previous Tealbook	-.5	-2.0	2.4	3.5	.7	1.1	1.3	1.2	1.1	1.3	1.2	1.5	1.7	1.2	1.4
Core goods imports chain-wt. price index[3]	1.2	-2.3	1.3	2.5	1.6	1.4	1.3	1.3	1.4	1.7	1.5	.0	1.7	1.5	1.5
Previous Tealbook[3]	1.2	-2.4	2.2	1.5	.8	1.0	1.1	1.3	1.4	1.7	1.4	.2	1.1	1.5	1.5

1. Change from fourth quarter of previous year to fourth quarter of year indicated.
2. Private-industry workers.
3. Core goods imports exclude computers, semiconductors, oil, and natural gas.

Greensheets

Changes in Prices and Costs
(Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted)

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GDP chain-wt. price index	2.9	2.6	2.1	.5	1.8	2.0	1.9	1.4	1.5	1.6
Previous Tealbook	2.9	2.6	2.1	.5	1.8	2.0	2.0	1.3	1.4	1.5
PCE chain-wt. price index	1.9	3.5	1.7	1.4	1.5	2.5	1.5	1.4	1.5	1.6
Previous Tealbook	1.9	3.5	1.7	1.4	1.5	2.5	1.6	1.3	1.4	1.5
Energy	-3.7	19.3	-8.8	2.7	6.5	11.9	2.2	-3.2	-1.5	-1.1
Previous Tealbook	-3.7	19.3	-8.8	2.7	6.5	11.9	1.9	-4.4	-1.7	-1.6
Food	1.7	4.7	7.0	-1.7	1.3	5.1	1.2	2.2	1.1	1.5
Previous Tealbook	1.7	4.7	7.0	-1.7	1.3	5.1	1.2	2.3	1.1	1.5
Ex. food & energy	2.3	2.4	2.0	1.6	1.2	1.7	1.5	1.6	1.7	1.7
Previous Tealbook	2.3	2.4	2.0	1.6	1.2	1.7	1.6	1.6	1.6	1.7
Ex. food & energy, market based	2.2	2.1	2.2	1.7	.7	1.9	1.6	1.5	1.6	1.6
Previous Tealbook	2.2	2.1	2.2	1.7	.7	1.9	1.7	1.5	1.5	1.6
CPI	2.0	4.0	1.6	1.5	1.2	3.3	1.9	1.4	1.4	1.6
Previous Tealbook	2.0	4.0	1.6	1.5	1.2	3.3	2.0	1.3	1.4	1.5
Ex. food & energy	2.7	2.3	2.0	1.7	.6	2.2	1.9	1.7	1.8	1.8
Previous Tealbook	2.7	2.3	2.0	1.7	.6	2.2	2.0	1.7	1.7	1.8
ECI, hourly compensation[1]	3.2	3.0	2.4	1.2	2.1	2.2	1.9	2.6	2.9	3.1
Previous Tealbook[1]	3.2	3.0	2.4	1.2	2.1	2.2	1.9	2.5	2.8	3.0
Nonfarm business sector										
Output per hour	.8	2.5	-1.1	5.6	1.8	.6	.4	1.2	1.8	1.8
Previous Tealbook	.8	2.5	-1.1	5.6	1.8	.6	.9	1.0	1.8	1.9
Compensation per hour	4.5	3.6	2.5	1.5	1.6	2.0	2.3	2.8	3.1	3.4
Previous Tealbook	4.5	3.6	2.5	1.5	1.6	2.0	2.4	2.7	3.0	3.3
Unit labor costs	3.6	1.1	3.7	-3.9	-.2	1.4	1.9	1.5	1.2	1.6
Previous Tealbook	3.6	1.1	3.7	-3.9	-.2	1.4	1.5	1.7	1.2	1.4
Core goods imports chain-wt. price index[2]	2.5	2.9	3.7	-1.7	2.7	4.3	.0	1.7	1.5	1.5
Previous Tealbook[2]	2.5	2.9	3.7	-1.7	2.7	4.3	.2	1.1	1.5	1.5

1. Private-industry workers.
2. Core goods imports exclude computers, semiconductors, oil, and natural gas.

Other Macroeconomic Indicators

Item	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2012[1]	2013[1]	2014[1]	2015[1]
Employment and production															
Nonfarm payroll employment[2]	.3	.4	.4	.5	.5	.5	.5	.5	.6	.6	.7	1.9	1.9	2.4	3.1
Unemployment rate[3]	8.2	8.0	7.8	7.8	7.7	7.7	7.6	7.5	7.4	7.2	7.1	7.8	7.6	7.1	6.3
Previous Tealbook[3]	8.2	8.1	8.0	7.9	7.9	7.9	7.8	7.7	7.7	7.5	7.4	8.0	7.8	7.4	6.5
Natural rate of unemployment[3]	6.0	6.0	5.9	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8	5.9	5.9	5.8	5.8
Previous Tealbook[3]	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.8
GDP gap[4]	-3.9	-3.6	-4.0	-3.8	-3.7	-3.5	-3.3	-3.2	-3.0	-2.6	-2.2	-4.0	-3.3	-2.2	-.9
Previous Tealbook[4]	-4.1	-3.9	-4.1	-4.2	-4.1	-3.9	-3.6	-3.4	-3.2	-2.9	-2.6	-4.1	-3.6	-2.6	-1.3
Industrial production[5]	2.4	.4	1.0	2.6	6.9	5.7	4.5	3.9	3.9	4.1	4.3	2.4	4.9	4.0	4.1
Previous Tealbook[5]	2.3	.0	1.0	4.0	4.6	4.2	3.8	3.7	3.6	3.6	3.9	2.3	4.2	3.7	4.0
Manufacturing industr. prod.[5]	.8	-1.0	.2	3.8	5.1	4.6	4.0	3.9	3.9	3.9	4.4	2.4	4.4	4.0	4.5
Previous Tealbook[5]	.7	-1.1	-.3	2.9	4.4	4.3	4.2	4.0	3.9	3.9	4.3	2.2	4.0	4.0	4.3
Capacity utilization rate - mfg.[3]	77.5	77.0	76.8	77.1	77.6	78.1	78.4	78.7	79.0	79.2	79.6	76.8	78.4	79.6	80.9
Previous Tealbook[3]	77.5	77.0	76.6	76.8	77.3	77.8	78.2	78.6	78.9	79.1	79.5	76.6	78.2	79.5	80.7
Housing starts[6]	.7	.8	.9	.9	1.0	1.1	1.1	1.2	1.2	1.3	1.3	.8	1.0	1.3	1.5
Light motor vehicle sales[6]	14.1	14.5	15.0	14.9	15.0	15.2	15.4	15.6	15.9	16.0	16.1	14.4	15.2	15.9	16.5
Income and saving															
Nominal GDP[5]	2.8	5.9	1.3	3.7	4.2	4.1	4.2	4.1	4.7	5.1	5.3	3.5	4.1	4.8	5.1
Real disposable pers. income[5]	2.2	.5	2.3	-3.0	2.7	2.5	3.1	4.9	3.4	3.5	3.9	2.2	1.3	3.9	2.9
Previous Tealbook[5]	2.2	.5	2.1	-3.5	2.8	2.5	3.2	5.3	3.3	3.6	4.0	2.1	1.2	4.0	3.1
Personal saving rate[3]	3.8	3.6	3.6	2.5	2.5	2.5	2.5	3.1	3.1	3.0	3.1	3.6	2.5	3.1	2.4
Previous Tealbook[3]	3.8	3.6	3.6	2.6	2.6	2.5	2.6	3.1	3.1	3.1	3.2	3.6	2.6	3.2	2.6
Corporate profits[7]	4.7	9.9	1.7	-1.6	-1.5	-1.4	-1.4	-2.2	.5	4.0	3.7	1.2	-1.5	1.5	2.4
Profit share of GNP[3]	12.1	12.3	12.3	12.1	12.0	11.8	11.6	11.5	11.4	11.3	11.3	12.3	11.6	11.3	11.0
Net federal saving[8]	-1,115	-1,089	-1,114	-878	-876	-853	-834	-743	-737	-735	-737	-1,094	-860	-738	-580
Net state & local saving[8]	-124	-140	-139	-128	-107	-97	-89	-93	-71	-66	-59	-133	-105	-72	-29
Gross national saving rate[3]	12.3	12.3	12.2	12.7	12.8	12.8	13.0	13.2	13.3	13.4	13.4	12.2	13.0	13.4	14.0
Net national saving rate[3]	-.4	-.3	-.4	.3	.4	.5	.6	1.0	1.1	1.2	1.2	-.4	.6	1.2	2.0

1. Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise indicated.
2. Change, millions.
3. Percent; annual values are for the fourth quarter of the year indicated.
4. Percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential. Annual values are for the fourth quarter of the year indicated.
5. Percent change, annual rate.
6. Level, millions; annual values are annual averages.
7. Percent change, annual rate, with inventory valuation and capital consumption adjustments.
8. Billions of dollars; annual values are annual averages.

Other Macroeconomic Indicators
(Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted)

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Employment and production										
Nonfarm payroll employment[1]	2.1	1.2	-2.8	-5.6	.8	1.8	1.9	1.9	2.4	3.1
Unemployment rate[2]	4.5	4.8	6.9	9.9	9.5	8.7	7.8	7.6	7.1	6.3
Previous Tealbook[2]	4.5	4.8	6.9	9.9	9.6	8.7	8.0	7.8	7.4	6.5
Natural rate of unemployment[2]	5.0	5.0	5.3	6.0	6.0	6.0	5.9	5.9	5.8	5.8
Previous Tealbook[2]	5.0	5.0	5.3	6.0	6.0	6.0	6.0	6.0	6.0	5.8
GDP gap[3]	.8	.8	-4.3	-5.3	-4.2	-3.8	-4.0	-3.3	-2.2	-.9
Previous Tealbook[3]	.8	.8	-4.4	-5.5	-4.4	-4.0	-4.1	-3.6	-2.6	-1.3
Industrial production[4]	2.1	2.5	-9.0	-5.7	6.3	4.1	2.4	4.9	4.0	4.1
Previous Tealbook[4]	2.1	2.5	-9.0	-5.7	6.3	4.1	2.3	4.2	3.7	4.0
Manufacturing industr. prod.[4]	1.8	2.8	-11.8	-6.5	6.5	4.2	2.4	4.4	4.0	4.5
Previous Tealbook[4]	1.8	2.8	-11.8	-6.5	6.5	4.2	2.2	4.0	4.0	4.3
Capacity utilization rate - mfg.[2]	78.2	78.2	69.7	67.0	73.1	76.1	76.8	78.4	79.6	80.9
Previous Tealbook[2]	78.2	78.2	69.7	67.0	73.1	76.1	76.6	78.2	79.5	80.7
Housing starts[5]	1.8	1.4	.9	.6	.6	.6	.8	1.0	1.3	1.5
Light motor vehicle sales[5]	16.5	16.1	13.1	10.4	11.5	12.7	14.4	15.2	15.9	16.5
Income and saving										
Nominal GDP[4]	5.3	4.9	-1.2	.4	4.3	4.0	3.5	4.1	4.8	5.1
Real disposable pers. income[4]	4.6	1.6	1.0	-3.0	3.5	.3	2.2	1.3	3.9	2.9
Previous Tealbook[4]	4.6	1.6	1.0	-3.0	3.5	.3	2.1	1.2	4.0	3.1
Personal saving rate[2]	2.8	2.5	6.2	3.8	4.8	3.4	3.6	2.5	3.1	2.4
Previous Tealbook[2]	2.8	2.5	6.2	3.8	4.8	3.4	3.6	2.6	3.2	2.6
Corporate profits[6]	3.7	-8.1	-33.5	57.0	17.3	9.2	1.2	-1.5	1.5	2.4
Profit share of GNP[2]	11.6	10.1	6.8	10.7	12.0	12.5	12.3	11.6	11.3	11.0
Net federal saving[7]	-204	-245	-613	-1,229	-1,308	-1,237	-1,094	-860	-738	-580
Net state & local saving[7]	51	12	-72	-113	-90	-102	-133	-105	-72	-29
Gross national saving rate[2]	16.5	13.9	12.6	11.0	12.1	12.4	12.2	13.0	13.4	14.0
Net national saving rate[2]	4.4	1.7	-.6	-2.3	-.6	-.3	-.4	.6	1.2	2.0

1. Change, millions.
2. Percent; values are for the fourth quarter of the year indicated.
3. Percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential. Values are for the fourth quarter of the year indicated.
4. Percent change.
5. Level, millions; values are annual averages.
6. Percent change, with inventory valuation and capital consumption adjustments.
7. Billions of dollars; values are annual averages.

Staff Projections of Federal Sector Accounts and Related Items
(Billions of dollars except as noted)

Item	Fiscal year				2012				2013				2014			
	2012[a]	2013	2014	2015	Q1[a]	Q2[a]	Q3[a]	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unified budget					Not seasonally adjusted											
Receipts[1]	2,449	2,745	2,987	3,234	509	760	625	616	562	859	708	673	615	937	761	736
Outlays[1]	3,538	3,538	3,615	3,778	966	885	810	908	909	873	848	918	923	897	878	965
Surplus/deficit[1]	-1,089	-793	-628	-544	-457	-125	-185	-292	-347	-14	-140	-245	-308	41	-116	-230
Previous Tealbook	*-1,089*	*-741*	*-630*	*-579*	*-457*	*-125*	*-185*	*-300*	*-296*	*-14*	*-131*	*-241*	*-297*	*34*	*-127*	*-246*
On-budget	-1,151	-804	-631	-536	-458	-187	-160	-310	-327	-61	-106	-266	-284	-3	-78	-247
Off-budget	62	11	3	-8	1	62	-25	17	-20	47	-33	21	-23	43	-38	17
Means of financing																
Borrowing	1,152	797	708	624	398	198	230	314	299	15	169	265	328	-21	136	250
Cash decrease	-27	15	0	0	42	-48	6	-7	63	-31	-10	0	0	0	0	0
Other[2]	-36	-19	-80	-80	17	-25	-51	-14	-15	30	-20	-20	-20	-20	-20	-20
Cash operating balance, end of period	85	70	70	70	43	91	85	93	30	60	70	70	70	70	70	70
NIPA federal sector					Seasonally adjusted annual rates											
Receipts	2,632	2,877	3,106	3,353	2,665	2,659	2,671	2,693	2,906	2,939	2,970	3,003	3,102	3,138	3,179	3,220
Expenditures	3,744	3,807	3,868	3,980	3,724	3,775	3,761	3,807	3,784	3,814	3,823	3,836	3,846	3,875	3,914	3,956
Consumption expenditures	1,062	1,054	1,023	993	1,056	1,055	1,086	1,060	1,059	1,052	1,045	1,037	1,025	1,018	1,011	1,003
Defense	709	697	671	647	703	701	728	701	701	696	690	684	673	667	661	655
Nondefense	353	357	352	347	352	354	358	359	358	357	355	353	353	351	350	348
Other spending	2,682	2,753	2,845	2,987	2,668	2,720	2,674	2,747	2,725	2,762	2,778	2,799	2,820	2,858	2,904	2,953
Current account surplus	-1,111	-930	-762	-628	-1,059	-1,115	-1,089	-1,114	-878	-876	-853	-834	-743	-737	-735	-737
Gross investment	156	144	134	126	152	156	155	146	145	143	141	139	135	133	131	129
Gross saving less gross investment[3]	-1,127	-930	-749	-602	-1,071	-1,130	-1,102	-1,118	-879	-874	-849	-826	-731	-722	-717	-716
Fiscal indicators[4]																
High-employment (HEB) surplus/deficit	-919.1	-715.7	-577.0	-494.1	-865.0	-922.6	-909.2	-909.9	-657.9	-659.4	-635.8	-625.8	-556.4	-557.6	-568.4	-584.5
Change in HEB, percent of potential GDP	-1.0	-1.4	-.9	-.6	-.8	.3	-.1	.0	-1.6	.0	-.2	-.1	-.4	.0	.0	.1
Fiscal impetus (FI), percent of GDP	-.6	-.9	-.7	-.3	-.7	-.6	.3	-1.3	-1.5	-.7	-.8	-.7	-1.1	-.7	-.5	-.4
Previous Tealbook	*-.5*	*-1.2*	*-.5*	*-.3*	*-.7*	*-.7*	*.3*	*-1.0*	*-2.1*	*-1.1*	*-.9*	*-.8*	*-.6*	*-.5*	*-.5*	*-.4*

1. Budget receipts, outlays, and surplus/deficit include corresponding social security (OASDI) categories. The OASDI surplus and the Postal Service surplus are excluded from the on-budget surplus and shown separately as off-budget, as classified under current law.
2. Other means of financing are checks issued less checks paid, accrued items, and changes in other financial assets and liabilities.
3. Gross saving is the current account surplus plus consumption of fixed capital of the general government as well as government enterprises.
4. HEB is gross saving less gross investment (NIPA) of the federal government in current dollars, with cyclically sensitive receipts and outlays adjusted to the staff's measure of potential output and the natural rate of unemployment. The sign on Change in HEB, as a percent of nominal potential GDP, is reversed. FI is the weighted difference of discretionary changes in federal spending and taxes in chained (2005) dollars, scaled by real GDP. The FI estimates are calendar year contributions to Q4/Q4 real GDP growth. Also, for FI and the change in HEB, positive values indicate aggregate demand stimulus. Quarterly figures for change in HEB and FI are not at annual rates.
a Actual.

Foreign Real GDP and Consumer Prices: Selected Countries
(Quarterly percent changes at an annual rate)

					Projected							
	2012				2013				2014			
Measure and country	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP [1]												
Total foreign	3.4	1.9	1.8	2.2	2.7	3.1	3.2	3.3	3.4	3.2	3.5	3.5
Previous Tealbook	*3.4*	*1.9*	*1.8*	*2.1*	*2.5*	*2.9*	*3.1*	*3.2*	*3.4*	*3.1*	*3.5*	*3.5*
Advanced foreign economies	1.5	.5	.2	.3	1.0	1.4	1.7	1.9	2.1	1.6	2.1	2.2
Canada	1.7	1.7	.6	1.4	1.9	2.0	2.1	2.2	2.3	2.5	2.7	2.8
Japan	5.7	-.1	-3.5	.2	1.4	1.8	2.0	2.2	3.4	-2.6	.7	.7
United Kingdom	-1.0	-1.5	3.8	-.7	.7	1.2	1.7	2.1	2.2	2.3	2.3	2.4
Euro area	-.1	-.7	-.3	-1.2	-.5	.4	.8	1.2	1.4	1.5	1.6	1.8
Germany	2.0	1.1	.9	-1.0	.1	.9	1.2	1.7	1.8	1.9	2.0	2.0
Emerging market economies	5.4	3.4	3.3	4.1	4.5	4.8	4.8	4.8	4.8	4.8	4.9	4.9
Asia	6.2	3.7	4.6	5.8	5.6	5.8	5.8	5.8	5.9	5.9	5.9	5.9
Korea	3.5	1.1	.2	3.3	3.4	3.8	3.8	4.0	4.1	4.2	4.3	4.4
China	7.0	6.5	8.4	9.5	8.8	8.4	8.2	8.2	8.2	8.2	8.2	8.2
Latin America	4.6	2.9	2.0	2.6	3.6	4.0	3.9	3.8	3.8	3.8	3.9	3.9
Mexico	5.4	3.3	1.8	2.3	3.7	4.2	4.1	3.9	3.9	3.9	3.9	3.9
Brazil	.2	1.0	2.4	3.2	3.5	3.6	3.8	3.8	3.9	3.9	4.1	4.1
Consumer prices [2]												
Total foreign	2.6	2.0	2.3	2.4	2.2	2.3	2.3	2.3	2.4	3.0	2.5	2.5
Previous Tealbook	*2.6*	*1.9*	*2.2*	*2.5*	*2.3*	*2.2*	*2.2*	*2.2*	*2.3*	*3.0*	*2.4*	*2.4*
Advanced foreign economies	2.1	.7	.8	1.7	1.3	1.3	1.2	1.3	1.3	2.5	1.4	1.4
Canada	2.1	.1	.1	1.8	1.8	1.9	1.8	1.7	1.8	1.9	1.9	1.9
Japan	2.3	-.9	-2.0	-.5	-.2	-.1	-.1	.0	.0	7.1	.1	.1
United Kingdom	1.7	1.3	3.0	4.7	2.5	1.6	1.6	2.8	1.4	1.4	1.5	2.6
Euro Area	2.4	2.0	2.3	2.5	1.7	1.5	1.4	1.4	1.4	1.4	1.5	1.5
Germany	2.3	1.4	2.0	2.3	2.2	2.0	1.7	1.7	1.7	1.7	1.8	1.9
Emerging market economies	3.0	3.0	3.4	3.0	2.8	3.1	3.1	3.1	3.2	3.3	3.3	3.3
Asia	2.4	3.1	2.1	2.7	2.9	2.9	3.0	3.0	3.1	3.2	3.2	3.2
Korea	1.6	1.2	1.0	3.1	3.0	2.8	2.8	2.8	3.0	3.0	3.0	3.1
China	2.0	2.5	1.7	2.0	2.6	2.7	2.8	2.8	3.0	3.0	3.0	3.0
Latin America	4.6	2.6	6.3	3.6	2.7	3.5	3.5	3.5	3.7	3.7	3.7	3.7
Mexico	4.5	2.5	6.5	3.0	2.2	3.2	3.2	3.2	3.4	3.4	3.4	3.4
Brazil	4.0	3.8	7.3	7.5	6.2	5.4	5.6	5.6	5.6	5.6	5.5	5.5

[1] Foreign GDP aggregates calculated using shares of U.S. exports.
[2] Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

Foreign Real GDP and Consumer Prices: Selected Countries
(Percent change, Q4 to Q4)

Measure and country	2007	2008	2009	2010	2011	2012 (Projected)	2013 (Projected)	2014 (Projected)	2015 (Projected)
Real GDP [1]									
Total foreign	4.3	-.7	.8	4.5	2.9	2.3	3.1	3.4	3.5
Previous Tealbook	*4.3*	*-.7*	*.8*	*4.5*	*2.8*	*2.3*	*2.9*	*3.4*	*3.5*
Advanced foreign economies	2.4	-1.6	-1.5	3.0	1.4	.6	1.5	2.0	2.3
Canada	2.3	.0	-1.6	3.6	2.4	1.3	2.0	2.6	2.9
Japan	1.6	-4.8	-.6	3.5	.0	.5	1.8	.5	.3
United Kingdom	3.8	-4.6	-.9	1.5	.9	.2	1.4	2.3	2.5
Euro area	2.4	-2.1	-2.3	2.3	.6	-.6	.5	1.5	2.0
Germany	2.4	-1.9	-2.2	4.2	1.9	.8	1.0	1.9	2.4
Emerging market economies	6.7	.4	3.5	6.2	4.5	4.0	4.7	4.8	4.8
Asia	8.9	.8	8.0	7.7	4.9	5.1	5.7	5.9	5.9
Korea	5.8	-3.2	6.3	5.0	3.4	2.0	3.7	4.2	4.6
China	13.7	7.7	11.3	9.7	8.8	7.8	8.4	8.2	8.0
Latin America	4.4	-.2	-.8	4.5	3.9	3.0	3.8	3.8	3.8
Mexico	3.5	-1.1	-2.2	4.1	3.9	3.2	4.0	3.9	3.8
Brazil	6.6	.9	5.3	5.3	1.4	1.7	3.7	4.0	4.1
Consumer prices [2]									
Total foreign	3.7	3.3	1.3	3.2	3.4	2.3	2.3	2.6	2.6
Previous Tealbook	*3.7*	*3.3*	*1.3*	*3.2*	*3.4*	*2.3*	*2.2*	*2.5*	*2.6*
Advanced foreign economies	2.2	2.0	.2	1.7	2.2	1.3	1.3	1.7	1.7
Canada	2.5	1.8	.8	2.2	2.7	1.0	1.8	1.9	1.9
Japan	.5	1.1	-2.0	-.3	-.3	-.3	-.1	1.8	1.3
United Kingdom	2.1	3.9	2.2	3.4	4.7	2.7	2.1	1.8	1.8
Euro Area	2.9	2.3	.4	2.0	2.9	2.3	1.5	1.5	1.7
Germany	3.1	1.7	.3	1.6	2.6	2.0	1.9	1.8	1.9
Emerging market economies	5.1	4.6	2.1	4.3	4.3	3.1	3.0	3.3	3.3
Asia	5.5	3.6	1.3	4.3	4.5	2.6	2.9	3.1	3.2
Korea	3.4	4.5	2.4	3.2	4.0	1.7	2.9	3.0	3.2
China	6.7	2.5	.6	4.6	4.6	2.1	2.7	3.0	3.0
Latin America	4.2	6.7	3.9	4.4	4.0	4.3	3.3	3.7	3.7
Mexico	3.8	6.2	4.0	4.3	3.5	4.1	2.9	3.4	3.4
Brazil	4.3	6.3	4.3	5.6	6.7	5.6	5.7	5.6	5.5

[1] Foreign GDP aggregates calculated using shares of U.S. exports.
[2] Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

U.S. Current Account

Quarterly Data

	2012				Projected 2013				Projected 2014			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Billions of dollars, s.a.a.r.											
U.S. current account balance	**-534.5**	**-472.4**	**-430.0**	**-450.8**	**-458.5**	**-437.3**	**-444.1**	**-473.3**	**-496.9**	**-469.9**	**-475.2**	**-496.7**
Previous Tealbook	*-534.5*	*-469.6*	*-418.4*	*-436.3*	*-432.0*	*-415.0*	*-433.8*	*-471.6*	*-500.2*	*-482.0*	*-489.1*	*-508.2*
Current account as percent of GDP	-3.5	-3.0	-2.7	-2.8	-2.9	-2.7	-2.7	-2.9	-3.0	-2.8	-2.8	-2.9
Previous Tealbook	*-3.5*	*-3.0*	*-2.6*	*-2.7*	*-2.7*	*-2.6*	*-2.7*	*-2.9*	*-3.0*	*-2.9*	*-2.9*	*-2.9*
Net goods & services	-593.5	-549.7	-498.0	-531.0	-532.2	-506.4	-500.6	-519.8	-538.2	-506.7	-499.4	-515.2
Investment income, net	197.4	215.9	211.0	219.4	211.4	202.9	193.6	185.7	179.0	170.6	161.4	157.8
Direct, net	282.9	291.6	286.1	283.4	273.0	268.5	267.8	270.3	273.7	274.6	275.3	282.2
Portfolio, net	-85.6	-75.7	-75.2	-64.0	-61.6	-65.6	-74.2	-84.6	-94.7	-103.9	-114.0	-124.4
Other income and transfers, net	-138.4	-138.7	-143.1	-139.2	-137.7	-133.8	-137.1	-139.2	-137.7	-133.8	-137.1	-139.2

Annual Data

	2007	2008	2009	2010	2011	Projected 2012	Projected 2013	Projected 2014	Projected 2015
	Billions of dollars								
U.S. current account balance	**-710.3**	**-677.1**	**-381.9**	**-442.0**	**-465.9**	**-471.9**	**-453.3**	**-484.7**	**-490.6**
Previous Tealbook	*-710.3*	*-677.1*	*-381.9*	*-442.0*	*-465.9*	*-464.7*	*-438.1*	*-494.9*	*-497.7*
Current account as percent of GDP	-5.1	-4.7	-2.7	-3.0	-3.1	-3.0	-2.8	-2.9	-2.7
Previous Tealbook	*-5.1*	*-4.7*	*-2.7*	*-3.0*	*-3.1*	*-3.0*	*-2.7*	*-2.9*	*-2.8*
Net goods & services	-696.7	-698.3	-379.2	-494.7	-559.9	-543.0	-514.7	-514.9	-505.4
Investment income, net	111.1	157.8	127.6	191.0	235.0	210.9	198.4	167.2	150.8
Direct, net	244.6	284.3	253.0	297.9	321.7	286.0	269.9	276.4	303.7
Portfolio, net	-133.5	-126.5	-125.4	-106.9	-86.7	-75.1	-71.5	-109.3	-152.9
Other income and transfers, net	-124.7	-136.6	-130.3	-138.2	-141.1	-139.8	-137.0	-137.0	-135.9

Abbreviations

ABCP	asset-backed commercial paper
ABS	asset-backed securities
AFE	advanced foreign economy
AHE	average hourly earnings
ASEAN	Association of Southeast Asian Nations
ATRA	American Taxpayer Relief Act
CDS	credit default swaps
C&I	commercial and industrial
CLO	collateralized loan obligation
CMBS	commercial mortgage-backed securities
CP	commercial paper
CPI	consumer price index
CRE	commercial real estate
Desk	Open Market Desk
ECB	European Central Bank
EME	emerging market economy
E&S	equipment and software
EUC	Emergency Unemployment Compensation
FDIC	Federal Deposit Insurance Corporation
FOMC	Federal Open Market Committee; also, the Committee
GCF	general collateral finance
GDP	gross domestic product
GSE	government-sponsored enterprise
HARP	Home Affordable Refinance Program
HELOC	home equity line of credit
HFR	Hedge Fund Research
IMF	International Monetary Fund

IP	industrial production
ISM	Institute for Supply Management
LIBOR	London interbank offered rate
LSAP	large-scale asset purchase
MBS	mortgage-backed securities
MEP	maturity extension program
Michigan survey	Thomson Reuters/University of Michigan Surveys of Consumers
NIPA	national income and product accounts
OIS	overnight index swap
PCE	personal consumption expenditures
PMI	purchasing managers index
PPI	producer price index
repo	repurchase agreement
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices
SOMA	System Open Market Account
S&P	Standard & Poor’s
TBA	to be announced (for example, TBA market)
TIC	Treasury International Capital
TIPS	Treasury inflation-protected securities
VIX	Chicago Board Options Exchange Market Volatility Index
WTI	West Texas Intermediate