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.

Content last modified 01/05/2018.

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

April 18, 2012

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

(This page is intentionally blank.)

Domestic Economic Developments and Outlook

The data we have received since the March Tealbook suggest a slightly stronger pace of economic activity, on average, during the first half of this year than we had previously projected. Most importantly, the unemployment rate is a little lower, the level of overall payroll employment a little higher, and consumer spending noticeably stronger than we had expected. That said, personal income appears to be on a weaker trajectory than we had projected in the March Tealbook, the trade data for January and February were slightly disappointing on net, and the bump to defense spending early this year seems likely to be unwound over the next few quarters. Moreover, we are mindful of the possibility that the recent spending and production data have been boosted by unseasonably warm weather and seasonal adjustment problems—a consideration that dissuaded us from marking up the near-term projection more noticeably. After taking all of this information into account, we now estimate that real GDP will increase at an annual rate of 2¼ percent in the first half of this year, ¼ percentage point more than in the March Tealbook.

With most of the key background factors shaping our forecast little revised, the broad contour of our projection is similar to that in the previous Tealbook. In particular, we expect real GDP to expand at an annual rate of 2¾ percent in the second half of 2012 and then to remain at that pace in 2013, as the impetus to growth from favorable financial conditions, an improving credit environment, and rising confidence is offset by a significant tightening in the stance of fiscal policy. In 2014, GDP growth is projected to pick up to 3¼ percent as the drag from fiscal policy begins to recede. Given the projected path for GDP, the unemployment rate is forecast to fall from 8¼ percent in the current quarter to 7½ percent by the end of 2014; the path of the jobless rate is a little lower than in the March Tealbook, mostly reflecting the lower-than-expected readings seen in recent months.

We have nudged up our forecast for inflation relative to the March Tealbook in response to higher-than-expected data on core consumer prices and the slightly narrower margin of slack in this projection. We now expect core PCE price inflation to be 1.8 percent in 2012 and 1.7 percent in 2013 and 2014, 0.1 percentage point above our previous projection in each year. With the passthrough of the recent run-up in oil prices into consumer energy prices nearly complete and with oil prices expected to edge lower from current levels, headline PCE inflation is projected to slow from 2½ percent in the first quarter to an average of 1¾ percent in the remainder of 2012 and then to be 1½ percent in 2013 and 2014.

The box "Revisions to the Staff Projection since the Previous SEP" compares the current Tealbook projection with the one in the January Tealbook, which corresponds to the last time Committee participants submitted their economic projections.

KEY BACKGROUND FACTORS

Monetary Policy

In line with the staff's outcome-based policy rule, we assume that liftoff of the target federal funds rate from its effective lower bound will occur in the first quarter of 2014, one quarter earlier than in the March Tealbook. At the same time, we assume that the Committee will maintain the Federal Reserve's current portfolio-related policies, with the timing adjusted in line with the revised liftoff date.

The path of the federal funds rate in the extended baseline projection, and in particular the date when conventional monetary policy is assumed to begin to firm in the staff projection, depends importantly on our use of the estimated outcome-based policy rule. As discussed in Book B, liftoff would occur in the same quarter as in the baseline if we had instead assumed that the federal funds rate would follow the prescriptions of the Taylor (1999) rule. But using a rule that targets the level of nominal GDP would delay the onset of conventional tightening until late 2014, and optimal-policy calculations indicate postponing it until mid-2015. In contrast, the Taylor (1993) rule would call for a higher federal funds rate right away, while the first-difference rule would call for tightening to begin in the second half of 2013.[1]

Other Interest Rates

The yield on 10-year Treasury securities has changed little, on net, since the March Tealbook. We expect the 10-year Treasury yield to rise substantially from the middle of this year through 2013 and end that year at 3¾ percent—1¾ percentage points above its current level and about 10 basis points higher than in the March projection. In 2014, the yield is projected to increase an additional 15 basis points. This projection

[1] All these estimates allow for dynamic feedback from the stance of monetary policy to the real economy and inflation, which can have important implications for the estimated timing of tightening under the different rules.

Revisions to the Staff Projection since the Previous SEP

The FOMC published its most recent Survey of Economic Projections (SEP) following the January FOMC meeting. The table below summarizes revisions to the staff economic projection since the January Tealbook.

The staff projection for real GDP growth has strengthened, on net, since January, with most of the revisions occurring in the March Tealbook. The revisions mainly reflect stronger incoming spending data, primarily affecting the first half of 2012, and revisions to the assumptions for equity prices, the exchange rate, and foreign growth that affect the projection throughout the medium term. The lower projected unemployment rate reflects both the stronger outlook for aggregate demand and incoming data that leave the unemployment rate jumping off from a lower level than we had anticipated in January.

The staff projection for core PCE inflation has revised up about ¼ percentage point per year since January, the result of both incoming data and the stronger projection for real activity. The revision to overall PCE inflation also reflects the rise since January in crude oil prices, but with our oil price projection now sloping more noticeably downward, overall PCE inflation is currently projected to run a little below core inflation in 2013 and 2014.

With these changes to the economic outlook, the outcome-based policy rule now calls for the federal funds rate to move above its effective lower bound in the first quarter of 2014, three quarters earlier than was the case in the January Tealbook.

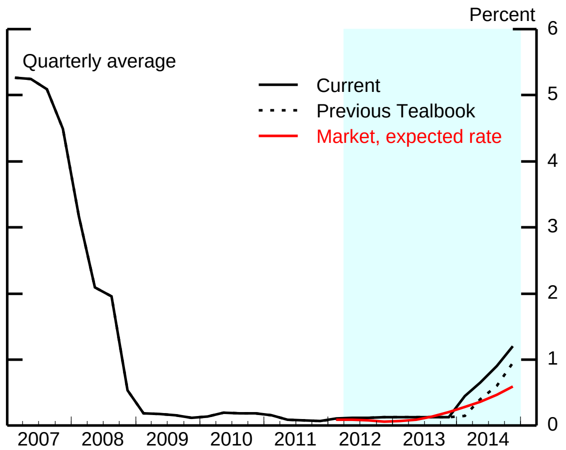
Staff Economic Projections Compared with the January Tealbook

Variable	2012		2012	2013	2014[3]	Longer run
	H1	H2				
Real GDP[1]	2.3	2.7	2.5	2.8	3.3	2.5
January Tealbook	1.7	2.5	2.1	2.4	3.6	2.5
Unemployment rate[2]	8.2	8.0	8.0	7.7	7.4	5.2
January Tealbook	8.7	8.6	8.6	8.2	7.8	5.2
PCE inflation[1]	2.0	1.7	1.9	1.5	1.5	2.0
January Tealbook	1.5	1.3	1.4	1.3	1.5	2.0
Core PCE inflation[1]	2.0	1.7	1.8	1.7	1.7	n.a.
January Tealbook	1.5	1.4	1.5	1.4	1.4	n.a.
Federal funds rate[2]	.12	.13	.13	.13	1.20	4.25
January Tealbook	.10	.13	.13	.13	.32	4.25
Memo:						
Federal funds rate, end of period	.13	.13	.13	.13	1.25	4.25
January Tealbook	.13	.13	.13	.13	.50	4.25

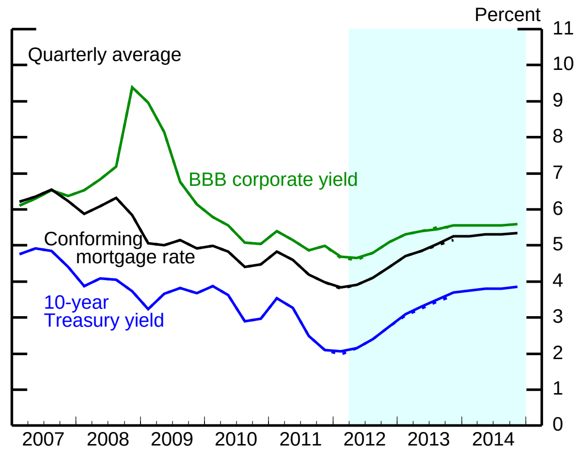
1. Percent change from final quarter of preceding period to final quarter of period indicated.
2. Percent, final quarter of period indicated.
3. Figures for 2014 in the January Tealbook refer to projections in the long-run outlook.
n.a. Not available.

Key Background Factors underlying the Baseline Staff Projection

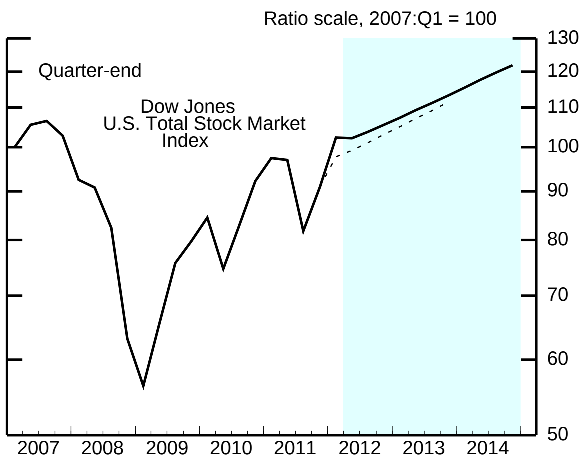
Federal Funds Rate



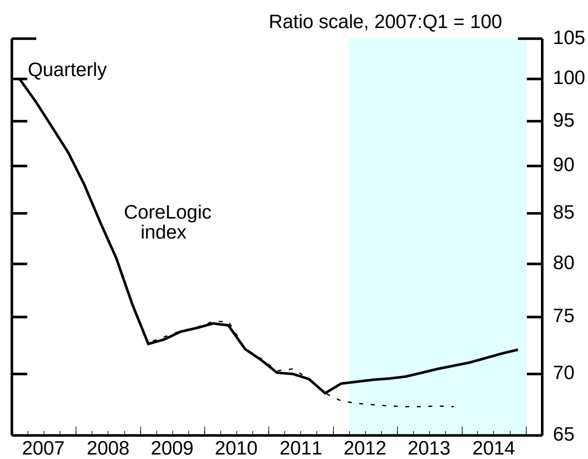
Long-Term Interest Rates



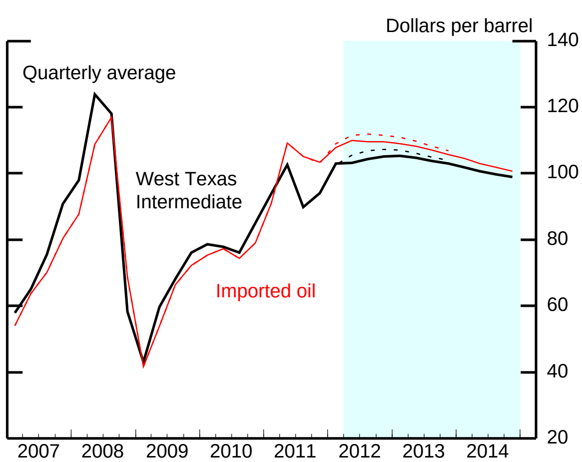
Equity Prices



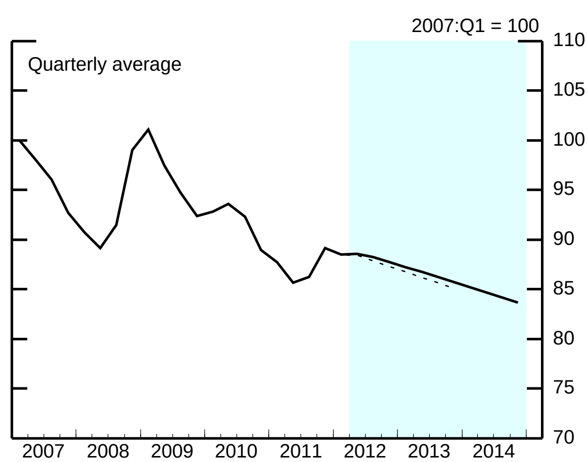
House Prices



Crude Oil Prices



Broad Real Dollar



reflects the movement of the valuation window through the period of near-zero short-term interest rates, a gradual waning of the effects of nonconventional monetary policy, and further unwinding of safe-haven demands as apprehensions related to the European debt crisis abate and the durability of the U.S. economic recovery becomes more assured.

Since the March Tealbook was published, spreads over comparable-maturity Treasury securities for BBB-rated corporate bonds and conforming fixed-rate mortgages are about unchanged, on net. Still, both spreads are currently above their typical levels and are expected to narrow gradually over the medium term. Given our forecast of Treasury yields, these assumptions imply that yields on these private instruments are projected to increase moderately over the next three years.

Equity Prices and Home Prices

Broad U.S. stock price indexes have increased about 3 percent, on net, since the March Tealbook. We now project that stock prices will rise at an annual rate of about 7 percent, on average, through the fourth quarter of 2014. The projected pace of appreciation from here forward continues to reflect our expectation of a gradual decline in the equity premium from historically elevated levels.

The CoreLogic house price index increased in January and February, whereas we had expected it to continue drifting down a bit further. In response, we have revised up our forecast for house prices noticeably and now forecast that they will rise about 2 percent in both 2012 and 2013, putting the projected level of house prices by late 2013 roughly 5 percent higher than in the March Tealbook; we project a further 2 percent increase in 2014. This projection also reflects our continued expectation that mortgage rates will remain low enough and rents will remain high enough to provide some support for house prices despite the countervailing effects of tight underwriting standards and the large stock of properties in the foreclosure pipeline that will only decline gradually.

Fiscal Policy

Our fiscal policy assumptions are essentially unchanged in this forecast and continue to imply that federal fiscal policy will impart a noticeable drag on activity over the medium term. In particular, we still assume that the payroll tax cut and the Emergency Unemployment Compensation (EUC) program will expire next year as scheduled under current law. We also continue to assume that federal discretionary spending will be restrained this year by the caps set in the Budget Control Act. The additional restraint imparted by the automatic spending cuts stipulated by that legislation to take effect in January 2013 is assumed to be replaced by more-gradual budget restraint that achieves the same amount of cumulative deficit reduction through fiscal year 2021. Given these assumptions for federal policy, and also folding in the effects of state and local policies, we expect *total* fiscal policy to directly restrain real GDP growth (excluding multiplier effects) by ¼ percentage point this year, 1 percentage point in 2013, and ¼ percentage point in 2014.

We project that the federal budget deficit will narrow from $1.3 trillion (8¾ percent of GDP) last year to about $700 billion (4 percent of GDP) in fiscal 2014. As in the March Tealbook, the expected narrowing of the deficit reflects the winding down of stimulus policies, spending restraint from the Budget Control Act and the drawdown of overseas military operations, and the effects of the pickup in the pace of the recovery on tax receipts.

Foreign Activity and the Dollar

Real activity in the foreign economies increased at an estimated annual rate of 3¼ percent in the first quarter, up from only 1¼ percent in the fourth quarter. Much of the step-up in growth reflected the normalization of supply chains in emerging Asia that were disrupted by the floods in Thailand last year. Over the remainder of 2012, foreign real GDP is expected to rise at about a 3 percent pace, as euro-area output continues to contract in response to financial stress and fiscal retrenchment but the rest of the global economy generally expands at a moderate pace. Beyond 2012, we expect foreign GDP growth to gradually inch higher and reach 3½ percent by 2014, helped by continued accommodative monetary policy, a firming U.S. recovery, and the easing of financial stresses in Europe.

Since the March Tealbook, the dollar has edged up. From its slightly higher starting point, we expect the broad real dollar to depreciate at about a 2¼ percent annual rate through the end of 2014, little changed from our previous projection. As before, we assume that the bulk of this depreciation will be against the currencies of emerging market economies.

Oil and Other Commodity Prices

Spot prices for major benchmark grades of crude oil have declined in recent weeks, likely because of increased concerns about the strength of near-term global demand. The spot price of Brent crude oil closed on April 17 at $119 per barrel, down $5 since the time of the March Tealbook.[2] Brent futures prices also generally moved lower, but these declines were not as large as the drop in the spot price. That said, the futures curve still slopes down, with spot prices commanding a nearly $15 premium over the price of futures for the end of 2014. Accordingly, market participants appear to view the current high level of prices as temporary. Our forecast for the price of imported oil has shifted down in line with futures prices. We anticipate the price of imported oil will edge down from an estimated value of $111 per barrel in March to $109 per barrel at the end of this year before declining to just over $100 per barrel at the end of 2014, a bit below the level projected in the March Tealbook.

Nonfuel commodity prices have generally edged down since the March Tealbook. As with oil, the lower prices likely reflect increased concern regarding global growth prospects and, in particular, rising concern about the strength of Chinese demand. An exception has been soybeans, for which prices continue to be boosted by concerns about growing conditions in South America. We project that nonfuel commodity prices will remain about flat over the remainder of the projection period, a forecast in line with quotes from futures markets.

Recent Developments and the Near-Term Outlook

We now estimate that real GDP will rise at an annual rate of 2½ percent in the first quarter of this year, ¾ percentage point above our previous projection. The upward revision to output growth mostly reflects a combination of larger-than-expected increases in consumer outlays in the first quarter and a higher level of government purchases than we had forecast previously; inventory investment has also surprised us thus far this year by running at about the same robust pace as late last year. In addition, the February and March readings on the labor market, taken together, were a little better than our projection in the March Tealbook. When putting together our projection for the second quarter, we balanced the favorable developments in the first quarter against the implications for household spending of weaker-than-expected personal income, the likelihood that the contributions to growth from both government spending and inventories will prove transitory, and some recent softening in regional and national

[2] The spot price of WTI crude oil closed on April 17 at $104 per barrel, about $3 lower than at the time of the March Tealbook.

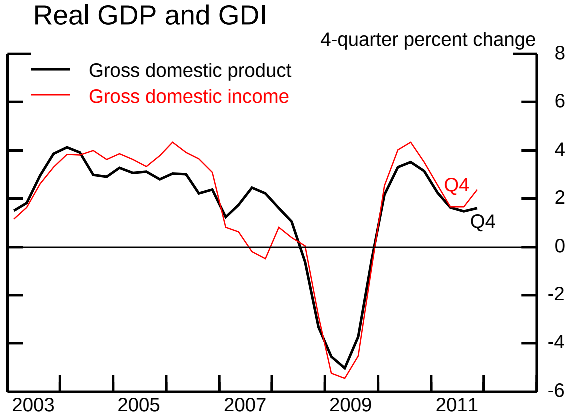
Summary of the Near-Term Outlook
(Percent change at annual rate except as noted)

Measure	2012:Q1		2012:Q2		2012:Q3	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
Real GDP	**1.8**	**2.5**	**2.2**	**2.1**	**2.6**	**2.5**
Private domestic final purchases	1.9	2.4	2.9	3.2	3.0	3.3
Personal consumption expenditures	1.2	2.2	2.6	2.5	2.8	2.9
Residential investment	13.9	17.8	7.7	11.6	8.7	9.7
Business fixed investment	4.5	.6	3.9	6.1	3.6	4.5
Government purchases	-1.4	.1	-.3	-.9	-.9	-1.0
Contributions to change in real GDP						
Inventory investment[1]	.0	.2	-.4	-.4	.2	.2
Net exports[1]	.5	.3	.2	.0	.0	-.3
Unemployment Rate[2]	**8.4**	**8.2**	**8.4**	**8.2**	**8.3**	**8.1**
PCE Chain Price Index	**2.1**	**2.5**	**2.2**	**1.6**	**1.5**	**1.8**
Ex. food and energy	1.8	2.2	1.7	1.8	1.6	1.7

1. Percentage points.
2. Percent.

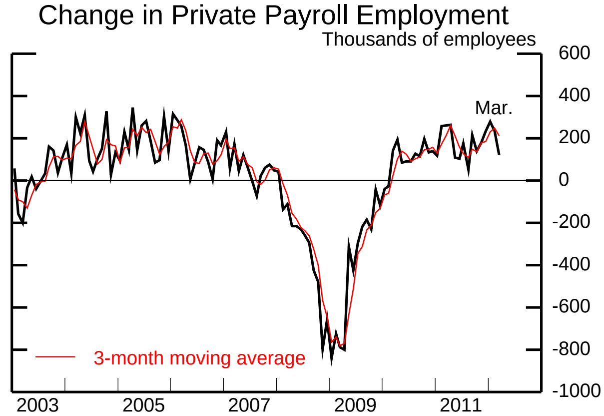
Recent Nonfinancial Developments (1)

Real GDP and GDI



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

Change in Private Payroll Employment

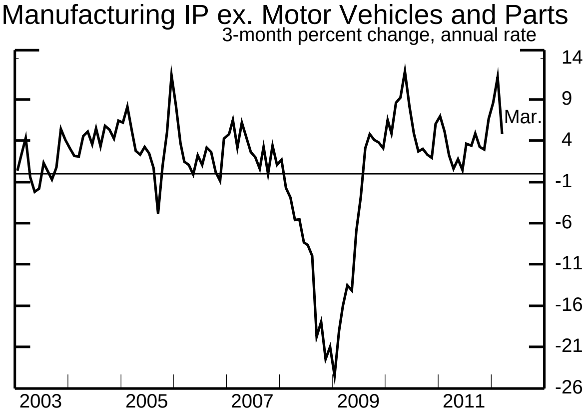


Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

Unemployment Rate

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

Manufacturing IP ex. Motor Vehicles and Parts



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

surveys of business sentiment. All told, our projection for second-quarter GDP growth is little revised at just over 2 percent.

The Labor Market

The labor market continues to improve. Although private payroll employment rose only 120,000 in March, that increase followed gains averaging 250,000 in the preceding three months. Part of the step-down in March may represent a waning lift to employment provided by unseasonably warm weather in recent months, and part may reflect seasonal adjustment problems tied to the fact that the steepest part of the collapse in payrolls during the recent recession occurred during the winter months. We think that the underlying pace of employment growth over the past few months—after adjusting for weather and seasonal effects—was probably something closer to 200,000 per month.

The unemployment rate edged down in March to 8.2 percent, extending its decline since August. Meanwhile, other indicators of labor market activity have either held steady or improved since the March Tealbook: Initial claims for unemployment insurance have changed little, on balance, in recent weeks after falling for several months, the improvements seen earlier this year in consumer expectations for employment and unemployment have been maintained, and measures of job openings have increased in recent months.

During the second quarter, we expect private payroll employment to increase 175,000 per month, roughly in line with the modest pace of increase in real activity and the same as in the March Tealbook. We have taken on board the improvement in the unemployment rate in recent months, and we expect the jobless rate to hold steady at 8.2 percent throughout the second quarter.

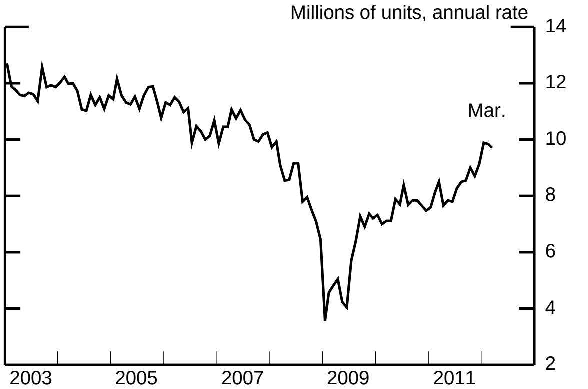
The Industrial Sector

Activity in the industrial sector posted a robust gain in the first quarter. Total industrial production is estimated to have increased at an annual rate of 5½ percent, as weather-induced declines in the output of mines and utilities were more than offset by an acceleration in manufacturing output to an annual rate of more than 10 percent.[3] In the motor vehicle sector, light vehicle assemblies jumped nearly 900,000 units to an annual

[3] On March 30, the Federal Reserve published its annual revision of industrial production and capacity utilization. In the aggregate, the contour of industrial production was little changed from its previous estimate and recent utilization rates were little revised.

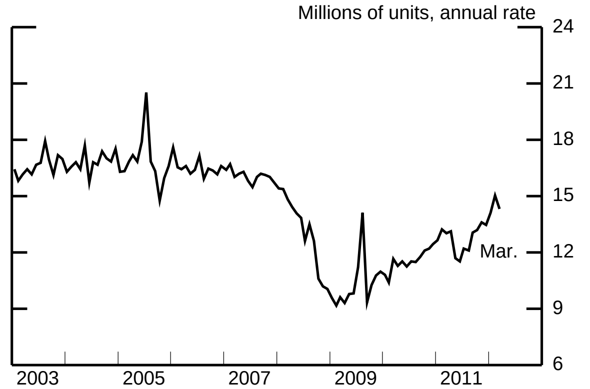
Recent Nonfinancial Developments (2)

Production of Light Motor Vehicles



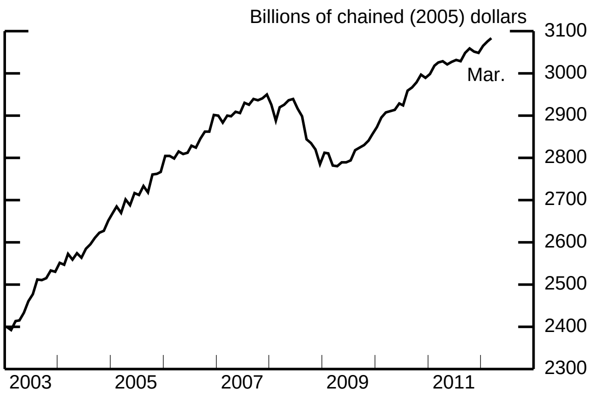
Source: Ward's Auto Infobank.

Sales of Light Motor Vehicles



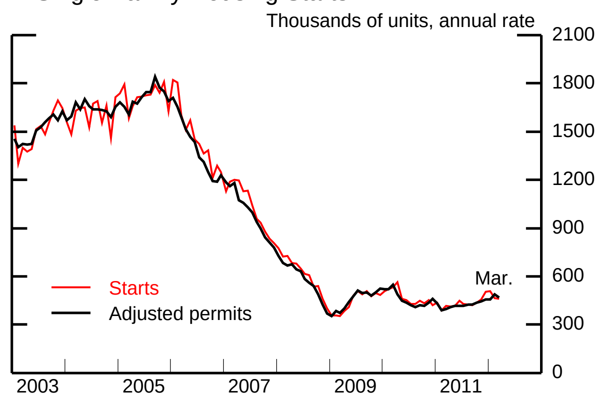
Source: Ward's Auto Infobank.

Real PCE Goods ex. Motor Vehicles



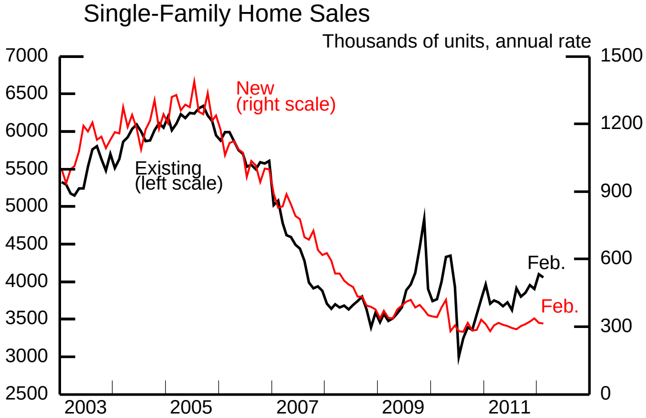
Note: Figures for January, February, and March are staff estimates based on available source data.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



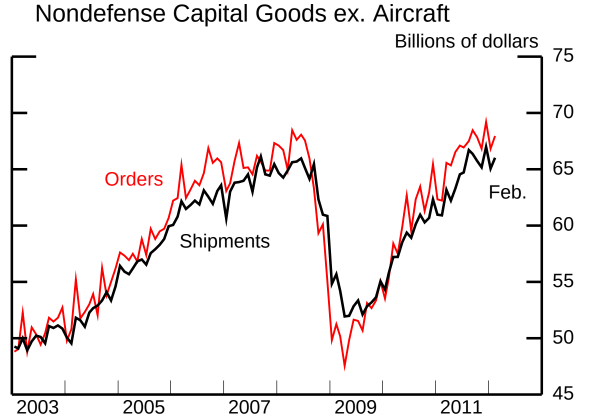
Note: Adjusted permits equal permits plus starts outside of permit-issuing areas.
Source: U.S. Census Bureau.

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.

rate of 9.8 million units in the first quarter and are scheduled to rise further to a 10.2 million unit pace in the second quarter. Elsewhere in manufacturing, production gains have been widespread across industries. Looking ahead, national and regional manufacturing surveys point to continued gains in factory production, but at a more moderate pace than in the first quarter. All told, we expect growth in manufacturing output to slow to a 4 percent pace in the current quarter. For the first half of 2012 as a whole, the projected gain in manufacturing production is about 1¼ percentage points faster than what we had expected in the March Tealbook.

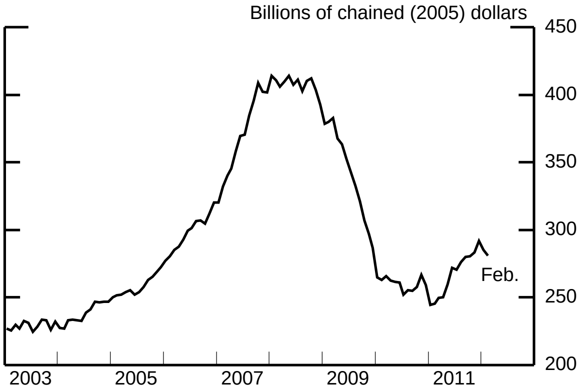
Household Spending

We now estimate that real PCE rose at an annual rate of 2¼ percent in the first quarter, a full percentage point faster than in the March projection. This upward revision aligns real consumer spending more closely with the strong rise in equity prices and the gradual improvement in sentiment that we have seen since last fall. With the exception of energy services, where unseasonably warm weather has held down outlays, spending increases have been widespread. However, because the stronger incoming data on spending in the first quarter were accompanied by weaker-than-expected news about personal income, we have made very little further adjustment to our projection of real PCE in the near term. As in our previous projection, we expect real PCE to increase at an annual rate of 2½ percent in the second quarter.

Although the recent data on housing activity have been a little stronger than we had expected, we suspect that much of the upside surprise reflects the unusually warm winter. Single-family housing starts topped 500,000 units at an annual rate in December and January, but starts then fell back to a pace of about 460,000 units in February and March. 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 over the past year. Meanwhile, housing demand appears to be improving slowly from very depressed levels: Existing home sales have continued to edge up in recent months, and house prices have firmed. Still, much of the purchase demand that does exist continues to be channeled to the still-abundant stock of relatively inexpensive vacant houses, thereby limiting demand for new homes. As a result, we expect single-family starts to average about 470,000 units in the coming months, the same as in the March Tealbook and up just a little from the level of starts that prevailed before the onset of unseasonably warm weather in December. In the multifamily sector, starts have trended up over the past year or so from very low levels in response to rising

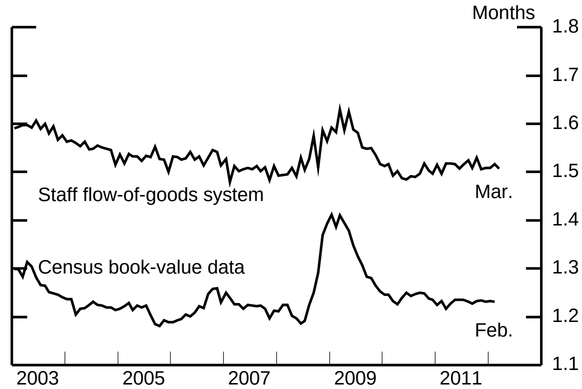
Recent Nonfinancial Developments (3)

Nonresidential Construction Put in Place



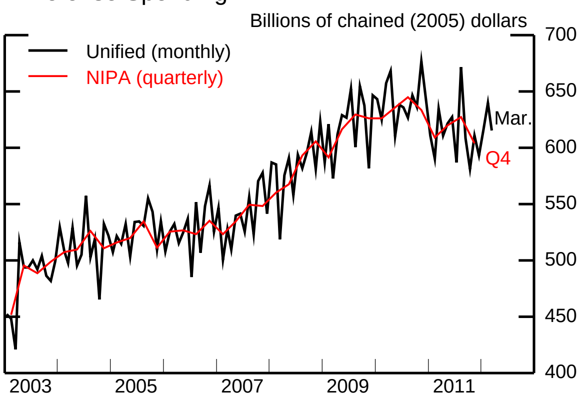
Source: U.S. Census Bureau.

Inventory Ratios ex. Motor Vehicles



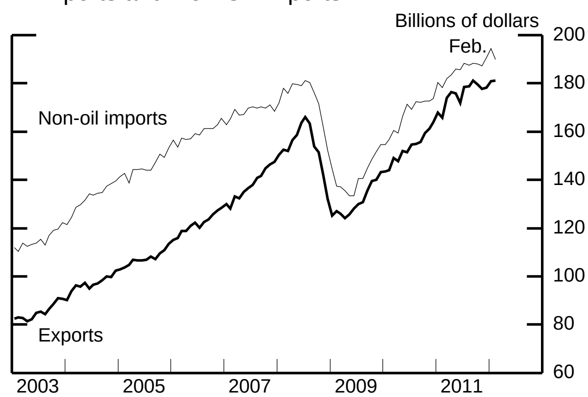
Note: Flow-of-goods system covers total industry ex. motor vehicles and parts, and inventories are relative to consumption. Census data cover manufacturing and trade ex. motor vehicles and parts, and inventories are relative to sales.
Source: U.S. Census Bureau; staff calculation.

Defense Spending



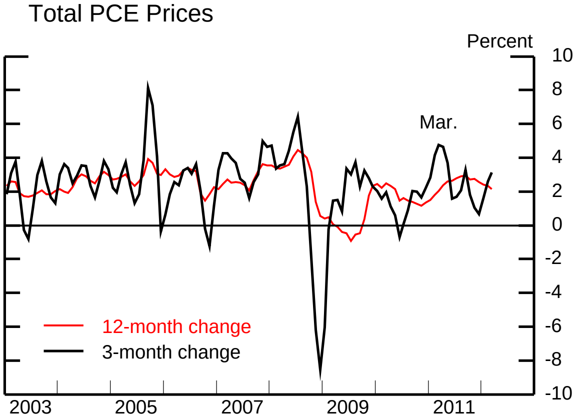
Note: The unified series is seasonally adjusted and deflated by BEA prices. The NIPA series excludes the consumption of fixed capital.
Source: *Monthly Treasury Statement*; U.S. Dept. of Commerce, Bureau of Economic Analysis.

Exports and Non-Oil Imports



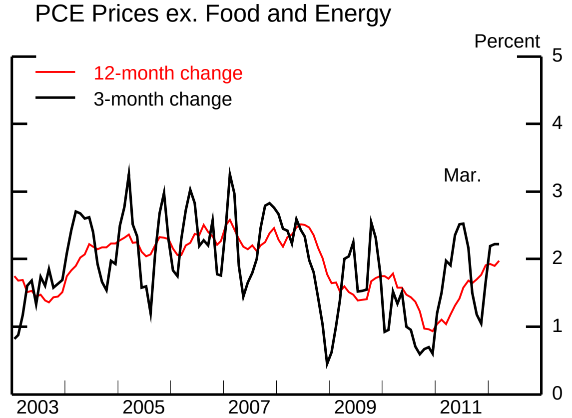
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; U.S. Census Bureau.

Total PCE Prices



Note: 3-month changes are at an annual rate. January, February, and March are staff estimates.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

PCE Prices ex. Food and Energy



Note: 3-month changes are at an annual rate. January, February, and March are staff estimates.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

rents and falling vacancy rates, and we expect further moderate gains in coming months. In all, we now estimate that residential investment rose at an annual rate of 18 percent in the first quarter, and we expect it to rise 12 percent this quarter.

Business Investment

The growth of real spending on equipment and software (E&S) is estimated to have slowed to an annual rate of 2 percent in the first quarter, but we expect outlays to rise more rapidly in the current quarter. Weighting the series for different equipment types by their importance in business investment, orders for nondefense capital goods rose more than 4 percent over the past three months (not at an annual rate). In addition, a number of other forward-looking indicators of business outlays, including surveys of capital spending plans and analysts' earnings expectations for companies that produce capital goods, now stand at levels consistent with some acceleration. In light of these indicators, we project that real E&S will increase at an annual rate of 8½ percent in the current quarter.

After showing surprising strength through much of 2011, outlays on nonresidential construction have softened noticeably in recent months, leading us to project that real investment in nonresidential structures (excluding drilling and mining) will decline at an annual rate of about 3½ percent over the first half of this year. The deceleration is in line with the sector's fundamentals. Although there are hints that commercial real estate financing conditions have begun to ease somewhat, high vacancy rates and low sales prices continue to put downward pressure on building activity. After brisk increases in each of the past two years, investment in the drilling and mining sector is expected to rise at a more moderate pace in the first half of this year. The high price of oil should continue to spur investment in this sector, while low natural gas prices have caused the number of natural gas rigs in operation to fall off noticeably in recent months.

Since rebounding sharply in the fourth quarter, real nonfarm inventories appear to have increased at roughly the same pace in the first quarter. The staff's flow-of-goods system, as well as private surveys of inventory satisfaction and plans, suggest that inventories (excluding motor vehicles) are generally well aligned with sales, and book-value inventory-to-sales ratios remain near pre-recession norms. But with producers anticipated to remain vigilant against the possibility of unwanted accumulations, we expect stockbuilding outside of motor vehicles to proceed at a slightly slower pace in the current quarter. In contrast, motor vehicle stocks remain relatively lean, and the step-up in assembly plans this quarter suggests that automakers are aiming to boost inventories by enough to raise days' supply of light vehicles to more comfortable levels in the coming months. On net, inventory investment is anticipated to subtract slightly from real GDP growth over the first half of this year.

Government

Real federal purchases fell at an annual rate of 7 percent in the fourth quarter, led by a drop in defense outlays, and we had expected another decline—albeit at a slower rate—in the first quarter. However, spending data available through March suggest that total real federal expenditures actually edged up last quarter. In the current quarter, we expect real federal purchases to fall back toward a level more consistent with budget appropriations. In the state and local sector, the incoming information suggests that real purchases by these governments may be finally bottoming out: State and local employment edged up in the first quarter for the first time since 2008, while their real construction spending declined only slightly. All told, real state and local purchases are projected to be essentially flat in the coming months.

Foreign Trade

Real exports of goods and services are expected to increase at an average annual rate of about 6 percent in the first half of 2012, buoyed by robust growth in the emerging market economies. This projection is a little lower than in the March Tealbook on account of weaker-than-expected trade data for January and February. Imports are projected to rise at a 3¾ percent pace in the first half of the year, about ¾ percentage point faster than we had expected in the previous Tealbook, largely reflecting the surprising strength of January imports. Overall, net exports are expected to add a little less than ¼ percentage point to GDP growth in the first half, about ¼ percentage point lower than in the March Tealbook.

Prices and Wages

We now project that PCE prices increased at an annual rate of 2½ percent in the first quarter—nearly ½ percentage point faster than expected in the March Tealbook—with the upward revision mostly attributable to higher-than-expected core PCE inflation. As for the second quarter, the latest readings on crude oil and gasoline point to a large deceleration in consumer energy prices, which has led us to lower our second-quarter estimate for overall inflation to just over 1½ percent. On balance, PCE inflation is little changed in the first half of this year relative to our previous projection.

Core PCE prices were revised up noticeably in January and are estimated to have increased slightly faster in February and March than we had assumed in the March Tealbook; as a result, core inflation is now projected at 2.2 percent in the first quarter, nearly ½ percentage point above our previous estimate. Roughly half of the first-quarter surprise was due to an upward revision to nonmarket prices; historically, price inflation in this category has displayed little persistence. Changes in market-based prices were also slightly larger than expected in the first quarter, primarily reflecting revisions to the January data on medical services prices; however, the latest information suggests that market-based inflation over the remainder of the quarter remained fairly close to our expectation in the March Tealbook. As a result, we now estimate that core PCE inflation will run at a 1.8 percent pace in the second quarter, only a tenth higher than our previous projection.

The only new data on labor compensation since the previous Tealbook were the readings on average hourly earnings in February and March, which were in line with our expectations. Consequently, we continue to expect that the increase in the Productivity and Costs measure of nonfarm hourly compensation will average an annual rate of about 2¼ percent in the first half of 2012, the same as in the March Tealbook.

THE MEDIUM-TERM OUTLOOK

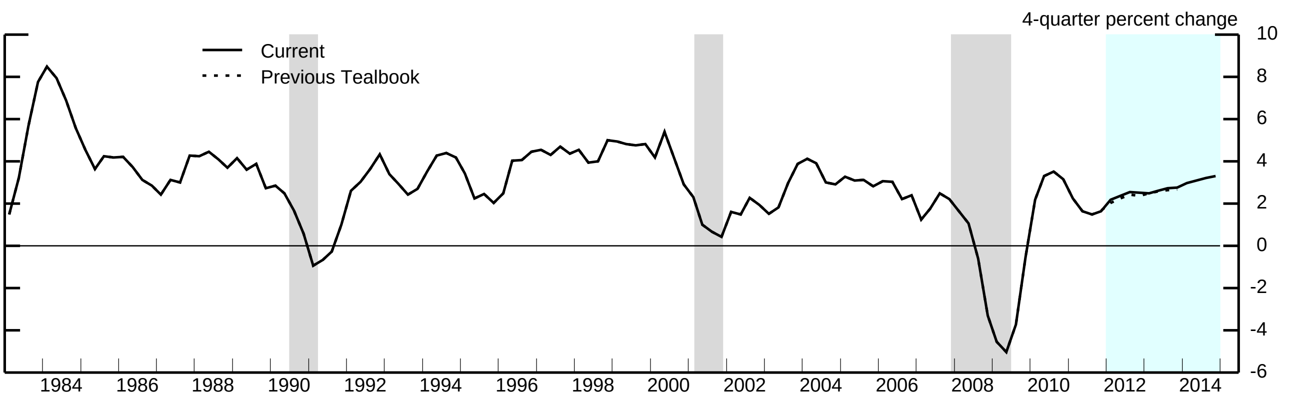
The broad contour of the medium-term projection is the same as in the March Tealbook. In particular, we continue to project an acceleration in real GDP over the forecast period, with the recovery supported by favorable financial conditions, improving credit availability, and rising confidence in the durability of the expansion. That said, we continue to anticipate the pickup in aggregate demand to be relatively mild by historical standards because of a number of important headwinds, including ongoing concerns about the European situation, a slow pace of improvement in the housing market, and a restrictive stance of fiscal policy. Indeed, even assuming that the 2001–03 tax cuts and most other expiring tax provisions are extended beyond the end of this year, total fiscal policy is expected to directly restrain real GDP growth by ¼ percentage point this year and a full percentage point in 2013 before easing back to about ¼ percentage point in 2014. As a result, real GDP is projected to increase at an annual rate of 2¾ percent over the second half of 2012 and in 2013 before picking up to 3¼ percent in 2014.

Part of the fiscal restraint in our forecast is reflected in falling government purchases. In particular, real federal expenditures are projected to decline 1¾ percent this

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
Real GDP	**1.6**	**2.3**	**2.7**	**2.8**	**3.3**
Previous Tealbook	1.6	2.0	2.7	2.7	
Final sales	1.5	2.4	2.4	2.5	3.2
Previous Tealbook	1.5	2.2	2.4	2.4	
Personal consumption expenditures	1.6	2.4	3.0	2.7	3.2
Previous Tealbook	1.7	1.9	2.8	2.6	
Residential investment	3.5	14.6	8.2	9.3	13.0
Previous Tealbook	3.5	10.8	8.4	8.2	
Nonresidential structures	4.4	-1.6	.4	2.7	3.5
Previous Tealbook	4.4	.4	.8	2.0	
Equipment and software	9.6	5.2	5.9	6.2	6.5
Previous Tealbook	8.9	5.7	4.9	5.6	
Federal purchases	-3.2	-.7	-2.6	-4.1	-4.4
Previous Tealbook	-3.2	-1.2	-2.0	-4.1	
State and local purchases	-2.5	-.2	.0	.7	2.1
Previous Tealbook	-2.5	-.6	-.2	.7	
Exports	4.7	5.9	5.3	5.6	6.4
Previous Tealbook	5.1	6.3	5.5	5.7	
Imports	3.6	3.7	5.2	4.2	4.9
Previous Tealbook	3.6	2.9	4.5	3.9	
	Contributions to change in real GDP (percentage points)				
Inventory change	.1	-.1	.3	.3	.1
Previous Tealbook	.1	-.2	.3	.3	
Net exports	.0	.1	-.2	.0	.0
Previous Tealbook	.1	.4	.0	.1	

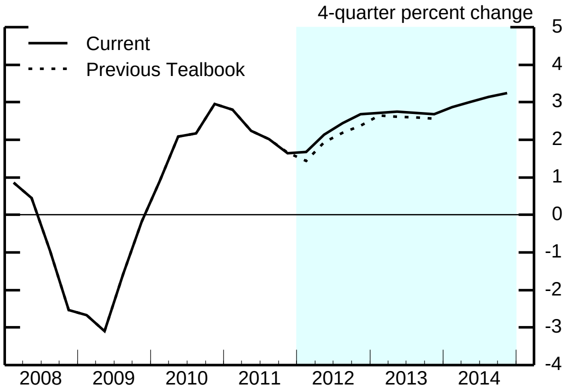
Real GDP



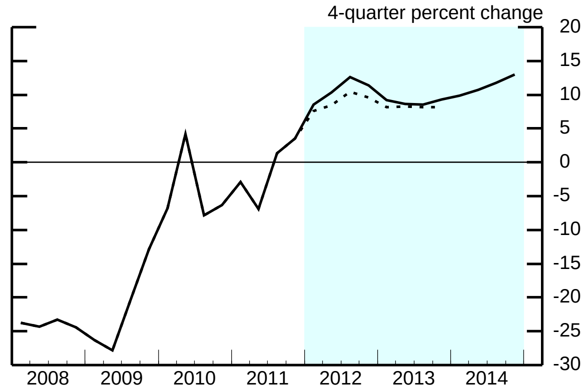
Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Components of Final Demand

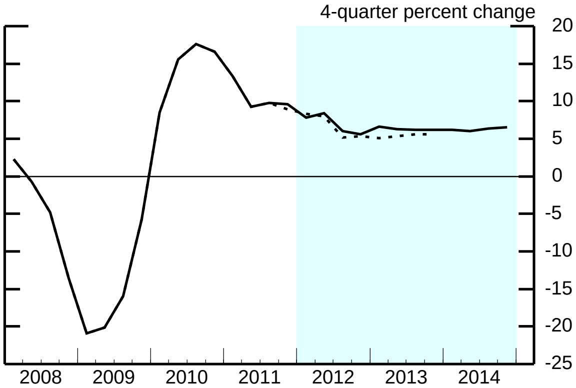
Personal Consumption Expenditures



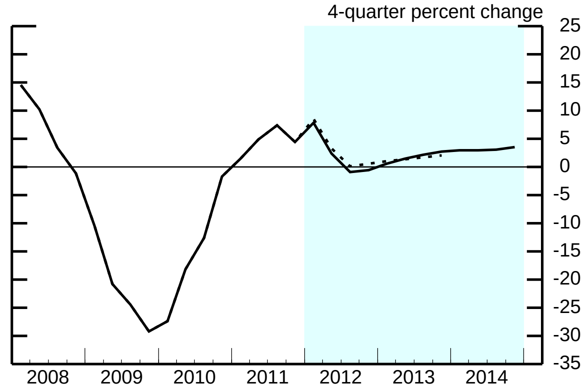
Residential Investment



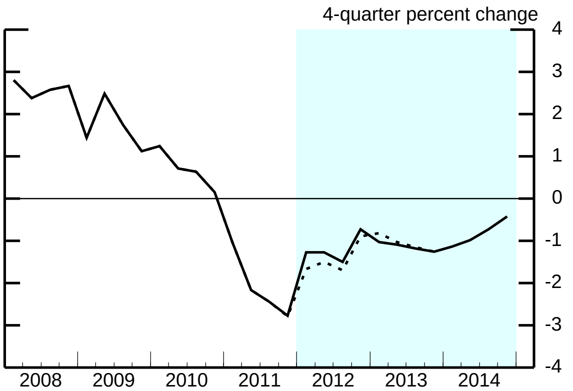
Equipment and Software



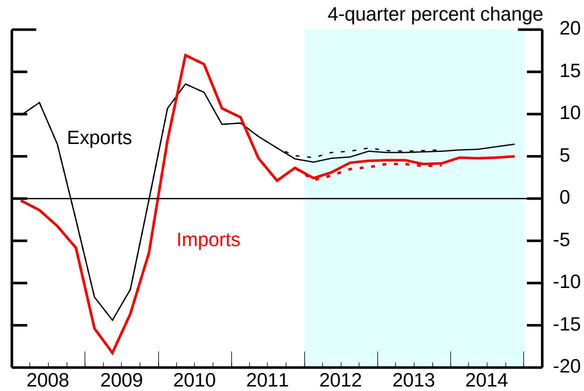
Nonresidential Structures



Government Consumption & Investment



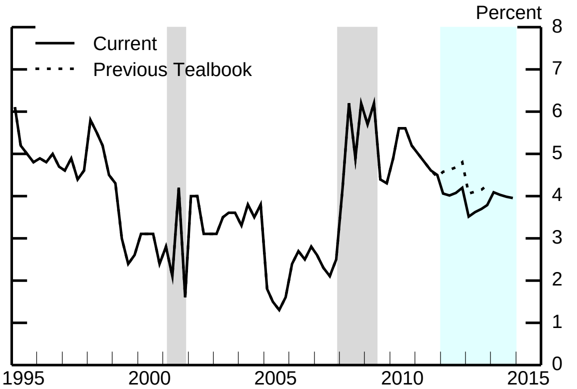
Exports and Imports



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

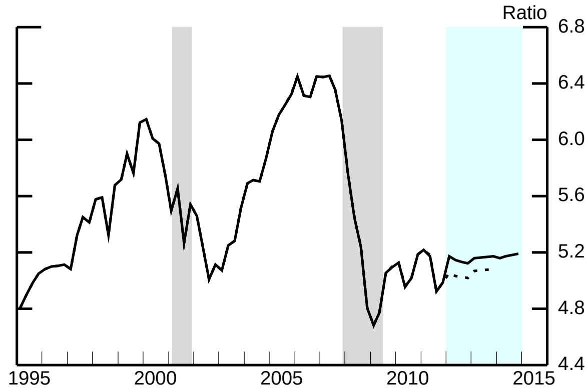
Aspects of the Medium-Term Projection

Personal Saving Rate



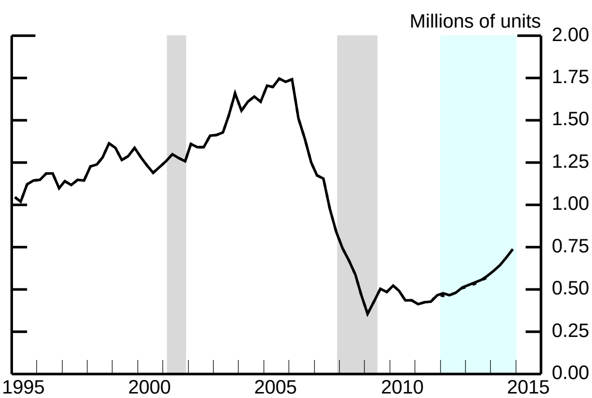
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Wealth-to-Income Ratio



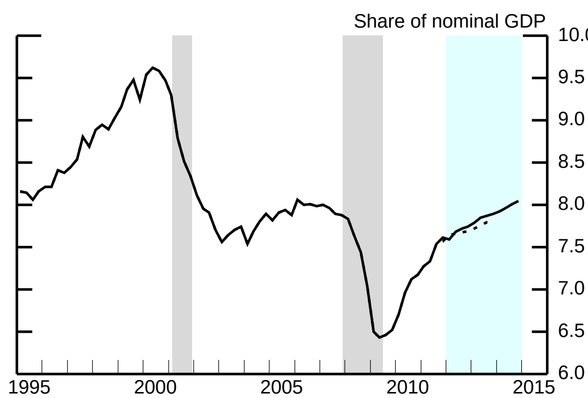
Note: Household net worth as a ratio to disposable personal income.
Source: For net worth, Federal Reserve Board, flow of funds data; for income, Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



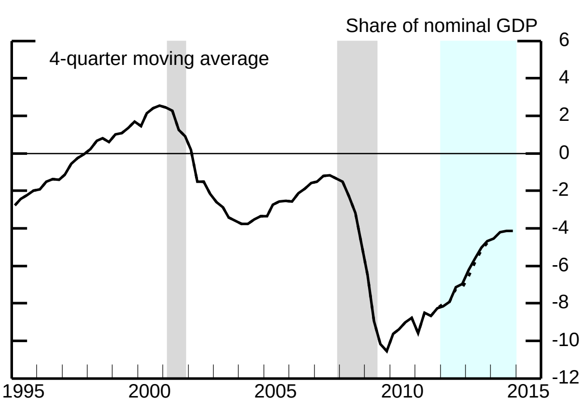
Source: U.S. Census Bureau.

Equipment and Software Spending



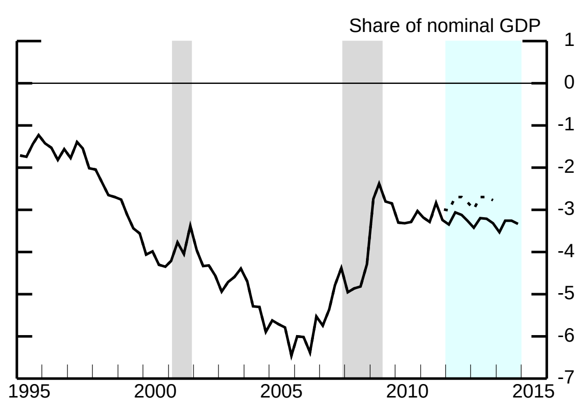
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

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.

year and then to fall more than 4 percent in both 2013 and 2014, owing to the effects of the Budget Control Act and the drawdown of overseas military operations. We expect real purchases by state and local governments to pick up only very slowly over the medium term, reflecting sluggish growth in their tax revenues.

The large fiscal drag we expect next year shows through especially to our forecast for consumer spending. In particular, the anticipated expiration of the payroll tax cut and EUC program at the end of 2012 imparts significant restraint on the growth of real disposal personal income, offsetting some of the positive impetus from an improving labor market, rising confidence, and increases in household wealth. As a result, we project that real PCE will rise 2¾ percent in both 2012 and 2013 before picking up to 3¼ percent in 2014. The figures for 2012 and 2013 are about ¼ percentage point higher than in the March forecast, reflecting upward revisions to household wealth associated with the higher projected paths for equity and home prices.

As in previous Tealbooks, we expect a very slow recovery in housing construction over the medium term. Despite some encouraging signals from home sales and house prices, the underlying level of activity in this sector remains deeply depressed, and exceedingly tight mortgage credit appears likely to weigh on the demand for housing for some time. Moreover, the stock of vacant houses is still sizable, and we expect that the flow of homes from foreclosure into the resale market will remain substantial, although it should diminish over time. Accordingly, our projection calls for single-family housing starts to rise only gradually next year—reaching an annual rate of 580,000 units by the end of 2013—and then to pick up at a slightly faster pace in 2014 as uncertainty and pessimism about the housing market dissipates further.

In the business sector, we continue to expect that expenditures on E&S will rise modestly over the medium term. Although firms have ample cash, many likely see little reason to expand capacity aggressively in an environment of relatively sluggish demand for their products. We project real E&S outlays to rise at an annual rate of roughly 6 percent in the second half of 2012 and in 2013 and just slightly faster than that in 2014. Consequently, we expect a relatively slow expansion in the capital stock. (The box “Equipment and Software Spending during the Recovery” provides additional background on the E&S projection.)

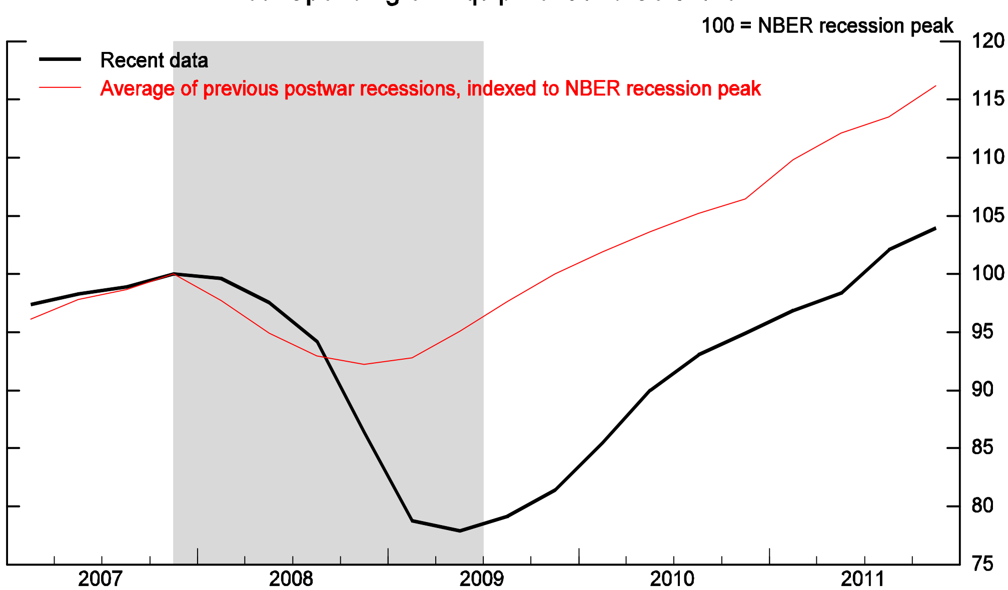
Our outlook continues to anticipate a sluggish pace of investment in nonresidential structures. Reflecting the weak fundamentals cited earlier, structures

Equipment and Software Spending during the Recovery

After declining dramatically during the recession, real spending on equipment and software (E&S) rose rapidly early in the recovery. From mid-2009 through the end of 2010, real E&S spending (the black line in the figure below) grew at an average annual rate of nearly 15 percent—noticeably more steeply than during the average postwar recovery (the red line), despite the relatively modest rate of recovery in overall activity.[1] In 2011, the rate of increase in E&S investment slowed to 9 percent but remained solid. With these increases, the level of E&S investment regained its pre-recession peak late last year. In this regard, E&S contrasts sharply with both residential and nonresidential structures investment (not shown), which also experienced deep declines during the recession but have yet to recover appreciably.

Of course, E&S spending normally rebounds rapidly following a downturn as firms respond to improvements in sales prospects and the relatively low costs of borrowing that typify the onset of recovery. Indeed, as shown by the red line in the figure on the next page, one of our standard models based on business output growth and the cost of capital would have predicted a fairly swift turnaround in investment growth, despite the modest recovery in output.

Real Spending on Equipment and Software



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.

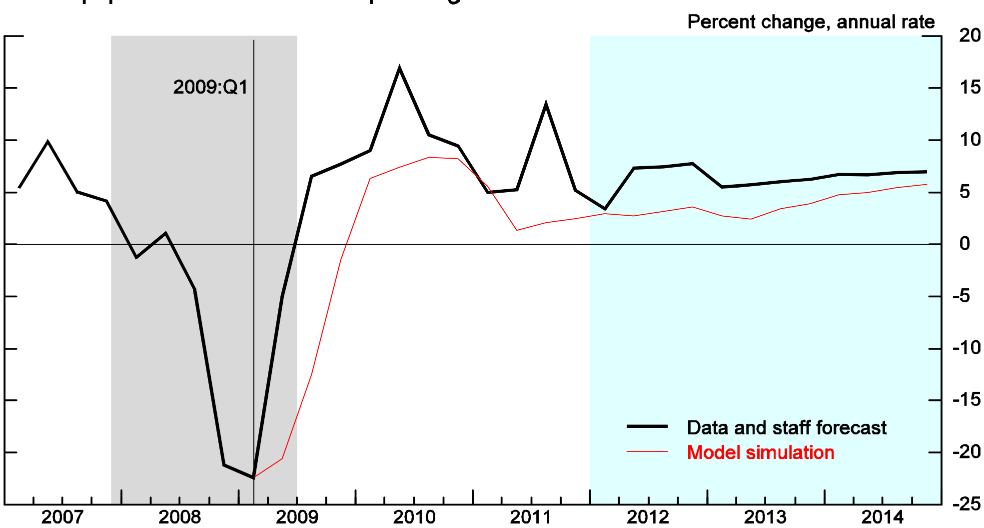
[1] Note, however, that low levels of investment during the recession and early recovery combined with historically high rates of depreciation to produce unusually weak growth in the E&S capital stock, which is more in keeping with the modest pace of recovery in overall activity. As a result, the level of the E&S capital stock remains well below its historical trend.

However, the growth rate of actual spending (the black line) significantly outpaced the model prediction. We have interpreted this surprising strength largely as the release of pent-up demand that had built up during the crisis and recession as credit supply restrictions and extraordinary uncertainty caused firms to defer many investment projects. Indeed, some alternative models that explicitly incorporate the low level of the capital stock, which may proxy for pent-up demand, predicted a stronger rebound than our standard models. However, we have had little success in quantifying the magnitude of this pent-up demand with much precision, and the atypically brisk recovery in E&S spending might also have been driven by other factors.

Over the medium-term forecast horizon, we expect only moderate increases in E&S spending, as sluggish sales growth provides limited motivation for firms to expand capacity. Although we expect the impetus to spending from pent-up demand or other factors to persist, we project that it will wane in magnitude in the coming years. Reflecting this view, our forecast for E&S growth is somewhat above the predictions of the model throughout the forecast period, but the size of this residual diminishes over time (see the figure below). All told, we expect E&S outlays, which contributed about 1 percentage point and ¾ percentage point to GDP growth in 2010 and 2011, respectively, to contribute only about ½ percentage point in each year from 2012 to 2014.

The spending data that we have received in recent months are consistent with our projection for a moderation in the rate of increase in capital expenditures this year. However, considerable uncertainty attends our forecast. Given our limited understanding of the factors that have driven spending above our model's prediction, our forecast for their persistence is largely judgmental. Thus, there are ample risks to the forecast on both the upside and the downside.

Equipment and Software Spending Growth: Data and Model Simulation



Note: Excludes transportation equipment spending. 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 and staff estimates.

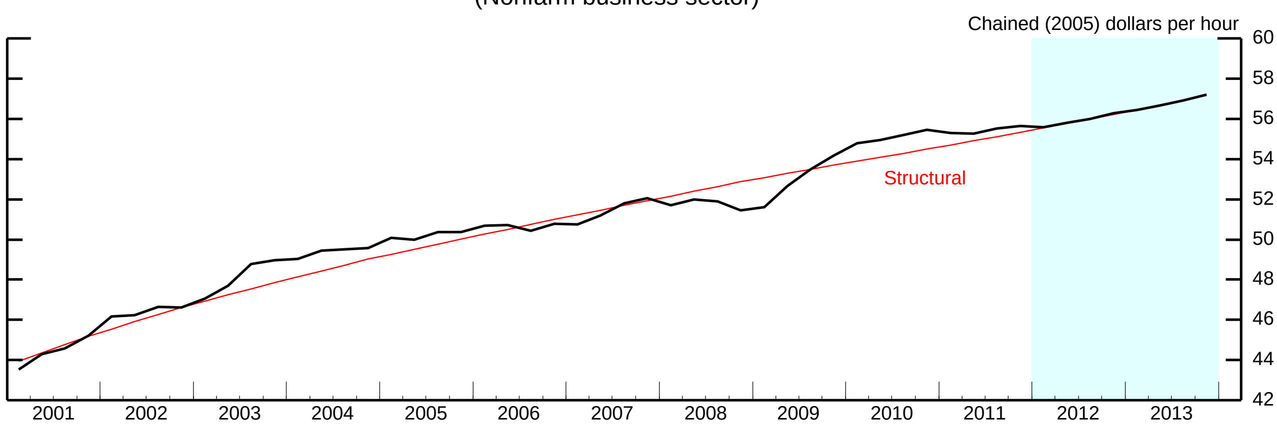
Domestic Econ Devel & Outlook

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

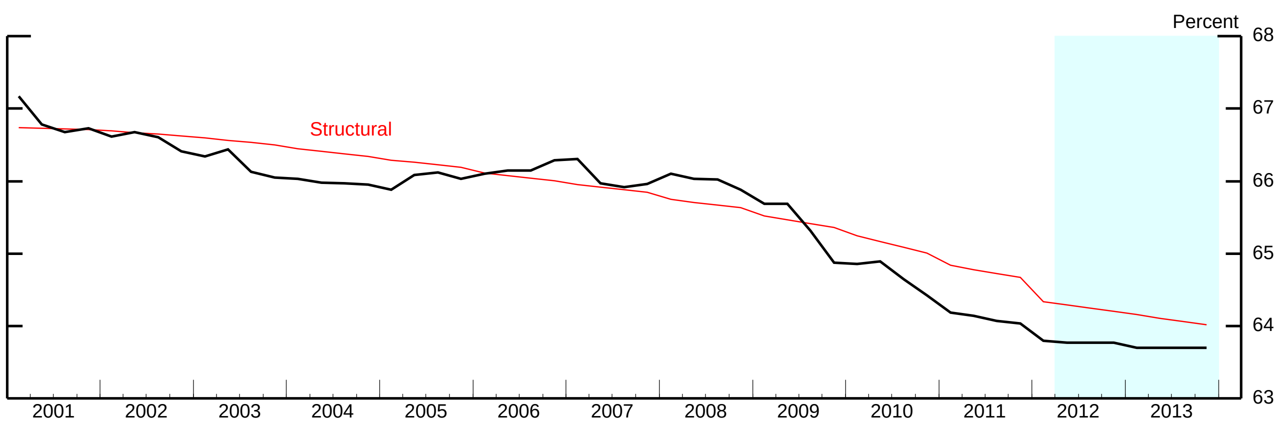
Measure	1974-1995	1996-2000	2001-2010	2011	2012	2013	2014
Potential real GDP	3.0	3.4	2.2	1.7	2.0	2.1	2.3
Previous Tealbook	3.0	3.4	2.3	1.7	2.0	2.1	
Selected contributions[1]							
Structural labor productivity	1.4	2.6	2.2	1.5	1.6	1.7	1.9
Previous Tealbook	1.4	2.6	2.3	1.5	1.6	1.7	
Capital deepening	.7	1.5	.7	.6	.6	.8	.9
Previous Tealbook	.7	1.5	.8	.6	.6	.7	
Multifactor productivity	.5	.8	1.2	.8	.9	.9	.9
Previous Tealbook	.5	.8	1.3	.8	.9	.9	
Structural hours	1.5	1.0	.6	.5	.6	.6	.6
Previous Tealbook	1.5	1.0	.6	.5	.6	.6	
Labor force participation	.4	.0	-.3	-.4	-.3	-.3	-.3
Previous Tealbook	.4	.0	-.3	-.4	-.3	-.3	

Note: Components may not sum to totals because of rounding. 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.

Structural and Actual Labor Productivity
(Nonfarm business sector)



Structural and Actual Labor Force Participation Rate



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

investment outside of drilling and mining is expected to be only a little better than flat over the next couple of years. In contrast, outlays for drilling and mining structures are projected to rise modestly over the medium term, supported in part by high oil prices and the continued deployment of horizontal drilling techniques.

Real exports of goods and services are projected to increase at an annual rate of roughly 5½ percent in the second half of this year and in 2013 before picking up to a 6½ percent pace in 2014, in line with the projected acceleration in foreign economic activity, as Europe slowly emerges from its recession. Meanwhile, real imports are projected to rise at about a 4½ percent rate on average through 2014, supported by the growth of U.S. demand but tempered by dollar depreciation. On net, trade is expected to make an essentially zero arithmetic contribution to real GDP growth in 2012 and in the subsequent two years.

Aggregate Supply, the Labor Market, and Inflation

Potential GDP and the NAIRU

We made only small changes to our supply-side assumptions this round. The more substantial revisions we made last round were designed to bring the output and unemployment gaps into closer alignment with our understanding of the dynamics of employment during the recession. Even so, the first-quarter decline in the unemployment rate was somewhat larger than could be explained by our estimate of near-term output growth, leading us to make a small further downward adjustment to the past and projected *level* of potential output in this forecast. We continue to assume that potential output *growth* will edge up from about 2 percent in 2012 to 2¼ percent in 2014, reflecting the projected increase in capital accumulation. In addition, we assume the NAIRU will remain at 6 percent through 2014, the same as in the March Tealbook.[4] (A longer perspective on staff estimates of economic capacity is provided in the box "Revisions to Measures of Economic Capacity.")

Productivity and the Labor Market

Given the available data on hours worked and our estimate of real GDP growth, we now judge that labor productivity edged down in the first quarter, bringing the level of productivity close to our estimate of its trend. Over the remainder of the medium term,

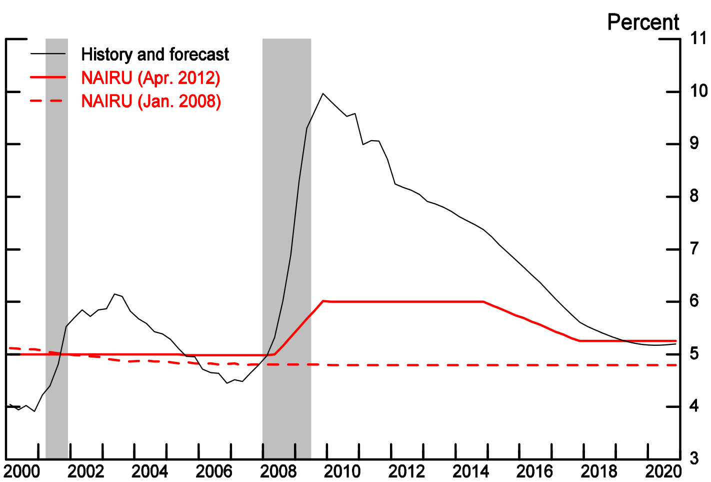
[4] Our estimate of the "effective" NAIRU, which includes the influence of extended and emergency benefits on the unemployment rate, is 6.3 percent in 2012:Q1. As before, we expect the gap between the NAIRU and the effective NAIRU to close by the middle of 2013.

Revisions to Measures of Economic Capacity

The slow pace of the recovery raises the question of whether a significant portion of the output loss inflicted by the recession and financial crisis is permanent. Although we believe that the amount of economic slack has been and remains substantial, we have also marked down considerably our assessment of the capacity of the economy compared with our projection in January 2008.[1]

One way to measure economic capacity is in the labor market. As shown in the figure below, our current assumption (which we have held since late 2010) is that the NAIRU (the solid red line) increased from 5 percent to 6 percent over 2008 and 2009, on the view that the mismatch between available jobs and unemployed workers likely rose during the recession. Over time, we expect the NAIRU to retrace most of that increase and to fall to 5¼ percent by late 2017, as a strengthening labor market encourages workers and firms to make adjustments to improve matching and as some unemployed individuals permanently exit the labor force. That ultimate figure of 5¼ percent is ½ percentage point higher than we had assumed in 2008 (the dashed red line), partly reflecting permanent labor market scarring associated with the extraordinarily high level of long-term unemployment.

Unemployment Rate



Note: The shaded gray bars indicate a period of business recession as defined by the National Bureau of Economic Research.
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff forecast.

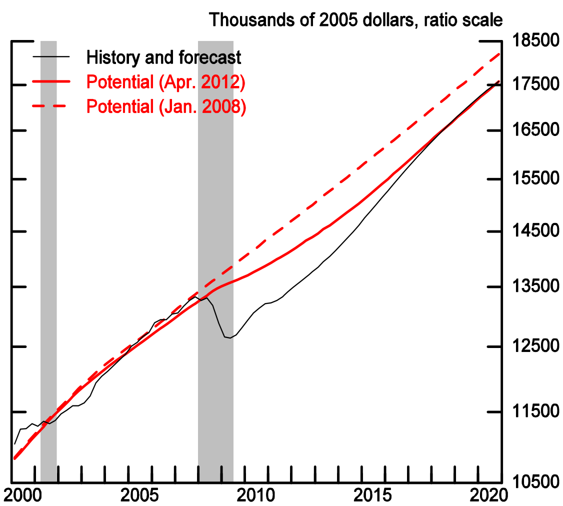
[1] This analysis uses the January 2008 Greenbook as the point of comparison because it was the first to include a long-run forecast. Although that projection reflected the incipient economic weakness, the staff did not forecast a recession and had not marked down potential GDP. The long-run forecast presented in the January 2008 Tealbook ended in 2012; however, the staff created a projection beyond 2012 for use in the optimal-control exercises reported in the Bluebook. For this analysis, the January 2008 assumptions for the NAIRU, potential GDP, and structural labor productivity beyond 2012 are taken from this longer-run projection.

Additionally, we have lowered our assumption about the trend labor force, reflecting a net downward revision to the working-age population in recent years and surprisingly weak readings on the labor force participation rate (LFPR). Although we think much of the decline in the LFPR reflects cyclical and other factors, we also view it as suggesting that the downtrend in participation has been somewhat steeper than we had previously assumed and so marked down our trend participation rate a bit beginning in 2009 in response (not shown).

Another way to measure economic capacity is potential GDP, shown by the red lines in the lower-left figure. We now estimate that the level of potential GDP at the end of 2011 was nearly 4 percent lower than in our January 2008 projection. By way of comparison, the actual level of GDP at the end of 2011 came in about 8 percent lower than our 2008 forecast.

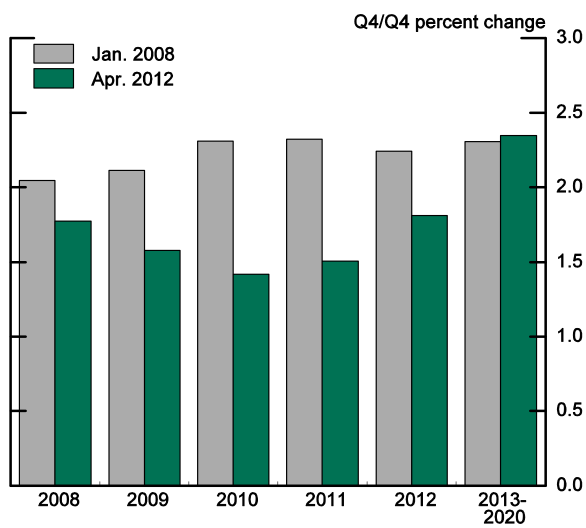
A decomposition of potential GDP can help provide insight about the sources of the revision. In the staff's accounting, potential GDP comprises trend labor input and structural labor productivity. Much of the downward revision to our estimate of potential GDP through 2011 reflects lower trend labor input—in particular, the revisions to our assumptions about the NAIRU and the trend labor force discussed earlier. In addition, we revised down our estimate of structural productivity growth, shown in the lower-right figure. Some of the downward revision to structural productivity growth since the onset of the recession comes from a smaller contribution from capital input during and after the recession. The remainder reflects a lower estimate of the growth rate of structural multifactor productivity, the part of productivity not attributed to other inputs.

Real GDP



Note: The shaded gray 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; staff forecast.

Structural Labor Productivity



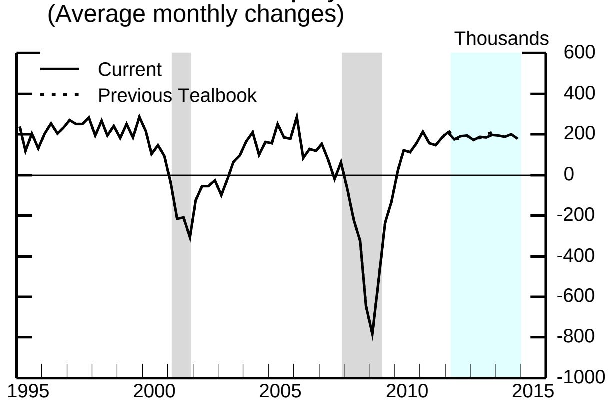
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff forecast.

The Outlook for the Labor Market and Resource Utilization
(Percent change from final quarter of preceding period)

Measure	2011	2012 H1	2012 H2	2013	2014
Output per hour, nonfarm business	.3	.6	1.7	1.7	1.9
Previous Tealbook	.4	.1	2.1	1.6	
Nonfarm private employment[1]	175	193	193	186	191
Previous Tealbook	174	201	185	195	
Labor force participation rate[2]	64.0	63.8	63.8	63.7	63.7
Previous Tealbook	64.0	63.7	63.7	63.7	
Civilian unemployment rate[2]	8.7	8.2	8.0	7.7	7.4
Previous Tealbook	8.7	8.4	8.2	7.8	
Memo:					
GDP gap[3]	-4.8	-4.7	-4.3	-3.7	-2.7
Previous Tealbook	-5.0	-5.0	-4.6	-4.0	

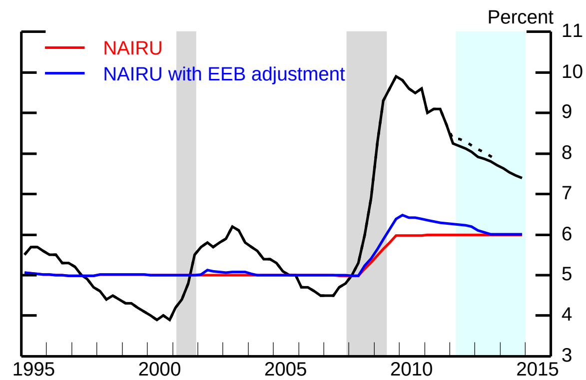
1. Thousands, average monthly changes.
2. Percent, average for the final quarter in the period.
3. Percent difference between actual and potential GDP in the final quarter of the period indicated. A negative number indicates that the economy is operating below potential.
Source: U.S. Department of Labor, BLS; staff assumptions.

Nonfarm Private Employment
(Average monthly changes)



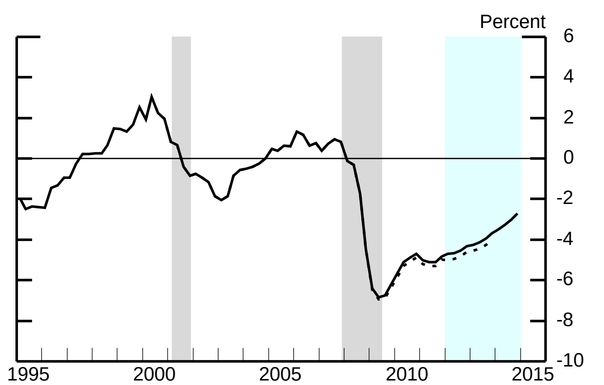
Source: U.S. Dept. of Labor, BLS.

Unemployment Rate



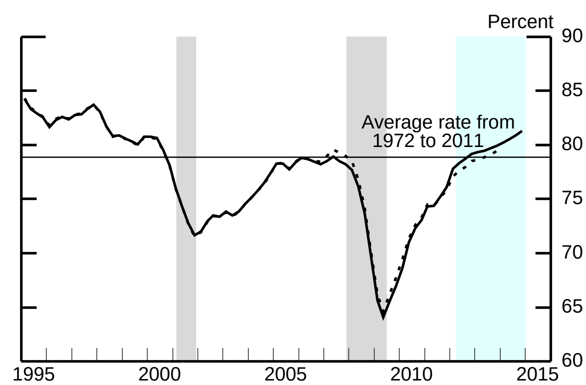
Note: The EEB adjustment is the staff estimate of the effect of extended and emergency unemployment compensation programs on the NAIRU.
Source: U.S. Dept. of Labor, BLS; staff assumptions.

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.

we anticipate that firms will increase their labor inputs about in line with output, implying a rate of actual productivity growth that is similar to its trend growth rate.

We expect the pace of private employment growth to hold fairly steady, with private job gains averaging nearly 200,000 per month through 2013—little changed from our March forecast—and continuing at a similar pace throughout 2014. In the government sector, we expect state and local employment to change little this year and then to rise modestly over the next two years as budget pressures ease somewhat. All told, these employment gains push the unemployment rate down to about 7¾ percent by the end of 2013 and to just below 7½ percent by the end of 2014; throughout the next three years, the projected path of the unemployment rate is slightly lower than our forecast in the March Tealbook, reflecting its lower starting point.

Resource Utilization

Our estimates of economic slack in this projection are a little narrower than those in the March Tealbook. Nevertheless, economic slack is expected to remain sizable over the medium term, with the unemployment rate at the end of 2014 projected to be 1½ percentage points above the NAIRU and the output gap to be 2¾ percent.

Unlike the staff's measure of potential GDP, which directly reflects trends in the labor force, our concept of capacity for the industrial sector focuses on the capability of plants to produce with the equipment that is in place and ready to operate; it does not take account of the potential workforce, either inside the industrial sector or outside of it. Given these differences, we expect capacity utilization in the industrial sector to continue to be taken up more quickly than is reflected in the GDP gap, both because manufacturing output growth is anticipated to exceed real GDP growth over the forecast period and because manufacturing capacity is projected to rise less rapidly than potential GDP over the next two years. In 2014, potential GDP and manufacturing capacity are projected to increase at about the same rate. As a result, our projection calls for the factory operating rate to rise to its long-run average in the second half of this year and then to move above it over the next two years despite a still-sizable GDP gap.

Prices and Compensation

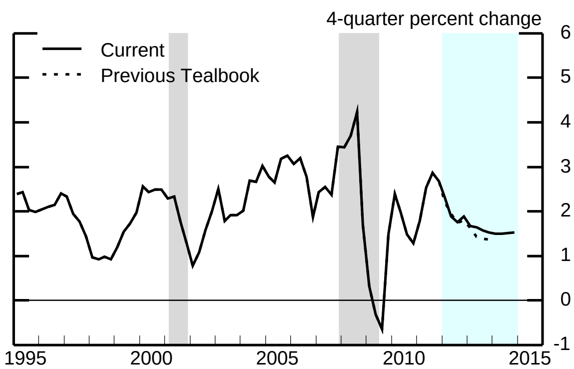
We continue to expect that the wide margin of slack in the labor market and low rates of price inflation will restrain the increase in labor costs over the medium term. Both the Productivity and Costs measure of nonfarm hourly compensation and the

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

Measure	2011	2012 H1	2012 H2	2013	2014
PCE chain-weighted price index	2.7	2.0	1.7	1.5	1.5
Previous Tealbook	2.7	2.1	1.5	1.4	
Food and beverages	5.2	1.4	1.7	1.6	1.5
Previous Tealbook	5.2	1.7	1.4	1.2	
Energy	12.8	3.2	2.8	-1.1	-1.7
Previous Tealbook	12.8	7.9	-.2	-1.6	
Excluding food and energy	1.8	2.0	1.7	1.7	1.7
Previous Tealbook	1.8	1.8	1.6	1.6	
Prices of core goods imports[1]	4.3	.7	1.1	1.5	1.5
Previous Tealbook	4.3	.5	1.4	1.5	

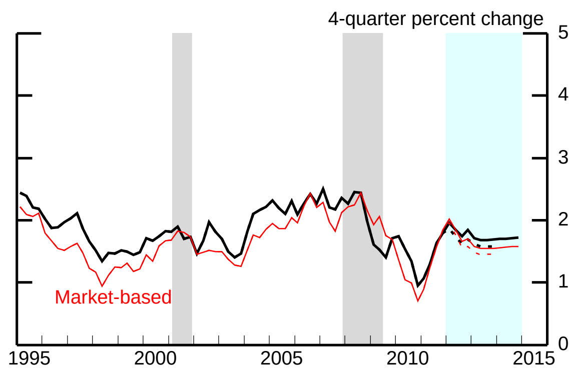
1. Core goods imports exclude computers, semiconductors, oil, and natural gas.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Total PCE Prices



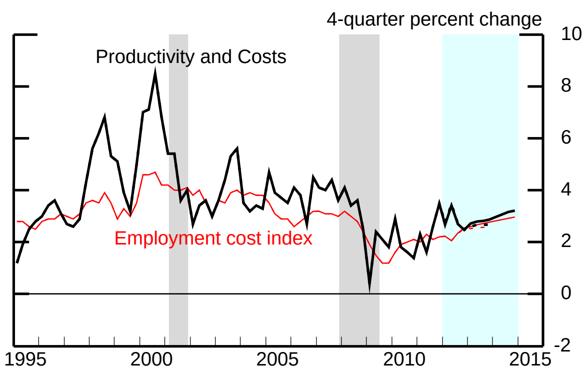
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

PCE Prices ex. Food and Energy



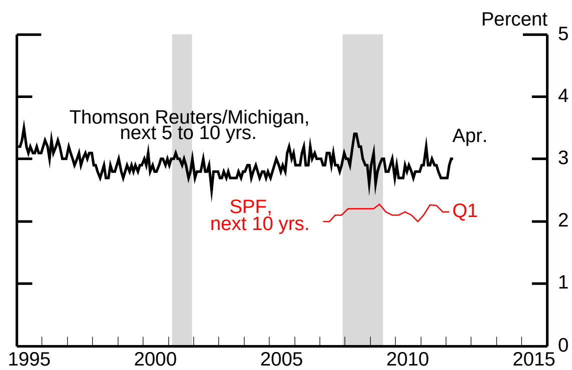
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Compensation per Hour



Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

Long-Term Inflation Expectations



Note: The Survey of Professional Forecasters (SPF) projection is for the PCE price index.
Source: Thomson Reuters/University of Michigan Surveys of Consumers; Federal Reserve Bank of Philadelphia.

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

employment cost index are expected to rise about 2¾ percent per year, on average, in 2012 and 2013—a touch more than we projected in our March forecast—and around 3 percent in 2014. This small upward revision mainly reflects the slightly lower path of the unemployment rate in this projection. These increases in compensation, combined with our projection for moderate productivity gains over the medium term, imply only a modest rate of increase in unit labor costs over the forecast period.

Prices of imported core goods were little changed in the first quarter, held down by the lagged effects of the steep decline in nonfuel commodity prices that occurred late last year. Core import price inflation is expected to pick up to about 1½ percent by the end of 2012 and then persist at that rate through 2014, consistent with the projected pace of foreign CPI inflation, moderate dollar depreciation, and the flattening out of commodity prices. Relative to the March Tealbook, stronger-than-expected import price data for March led us to revise up slightly our forecast for core import price inflation in the first half of this year, but our projection is essentially unchanged over the medium term.

Measures of longer-term inflation expectations have changed little, on net, since the time of the March Tealbook. Median 5-to-10-year expected inflation from the Michigan survey ticked up 0.1 percentage point to 3 percent in March and remained at that rate in the preliminary April release.[5] Meanwhile, the TIPS-based measure of the five-year forward rate of inflation compensation has increased about ¼ percentage point since the March Tealbook, but we estimate that only a relatively small portion of that increase reflects higher inflation expectations.

As in previous Tealbooks, we anticipate that the projected low level of resource utilization will help to hold the average pace of inflation below the Committee's objective. However, in light of the narrower margin of slack in this forecast and higher readings on inflation early this year (even leaving aside the noisy nonmarket data), we have nudged up our forecast for core consumer price inflation over the medium term. We now project that core PCE prices will increase 1.8 percent this year and 1.7 percent in both 2013 and 2014, up 0.1 percentage point in each year relative to the March Tealbook. Increases in energy prices are projected to push total PCE inflation slightly above the core rate of inflation this year, but with energy prices expected to decline over the next

[5] The average differential between longer-term Michigan inflation expectations and core PCE inflation over the past decade is about 1 percentage point.

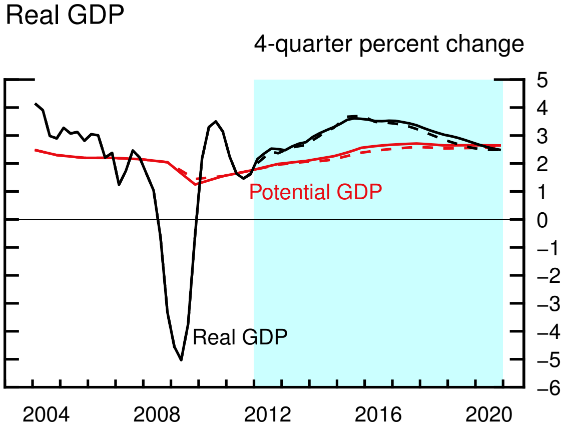
The Long-Term Outlook

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

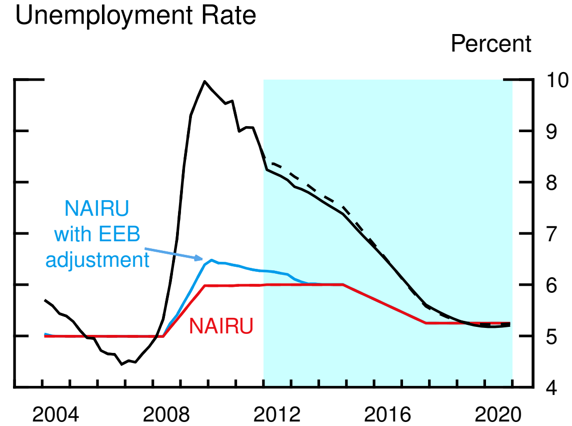
Measure	2012	2013	2014	2015	2016	2017
Real GDP	2.5	2.8	3.3	3.6	3.5	3.4
Previous Tealbook	2.4	2.7	3.3	3.7	3.4	3.2
Civilian unemployment rate[1]	8.0	7.7	7.4	6.8	6.2	5.6
Previous Tealbook	8.2	7.8	7.5	6.9	6.2	5.6
PCE prices, total	1.9	1.5	1.5	1.7	1.7	1.9
Previous Tealbook	1.8	1.4	1.4	1.5	1.6	1.8
Core PCE prices	1.8	1.7	1.7	1.8	1.8	1.9
Previous Tealbook	1.7	1.6	1.6	1.6	1.7	1.8
Federal funds rate[1]	.1	.1	1.2	2.3	3.1	3.8
Previous Tealbook	.1	.1	.8	2.1	3.0	3.7
10-year Treasury yield[1]	2.8	3.7	3.9	4.1	4.2	4.4
Previous Tealbook	2.8	3.6	3.7	4.0	4.1	4.3

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

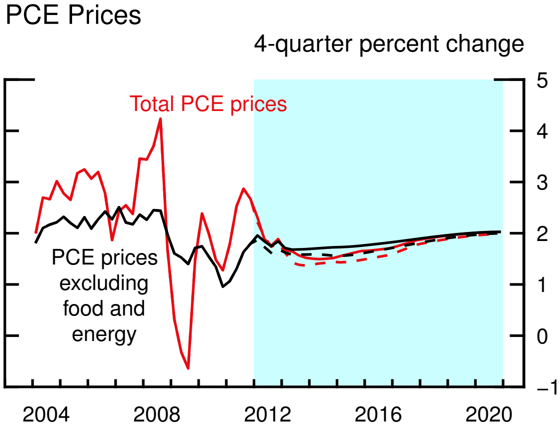
Real GDP



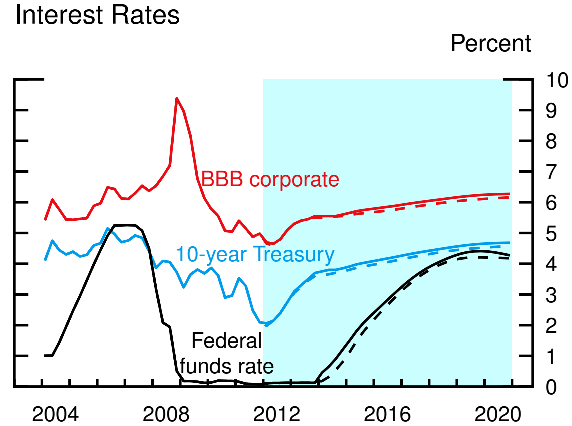
Unemployment Rate



PCE Prices



Interest Rates



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

two years, headline inflation is expected to run a little below core inflation in 2013 and 2014.

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, consistent with the Committee's statement after the January meeting on its longer-run goals and monetary policy strategies. The federal funds rate continues to be set according to the estimated outcome-based rule.

- The Federal Reserve's holdings of securities continue to put downward pressure on longer-term interest rates over the 2014–17 period, but as the System's portfolio holdings normalize, this downward pressure wanes and thereby contributes somewhat to the rise in the 10-year Treasury yield. Beyond 2017, the System's asset holdings are expected to have little influence on the level of term premiums.

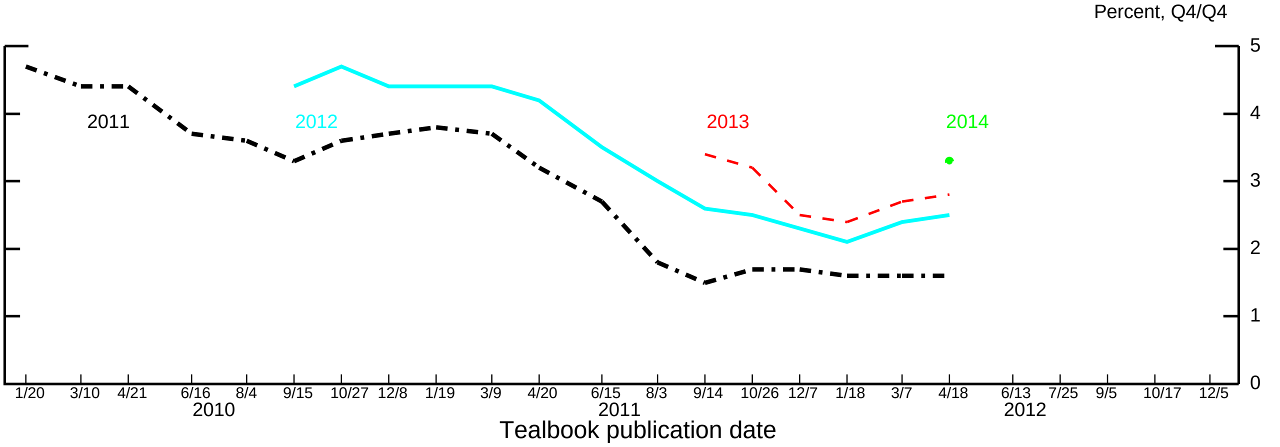
- Risk premiums on corporate equities and bonds decrease gradually to normal levels, and banks further ease their lending standards.

- The federal government budget deficit (measured on a NIPA basis) narrows from around 4 percent of GDP in 2014 to about 3¼ percent of GDP in 2017, primarily reflecting the effects of the recovery on tax receipts and the budgetary restraint imposed by the Budget Control Act. Thereafter, the deficit widens because of fast-rising transfer payments, mostly for programs related to health care.

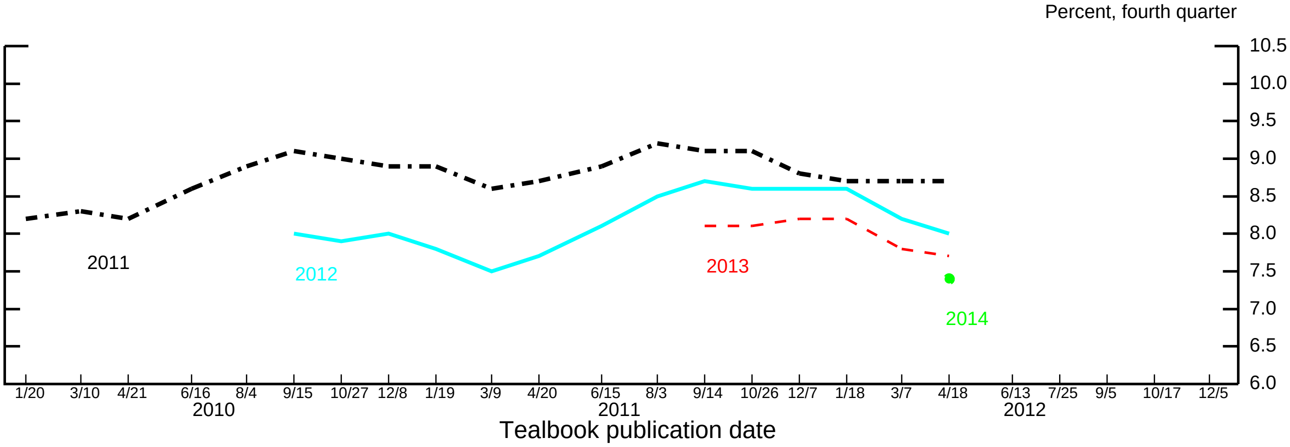
- The real foreign exchange value of the dollar depreciates 2 percent per year from 2014 to 2017. The pace of dollar depreciation tapers off thereafter. The price of crude oil edges down about $2 per year from 2014 to 2016 and remains flat in real terms thereafter. Foreign real GDP rises at an average annual rate of 3¼ percent in 2015 through 2017 and then gradually edges down to a 3 percent pace by late in the decade.

Evolution of the Staff Forecast

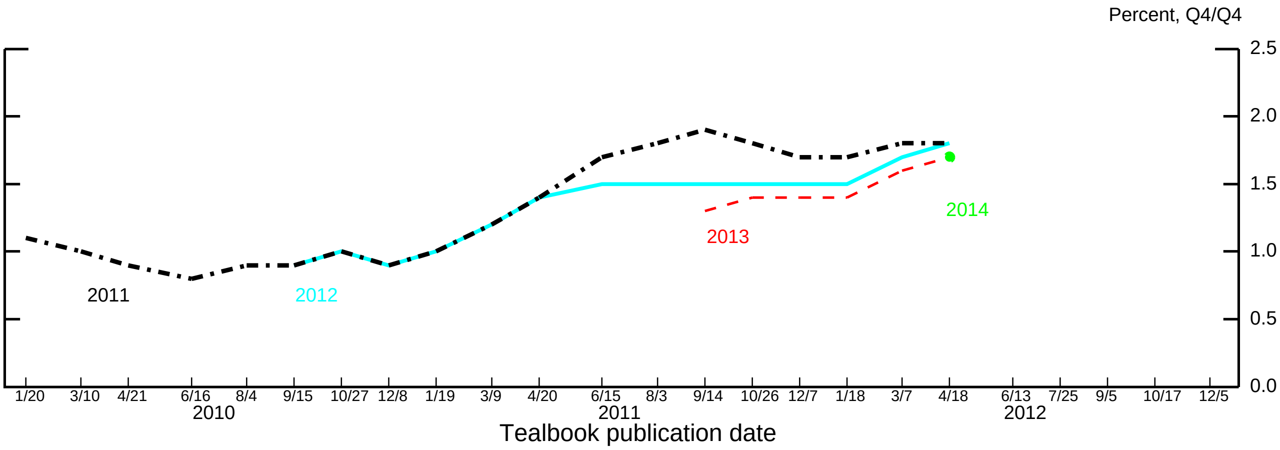
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy



- The NAIRU declines from 6 percent in late 2014 to 5¼ percent in late 2017 as conditions in the labor market continue to improve gradually, and it remains at 5¼ percent in the long run. Potential GDP increases at an average annual rate of about 2½ percent from 2015 through the end of the decade.

The economy is forecast to enter 2015 with output still below its potential level, the unemployment rate above the assumed NAIRU, and inflation lower than the long-run objective of the Committee. In the staff's long-term projection, further improvements in household and business confidence, diminishing uncertainty, and more-supportive financial conditions enable real GDP to rise at an average annual rate of 3½ percent from 2015 to 2017. With real GDP expanding at a pace significantly faster than the growth rate of potential output, labor market conditions improve further; by the end of 2017, the unemployment rate is just over 5½ percent. With the margin of slack in labor and product markets diminishing, consumer price inflation edges up gradually and is just below 2 percent in 2017. Late in the decade, the economy settles down at an unemployment rate near 5¼ percent (the assumed long-run NAIRU), with inflation at 2 percent (the Committee's objective) and a nominal funds rate close to 4¼ percent.

(This page is intentionally blank.)

International Economic Developments and Outlook

Foreign economic activity expanded at an estimated 3¼ percent pace in the first quarter, up from the 1¼ percent rate recorded for the final quarter of 2011. As expected, the factors that suppressed output growth late last year, most notably the supply chain disruptions brought on by the floods in Thailand, proved temporary. In fact, because recent indicators, particularly in the emerging market economies, came in a little stronger than we had anticipated, our first-quarter estimate of foreign GDP growth is a touch higher than in the March Tealbook.

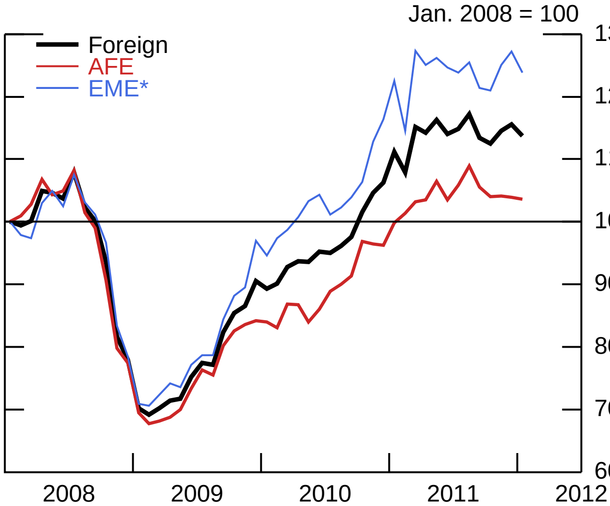
In contrast to the somewhat improved indicators for global activity, financial conditions in Europe have backtracked of late, with markets becoming concerned once again about developments in Spain and Italy. (See the box "Continuing Vulnerabilities in the Euro Area" for further details.) So far, the recent increase in tensions remains broadly consistent with our baseline view that Europe will muddle through its crisis but face periodic setbacks along the way. Continued financial stress and fiscal austerity should keep the euro area in recession throughout 2012 and hold down growth to a subpar pace into 2014. The risk remains, of course, that financial strains in Europe will snowball into a more severe crisis, a scenario that we explore in the Risks and Uncertainty section.

Assuming that this risk does not materialize, we project that real GDP growth in the foreign economies should average about 2¾ percent during the remainder of this year before picking up to 3½ percent by 2014. Growth strengthens as monetary policy remains generally accommodative, the U.S. recovery solidifies, and conditions in the euro area improve. Our outlook is little changed from the March Tealbook.

Readings on foreign inflation came back down in the first quarter, to below 2½ percent from around 3 percent in the second half of 2011. With oil and other commodity prices largely quiescent since the March Tealbook and projected to remain so over the forecast period, we expect inflation to stay near 2½ percent through 2014. Our forecast envisions some further monetary policy easing this year in Japan and the United Kingdom. However, as growth improves and output gaps narrow, we expect that central banks will begin withdrawing accommodative measures in 2014.

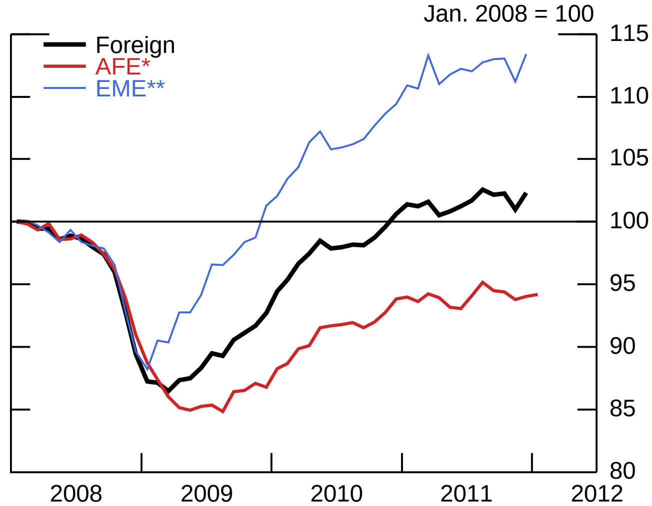
Recent Foreign Indicators

Nominal Exports



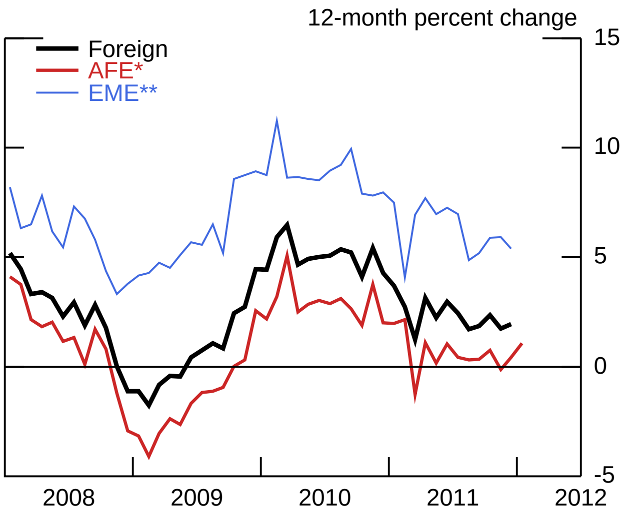
* Excludes Venezuela.

Industrial Production



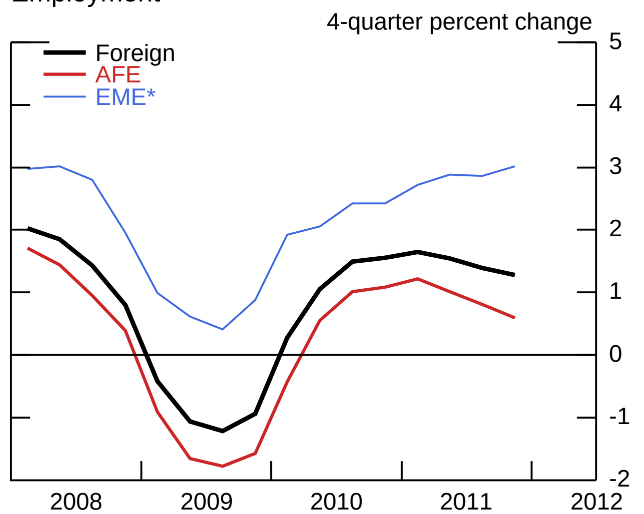
* Excludes Australia and Switzerland.
** Excludes Colombia, Hong Kong, Philippines, and Venezuela.

Retail Sales



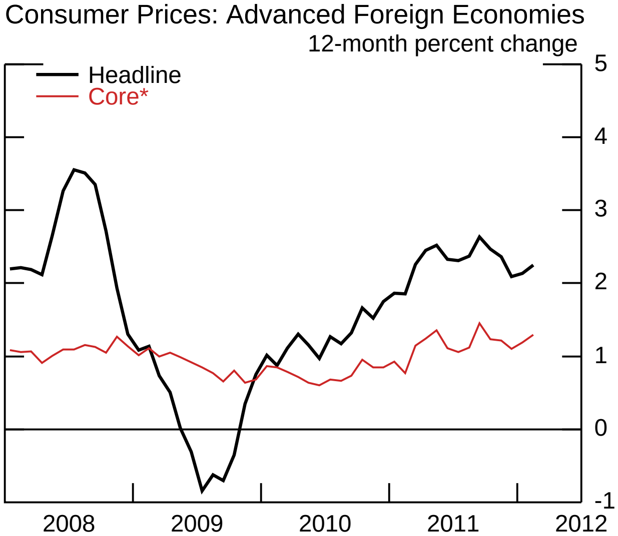
* Excludes Australia and Switzerland.
** Includes Brazil, China, Israel, Korea, Singapore, and Taiwan.

Employment

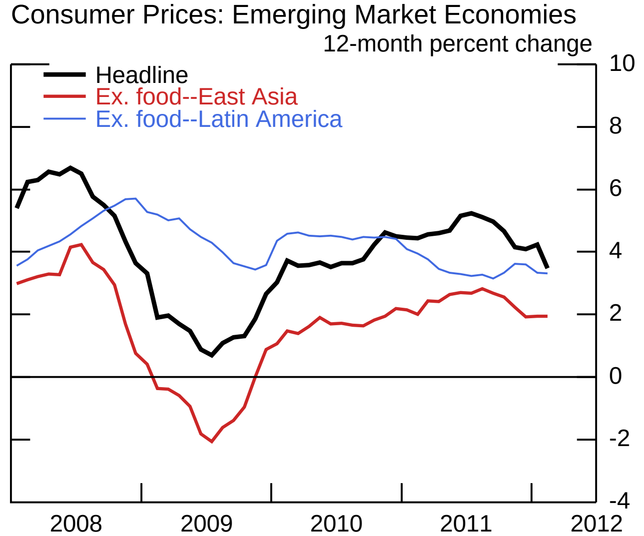


* Excludes Argentina and Mexico.

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.

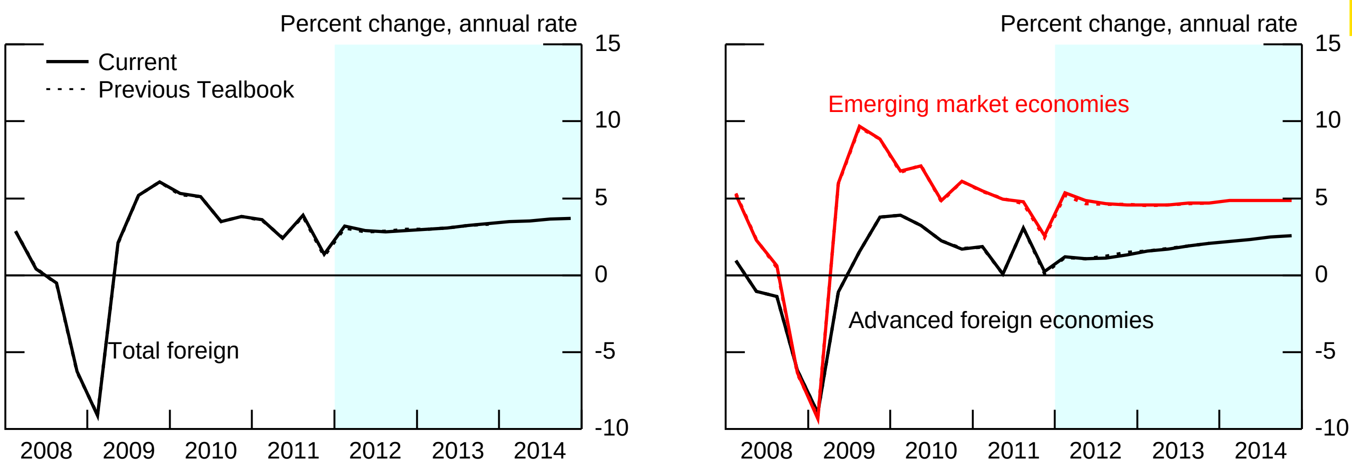
The Foreign Outlook

(Percent change, annual rate)

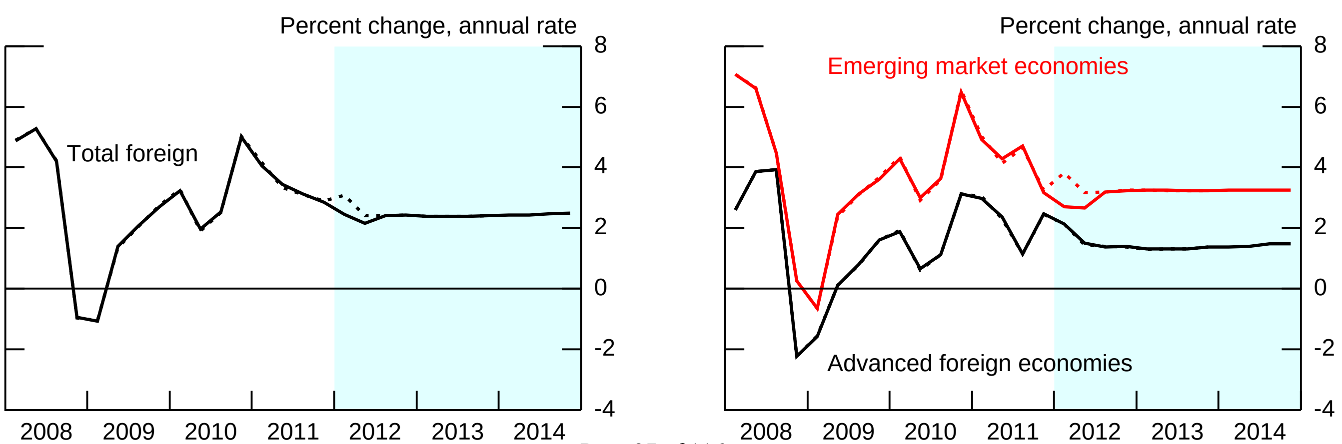
	2011			2012					
	H1	Q3	Q4	Q1	Q2	Q3	Q4	2013	2014
Real GDP									
Total foreign	3.0	3.9	1.4	3.2	2.9	2.8	2.9	3.2	3.6
Previous Tealbook	3.0	3.8	1.2	3.1	2.8	2.8	3.0	3.2	n.a.
Advanced foreign economies	1.0	3.1	.2	1.2	1.1	1.1	1.3	1.8	2.4
Previous Tealbook	.9	3.1	.1	1.1	1.1	1.2	1.5	1.8	n.a.
Emerging market economies	5.2	4.8	2.6	5.3	4.8	4.6	4.6	4.6	4.9
Previous Tealbook	5.2	4.6	2.4	5.2	4.7	4.6	4.6	4.6	n.a.
Consumer Prices									
Total foreign	3.7	3.1	2.9	2.5	2.1	2.4	2.4	2.4	2.5
Previous Tealbook	3.7	3.1	2.9	3.1	2.4	2.4	2.4	2.4	n.a.
Advanced foreign economies	2.7	1.1	2.5	2.1	1.5	1.4	1.4	1.3	1.4
Previous Tealbook	2.7	1.1	2.5	2.1	1.4	1.4	1.4	1.3	n.a.
Emerging market economies	4.6	4.7	3.2	2.7	2.7	3.2	3.2	3.2	3.3
Previous Tealbook	4.6	4.6	3.2	3.8	3.2	3.2	3.2	3.2	n.a.

n.a. Not available.
Note: Annualized percent change from final quarter of preceding period to final quarter of period indicated.

Real GDP



Consumer Prices



Continuing Vulnerabilities in the Euro Area

The normalization of financial conditions in the euro area appears to have stalled since the time of the March Tealbook. Most strikingly, market concerns about Italy and Spain have intensified, as shown by a renewed rise in their sovereign bond spreads (see lower-left figure on next page). Additionally, euro-area bank stock prices have fallen, and bank CDS spreads have generally risen, with the greatest increase in Spain. This turnaround in financial conditions partly reflects the fact that, despite significant progress, financial backstops for vulnerable euro-area governments remain inadequate. With their fundamental fiscal and competitiveness problems still unresolved, this situation leaves euro-area countries—most notably Italy and Spain—susceptible to shifts in market sentiment.

Italy's vulnerability to such changes in sentiment stems primarily from the country's weak economic growth prospects and high debt-to-GDP ratio (see lower-right figure on next page). Political challenges to addressing these problems are significant, and further setbacks over the intermeeting period in the approval of a major labor market reform have revived doubts about the ability of the technocratic government to implement structural reforms.

For Spain, three factors appear to be behind the resurgence of market pressure, which has sent Spanish 10-year bond yields above Italian yields for the first time since last summer. First, economic activity has continued to be very weak, with GDP contracting at an annual rate of 1.2 percent in the fourth quarter and the unemployment rate soaring to nearly 24 percent in February, about three times its level before the global financial crisis. We expect GDP in Spain to contract 2¼ percent (from fourth quarter to fourth quarter) in 2012 and to stagnate in 2013. In principle, growth could be revived through structural reforms and resulting improvements in competitiveness, but reforms are progressing only slowly and, in any case, their effect on competitiveness is not likely to take hold quickly.

Second, Spain's fiscal performance has been disappointing. The 2011 budget deficit was recently announced to be 8.5 percent of GDP, significantly above the target of 6 percent. In addition, after somewhat messy renegotiations with European authorities, the country's deficit target for 2012 was revised up to 5.3 percent from 4.4 percent. The 2013 deficit target remains unchanged at 3 percent of GDP. Both of those targets will prove challenging to achieve.

Spain's fiscal difficulties in 2011 were due to stagnant economic output and tax revenues as well as to poor budget performance among regional and local governments, which have considerable budget autonomy in Spain.[1] Further, largely due to recognition of regional and local government arrears, the Spanish government recently announced that it expected public debt to increase to

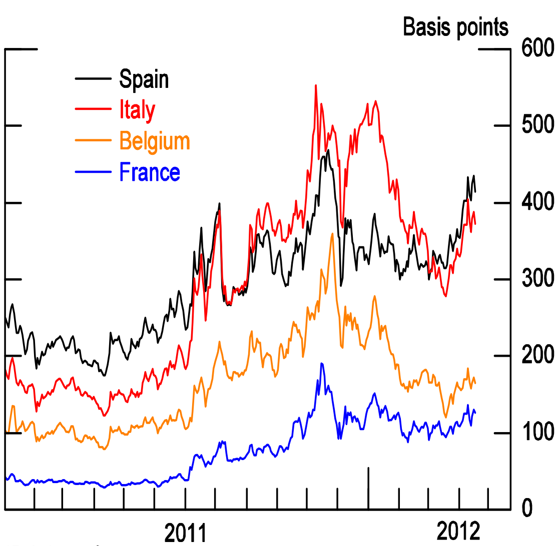
[1] On April 12, parliament passed the Budget Stability Law, intended to roughly replicate the European Fiscal Compact at the national level and thereby gain control of regional budgets, but it remains to be seen how effective the law will be.

80 percent of GDP in 2012, about 6 percentage points more than previously anticipated. This revision still leaves the debt-to-GDP ratio of Spain well below that of Italy's but suggests the potential for rapid increases in debt.

Third, markets worry that public debt could be significantly boosted by further bank bailouts, importantly related to the on-going bust in the property market. Housing sales have remained severely depressed, and house prices in March were down 11.5 percent over the previous 12 months and almost 30 percent below their peak in December 2007. About 8 percent of loans at Spanish banks are nonperforming, the majority of which are related to construction and real estate. In early February, the Spanish government gave banks until the end of 2012 to increase loan loss provisions and capital buffers by up to €50 billion. This increase appears likely to cover embedded losses in the system, though a few individual banks, especially those already in receivership, might require more public assistance this year. Additional provisioning will likely be necessary in 2013 and 2014 as real estate values decline further and unemployment remains high. Although Spanish authorities hope banks will be able to handle such provisions through earnings retention, capital raising, and mergers, significant additional public capital injections may be necessary if the severity of macroeconomic stress worsens.

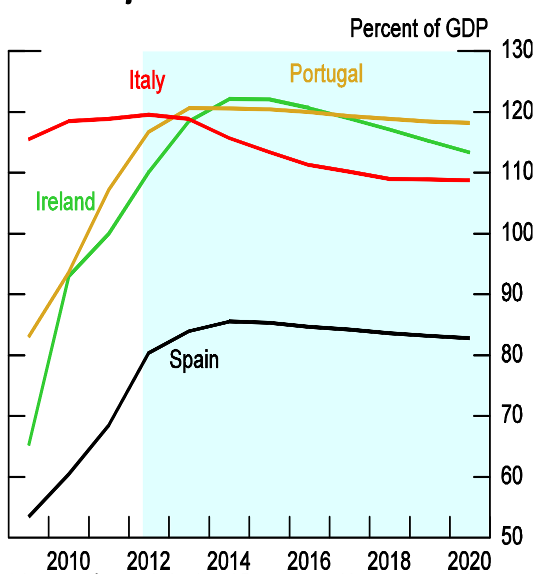
As indicated in the lower-right figure, even under the staff's somewhat pessimistic assumptions for GDP growth and fiscal performance, Spain's debt-to-GDP path is relatively favorable. Even so, a deeper recession and greater deterioration of banking conditions than we currently anticipate would have the potential to burden the government's balance sheet with significant additional debt, further weakening prospects for fiscal stabilization. Markets are clearly focused on these downside risks at present.

10-Year Sovereign Bond Spreads*



*Relative to Germany.
Source: Bloomberg.

Projected Debt-to-GDP Ratio*



* Assumes Greece, Ireland, and Portugal are able to access market financing on the timeline set out in their respective IMF programs.
Source: Staff estimate.

Advanced Foreign Economies

Our forecast of economic activity in the advanced foreign economies (AFEs) is broadly unchanged from the March Tealbook. After stalling in the fourth quarter, AFE GDP is expected to grow at a 1¼ percent pace in 2012. We continue to project a mild contraction of the euro-area economy this year, with a more severe downturn in the peripheral European countries, where financial stresses and fiscal consolidation are very pronounced. Amid an eventual easing of these financial stresses and some strengthening of demand from the United States, we project that GDP growth in the AFEs will rise to 1¾ percent in 2013 and 2½ percent in 2014.

Recent inflation data in the AFEs are also broadly in line with our March Tealbook projections. We estimate that consumer prices rose at an annual rate of 2 percent in the first quarter of 2012. As the effect of the earlier rise in oil prices dissipates, we project that inflation will moderate to 1½ percent in the second quarter and remain at about that pace through 2014. Contained inflation and persistent economic slack should allow the major foreign central banks to maintain stimulative monetary policy at least until 2014.

Euro Area

Recent data are in line with our forecast of a mild contraction of economic activity. The euro-area composite PMI for the first quarter moved up off its fourth-quarter low but remained under 50. Industrial production over the first two months of the year fell below the fourth-quarter average. Labor market conditions deteriorated further, as the unemployment rate reached 10.8 percent in February, its highest level since 1997. Consumption indicators were mixed through March.

European policymakers made some progress in surmounting the hurdles associated with the debt crisis. The Greek government successfully concluded a debt exchange of privately held domestic bonds. And European authorities, in conjunction with the IMF, approved a second rescue package for Greece that secures additional financing through the end of 2014. European policymakers also agreed to increase the combined lending capacity of their rescue facilities from €500 billion to €700 billion, of which €500 billion remains uncommitted. However, this action fell short of calls to raise the lending capacity to over €900 billion and could prove insufficient to backstop vulnerable euro-area economies.

After having improved significantly earlier this year, financial conditions worsened more recently as incoming data continued to point to declining euro-area output and as fiscal and political developments in Spain and Italy were disappointing. Sovereign bond spreads are up in many countries in the region, and stock prices are down, especially for banks. (One manifestation of the financial pressures weighing on several peripheral economies is discussed in the box "Euro-Area TARGET2 Balances.") In the March Tealbook, we had already anticipated that financial stresses would only slowly diminish over the forecast period, with occasional bouts of financial turmoil likely. Accordingly, in our current projection, we marked down the euro-area forecast only ¼ percentage point in 2012 and a touch in early 2013. We still expect GDP to contract through the end of this year and to expand a meager 1 percent in 2013 before accelerating to a 2 percent pace by the end of 2014. This recovery is anticipated to be weak, as tight fiscal and financial conditions weigh considerably on economic activity.

Euro-area inflation stepped down to a 2.5 percent pace in the first quarter from 3.8 percent in the fourth. With considerable resource slack and moderating energy prices, we expect inflation to fall further to around 1¾ percent in 2012 before settling at 1½ percent in 2013 and 2014. The European Central Bank (ECB) left policy rates unchanged at its past two meetings. We expect the ECB to keep its benchmark policy rate at 1 percent over the forecast period and to continue to provide significant liquidity support to banks. If pressures in sovereign bond markets become great enough, the ECB may resume purchases of peripheral sovereign bonds under its Securities Markets Programme.

United Kingdom

Recent data, including strong readings on services and construction PMIs, led us to revise up somewhat our estimate for GDP growth in the first half of this year, to 1¼ percent, following a 1.2 percent contraction in the fourth quarter. We expect growth to stay at that pace in the second half of this year but to rise to 2¾ percent in 2014. However, this growth is insufficient to substantially narrow the output gap. The U.K. government's deficit reduction plans, which were reaffirmed in the 2012 budget, are expected to shave nearly 1 percentage point from GDP growth over the forecast period.

We expect inflation to move down to 2¼ percent in 2012 from a rate of nearly 5 percent in the previous year. That said, we marked up our inflation forecast nearly ½ percentage point in 2012 because of surprisingly high March inflation and the

Euro-Area TARGET2 Balances

The extent to which the ECB should continue to provide funding to troubled euro-area banks—and at what terms—has become a source of considerable debate among the various euro-area national central banks (NCBs).[1] The recent sharp rise in TARGET2 balances has provided a focal point for this debate.[2]

The TARGET2 system settles domestic and cross-border interbank payments in the euro area by crediting and debiting banks' reserve accounts at their respective NCBs. For example, if an Italian resident requests that its bank make a payment to a German bank (say to purchase a German product or to open a German bank account), TARGET2 generates a deposit in the German bank's account at the Bundesbank and subtracts a matching amount from the Italian bank's account at the Bank of Italy. At the end of each day, if an NCB has received more payments than it has made, it acquires a TARGET2 claim against the ECB. If it has made more payments than it has received, it acquires a TARGET2 liability. These claims and liabilities are the TARGET2 balances in question.[3]

As shown in the figures on the next page, before the global financial crisis and subsequent European sovereign debt crisis, TARGET2 claims and liabilities (shown in red) were small. Even though Greece and Spain ran sizable current account deficits, and thus made substantial cross-border payments, private capital inflows adequately financed these outgoing payments. In early 2008, however, as banks in both Spain and Greece found it more difficult to obtain private market funding, they began to rely increasingly on NCB funding (shown in black). Later, in the summer of 2011, as the euro-area sovereign debt crisis intensified, lending by the Bank of Italy to Italian banks began to increase rapidly as well. The NCB lending in these countries helped avoid the potential disruptions that might have occurred from forced deleveraging by peripheral banks and fire sales of assets. At the same time, however, the resulting injections of liquidity into the peripheral banking systems financed payments outflows, leading to increased TARGET2 liabilities for these countries' NCBs. As recipients of payments flows, banks in Germany, the Netherlands, Finland, and Luxembourg greatly reduced their reliance on liquidity drawn from their own NCBs, and the NCBs in those countries acquired large TARGET2 claims. The Bundesbank is now the largest creditor, with TARGET2 claims in excess of €600 billion, about 25 percent of German GDP, and total TARGET2 liabilities have grown from near zero in 2007 to almost €1 trillion at present.

[1] Reflecting such tensions, the Bundesbank and the Austrian National Bank recently announced that they would stop accepting as collateral bank debt guaranteed by countries with EU support programs.

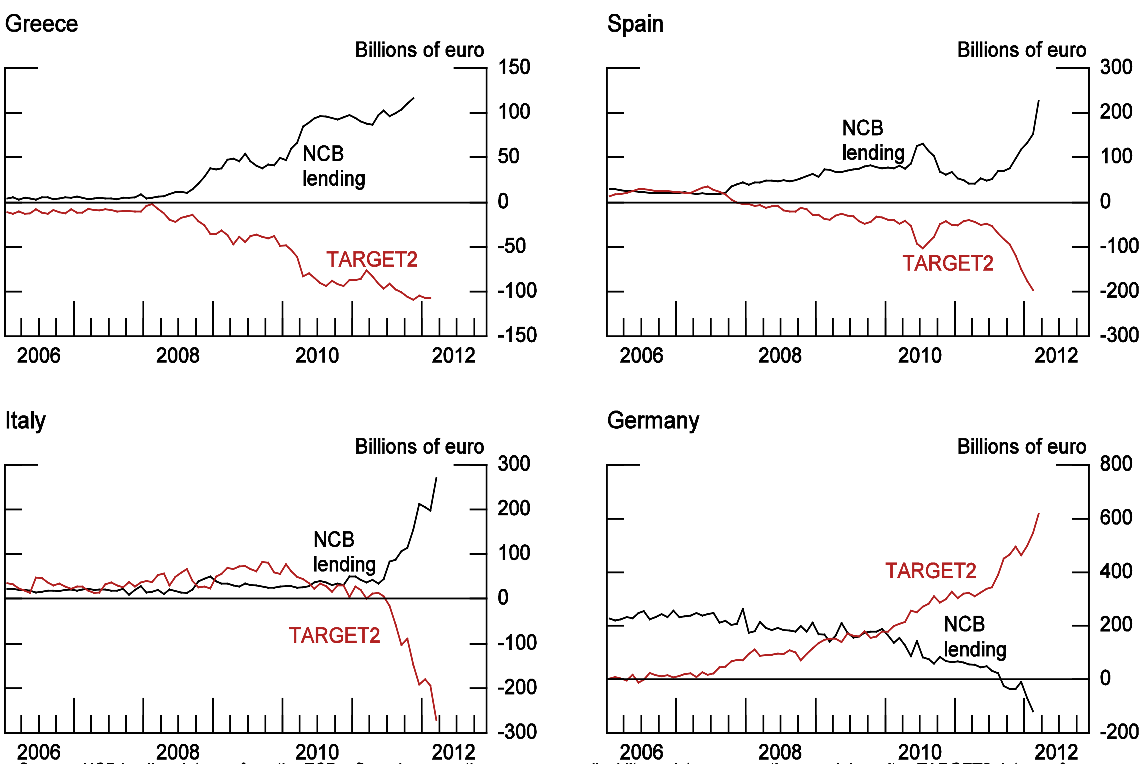
[2] TARGET2 is an acronym for Trans-European Automated Real-Time Gross Settlement Express Transfer. Like the Federal Reserve's Fedwire, it is a real-time gross settlement system settled in central bank money.

[3] Some features of the TARGET2 balances are analogous to those of the Federal Reserve's interdistrict settlement balances.

Do TARGET2 balances pose risks to the Eurosystem? Some observers argue that large TARGET2 claims will hinder liquidity provision by the respective NCBs, but no such limit on NCB lending exists. Additionally, some fear that the risks associated with Eurosystem lending may fall disproportionately to those countries with large TARGET2 claims. So long as the Eurosystem remains intact, however, these fears are unfounded. According to Eurosystem rules, capital losses are allocated according to the respective capital shares of the NCBs in the Eurosystem, not according to TARGET2 balances. Nonetheless, creditor nations may worry about the value of their TARGET2 claims in the event of a messy dissolution of the euro area, as there are no agreements among member countries on how to share losses if a country were to leave the euro area or the union were to be entirely dissolved.

The legitimacy of these worries is difficult to assess, but concerns about the TARGET2 balances have prompted some German politicians to call for caps on these balances. Although the Eurosystem is politically insulated by design, political pressure could lead to implicit constraints on the conduct of monetary policy, potentially lessening the ECB's effectiveness. Should political pressure ultimately result in explicit controls on cross-border payments, the viability of the monetary union itself would be in doubt. Even though these dire scenarios may well be avoided, the recent expansion of TARGET2 balances is an indicator that the fundamental causes of the strains in the euro area have yet to be resolved.

Eurosystem Lending and TARGET2 Balances



Source: NCB lending data are from the ECB refinancing operations, emergency liquidity assistance operations, and deposits. TARGET2 data are from the Institute of Empirical Economic Research, Universitat Osnabruck.

announcement of supplementary tax measures in the recent budget. Inflation then moderates further to 1¾ percent in 2013 and 2014. We continue to project that the Bank of England (BOE) will increase the scale of its asset purchase program by £50 billion. However, with economic indicators a bit stronger and our outlook for inflation slightly higher, we now expect that the BOE will not resume purchases until the second half of this year when the BOE can be more certain that inflation pressures are subsiding. The current program is scheduled to be completed this month, bringing the overall size of the program to £325 billion (22 percent of GDP).

Japan

Following a contraction of 0.7 percent in the fourth quarter, we estimate that Japanese real GDP rebounded 2¾ percent in the first quarter, fueled by the recovery of key parts suppliers in Thailand, car purchase incentives, and a step-up in post-earthquake reconstruction activity. However, some recent indicators suggest the underlying pace of growth is weaker. In particular, February exports barely edged up, and the Bank of Japan's (BOJ) Tankan index—a key indicator of business confidence—failed to improve. Accordingly, we project that real GDP growth will slow to 1½ percent by the end of the year. Growth should remain at that pace in 2013 and 2014, as the effects of a pickup in global economic output are roughly offset by the completion of reconstruction activity.

Higher-than-expected food and energy prices pushed consumer prices up at an estimated pace of 1 percent in the first quarter, ½ percentage point more than projected in the March Tealbook. After declining for the past three years, consumer prices are expected to remain roughly constant over the forecast period. Inflation will still be well below the BOJ's stated medium-term inflation goal of 1 percent. Accordingly, we anticipate that the BOJ will expand its asset purchase program somewhat further.

Canada

Recent data have been slightly more upbeat than we had expected, leading us to raise our estimate of first-quarter GDP growth a touch to 2¼ percent. In March, the manufacturing PMI strengthened and employment posted a substantial gain. We expect growth to pick up from 2¼ percent this year and next to 3 percent by the end of 2014, supported by accommodative monetary policy and the projected U.S. recovery. Our GDP forecast is largely unchanged from the March Tealbook. However, one concern is that, unlike in most other advanced economies, household debt continues to rise relative to disposable income, posing some risk of a pullback in housing and consumption.

As the effects of recent increases in the prices of food and energy fade, we expect inflation to move down from 2½ percent in the first quarter to 2 percent over the rest of the forecast period. With moderate resource slack and diminishing price pressure, we continue to assume that the Bank of Canada will keep its target for the overnight rate at 1 percent through 2013 and will tighten starting in early 2014.

Emerging Market Economies

Recent data from the emerging market economies (EMEs) have been reasonably upbeat. We now estimate that real GDP growth in these countries rebounded to an annual rate of about 5¼ percent in the first quarter from just 2½ percent in the fourth. The rebound is due importantly to the restoration of supply chains following last year's flooding in Thailand as well as to some recovery of both external and domestic demand. We project that growth will stabilize at a near-trend rate of about 4¾ percent during 2012 and 2013 before rising to 5 percent in 2014. The projection for the first quarter and the next are revised up a touch, relative to the March Tealbook, in light of stronger-than-expected indicators in much of emerging Asia.

Headline inflation in the EMEs moderated to an annual rate of 2¾ percent in the first quarter. This rate is about 1 percentage point below our March projection, reflecting the faster-than-expected dissipation of food price pressures, especially in China and Mexico. We see inflation remaining at 2¾ percent in the second quarter before rising to 3¼ percent over the remainder of the forecast period.

Most central banks have kept policy rates unchanged since the March Tealbook, although central banks in Brazil and India eased policy. Capital flows into EME-dedicated funds slowed in March after an earlier sharp run-up in late January and February. In response to the earlier increase in flows, the Brazilian government extended a 6 percent tax, previously applied to external loans and bond issuances with duration of up to three years, to those of up to five years.

China

Chinese real GDP growth edged down to 7½ percent in the first quarter from a revised 7¾ percent in the fourth, both figures about ½ percentage point lower than in the March Tealbook. Investment moderated somewhat, in part reflecting weakness in the residential property sector. However, consumer demand remained robust, with retail sales growing around their fourth-quarter pace, and industrial production picked up in

March. The trade surplus widened in the first quarter, as exports rose and imports were flat. And credit conditions eased, with bank lending moving significantly higher in March. In view of these supportive indicators, we project that Chinese real GDP growth will rise to about 8½ percent in the second quarter.

Over the remainder of the forecast period, we continue to expect GDP to expand at about an 8¼ percent pace. Restrained growth in the advanced economies will keep external demand on the soft side, leaving the path for Chinese growth a little below our estimate of potential. This outlook is little changed from the March projection. We still believe that Chinese authorities have sufficient scope for policy action to avoid a hard landing, but a less benign outcome, possibly owing to difficulties in the property and banking sectors, remains a risk.

Chinese headline consumer price inflation moved down further in the first quarter, to an annual rate of 1½ percent. The sharp decline in recent quarters—from 6 percent in the third quarter of last year—is largely a result of food price increases subsiding as supply conditions improved. Assuming food prices flatten out as projected, inflation is expected to move back up to around 3 percent over the next three years.

Other Emerging Asia

Elsewhere in emerging Asia, we estimate that real GDP rebounded at an annual pace of 6½ percent in the first quarter after being flat in the fourth, as supply chains disrupted by flooding were largely restored. This increase is about ¾ percentage point faster than in our March Tealbook forecast. The Thai economy is recovering considerably more quickly than we had expected from last year's floods. In addition, first-quarter indicators of both external and domestic demand in the rest of the region also surprised on the upside. Industrial production strengthened and exports, especially to the United States, rose substantially in several economies. PMIs increased further into the expansion range in March. As the temporary boost from the restoration of supply chains fades away, we look for growth in the region to step down to around 4½ percent in the second half of this year before edging up to 5 percent in 2014.

We estimate that quarterly inflation in the region subsided to an annual rate of about 3 percent in the first quarter, as previous increases in food prices were reversed. As the trajectory of food prices flattens out, inflation should pick up to about 3¼ percent over the remainder of the forecast period.

Latin America

We estimate that real GDP growth in Mexico stepped up to 4 percent in the first quarter from a disappointingly weak pace of 1¾ percent in the fourth. The step-up in Mexican activity in the first quarter is in line with the sharp jump in U.S. manufacturing output. Exports improved through February, and the PMI increased in the first quarter. Looking forward, we see Mexican growth moderating to 3½ percent for the rest of this year and to 3 percent in 2013 before recovering somewhat in 2014, consistent with the projected path for the growth of U.S. manufacturing production.

For South America, we estimate economic growth edged up to an annual rate of 3¾ percent in the first quarter and project it to strengthen slightly further over the forecast period. In Brazil, it appears that real GDP accelerated to a 3¼ percent pace in the first quarter, as industrial production and retail sales rebounded. By 2013, Brazilian growth should firm to 4 percent, supported by accommodative monetary and fiscal policies as well as solid commodity exports.

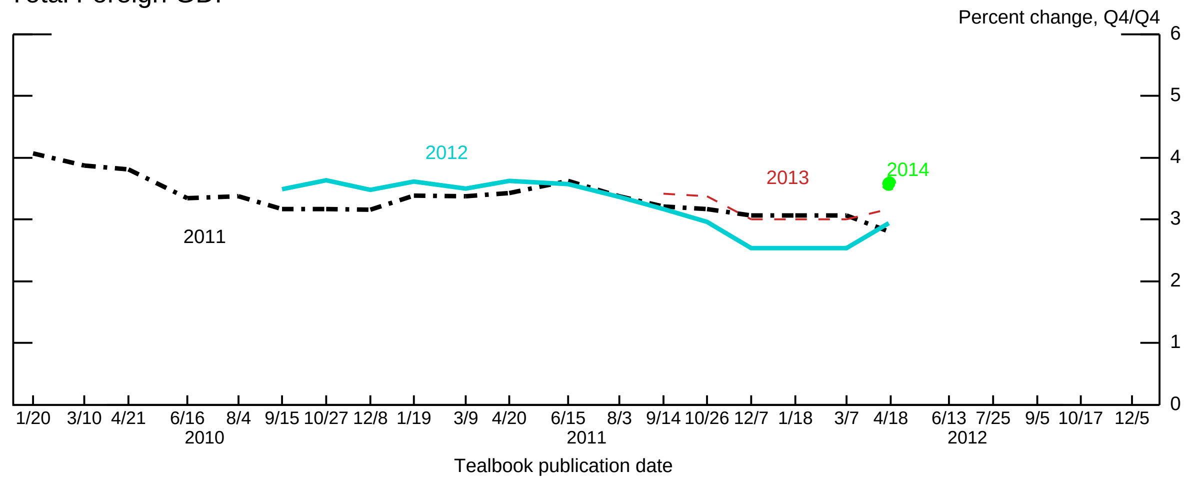
Inflation declined to a still-elevated annual rate of 4½ percent in the first quarter in Mexico, in part as food prices fell back after spiking earlier this year. We see inflation dipping down further in the current quarter before settling at about 3½ percent over the remainder of the forecast period, a bit below the upper bound of the central bank's target range.

In Brazil, inflation slowed to an annual rate of 4¼ percent in the first quarter, and we expect it to ease further to about 4 percent in the current quarter. With economic growth having stalled in the second half of last year, the central bank has been loosening policy since August. Most recently, in March, the central bank reduced its policy rate by 75 basis points to 9.75 percent and alluded to the possibility of further cuts. However, we project that Brazilian inflation will move back up as accommodative monetary policy supports an improvement in economic growth.

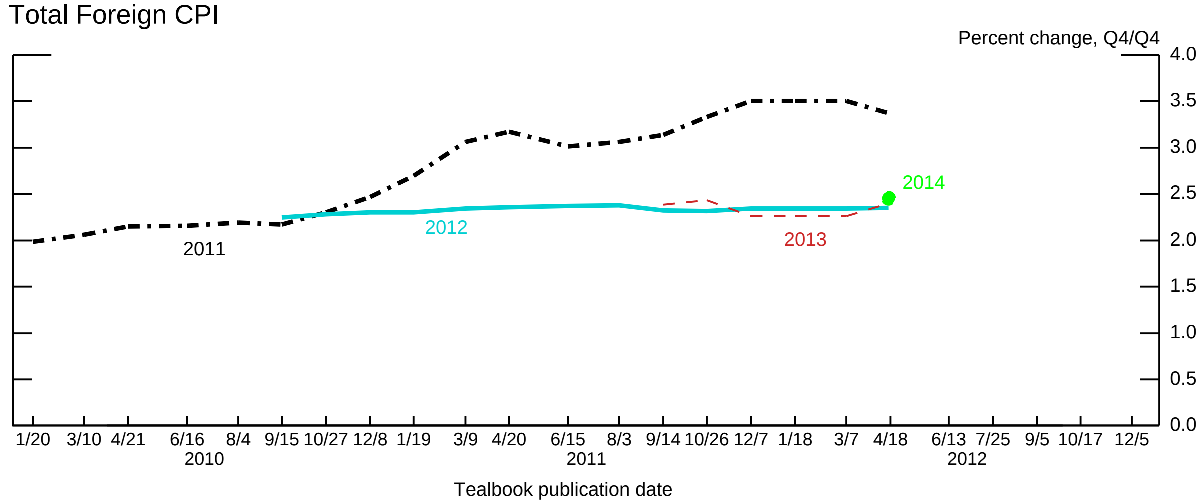
Int'l Econ Devel & Outlook

Evolution of Staff's International Forecast

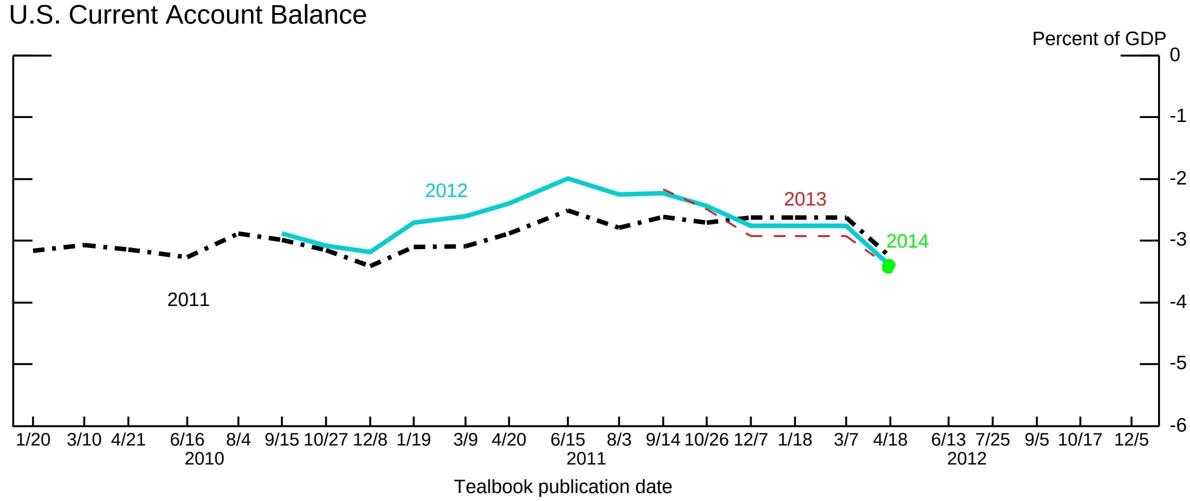
Total Foreign GDP



Total Foreign CPI



U.S. Current Account Balance



Financial Developments

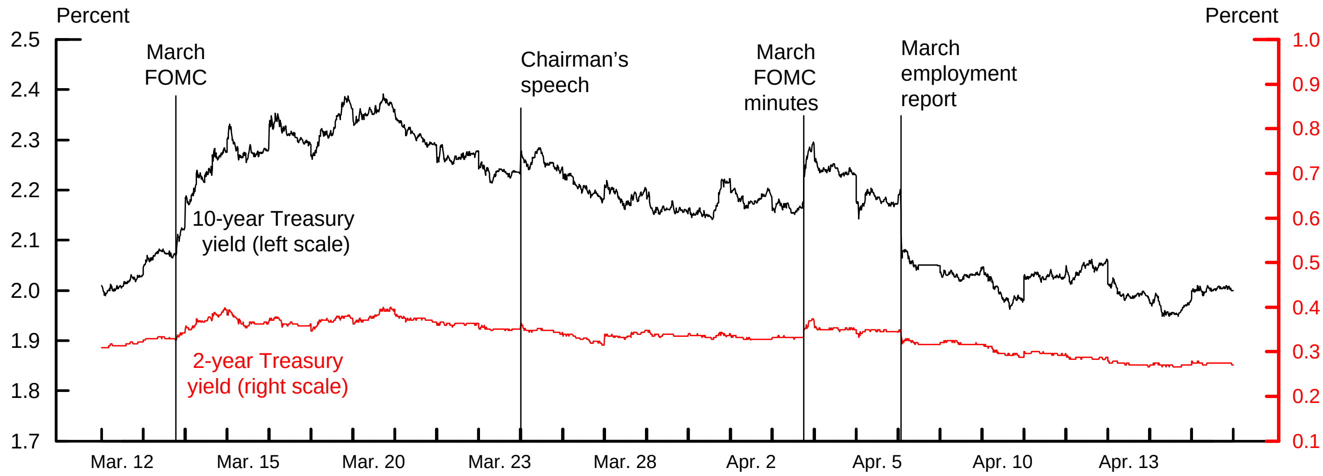
Broad financial market conditions were little changed, on balance, over the intermeeting period. Nonetheless, investors' economic and policy outlooks swung significantly during the period in response to official statements and incoming economic data. Early in the period, risk appetite seemed to improve following the March FOMC statement, the release of the results from the Comprehensive Capital Analysis and Review (CCAR), and other incoming information pointing to an improved economic outlook. Later in the period, however, market participants appeared to pull back from risk amid signs of increasing financial strains in Europe and as some foreign and U.S. economic data releases came in weaker than expected.

On balance, domestic asset prices were little changed. Policy expectations edged down, while Treasury yields were about flat. Broad indexes of U.S. equity prices ended the period at about the same levels as the day before the March FOMC meeting, and option-implied volatility on the S&P 500 index rose a little, although it remained near the low end of its recent range. Risk spreads on investment-grade corporate bonds were little changed, on net, while spreads on speculative-grade corporate bonds ended the period a bit higher. In contrast, broad indexes of foreign equity prices generally declined and yield spreads on Italian and Spanish sovereign debt to German bunds rose considerably. The broad nominal index of the foreign exchange value of the dollar was about unchanged on net. Conditions in short-term dollar funding markets were generally stable but showed some signs of deterioration later in the period.

Financing flows for financial and nonfinancial corporations remained solid, supported by continued strong corporate bond issuance and further gains in commercial and industrial (C&I) loans. In the household sector, nonrevolving consumer credit expanded briskly, while revolving credit contracted somewhat after posting a robust fourth-quarter increase. Mortgage refinancing activity remained subdued despite low mortgage rates. Nonetheless, responses to the April SLOOS indicated that, in the aggregate, modest net fractions of domestic banks eased their lending standards on core loans and experienced somewhat stronger demand for such loans in the first quarter of 2012, and moderate to large net fractions of institutions had eased many terms on C&I loans to firms of all sizes (see appendix).

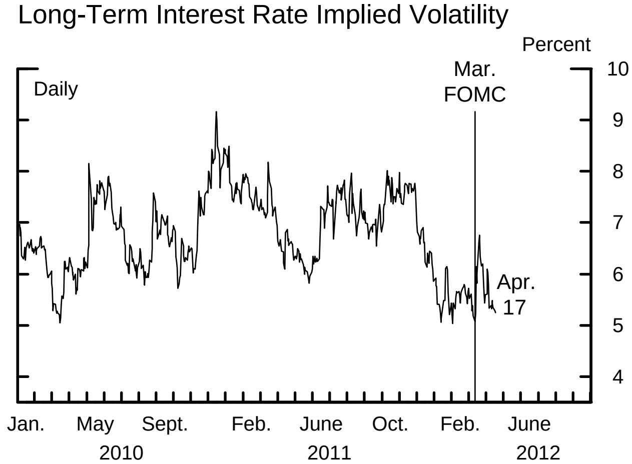
Policy Expectations and Treasury Yields

Selected Interest Rates



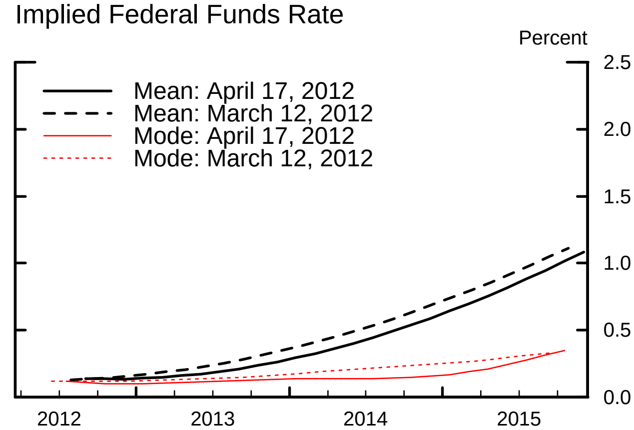
Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m. No adjustments for term premiums.
Source: Bloomberg.

Long-Term Interest Rate Implied Volatility



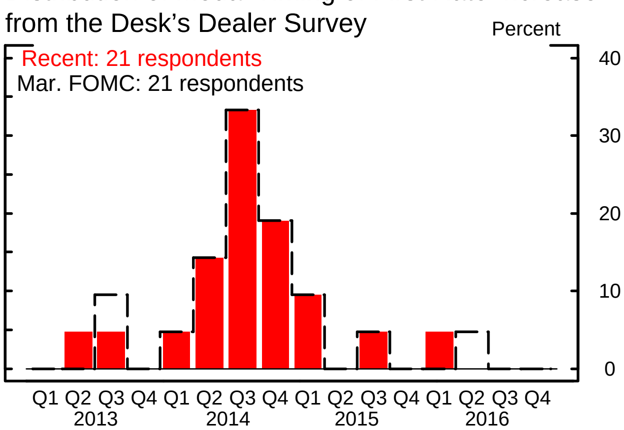
Note: Derived from options on 10-year Treasury note futures.
Source: Bloomberg.

Implied Federal Funds Rate



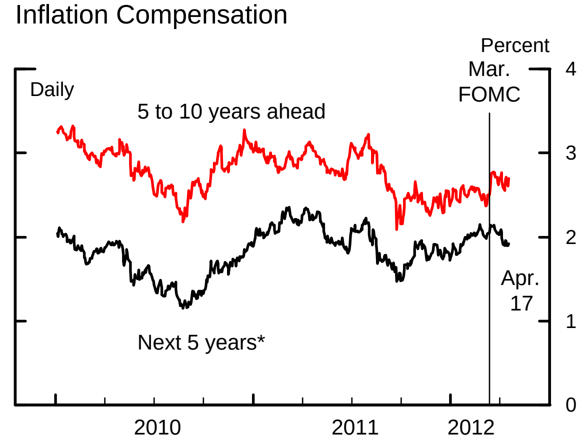
Note: Mean is estimated using overnight index swap quotes. Mode is estimated from the distribution of federal funds rate implied by interest rate caps. Both include a term premium of zero basis points per month.
Source: Bloomberg and CME Group.

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



Source: Desk's Dealer Survey from April 16, 2012.

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.

Financial Developments

POLICY EXPECTATIONS AND TREASURY YIELDS

Policy expectations edged down, while nominal Treasury yields ended the intermeeting period about unchanged, on net, despite some notable fluctuations within the period. The March FOMC statement prompted a modest rise in yields, reportedly as market participants perceived a more optimistic tone in the economic assessment than they had been expecting. Yields rose a bit further following the release of the CCAR results later that afternoon and continued to move higher overnight as investors digested the day's news. Investors seemed to read the FOMC minutes as suggesting a higher bar for additional balance sheet expansion than previously thought, prompting a notable increase in policy expectations and longer-term Treasury yields. However, interest rates dropped later in the period, as concerns about the European sovereign debt crisis and the outlook for global growth resurfaced following downbeat news about the Spanish fiscal situation and some soft economic data releases in the United States and abroad. In particular, the March employment report came in weaker than investors had expected, prompting a substantial decline in policy expectations and Treasury yields. Speeches by FOMC participants over the period were interpreted as displaying a wide range of views among Committee members regarding the outlook for monetary policy but appeared to have only a modest effect on market measures of policy expectations and Treasury yields on net.

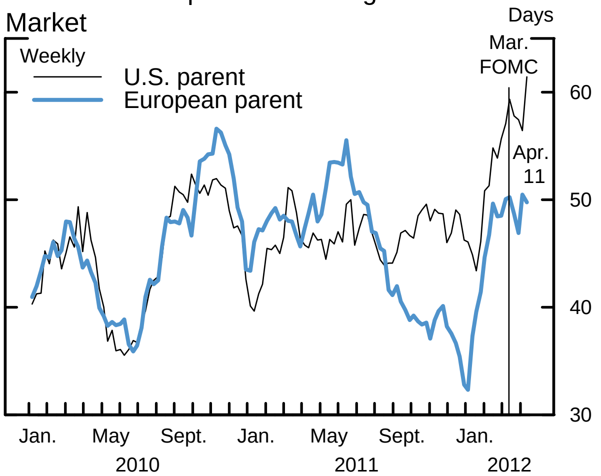
On balance, market-based readings on the expected policy path derived from OIS rates edged lower over the period and now suggested that the target federal funds rate will first rise above its current range in the fourth quarter of 2013, a quarter later than at the time of the March meeting. In contrast, the modal policy path—the most likely values for future federal funds rates based on risk-neutral distributions—derived from quotes on interest rate caps indicates that the current target range will prevail through mid-2015.[1]

Results from the Open Market Desk's primary dealer survey also showed little change in investors' policy expectations. Relative to the March survey, dealers left unchanged their median forecast for the target federal funds rate through the first half of 2016 and continued to view the third quarter of 2014 as the most likely time of the first increase in the federal funds rate. Dealers expected no major change in the language of

[1] The effective federal funds rate averaged 14 basis points over the intermeeting period, with the intraday standard deviation averaging about 4 basis points.

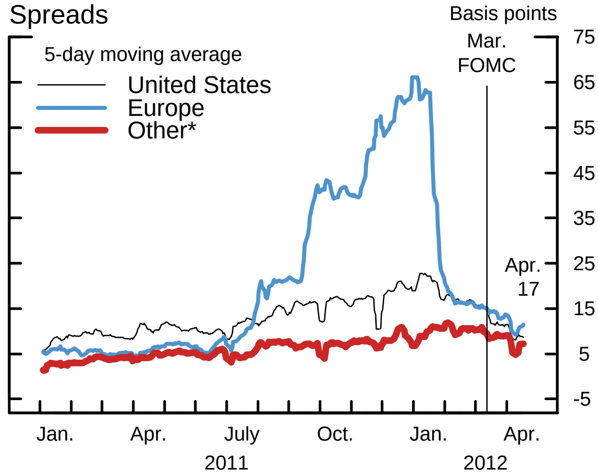
Short-Term Dollar Funding Markets and Financial Institutions

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



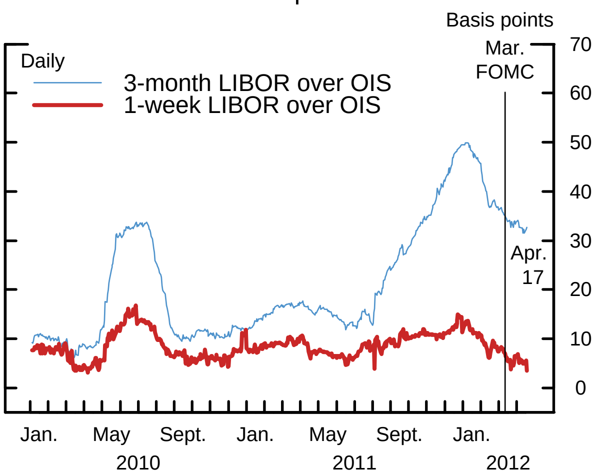
Source: Federal Reserve Board staff calculations based on data from the Depository Trust & Clearing Corporation.

Asset-Backed Commercial Paper Overnight Spreads



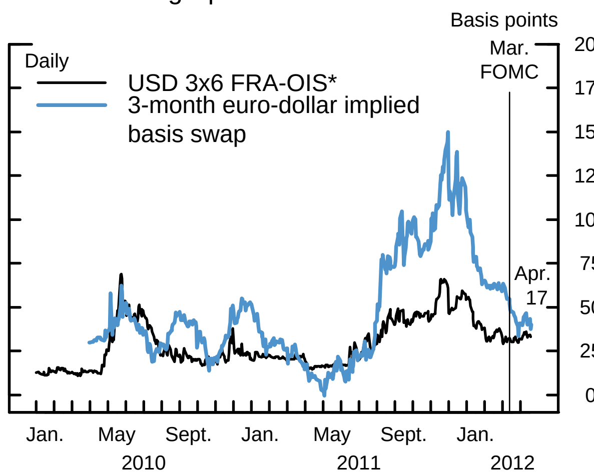
Note: Spreads computed over the AA nonfinancial unsecured rate.
*Other institutions include nonbanking institutions and banks domiciled outside Europe and the United States.

Selected Interest Rate Spreads



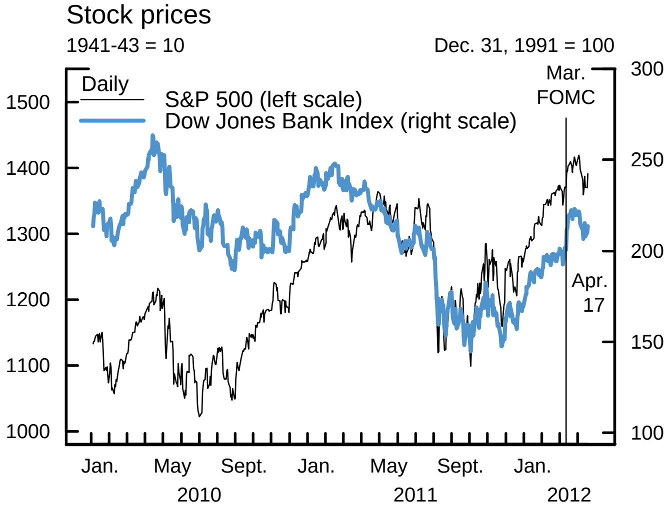
Source: Bloomberg.

Dollar Funding Spreads



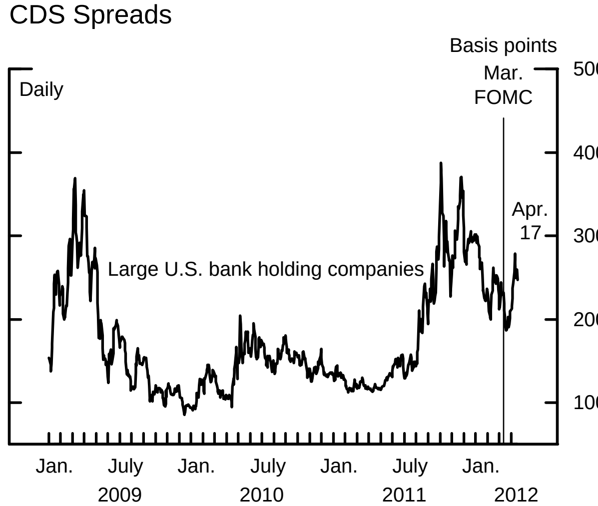
*Spread is calculated from a LIBOR forward rate agreement (FRA) 3 to 6 months in the future and the implied forward overnight index swap (OIS) rate for the same period.
Source: Bloomberg; Federal Reserve Bank of New York.

Stock prices



Source: Bloomberg.

CDS Spreads



Source: Markit.

Financial Developments

the FOMC statement at the April meeting except possibly an acknowledgment that the pace of labor market improvement has slowed and tensions in European markets picked up a bit. In response to questions about possible future options for easing, participants assigned a slightly lower probability to additional securities purchases or changes in balance sheet guidance and a slightly higher probability to a lengthening of the duration of the SOMA portfolio within the next two years. Dealers largely maintained their forecasts for real GDP growth and core and headline PCE inflation in the next three years.

Treasury yields also edged down, remaining near the bottom end of their historical range. (See the box "What Explains the Current Low Level of the 10-Year Treasury Term Premium?") The Desk's outright purchases and sales of Treasury securities under the maturity extension program proceeded as planned and did not appear to have any material adverse effect on Treasury market functioning.[2]

TIPS-based inflation compensation over the next five years declined 13 basis points, likely reflecting in part some recent stabilization in commodity prices. The TIPS-based five-year forward measure increased 20 basis points on net; however, swaps-based forward measures of inflation compensation indicate a much smaller increase. Inflation uncertainty as measured by caps-implied volatility was about unchanged and remained near the middle of its range over the past three years. (See the box "Inflation Probability Distributions Implied by Inflation Caps.")

SHORT-TERM DOLLAR FUNDING MARKETS AND FINANCIAL INSTITUTIONS

Conditions in short-term dollar funding markets were stable over most of the intermeeting period despite some recent concerns about Europe. The spread between the rates implied by the three-month forward rate agreement and the OIS rate three to six months ahead ticked up late in the period but remained well below levels seen in late 2011. Spreads of one-month and three-month dollar LIBOR over OIS rates ended the period about flat on balance. The total outstanding amount on the Federal Reserve's dollar liquidity swap lines declined to $32 billion in mid-April, down from $65 billion at

[2] The Federal Reserve purchased $56 billion and sold $44 billion of Treasury securities over the intermeeting period under the maturity extension program; the average maturity of SOMA Treasury holdings has lengthened by about 1¼ years since the beginning of the program. In addition, the Federal Reserve reinvested $35 billion in agency MBS from principal payments from its holdings of agency securities.

What Explains the Current Low Level of the 10-Year Treasury Term Premium?

Estimates of the 10-year Treasury term premium from the staff's standard term structure model declined substantially from June 2011 through December 2011 and then increased modestly and are currently at a historically low level.[1] These changes in the estimates can be attributed to various factors, including safe-haven demand resulting from the European crisis, the maturity extension program, and other economic variables. To examine the importance of these factors, the estimated 10-year term premium is regressed on a set of macro and financial variables. On balance, this analysis attributes most of the decline in the term premium from June 2011 to March 2012 to a reduction in uncertainty about future interest rates, the Federal Reserve's nonconventional monetary policy, and investor concerns about the European debt situation.

The list of independent variables in the regression analysis includes interest rate uncertainty (as measured by implied volatilities from near-term options on 10-year Treasury note futures), capacity utilization (to capture the cyclicality of the term premium), and foreign custody holdings of Treasury securities at the FRBNY as a percentage of nominal GDP (to capture the relatively inelastic demand for Treasury securities from foreign official institutions).[2] In addition, the list includes both the S&P 500 implied volatility and the 30-day rolling correlation between S&P 500 returns and changes in the 10-year Treasury rate to capture the safe-haven demand for Treasury securities resulting from domestic equity market volatility. To capture the effects of total Treasury supply and SOMA holdings on term premiums, we include the amounts of Treasury securities outstanding and SOMA-held Treasury securities, both measured in 10-year equivalents, as a percentage of nominal GDP.[3] Finally, the average spread of Spanish and Italian 10-year sovereign yields over German 10-year sovereign yields is included as a proxy for euro-zone worries.[4]

[1] See Don H. Kim and Jonathan H. Wright (2005), "An Arbitrage-Free Three-Factor Term Structure Model and the Recent Behavior of Long-Term Yields and Distant-Horizon Forward Rates," Finance and Economics Discussion Series 2005-33 (Washington: Board of Governors of the Federal Reserve System, August).

[2] See Glenn D. Rudebusch, Brian P. Sack, and Eric T. Swanson (2007), "Macroeconomic Implications of Changes in the Term Premium," Federal Reserve Bank of St. Louis *Review*, vol. 89, July/August, pp. 241–70.

[3] We did not include SOMA-held agency MBS securities as an additional independent variable because its sample is too short as SOMA held no agency MBS securities before December 2008.

[4] To isolate the effect of euro zone worries, the model uses the residuals from an auxiliary regression of the proxy variable on foreign custody holdings, SOMA Treasury holdings, and total Treasury securities outstanding as the orthogonalized euro zone worries variable.

The results of this regression are reported in the second column of the table below. All parameter estimates are statistically significant and have the expected signs. The third column in the table uses the model estimates to decompose the change in the term premium over the period from June 2011 to March 2012. Out of a total decrease of about 75 basis points in the estimated term premium over this period, about 20 basis points can be attributed to lower interest rate uncertainty, about 20 basis points to the change in SOMA Treasury holdings, and about 20 basis points to concerns about the European crisis. The fit of the model is better for the period from June 2011 through December 2011, and it attributes a larger portion of the decline in the term premium over this period to rising worries about the European situation. However, the regression predicts a sharper rise in the term premium as those worries eased this year than is estimated to have occurred.

Parameter Estimates and Decomposition of Changes in the 10-Year Term Premium

	Parameter estimates		Total change of the 10-Year term premium (basis points)
			June 2011 To March 2012
			-76
			Explained by
Constant	4.04	(5.18)	
Interest rate uncertainty	.12	(6.48)	-22
Capacity utilization	-.05	(-5.22)	-7
Foreign official purchases	-.11	(-9.18)	4
Equity implied volatility	-.01	(-2.09)	0
Corr. between equity and 10-y rate	-.34	(-4.76)	10
SOMA holdings	-.13	(-3.29)	-22
Euro-zone worries	-.45	(-4.94)	-21
Treasury securities outstanding	.06	(5.38)	25
	Adjusted R^2		Total change explained by the model
	.70		-34

Note: The models are estimated on monthly data from January 1998 to March 2012. T-statistics are shown in parentheses.

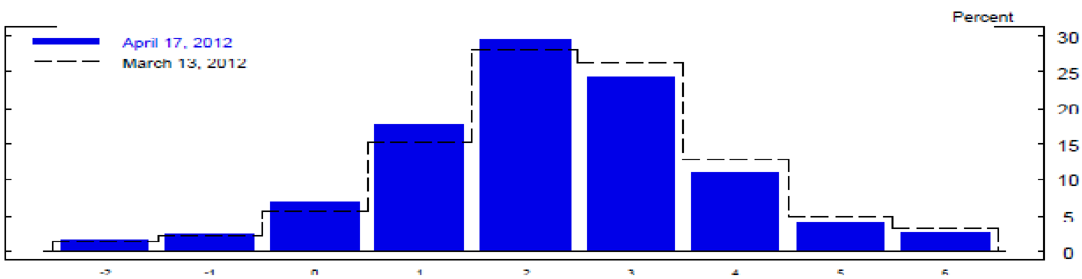
Financial Developments

Inflation Probability Distributions Implied by Inflation Caps

Inflation caps and floors are option-like securities with payoffs tied to the rate of realized headline CPI inflation measured at various horizons. A zero-coupon inflation cap (floor) delivers a nonzero payoff if the rate of cumulative inflation at the time of maturity is above (below) the strike rate. The market for inflation caps started around 2007; it remains small compared with the TIPS market, but market participants indicate that the inflation caps market has been growing rapidly in recent years.[1]

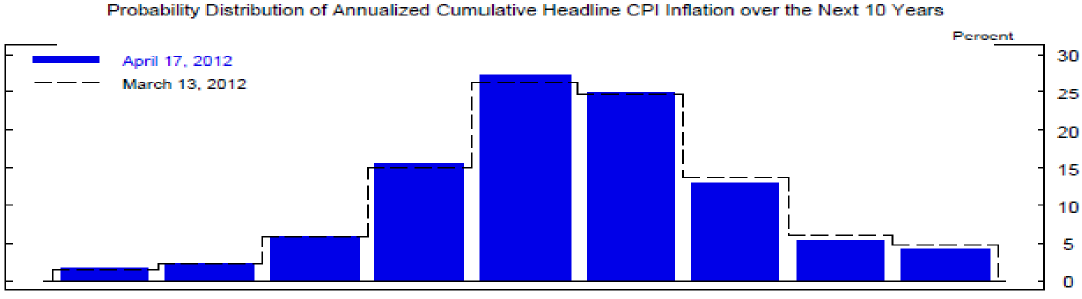
The staff uses a nonparametric methodology to derive a risk-neutral distribution of future inflation based on caps with a range of strikes.[2] The two panels in the figure below show the estimated risk-neutral probability distributions of annualized cumulative inflation over the next 5 and 10 years, respectively, for the most recent date (solid bars) and the day before the March FOMC meeting (dashed lines).[3] Some of the probability mass in the right tail of the distribution for inflation over the next 5 years shifted notably to the left over the intermeeting period, consistent with lower readings of inflation compensation from TIPS and inflation swaps. In comparison, the risk-neutral distribution over the next 10 years remains largely unchanged.

Probability Distribution of Annualized Cumulative Headline CPI Inflation over the Next 5 Years



Source: Federal Reserve Board's staff estimates.

Probability Distribution of Annualized Cumulative Headline CPI Inflation over the Next 10 Years



Source: Federal Reserve Board's staff estimates.

[1] The most actively traded floors are currently those at a 0 percent strike, while the most actively traded caps are currently those with a 5 percent strike rate.

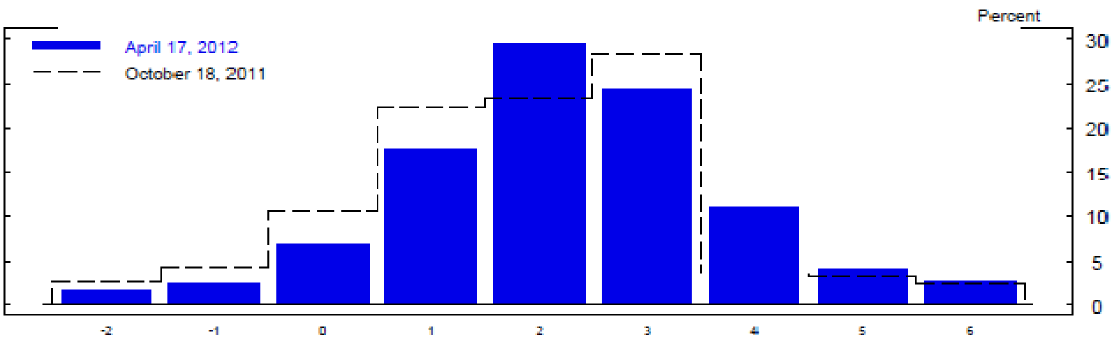
[2] See Yuriy Kitsul (2012), "Inflation Probability Density Functions and Probabilities of Deflation Implied by Inflation Caps," memorandum, Board of Governors of the Federal Reserve System, Division of Monetary Affairs, February 27.

[3] Risk-neutral distributions embed investors' risk aversion as well as underlying uncertainty surrounding the inflation outlook.

The two panels in the figure below show changes in the same risk-neutral probability distributions over a six-month period from October 18, 2011 (dashed lines), to April 17, 2012 (solid bars). Over the next 5 years, the implied distributions suggest a shift in the probability mass away from low inflation outcomes toward inflation outcomes between 2 and 4 percent. Presumably, this shift reflects the gradual improvement in the U.S. economic outlook and the recent run-up in energy prices. Over the next 10 years, the probability mass from the left tail of the distribution has shifted toward the center of the distribution.

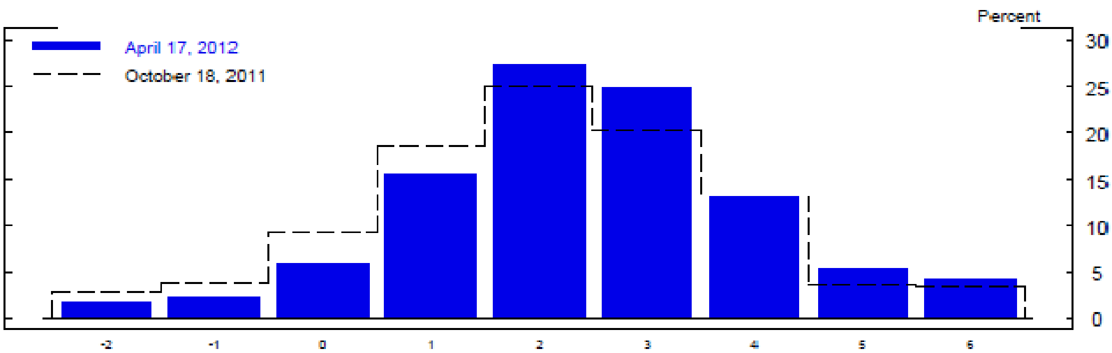
In summary, quotes on inflation caps and floors provide useful information about changes in the perceived distributon of future inflation. The staff will continue to monitor those instruments in addition to TIPS and inflation swaps in gauging inflation expectations and market assessments of inflation risks.

Probability Distribution of Annualized Cumulative Headline CPI Inflation over the Next 5 Years



Source: Federal Reserve Board's staff estimates.

Probability Distribution of Annualized Cumulative Headline CPI Inflation over the Next 10 Years



Source: Federal Reserve Board's staff estimates.

Financial Developments

the time of the March FOMC meeting; demand for dollars fell at the lending operations of both the European Central Bank and the Bank of Japan. In addition, the average maturity of unsecured financial commercial paper outstanding was about unchanged for institutions with European parents and slightly higher for institutions with U.S. parents. For both types of institutions, average maturities remained above recent historical averages.

In secured funding markets, general collateral repo rates generally remained slightly elevated, reportedly reflecting increased funding demand from dealers in the face of heavy seasonal issuance of Treasury bills and continued sales of short-term securities by the Federal Reserve. Spreads on overnight asset-backed commercial paper over rates on AA-rated nonfinancial paper were unchanged to slightly lower, and the level of those spreads remained similar for U.S. and European institutions.

Over the intermeeting period, equity prices of U.S. financial institutions outperformed broader stock market indexes, boosted in part by the CCAR results, as investors reportedly viewed the stressed capital ratios of some institutions as being higher than expected and in some cases found the payouts to shareholders to be greater than expected. First-quarter earnings at several large banking organizations also appeared to come in somewhat above expectations, on balance, partly reflecting improvements in mortgage banking revenue. CDS spreads for the largest domestic bank holding companies narrowed following the CCAR announcement. However, these spreads subsequently retraced when broader market sentiment appeared to turn more negative, and ended the period slightly wider on net. Bond issuance by financial firms picked up further in March from its strong pace in the previous two months, as issuers took advantage of the improved market sentiment following the CCAR.

On April 3, Moody's Investors Service downgraded the credit rating of GE Capital's senior unsecured debt to A1. The downgrade resulted from the implementation of a revised global rating methodology for financial institutions that attributes a higher risk profile to market-funded financial institutions. The firm's CDS spreads have widened moderately since the downgrade, in line with those of other large financial institutions. While the possibility of additional ratings downgrades for financial institutions remains in the near term, the effect on market sentiment appeared to be limited.

FOREIGN DEVELOPMENTS

Financial strains within the euro area increased over the period. Sovereign spreads in Spain and Italy moved notably higher, European bank equity indexes dropped sharply, and CDS premiums on Spanish banks surged. Partly as a result, headline foreign equity indexes declined and corporate credit spreads widened.

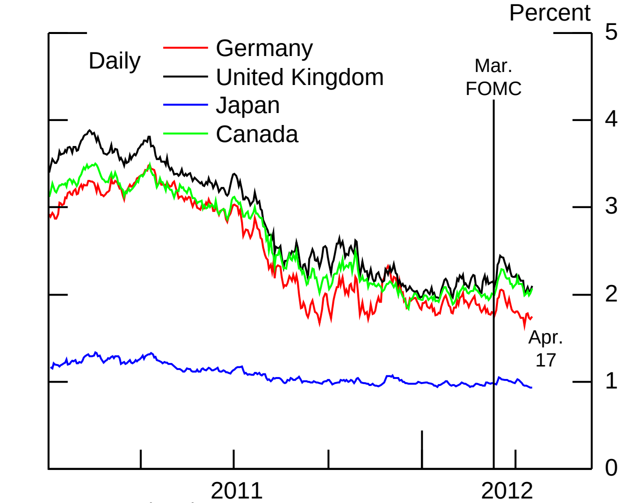
Amid some volatility, yields on benchmark sovereign bonds for Germany, Japan, and the United Kingdom ended the period roughly unchanged, and foreign headline equity indexes declined 2 to 6 percent. Both benchmark yields and equities decreased late in the period in reaction to weaker-than-expected euro-area macroeconomic data and the U.S. employment report as well as to signs that financial pressures in the euro area were increasing.

After falling steadily since late last year, sovereign spreads of Italian and Spanish debt over comparable-maturity German bunds have risen sharply since the March FOMC meeting. These spreads rose partly in response to news that Spain would miss its fiscal target for this year and would need to make further budget cuts, as well as to renewed concerns about the prospects for Spanish banks. Although funding pressures in the euro interbank market continued to abate over the period, with the three-month euro LIBOR–OIS spread narrowing to about 30 basis points, euro-area bank stocks plummeted by over 14 percent, driven by sharp declines in the share prices of Spanish and Italian banks. In addition, five-year bank CDS premiums rose across the euro area; CDS premiums for Spanish banks increased sharply and reached levels close to the peaks seen last year. Despite a successful debt restructuring and a new aid package for Greece, the yield on Greece's new post-restructuring, 10-year bond is above 21 percent, close to levels seen last September.

The staff's broad nominal dollar index is about unchanged over the intermeeting period, as the dollar appreciated against most emerging market currencies but depreciated moderately against the yen and sterling. Although the dollar was little changed against the euro, the Swiss franc strengthened against the euro in response to the heightening of concerns regarding the euro area and very briefly breached the Swiss National Bank's stated ceiling for the franc against the euro, prompting the central bank to reiterate that it was prepared to prevent the franc from trading beyond that level.

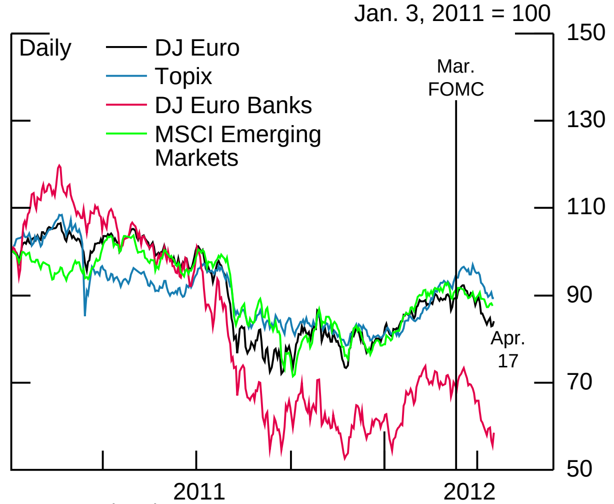
Foreign Developments

10-Year Nominal Benchmark Yields



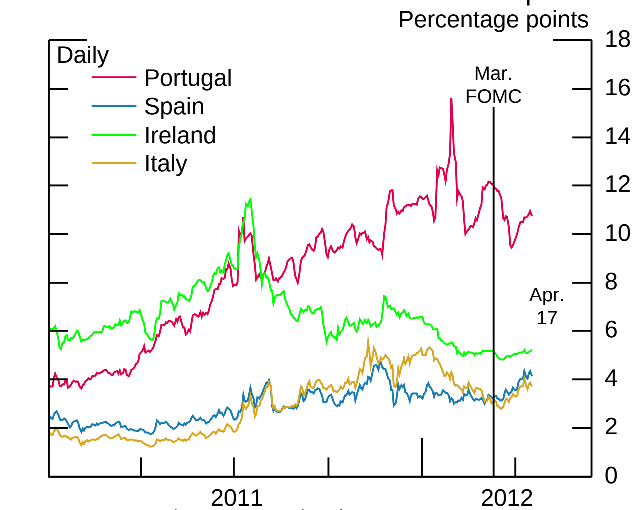
Source: Bloomberg.

Stock Price Indexes



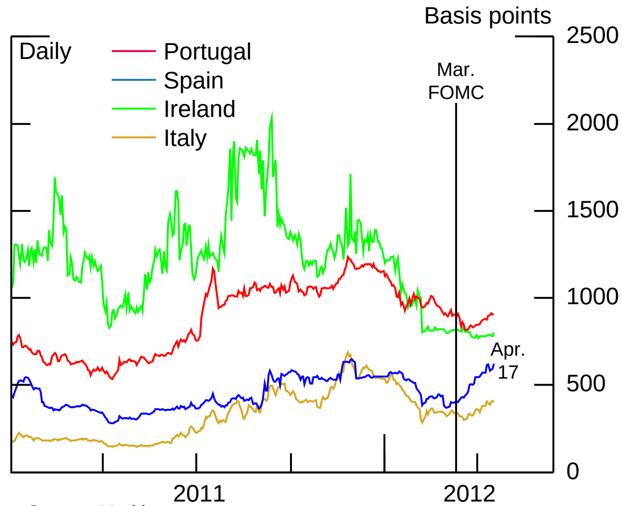
Source: Bloomberg.

Euro-Area 10-Year Government Bond Spreads



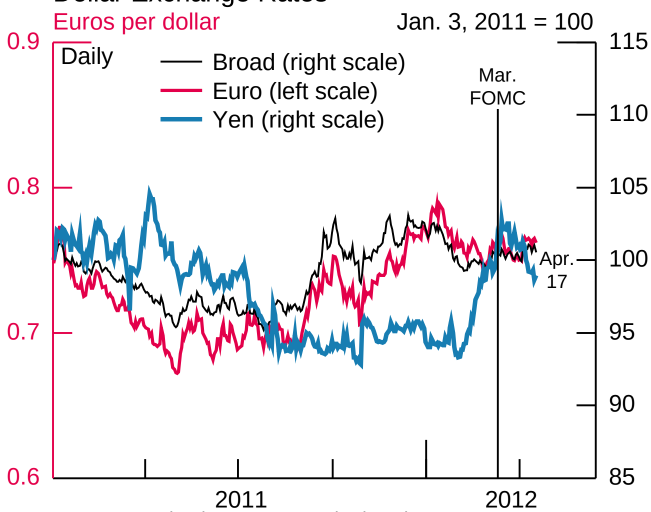
Note: Spread over German bunds.
Source: Bloomberg.

Median Bank CDS Premiums



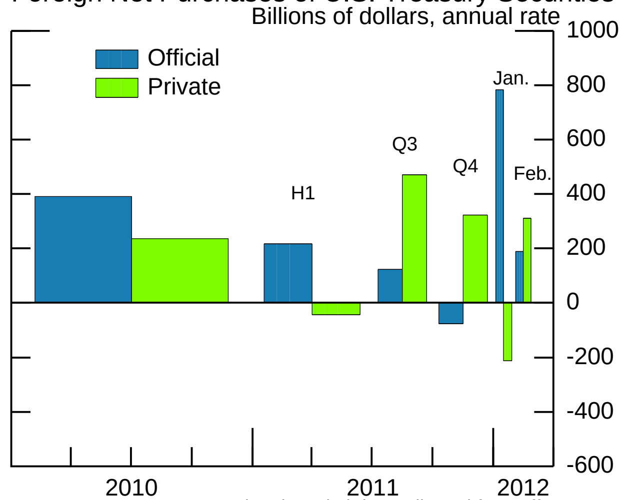
Source: Markit.

Dollar Exchange Rates



Source: Federal Reserve Board; Bloomberg.

Foreign Net Purchases of U.S. Treasury Securities



Source: Treasury International Capital data adjusted for staff estimates.

The People's Bank of China increased the width of its daily trading band of the renminbi to plus or minus 1 percent from ½ percent. However, because the Chinese authorities routinely intervene in the foreign exchange market and also reset the central parity for the renminbi every day, this move does not necessarily imply a change in the pace of appreciation. As part of its gradual efforts to internationalize its currency and liberalize its markets, China allowed the government of Japan to buy Chinese government debt, signed a currency swap agreement with the Reserve Bank of Australia, permitted greater foreign purchases of Chinese securities, and relaxed restrictions on short sales of foreign currency.

Foreign official investors purchased a sizable amount of U.S. Treasury securities in January and made additional purchases in February. Acquisitions were widespread across countries and reflected in part a return to reserve accumulation by emerging market economies in the first quarter. FRBNY custody data for March show further moderate increases in official holdings of Treasury securities. TIC data for January and February are consistent with some improvement in risk appetite among private investors during those two months. Foreign private investors, on net, bought Treasury securities over this period, although these purchases were well below the level of "flight to safety" purchases in the fourth quarter. They returned to purchasing U.S. equities, although the purchases were small. U.S. private investors purchased foreign equities in both January and February.

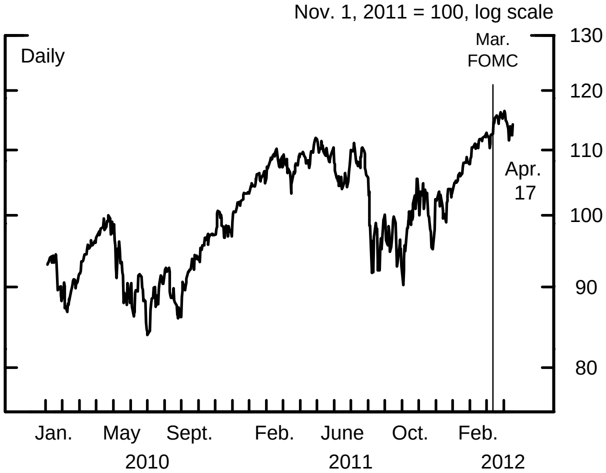
Other Domestic Asset Market Developments

Broad equity price indexes fluctuated with investors' risk sentiment but ended the intermeeting period little changed. Option-implied volatility on the S&P 500 index rose a bit, on net, but stayed near the lower end of its range over the past five years. 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 gauge of the equity premium—remained very wide by historical standards.

Aggregate operating earnings per share for firms in the S&P 500 index declined 4 percent in the fourth quarter on a quarterly basis, with both the financial and nonfinancial sectors moving down. However, results from the few firms that have posted earnings reports for the first quarter, together with Wall Street analysts' forecasts for the remaining firms, suggest a resumption of moderately positive quarterly growth for EPS in

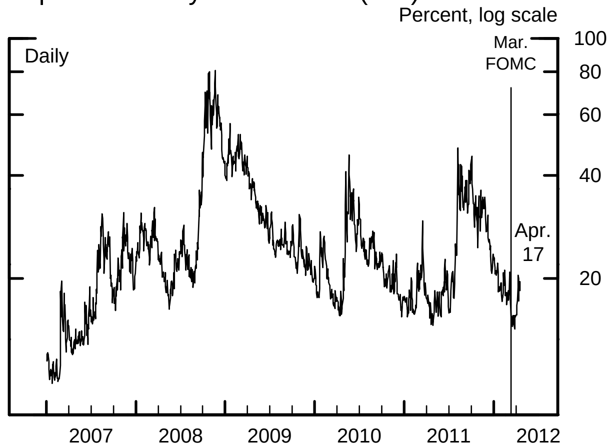
Other Domestic Asset Market Developments

S&P 500 Stock Price Index



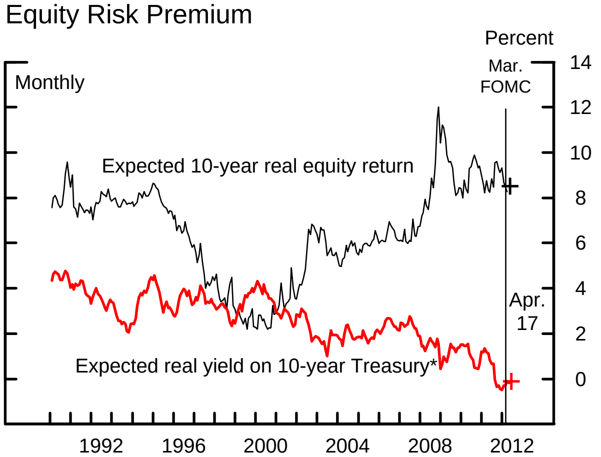
Source: Bloomberg.

Implied Volatility on S&P 500 (VIX)



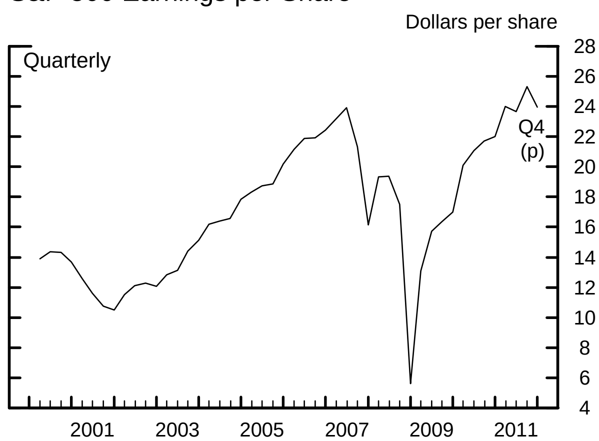
Source: Chicago Board Options Exchange.

Equity Risk Premium



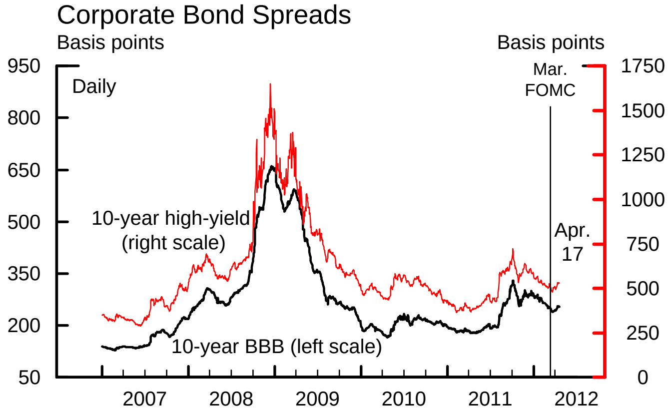
* Off-the-run 10-year Treasury yield less Philadelphia Fed 10-year expected inflation.
+ Denotes the latest observation using daily interest rates and stock prices and latest earnings data.
Source: Thomson Financial.

S&P 500 Earnings per Share



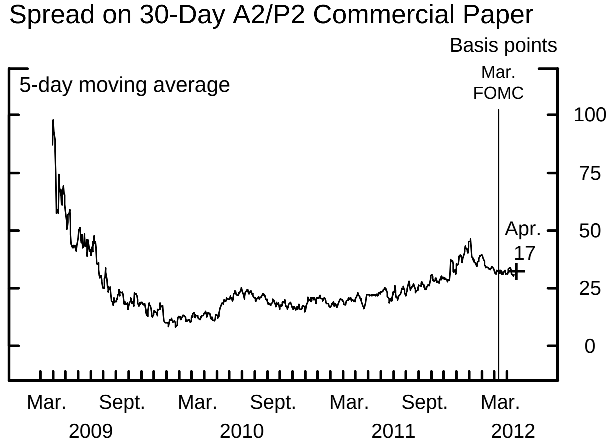
Note: Data are seasonally adjusted by staff.
p Preliminary.
Source: Thomson Financial.

Corporate Bond Spreads



Note: Measured relative to a smoothed nominal off-the-run Treasury yield curve.
Source: Merrill Lynch and staff estimates.

Spread on 30-Day A2/P2 Commercial Paper



Note: The A2/P2 spread is the A2/P2 nonfinancial rate minus the AA nonfinancial rate.
+ Denotes the latest available single-day observation.
Source: Depository Trust & Clearing Corporation.

Financial Developments

the first quarter. Looking forward, an index of revisions to analysts' forecasts of year-ahead earnings for S&P 500 firms is estimated to have registered roughly zero in March and April, suggesting that the spate of negative revisions that occurred last fall and winter has eased.

Yields and spreads on investment-grade corporate bonds changed little over the intermeeting period, while yields and spreads on speculative-grade corporate bonds increased some on balance. Although yields on corporate bonds are low by historical standards, staff models indicate that the risk premium component remains relatively wide, suggesting that investors continued to be somewhat wary of corporate credit risk. The spreads of yields on A2/P2 unsecured CP issued by nonfinancial firms over yields on highly rated nonfinancial issues were about flat, on net, over the intermeeting period.

Business Finance

Nonfinancial firms continued to raise funds at a strong pace over the intermeeting period. Bond issuance by both investment- and speculative-grade nonfinancial firms was robust in the first quarter, as was the growth in C&I loans at commercial banks. By contrast, the volume of nonfinancial commercial paper outstanding was little changed on net. Leveraged loan issuance was strong in the first quarter, reportedly supported by demand for assets from newly issued collateralized loan obligations (CLOs) as well as pension funds and other institutional investors. Indeed, first-quarter CLO issuance, estimated at about $6 billion, was large by recent standards (a total of only $13 billion in CLOs was issued in all of 2011). Secondary-market syndicated loan prices were about unchanged over the intermeeting period.

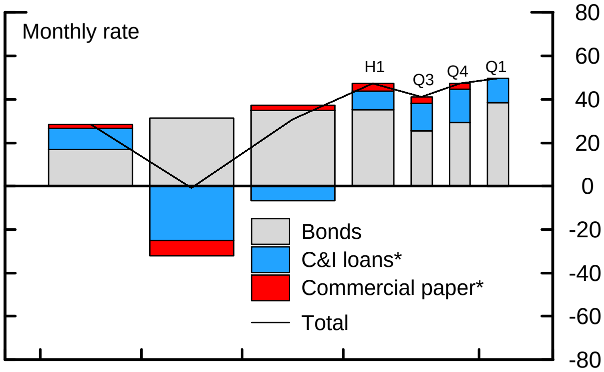
Gross public equity issuance by nonfinancial firms in March also stayed strong. Lagging data indicate that share repurchases and cash-financed mergers by nonfinancial firms remained robust in the fourth quarter, leaving net equity issuance deeply negative. Announcements of mergers and of new share repurchase programs suggest that equity retirements were strong again in the first quarter.

Available indicators of the credit quality of nonfinancial corporations continued to be quite solid. The aggregate ratio of debt to assets is estimated to have been stable at a relatively low level in the fourth quarter, as proceeds from firms' heavy bond issuance have been used, in large part, to refinance other debt, and the liquid asset ratio remained

Business Finance

Selected Components of Net Debt Financing, Nonfinancial Firms

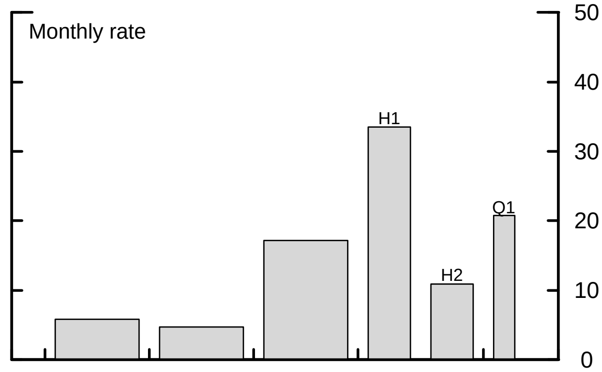
Billions of dollars



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

Gross Issuance of Institutional Leveraged Loans

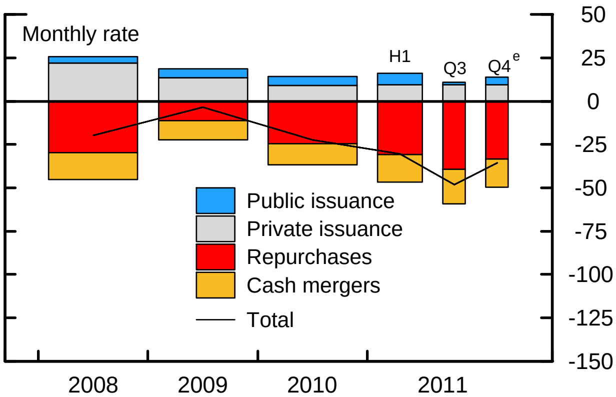
Billions of dollars



Source: Reuters Loan Pricing Corporation.

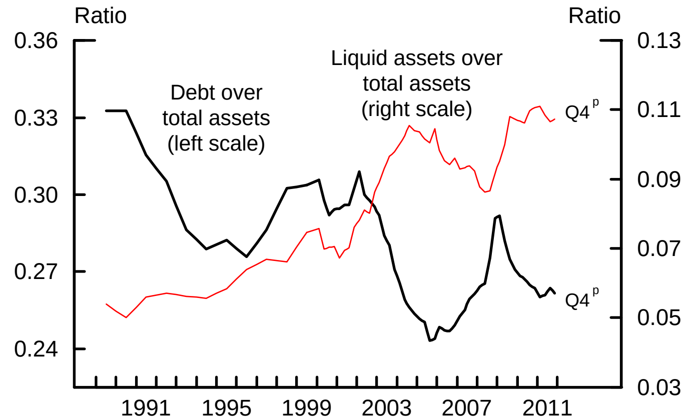
Selected Components of Net Equity Issuance, Nonfinancial Firms

Billions of dollars



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

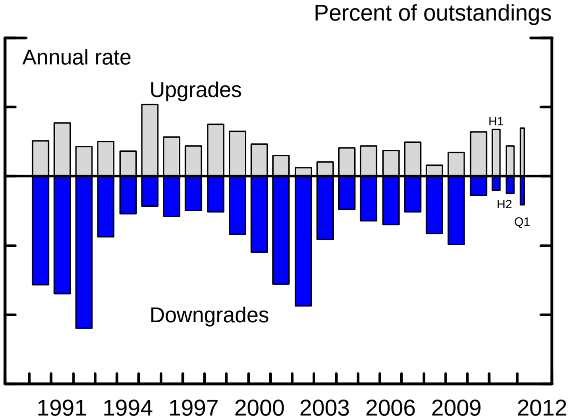
Financial Ratios for Nonfinancial Corporations



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

Bond Ratings Changes of Nonfinancial Firms

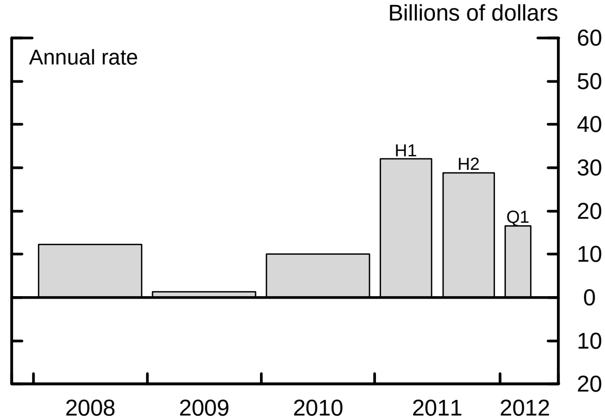
Percent of outstandings



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

CMBS Issuance

Billions of dollars



Source: Commercial Mortgage Alert.

Financial Developments

near its highest level in more than 20 years. Over the first quarter, the pace at which Moody's upgraded nonfinancial corporate bonds exceeded that of downgrades. The six-month trailing bond default rate for nonfinancial firms remained low in February and March, and the C&I loan delinquency rate fell again in the fourth quarter. The expected year-ahead default rate for nonfinancial firms from the Moody's KMV model was unchanged in March.

In contrast, financial conditions in the commercial real estate (CRE) sector remained strained amid weak fundamentals and tight underwriting conditions. Prices for CRE properties continued to fluctuate at low levels, while vacancy rates and delinquency rates remained elevated. CMBS issuance in the first quarter of 2012 is below that of the first quarter of last year. CMBS delinquency rates ticked up again in March, as borrowers struggled to refinance much of the approximately $33 billion in maturing five-year loans that were originated at the peak of CRE prices in 2007. The announcement of possible sales of Maiden Lane III assets on April 3 may also have weighed on CMBS markets, as spreads on AAA tranches, which had narrowed since the start of the year, widened notably following the announcement. That said, according to the April SLOOS, a modest net fraction of domestic banks reported having eased standards on CRE loans, and a significant net fraction experienced increased demand in such loans.

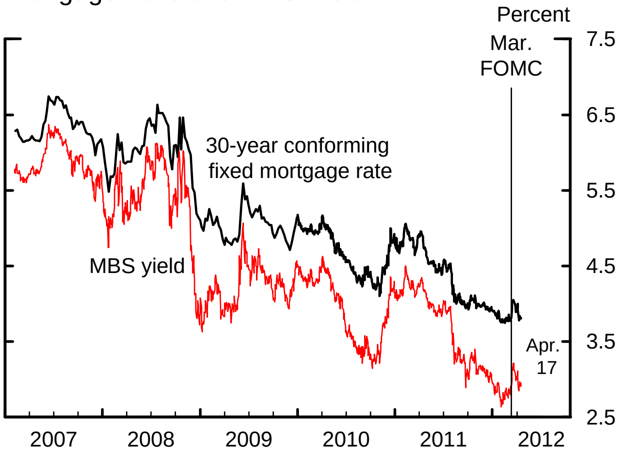
Household Finance

Although mortgage rates remained near their historical lows, conditions in residential mortgage markets continue to be weak. Mortgage delinquencies stayed elevated despite some reduction in the rate at which mortgages are entering delinquency for the first time. House prices ticked up again in February but remained 2 percent lower than their year-earlier level. Tight lending standards and low levels of home equity continued to hold back refinancing activity.

By contrast, consumer credit has grown at a solid pace, on balance, in recent months. Nonrevolving credit has expanded briskly of late, in large part because of strength in student loans, which are now almost entirely originated by the federal government. Revolving credit contracted somewhat of late after posting robust gains in the fourth quarter, in part because nonprime borrowers have continued to face tight underwriting standards for credit cards. Delinquency rates for consumer credit remained

Household Finance

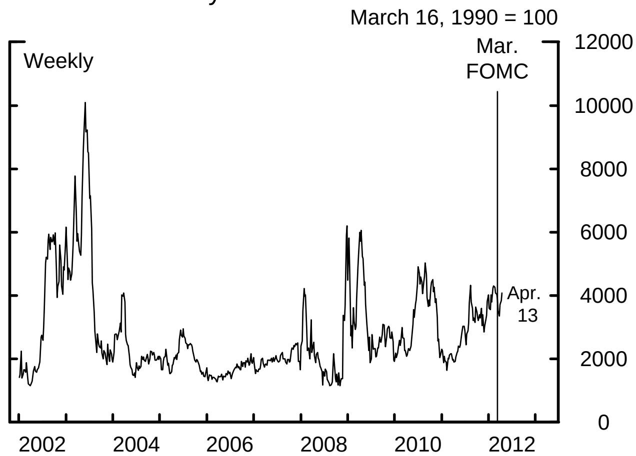
Mortgage Rate and MBS Yield



Note: For mortgage-backed securities (MBS) yield, the data are daily and consist of the Fannie Mae 30-year current-coupon rate; for mortgage rate, the data are weekly before 2010 and daily thereafter.

Source: For MBS yield, Barclays; for mortgage rate, Freddie Mac (before 2010) and Loansifter (after 2010).

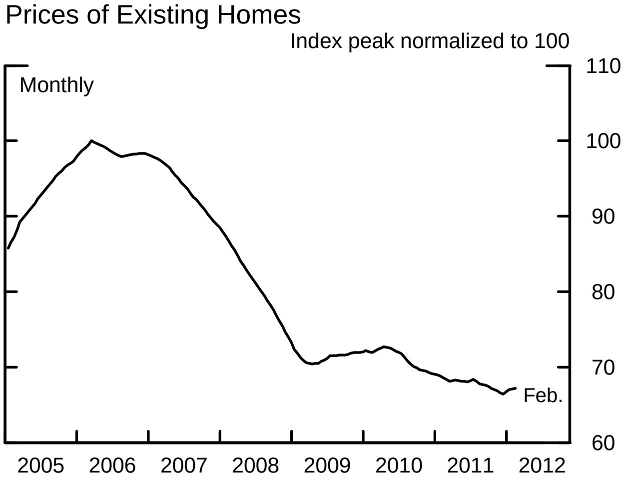
Refinance Activity



Note: Seasonally adjusted by FRB staff.

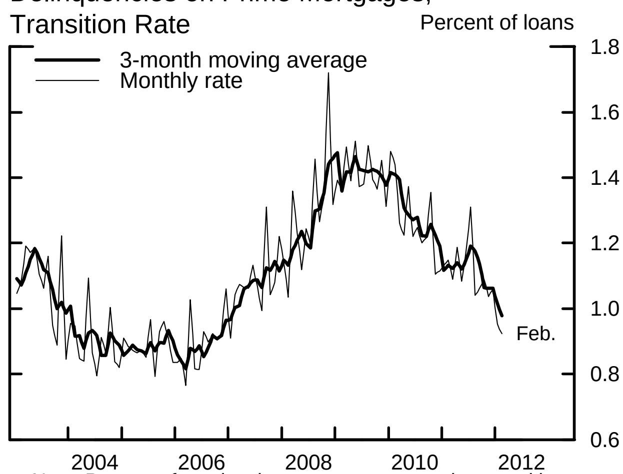
Source: Mortgage Bankers Association.

Prices of Existing Homes



Source: CoreLogic.

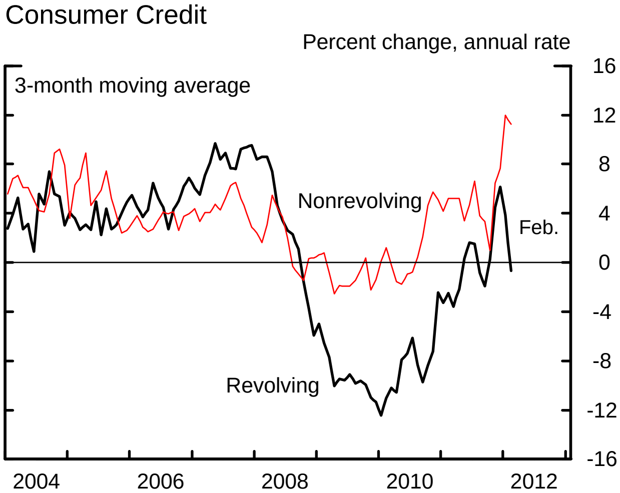
Delinquencies on Prime Mortgages, Transition Rate



Note: Percent of previously current mortgages that transition to being at least 30 days delinquent each month.

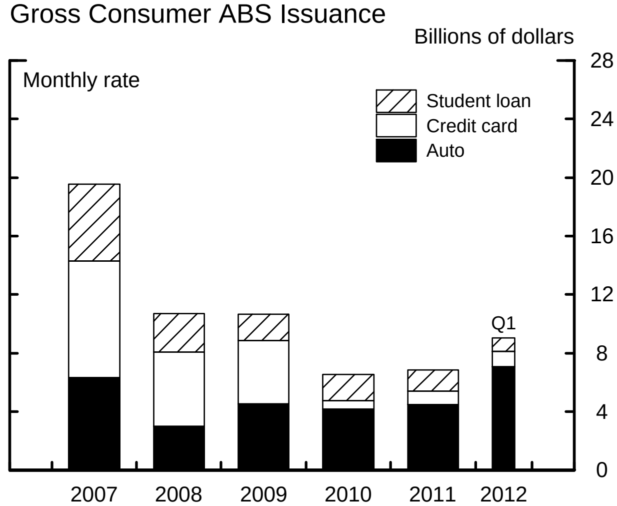
Source: LPS Applied Analytics.

Consumer Credit



Source: Federal Reserve Board.

Gross Consumer ABS Issuance



Source: Inside MBS & ABS; Merrill Lynch; Bloomberg; Federal Reserve Board.

Financial Developments

low, especially for revolving credit, likely reflecting a compositional shift toward higher-quality borrowers due to still-tight credit conditions. Issuance of consumer ABS ticked up in recent months, with auto loan ABS issuance particularly strong.

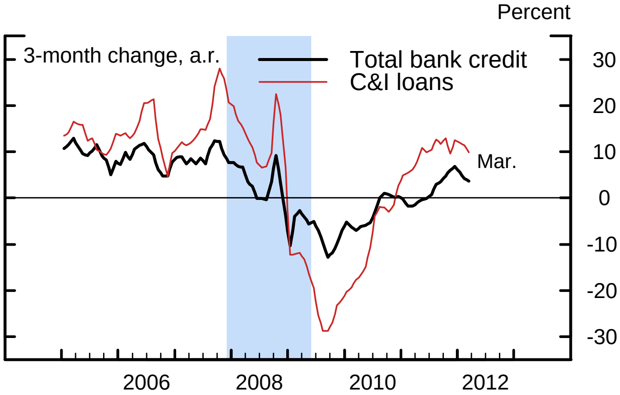
A set of special questions was included in the April SLOOS regarding banks' residential real estate (RRE) lending policies. Almost uniformly and on a loan-weighted basis, banks indicated that periods of high volumes of loan applications exceeding their application processing capacity were a factor currently impeding their ability to originate or purchase additional residential mortgage loans. In addition, banks primarily cited the greater risk of putbacks of delinquent mortgages by the GSEs and borrowers' higher costs or increased difficulty in obtaining mortgage insurance as reasons why banks are less likely to originate some GSE-eligible residential mortgage loans than they were in 2006. Looking ahead, portfolio-weighted survey responses indicated that a moderate net fraction of banks anticipate reducing their exposure to RRE assets—such as residential mortgage loans or government-backed or other mortgage-backed securities—over the next year.

Another set of special questions in the April SLOOS asked about banks' participation in HARP 2.0. On a portfolio-weighted basis, nearly three-fourths of the respondents to the April SLOOS reported that they were "actively soliciting such applications and satisfying most demand as it comes in."[3] A similar fraction of banks stated that, based on their experiences to date, they anticipated that 60 percent or more of applications under HARP 2.0 would be approved and successfully completed. Respondents reported that difficulties in securing transfers of existing private mortgage insurance coverage, identifying junior-lien holders, and obtaining resubordination of a known second lien were important factors reducing their willingness or ability to offer additional refinance loans through HARP 2.0. Only about one-fourth of respondents reported that they were actively soliciting applications to refinance underwater loans outside of HARP 2.0.

[3] To date, HARP 2.0 does not appear to have had a material effect on aggregate mortgage refinancing volume. The staff will have a better measure of this effect when the April Fannie Mae and Freddie Mac prepayment data are released in early May.

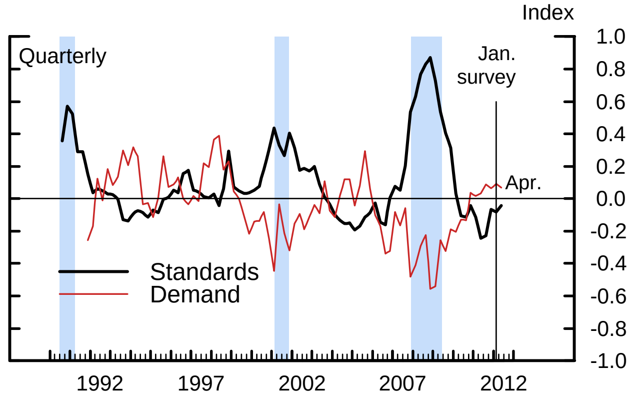
Commercial Banking and Money

Changes in Bank Credit



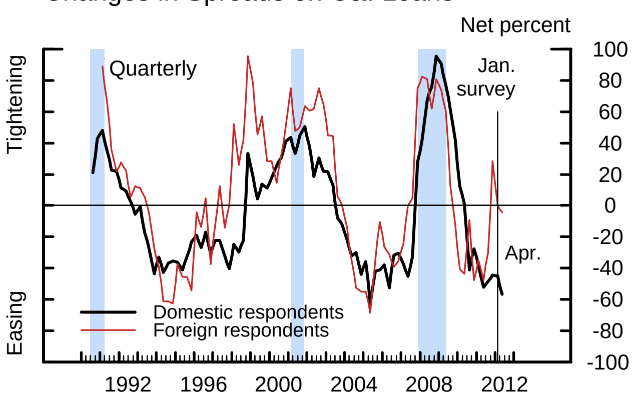
Source: Federal Reserve Board.

Changes in Standards and Demand for Bank Loans



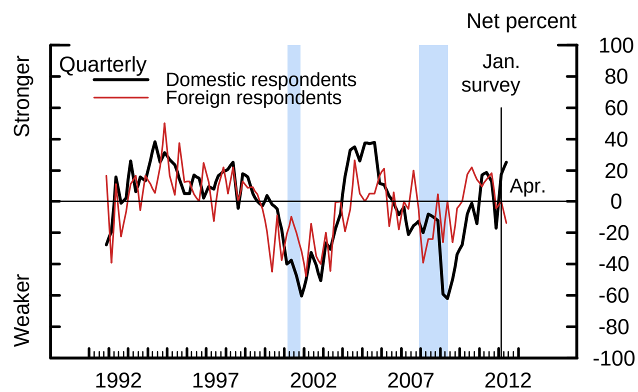
Note: A composite index that represents the net percentage of loans on respondents' balance sheets that were in categories for which banks reported tighter lending standards or stronger loan demand over the past 3 months.
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending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

Changes in Spreads on C&I Loans



Note: Net percent of respondents that increased spreads of loan rates over cost of funds over the past 3 months.
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Demand for C&I Loans



Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

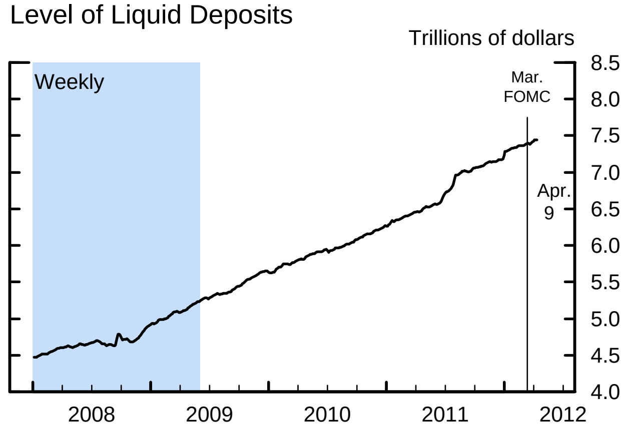
Growth of M2 and Its Components

Percent, s.a.a.r.

	M2	Liquid deposits	Small time deposits	Retail MMFs	Curr.
2010	3.3	10.9	-21.4	-15.2	5.9
2011:H1	6.8	11.9	-19.3	-6.0	9.3
2011:H2	12.1	17.9	-19.7	1.8	7.8
Jan.	15.9	21.9	-13.6	-7.1	11.3
Feb.	3.2	6.6	-18.1	-23.0	12.2
Mar.(p)	3.9	6.8	-23.2	-9.1	10.7

Note: Retail MMFs are retail money market funds.
p Preliminary.
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

GOVERNMENT FINANCE

Since the March FOMC meeting, the Treasury Department has auctioned $199 billion in nominal securities and $13 billion in 10-year TIPS. The auctions were generally well received, with bid-to-cover ratios and indirect bidding ratios close to their recent averages. Market participants reportedly continued to expect that the Treasury will announce its intention to introduce a floating-rate notes program in the May quarterly refunding statement.

Gross long-term issuance of municipal bonds was subdued in the first quarter, and net issuance of long-term bonds was slightly negative, as municipalities appeared reluctant to increase their debt levels despite generally accommodative market conditions. Ratings downgrades of municipal bonds by Moody's continued to substantially outpace upgrades in the fourth quarter, and higher-frequency data on ratings changes suggest that this trend likely continued in the first quarter of 2012. Nevertheless, average CDS spreads for states declined, on net, over the intermeeting period, and yields on long-term general obligation municipal bonds moved up only modestly.

COMMERCIAL BANKING AND MONEY

Bank credit slowed in March but expanded at a solid 4½ percent pace in the first quarter as a whole. The recent deceleration was mainly attributable to a few banks reducing their holdings of securities rather than to a renewed slowdown in loan growth. Indeed, core loans continued to show modest gains in March and have now increased for 10 consecutive months. The expansion of C&I loans at domestic banks remained robust in March, with growth concentrated at large domestic banks. In contrast, C&I loans at branches and agencies of foreign banks declined, continuing a general pattern of relative weakness since late last year. Growth in real estate loans remained mixed in March. While CRE loans and home equity loans continued to run off, banks' holdings of closed-end residential mortgage loans expanded moderately. Consumer loans on banks' books rose modestly, partially reversing their recent declines. Reportedly, growth has been fueled by originations of new auto loans, and banks are actively pursuing new personal loans. Noncore loans, which had been quite strong during much of 2011, have been slowing over the past four months. Banks' holdings of securities increased during March at a slower pace than in previous months.

The April SLOOS indicated that, in the aggregate, domestic banks eased their lending standards on core loans modestly and experienced somewhat stronger demand for such loans in the first quarter of 2012. Regarding C&I loans, very large net fractions of domestic banks indicated that they reduced spreads of C&I loan rates over their cost of funds to firms of all sizes; the net fractions of banks that reported such decreases were near the highest on record. In addition, modest net fractions reported easing standards on C&I loans to large and middle-market firms; standards on loans to small firms were little changed. Domestic banks also reported an increase in demand for C&I loans, on balance, from firms of all sizes. Only a modest net fraction of domestic banks reported having eased standards on CRE loans, though a significant net fraction reported having seen increased demand for such loans. In contrast to their domestic counterparts, branches and agencies of foreign banks reported that spreads on C&I loans were about unchanged, standards on such loans were tightened, and loan demand had weakened. Concerning lending conditions for households, when responses are weighted by banks' holdings of RRE loans, the survey showed that standards on such loans were little changed on net. In addition, small net fractions of banks reported having eased standards and seen increased demand on most types of consumer loans, especially auto loans, in the first quarter.

The M2 aggregate expanded moderately again in March, reflecting growth in liquid deposits and currency that was partially offset by further declines in small time deposits and balances in retail money market funds. However, the levels of M2 and its largest component, liquid deposits, remain elevated relative to what would be expected based on historical relationships with nominal income and opportunity costs, suggesting investors' continued strong desire to hold safe and liquid assets. Currency advanced at a 10¾ percent annual rate in March, as both domestic and foreign demand for U.S. bank notes appeared to increase solidly. In spite of the solid growth in currency, the monetary base contracted at an 18½ percent annual rate in March, reflecting a sharp decline in reserve balances that month that was driven mainly by a decrease in foreign central banks' draws on the dollar liquidity swap lines. (See the box "Balance Sheet Developments over the Intermeeting Period" for a discussion of changes in reserve balances and other balance sheet items since mid-March.)

(This page is intentionally blank.)

Balance Sheet Developments over the Intermeeting Period

Over the intermeeting period, total assets of the Federal Reserve decreased $12 billion to $2,881 billion (see the table on the next page).

Since the March FOMC meeting, the Open Market Desk conducted 25 operations as part of the maturity extension program: The Desk purchased $56 billion in Treasury securities with remaining maturities of 6 to 30 years and sold $44 billion in Treasury securities with maturities of 3 months to 3 years.[1] In addition, the Desk purchased $35 billion in agency MBS securities as part of the policy of reinvesting principal payments from agency debt and agency MBS.[2]

Foreign central bank liquidity swaps decreased $33 billion to $32 billion, reflecting a decline in draws by the European Central Bank and the Bank of Japan. The net portfolio holdings of Maiden Lane LLC and Maiden Lane II LLC declined $2 billion and $4 billion, respectively, primarily because of asset sales. Proceeds from asset sales from the Maiden Lane II portfolio enabled the repayment of the remaining outstanding balances of the loans from the Federal Reserve Bank of New York (FRBNY) and AIG to Maiden Lane II on March 1, 2012, and March 15, 2012, respectively.[3] After review with the Board, the investment objective of Maiden Lane III was revised on April 3, 2012, and now is consistent with asset sales; no sales have taken place yet, although a competitive bidding process for the largest position in the portfolio has been initiated.[4] The net portfolio holdings of Maiden Lane III LLC were about unchanged over the intermeeting period. Loans outstanding under the Term Asset-Backed Securities Loan Facility (TALF) were slightly lower, reflecting, in part, the first maturity of a TALF loan with a three-year initial term.

On the liability side of the Federal Reserve's balance sheet, other deposits decreased $35 billion, reflecting a decline of relatively high GSE balances that had been accumulated prior to the payment of principal and interest on agency MBS last month. The U.S. Treasury's General Account increased $15 billion. Reverse repurchase agreements with foreign official and international accounts increased

Financial Developments

---

[1] A purchase of $2 billion conducted on April 17, 2012, and a sale of $9 billion conducted on April 16, 2012, are reflected in the text but not in the table, as settlement occurred after April 16, 2012. A purchase of $2 billion conducted before the March FOMC meeting settled on March 13, 2012, and is reflected in the table but not in the text.

[2] Because of agency MBS market conventions, settlements of these transactions can occur well after the trade is executed.

[3] A small cash balance will remain in Maiden Lane II LLC for at least one year in order to accommodate any possible claims on the LLC and to meet trailing expenses and other obligations.

[4] The current investment objective is first to repay the Federal Reserve's senior loan, followed by AIG's equity interest (for as long as the Treasury maintains a stake in AIG). In pursuing the objective, the investment manager is directed to maximize sales proceeds while refraining from disturbing general financial market conditions.

$5 billion, but reverse repurchase agreements with others declined $2 billion, as the FRBNY's small-scale reverse repurchase agreement transactions conducted in March matured. Reserve balances of depository institutions decreased $1 billion over the period, and Federal Reserve notes in circulation increased $5 billion. Term deposits held by depository institutions increased $3 billion as a small-value operation of the Term Deposit Facility was conducted on March 19, 2012.

Federal Reserve Balance Sheet
Billions of dollars

	Change since last FOMC	Current (04/16/12)
Total assets	**-12**	**2,881**
Selected assets:		
Liquidity programs for financial firms	-32	32
Primary, secondary, and seasonal credit	+0	+0
Foreign central bank liquidity swaps	-33	32
Term Asset-Backed Securities Loan Facility (TALF)	-0	7
Net portfolio holdings of Maiden Lane LLCs	-6	21
Maiden Lane	-2	4
Maiden Lane II	-4	+0
Maiden Lane III	-0	17
Securities held outright*	17	2,627
U.S. Treasury securities	21	1,679
Agency debt securities	-5	95
Agency mortgage-backed securities	1	853
Total liabilities	**-12**	**2,827**
Selected liabilities:		
Federal Reserve notes in circulation	5	1,058
Reverse repurchase agreements	4	91
Foreign official and international accounts	5	91
Others	-2	0
Reserve balances of depository institutions**	-1	1,576
Term deposits held by depository institutions	3	3
U.S. Treasury, General Account	15	65
U.S. Treasury, Supplementary Financing Account	0	0
Other deposits	-35	12
Total capital	**-0**	**54**

Note: +0 (-0) denotes positive (negative) value rounded to zero.
* Par value.
** Includes required clearing balances and overdrafts. Excludes as-of adjustments.

(This page is intentionally blank.)

Appendix

Senior Loan Officer Opinion Survey on Bank Lending Practices

Overall, in the April Senior Loan Officer Opinion Survey on Bank Lending Practices, modest net fractions of domestic banks reported having eased their lending standards and having experienced stronger demand over the past three months.[1] Econometric analysis shows that the amount of easing reported in the April survey was somewhat more than might have been expected after accounting for a number of bank-specific factors and the evolution of several key macroeconomic variables over the survey period. Meanwhile, modest net fractions of foreign respondents, which mainly lend to businesses, reported having tightened lending standards and having experienced decreased demand for commercial and industrial (C&I) loans. The April survey contained a number of special questions regarding banks' residential real estate lending policies; it also repeated a set of special questions on lending to firms with exposures to European economies.

The survey results for C&I loans are consistent with continued strong growth in such loans held on banks' books in recent months. A modest net fraction of domestic banks reportedly eased standards on C&I loans to large and middle-market firms.[2] Standards to small firms for such loans were reportedly about unchanged. No domestic bank indicated having tightened standards on C&I loans. Moderate to large net fractions of domestic banks eased many terms on C&I loans to firms of all sizes. Domestic banks also reported an increase in demand from firms of all sizes. A considerable fraction of domestic banks noted an increase in business as a result of a decrease in competition from European banks and their affiliates or subsidiaries. Indeed, a small net fraction of foreign respondents again reported a tightening of their lending standards on C&I loans and a decrease in demand for such loans.

A modest net fraction of domestic banks reported having eased standards for commercial real estate (CRE) loans. In the January survey, banks had indicated little change in standards for such loans. As has been the case recently, significant net fractions of domestic banks reported that demand for CRE loans had strengthened. On net, foreign branches and agencies reported that standards and demand for CRE loans were little changed.

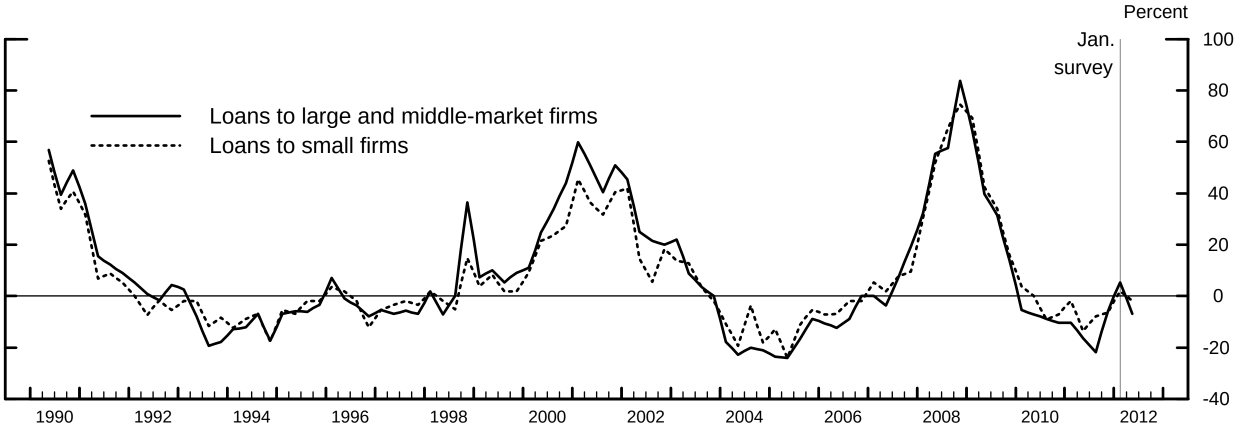
[1] The April 2012 survey addressed changes in the supply of, and demand for, loans to businesses and households over the past three months. This appendix is based on responses from 57 domestic banks and 23 U.S. branches and agencies of foreign banks. Respondent banks received the survey on or after March 27, 2012, and responses were due by April 10, 2012.

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.

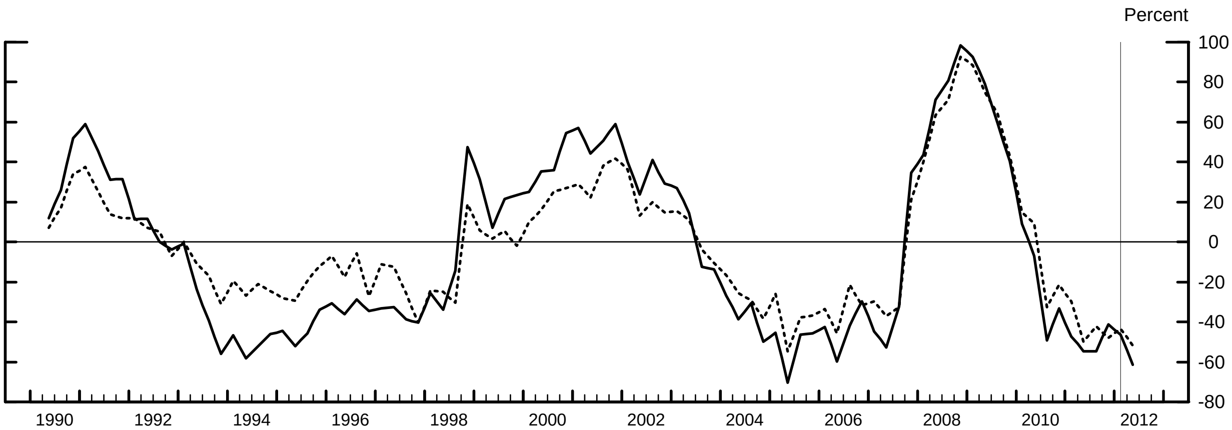
[2] *Large and middle-market firms* are generally defined as firms with annual sales of $50 million or more and *small firms* as those with annual sales of less than $50 million.

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

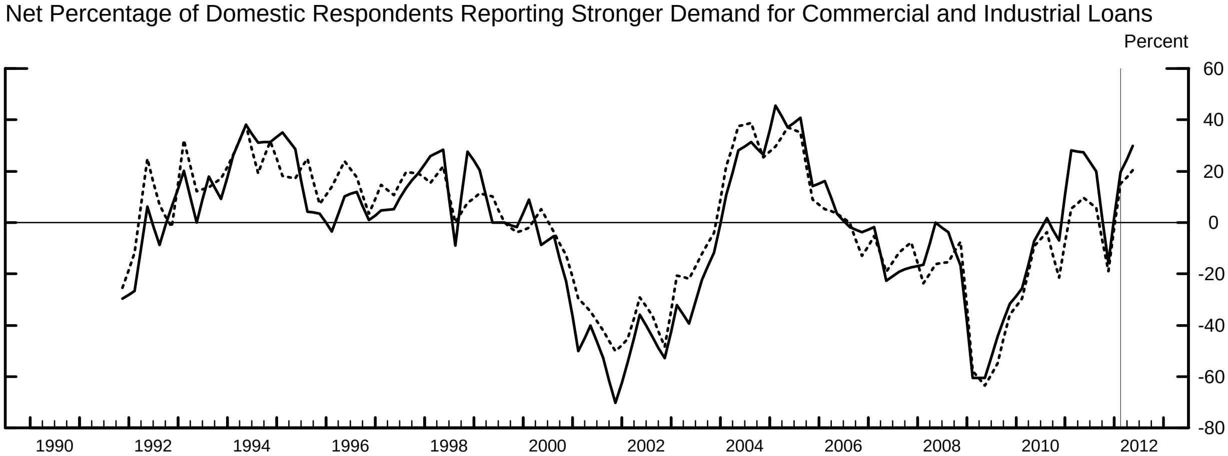
Net Percentage of Domestic Respondents Tightening Standards for Commercial and Industrial Loans



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



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



Financial Developments

In response to a set of special questions, most of which were also asked in the previous two surveys, both domestic and foreign banks again reported tightening standards on loans to European banks and their affiliates or subsidiaries as well as on loans to nonfinancial firms with substantial business in Europe. However, the net fractions reporting such tightening were much smaller than in the January survey.

Regarding loans to households, on a loan-weighted basis, standards on prime residential mortgage loans were about unchanged.[3] Standards for home equity lines of credit (HELOCs) were little changed on net. However, the April survey also indicated a small weakening in demand for both types of loans on a weighted basis. Looking ahead, on a loan-weighted basis a moderate net fraction of banks anticipate reducing their exposure to residential real estate assets over the next year. With respect to consumer loans, on a loan-weighted basis, moderate net fractions of banks reported that they had eased standards on most types of these loans over the past three months. In addition, demand for all types of consumer loans increased somewhat, on net, with demand for auto loans showing the largest increase.

In response to a set of special questions on banks' residential real estate lending policies, banks cited a variety of factors that were limiting their current ability to originate or purchase additional residential real estate (RRE) loans. In particular, respondents almost uniformly indicated that there have been periods in which the volume of loan applications exceeded their capacity to process such loans. In addition, survey respondents generally indicated that, relative to 2006, they were less willing to originate GSE-eligible residential mortgage loans for home purchases by borrowers with low FICO scores. One of the most important factors for this decrease in willingness was a higher risk of putbacks by the GSEs of mortgages that could become delinquent. Another was the higher cost of, and greater difficulty that borrowers had in obtaining, mortgage insurance.

A large share of banks reported that they were actively soliciting applications for the revised Home Affordable Refinance Program, or "HARP 2.0." Most banks reported that they expect that a majority of the applications for the program will be approved and successfully completed. Respondents also noted that a variety of factors had limited their willingness to offer refinancing loans through HARP 2.0. Some of the factors cited as most important were the risk that the GSEs might put back the mortgage and difficulty in securing transfer of existing private mortgage insurance coverage.

LENDING TO BUSINESSES

Questions on Commercial and Industrial Lending

A modest net fraction of domestic banks stated that their credit standards on C&I loans to large and middle-market firms eased over the first quarter of 2012. Standards on such loans to small firms were reportedly little changed on balance. However, a small net fraction of U.S.

[3] Responses are weighted by survey respondents' holdings of the relevant loan type, as reported in the December 31, 2011, Call Report.

branches and agencies of foreign banks reportedly tightened their standards on C&I loans for the third consecutive quarter. The tightening by foreign survey respondents was limited to some of the U.S. branches and agencies of European banks.

Moderate to large net fractions of domestic banks eased many terms on C&I loans to firms of all sizes. A very large fraction of respondents indicated that they had decreased spreads on C&I loan rates over the cost of funds to both large and middle market firms and to small firms. The net fractions of banks reporting these decreases are near the highest on record. A sizeable net fraction of banks also indicated a reduction in their use of interest rate floors.

Almost all domestic banks that reported having eased standards or terms on C&I loans cited more-aggressive competition from other banks and nonbank lenders as a reason for having done so, with fewer than half of those banks attributing the change to an improved or less uncertain economic outlook. The few banks that reported having tightened at least one C&I loan term cited a variety of reasons, including a less favorable or more uncertain economic outlook, a worsening of industry-specific problems, a reduced tolerance for risk, and increased concerns about legislative, supervisory, or accounting policies.

Meanwhile, a moderate net fraction of foreign survey respondents increased the costs of credit lines on C&I loans. A few European respondents acknowledged an increased cost of funds due to more-expensive dollar funding. The foreign respondents that reported having tightened their standards or terms on C&I loans cited a variety of reasons, including a less favorable or more uncertain economic outlook, a worsening of industry-specific problems, a reduced tolerance for risk, deterioration in their current of expected liquidity position, and increased concerns about legislative, supervisory, or accounting policies.

For the second straight survey, reports from domestic banks of stronger demand for C&I loans outnumbered reports of weaker demand. About two-thirds of the domestic respondents who reported competing with European banks for business noted an increase in business as a result of decreased competition from European banks and their affiliates or subsidiaries. Domestic banks also reported a net increase in the number of inquiries from potential business borrowers regarding new or increased credit lines. Banks reporting stronger demand cited shifts in borrowing from other bank and nonbank sources, as well as increases in customers' funding needs related to inventories, investment in plant or equipment, accounts receivable, and mergers and acquisitions as important factors underlying the increase. The small fraction of banks indicating that demand had decreased cited an increase in their customers' internally generated funds, as well as decreases in customers' funding needs related to inventories, investment in plant or equipment, accounts receivable, and mergers and acquisitions. In contrast, a small net fraction of foreign respondents saw weaker demand for C&I loans, and those that did cited customers' decreased investment in plant and equipment and reduced financing needs for merger or acquisition activity as some of the reasons.

Special Questions on Lending to Firms with European Exposures

A set of special questions in the April survey asked respondents about lending to banks headquartered in Europe and their affiliates or subsidiaries (regardless of the location of the affiliates and subsidiaries), as well as to nonfinancial firms that have operations in the United States and significant exposure to European economies (regardless of the location of the firms). Most of these questions were also asked in the previous two surveys, conducted in January 2012 and October 2011.

Moderate net fractions of both domestic and foreign respondents reported having tightened standards on loans to European banks, and small net fractions stated that they had also tightened standards on loans to nonfinancial firms that have operations in the United States and significant exposure to European economies. However, in all cases, the net fractions that reported having tightened were substantially smaller than in the January survey. Demand for credit was reportedly little changed, on net, from European banks (or their affiliates and subsidiaries) and from nonfinancial firms with significant European exposures.

Questions on Commercial Real Estate Lending

A modest net fraction of domestic banks reported easing their standards on CRE loans in the April survey. Even so, lending standards on CRE loans likely remain relatively tight: Such standards were widely described in a special question in the July 2011 survey (four quarters ago) as being at or near their tightest levels since 2005, and these standards were reportedly little changed over the previous three surveys. Foreign survey respondents indicated that their standards on CRE loans were about unchanged.

As has been the case in recent surveys, moderate net fractions of domestic banks reported that demand for CRE loans had strengthened, on net, over the past three months. In contrast, the foreign respondents reported that demand for CRE loans had changed little over that period. The reported changes in standards and demand are consistent with the slower pace of decline in outstanding CRE loans on banks' books in the first quarter of 2012.

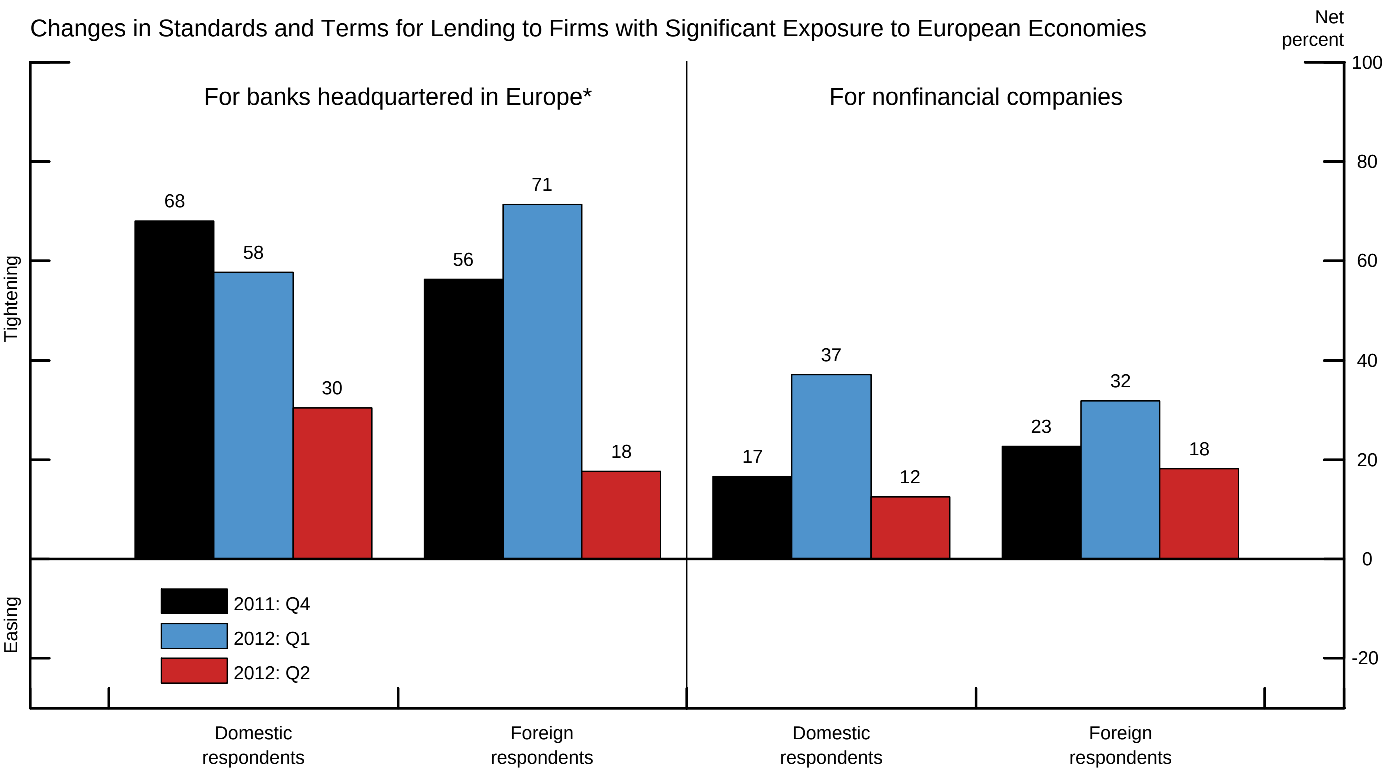
LENDING TO HOUSEHOLDS

Questions on Residential Real Estate Lending

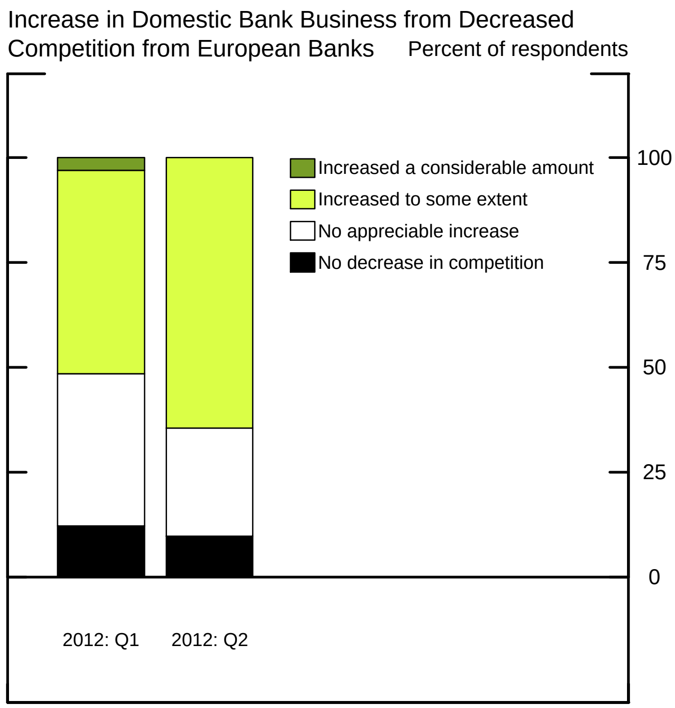
Most banks continued to report little net change in standards on prime residential mortgage loans, when responses are weighted by the outstanding closed-end mortgage balances held on the respondents' books. Moreover, weighted responses, which may better account for overall activity in mortgage lending given that it is highly concentrated among the largest banks, have also shown weaker demand. On a weighted basis, banks reported standards on nontraditional residential mortgage loans were little changed, while a moderate net fraction reported weaker demand for those loans.

When survey responses are weighted by the amount of banks' outstanding HELOCs, standards on that category of credit were little changed over the past three months. The previous

Special Questions on Lending to Firms with Exposures to European Economies



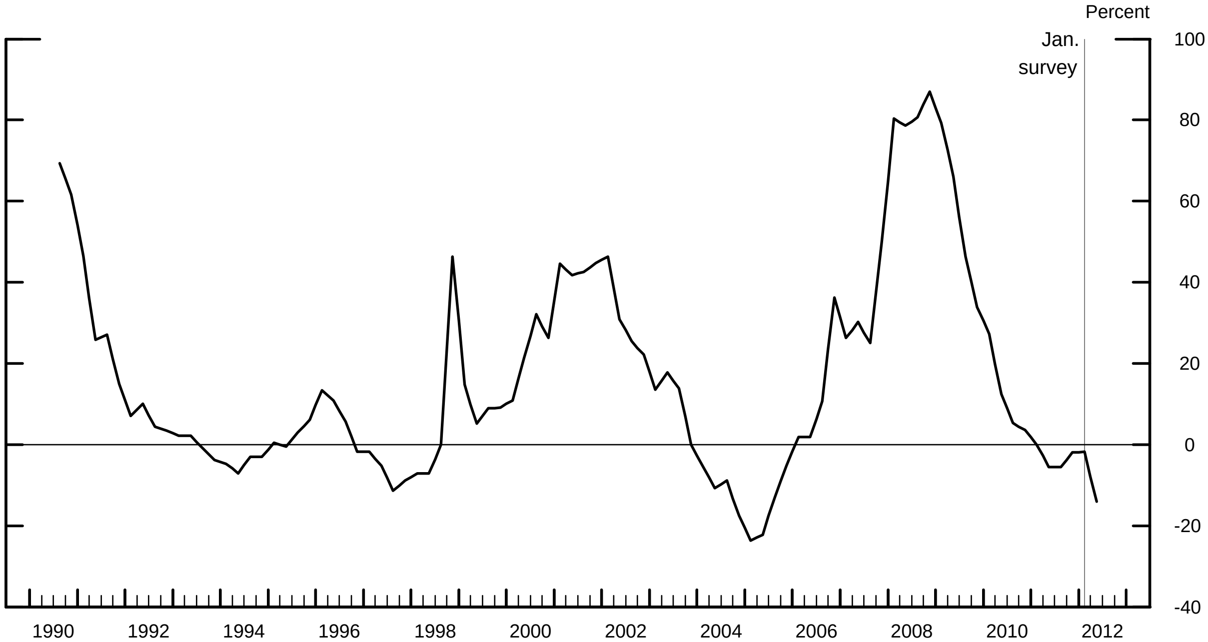
* Includes affiliates and subsidiaries.



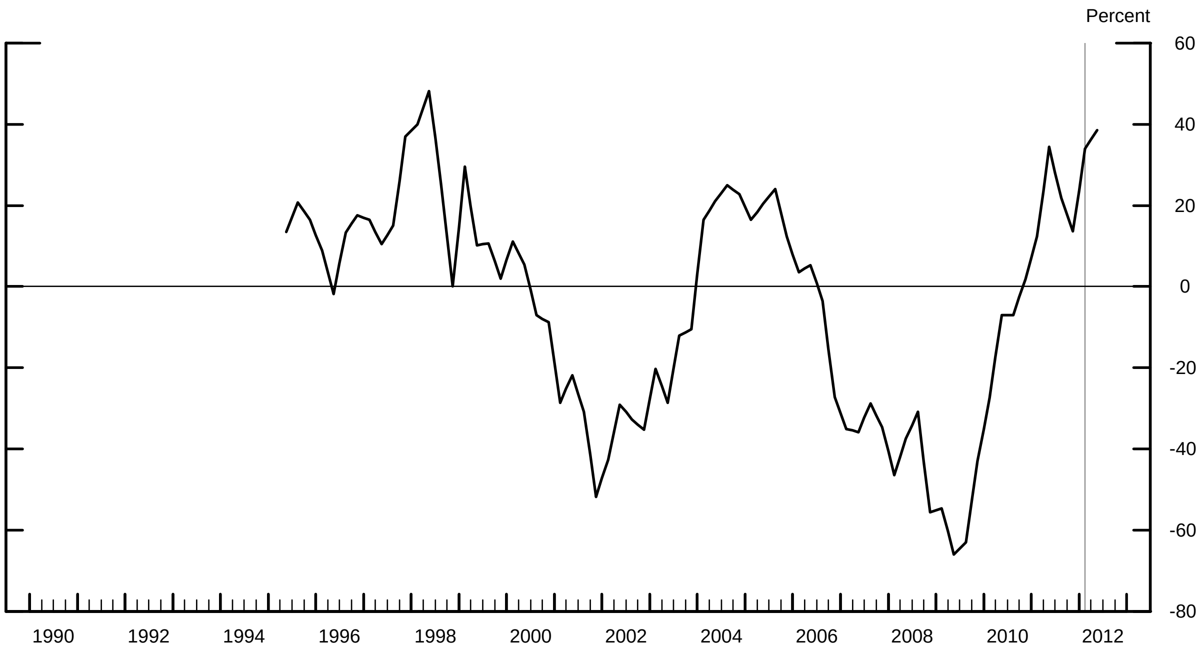
Financial Developments

Measures of Supply and Demand for Commercial Real Estate Loans

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

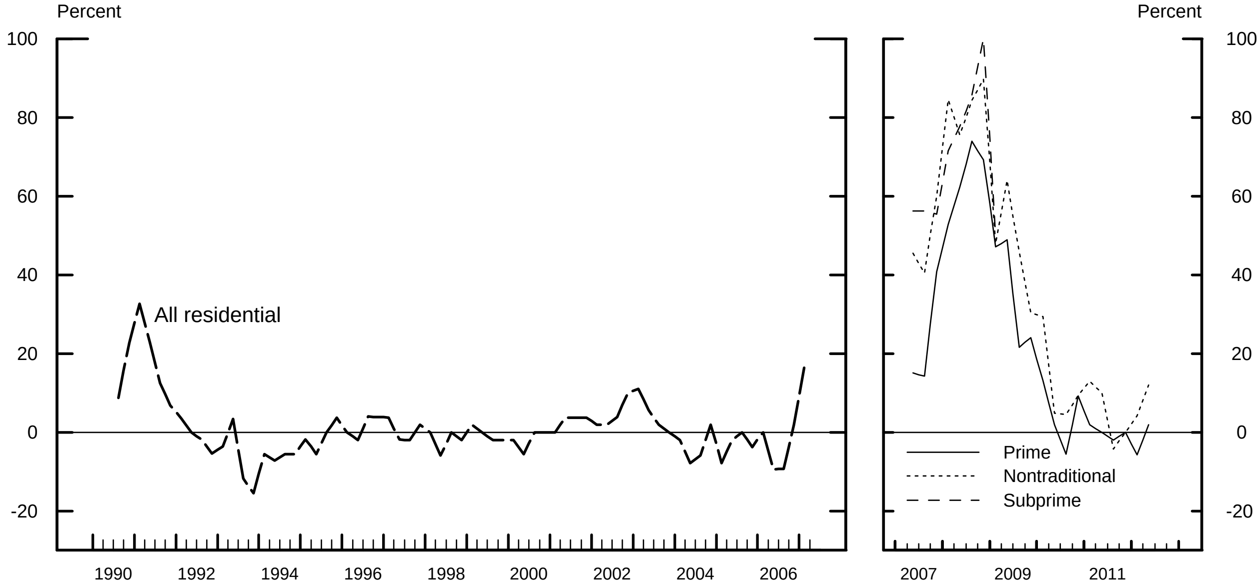


Net Percentage of Domestic Respondents Reporting Stronger Demand for Commercial Real Estate Loans



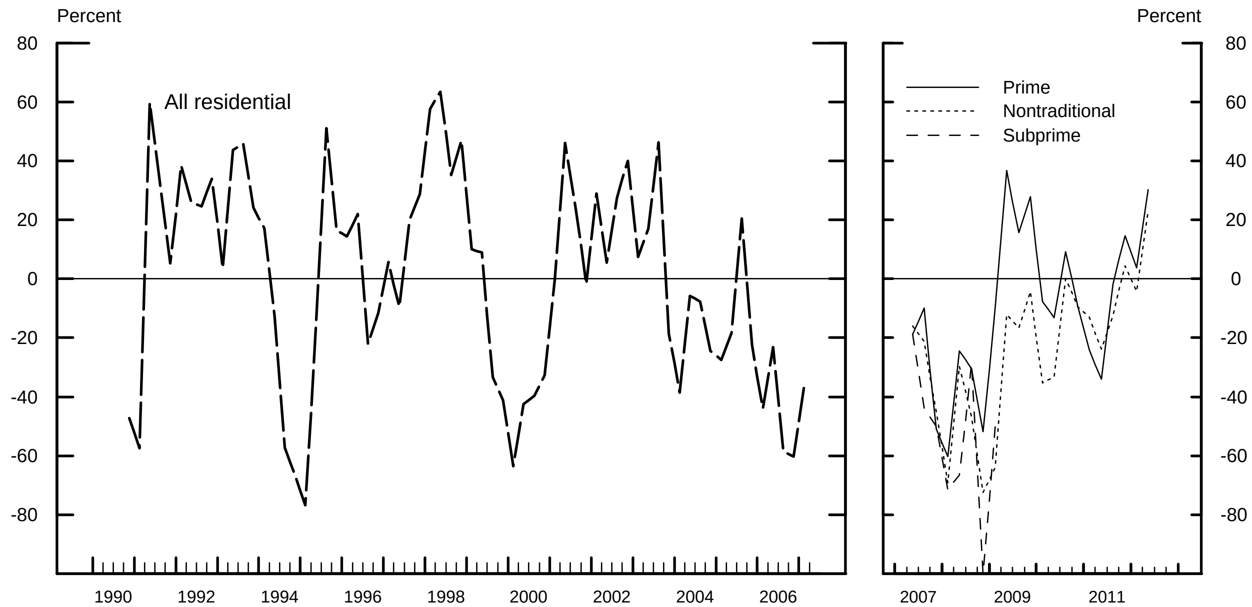
Measures of Supply and Demand for Residential Mortgage Loans

Net Percentage of Domestic Respondents Tightening Standards 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.

Net Percentage of Domestic Respondents Reporting Stronger Demand for Residential Mortgage Loans



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.

five surveys had shown easings on standards for HELOCs. Meanwhile, the demand for such loans continued to weaken, on net, if the responses are weighted. The small amount of easing in standards and the weakness in demand are consistent with the continued runoff in banks' holdings of HELOCs.

Special Questions on Residential Real Estate Lending

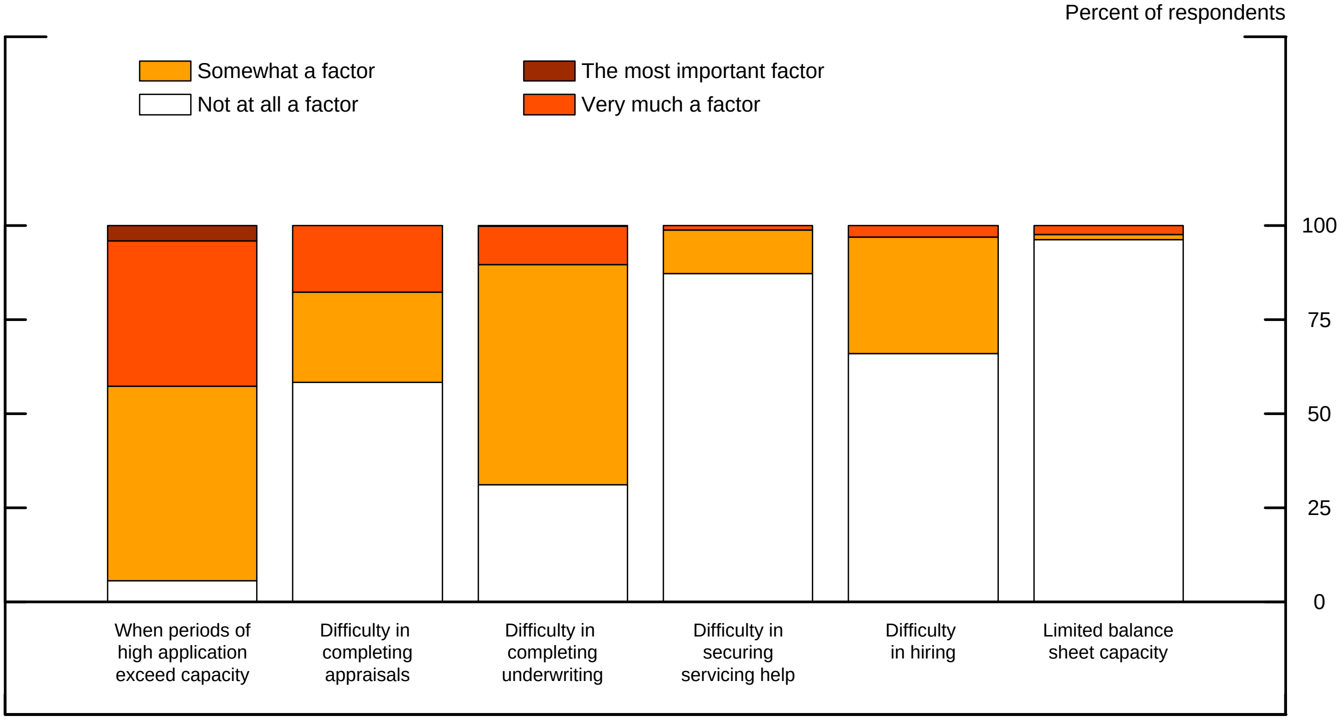
A set of special questions asked survey respondents about residential real estate lending policies at their institutions. One such question asked banks about factors currently affecting their ability to originate or purchase additional RRE loans. Almost uniformly, on a loan-weighted basis banks cited periods during which the high volume of RRE loan applications exceeded their application processing capacity as a factor. More than half of banks cited difficulties in completing timely and accurate underwriting as at least somewhat of a factor, while about one-third of respondents reported difficulty in completing timely and accurate appraisals or in hiring sufficient servicing or loan processing staff as at least somewhat of a factor.

Banks were also asked to compare their willingness to originate a GSE-eligible 30-year fixed-rate mortgage loan intended for home purchase today with their willingness in 2006 for borrowers with FICO (or equivalent) credit risk scores of 620, 680, and 720, and down payments of 10 or 20 percent (for a total of six categories of borrowers). When weighted by their holdings of RRE loans, somewhat more than half of banks indicated that they were less likely to originate a GSE-eligible mortgage loan to potential borrowers with a FICO score of 620 and a 10 percent down payment than they were in 2006. Raising the down payment to 20 percent reduced the fraction of banks less likely to originate such a loan to about 40 percent. Less than 20 percent of banks were less likely to originate loans to borrowers with a FICO score of 680, regardless of down payment size, and banks were, on net, about as likely to originate loans to borrowers with a FICO score of 720 now as they were in 2006. These results are broadly consistent with data showing changes between 2006 and 2011 in the number and share of loans actually originated to borrowers with such characteristics. Almost all banks cited borrowers having higher costs or greater difficulty in obtaining mortgage insurance coverage as an important factor contributing to the reduced likelihood of originating GSE-eligible mortgage loans. A somewhat smaller fraction of respondents noted the higher risk of putbacks of delinquent mortgages by the GSEs as an important factor; however, that factor was listed as the most important one by the largest number of banks. More than half of respondents reported higher servicing costs if mortgages were to become delinquent and less favorable or more uncertain outlooks for house prices, or the economy more broadly, as important reasons.

Several special questions asked about banks' participation in HARP 2.0. When weighted by RRE loans held in their portfolios, nearly three-fourths of banks reported that they were actively soliciting HARP 2.0 applications and satisfying most demand as it came in. A similar fraction reported that they anticipated that 60 percent or more of such applications would be

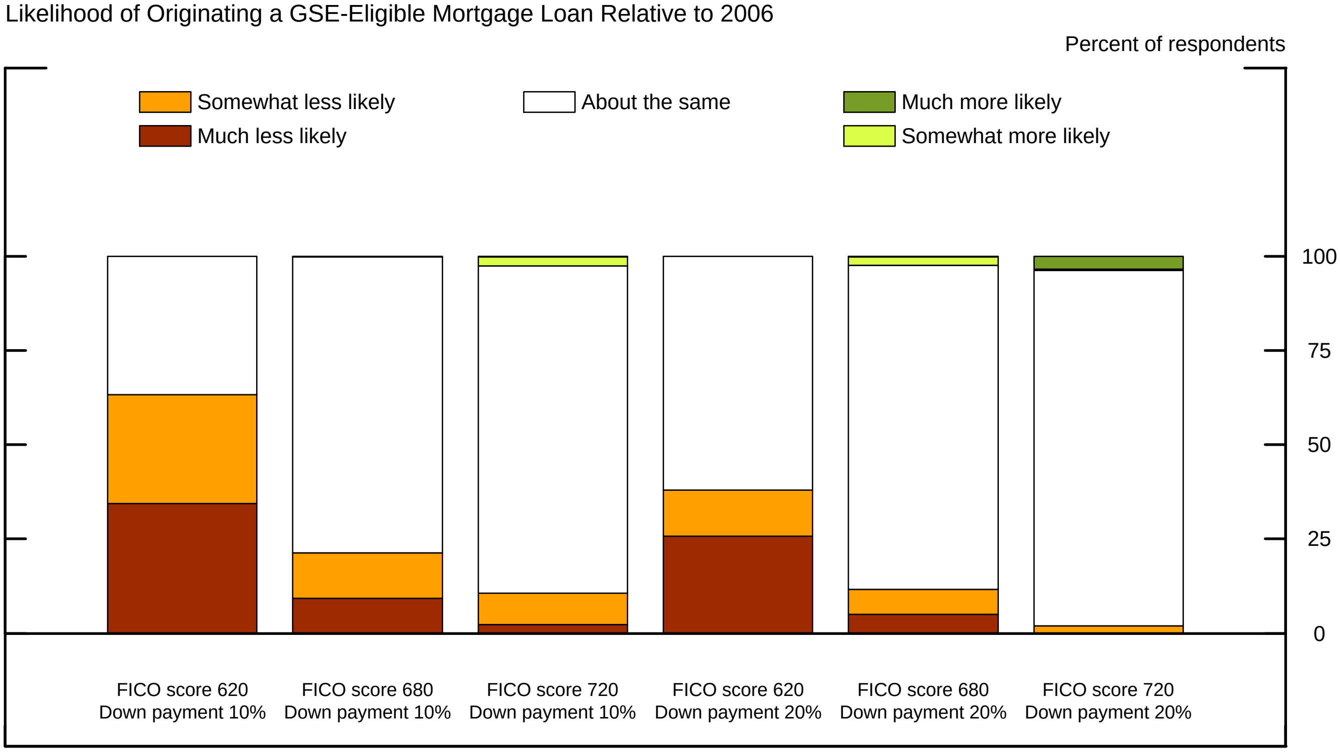
Special Questions on Residential Real Estate Lending

Factors Affecting Banks’ Ability to Originate or Purchase Additional RRE Loans



Note: Responses are weighted by survey respondents’ holdings of residential real estate loans (excluding multifamily loans and HELOCs).

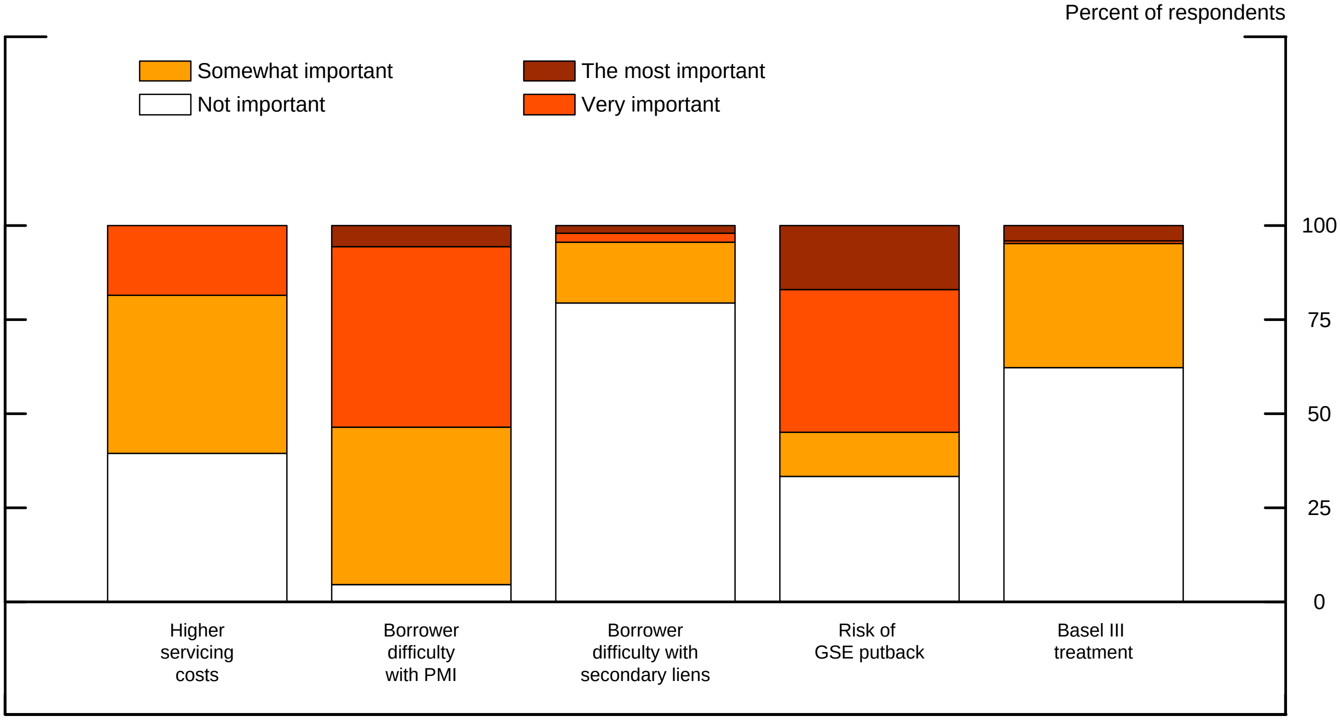
Likelihood of Originating a GSE-Eligible Mortgage Loan Relative to 2006



Note: Responses are weighted by survey respondents’ holdings of residential real estate loans (excluding multifamily loans and HELOCs).

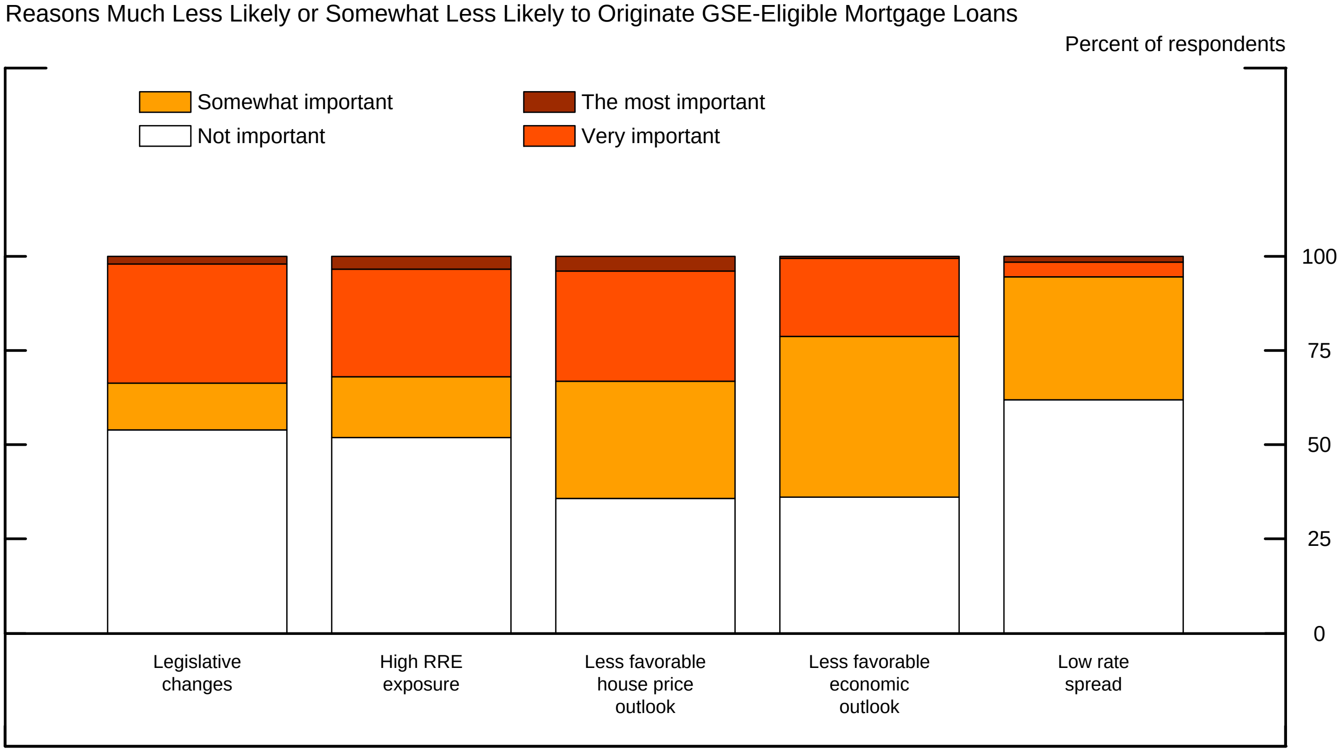
Special Questions on Residential Real Estate Lending

Reasons Much Less Likely or Somewhat Less Likely to Originate GSE-Eligible Mortgage Loans



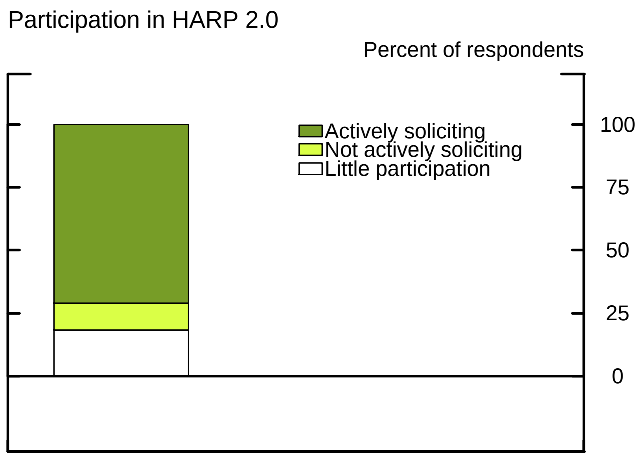
Note: Responses are weighted by survey respondents' holdings of residential real estate loans (excluding multifamily loans and HELOCs).

Reasons Much Less Likely or Somewhat Less Likely to Originate GSE-Eligible Mortgage Loans

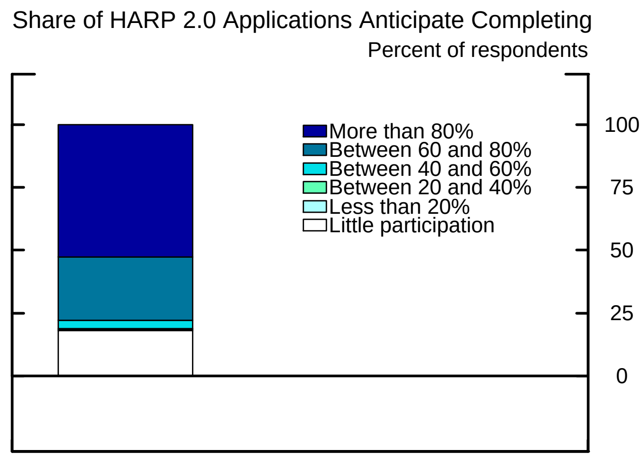


Note: Responses are weighted by survey respondents' holdings of residential real estate loans (excluding multifamily loans and HELOCs).

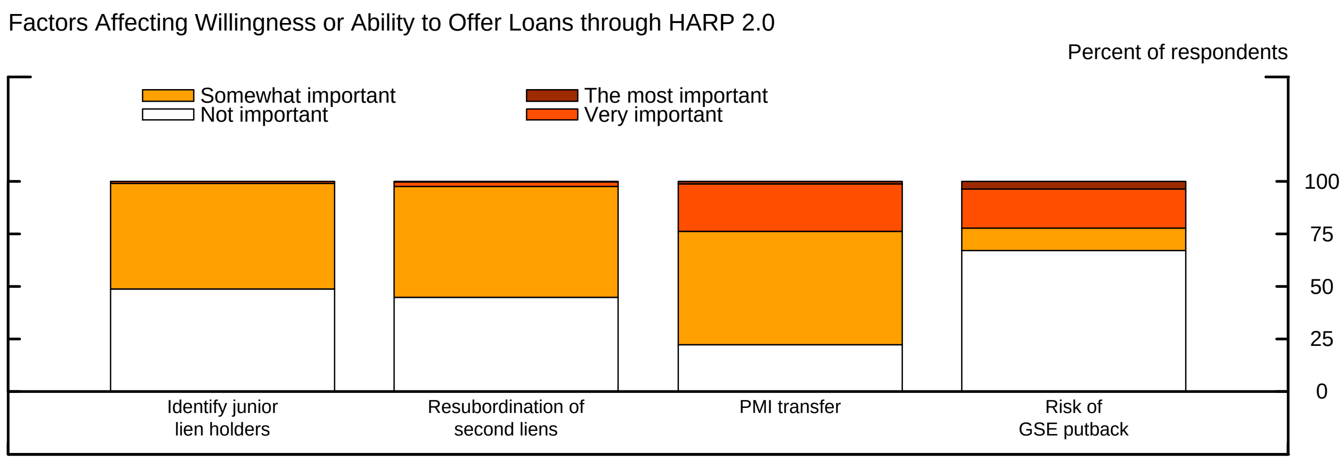
Special Questions on Residential Real Estate Lending



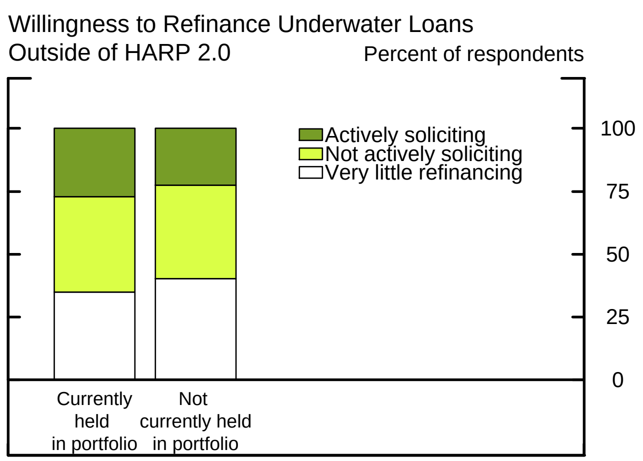
Note: Responses are weighted by survey respondents' holdings of residential real estate loans (excluding multifamily loans and HELOCs).



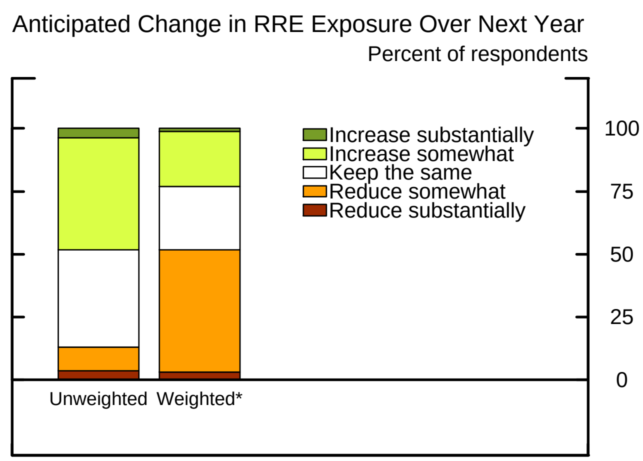
Note: Responses are weighted by survey respondents' holdings of residential real estate loans (excluding multifamily loans and HELOCs).



Note: Responses are weighted by survey respondents' holdings of residential real estate loans (excluding multifamily loans and HELOCs).



Note: Responses are weighted by survey respondents' holdings of residential real estate loans (excluding multifamily loans and HELOCs).



*Responses are weighted by survey respondents' holdings of residential real estate loans (excluding multifamily loans) and by holdings of agency or other MBS.

Financial Developments

approved and successfully completed.[4] About three-fourths of respondents reported difficulty in obtaining transfers of existing private mortgage insurance coverage as a factor reducing their willingness or ability to offer additional refinance loans through HARP 2.0. Nearly half of respondents cited difficulty in identifying junior lien holders or in obtaining resubordination of a known second lien as a factor reducing their willingness or ability to offer such loans. Meanwhile, only about one-third of respondents cited the risk that the GSEs might put back the mortgage as an at least somewhat important factor, although among all factors it was rated as the most important one by the largest number of respondents. On a portfolio-weighted basis, about one-fourth of banks reported that they were actively soliciting applications and satisfying most demand as it came in for refinancing underwater loans outside of HARP 2.0 for borrowers who have been current on their existing mortgage for at least 12 months.

Looking ahead, on a portfolio-weighted basis, a moderate net fraction of banks reported that they anticipated reducing their exposure to RRE assets over the next year (such as RRE loans or government backed or other mortgage-backed securities), suggesting that, in the aggregate, the amount of residential mortgage loans available to consumers is likely to contract. However, these results are attributable to the answers of a few very large banks. On an unweighted basis, the majority of banks indicated that they expected to increase their exposure to the residential mortgage market.

Questions on Consumer Lending

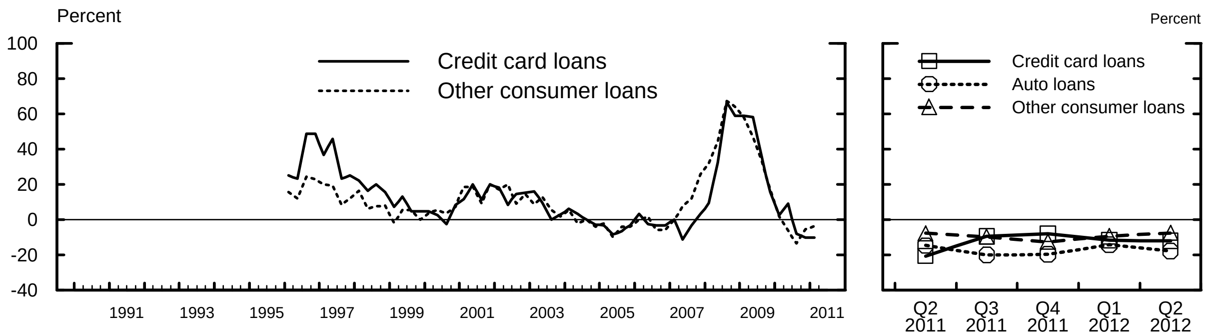
As in the previous four surveys, on a portfolio-weighted basis, small fractions of domestic banks reported having eased standards on auto and other consumer loans. In contrast, standards on credit card loans were tightened modestly. All three loan categories saw modest easings of standards on an unweighted basis. Moderate net fractions of banks reported having narrowed spreads on auto and other consumer loans. However, other terms across the categories of consumer loans were little changed on net.

A moderate net fraction of banks reported stronger demand for auto loans, consistent with reports of notable auto loan originations in recent weekly bank credit data. Smaller net fractions of banks reported stronger demand for credit card loans and other consumer loans, although the net share of banks that indicated that they experienced higher demand for other consumer loans increased a bit relative to the previous survey. Net fractions for all three categories were somewhat larger than was the case in the January survey.

[4] To date, HARP does not appear to have had a material effect on aggregate mortgage refinancing volume. Staff will have a better measure of this effect when the April Fannie Mae and Freddie Mac prepayment data are released in early May.

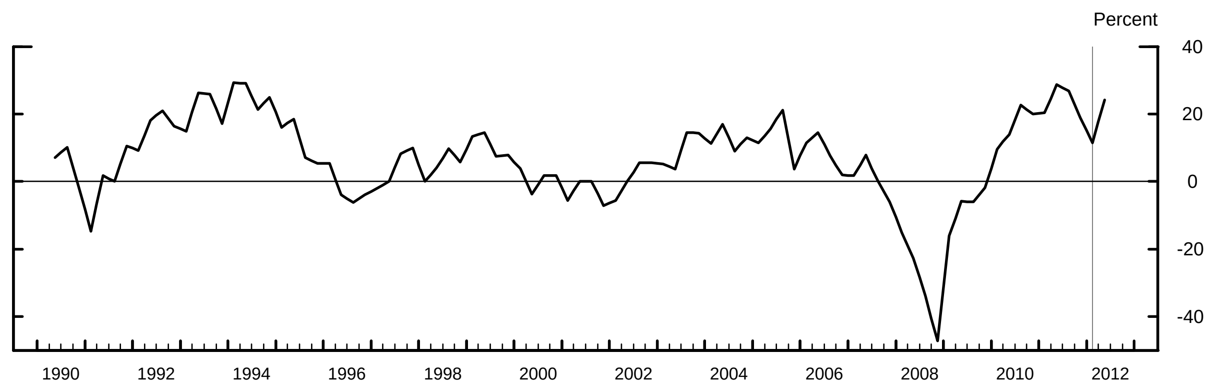
Measures of Supply and Demand for Consumer Loans

Net Percentage of Domestic Respondents Tightening Standards for Consumer Loans

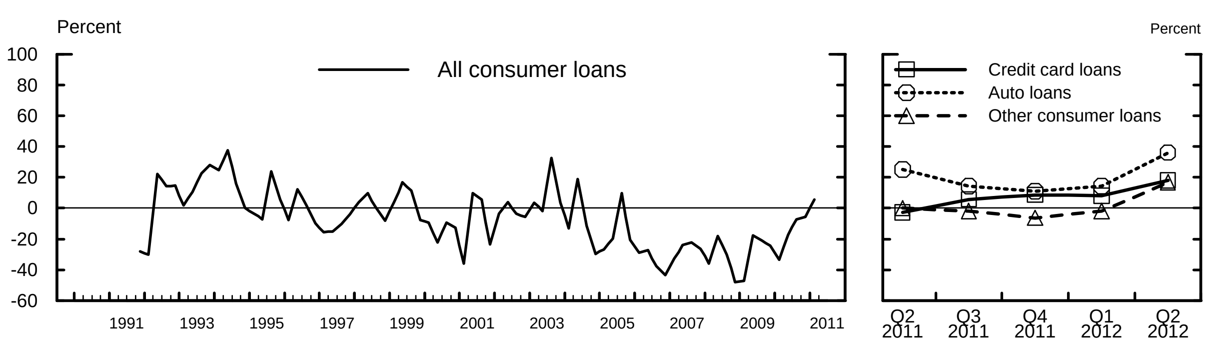


Note: For data starting in 2011:Q2, changes in standards for auto loans and consumer loans excluding credit card and auto loans are reported separately. In 2011:Q2 only, new and used auto loans are reported separately and equally weighted to calculate the auto loans series.

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.

Financial Developments

Risks and Uncertainty

Assessment of Forecast Uncertainty

We continue to view the risks around our projection for economic activity as elevated relative to the average experience of the past 20 years (the benchmark used by the FOMC).[1] The aftereffects of the financial crisis and subsequent recession still impart an unusual degree of uncertainty regarding the level of economic slack and the future pace of the recovery. However, relative to the January Tealbook, when we last reported our assessment of this issue, we now consider the risks around the outlook for real activity to be roughly balanced rather than clearly skewed to the downside. Recent improvements in labor market conditions, industrial production, and consumer spending increase the probability that a more robust recovery than we have projected could develop. At the same time, considerable downside risks remain, most notably those associated with the European fiscal and financial situation. Moreover, the capacity of U.S. fiscal or monetary policy to counteract any weakening in economic activity is uncertain.

With regard to inflation, although we see substantial uncertainty about our inflation projection, we do not view these risks as unusually high. Long-run inflation expectations have remained relatively stable, and the evolution of inflation over the past several years has been fairly consistent with our assessment of how anchored inflation expectations, changes in the prices of crude oil and other commodities, and economic slack influence consumer prices. Moreover, we continue to see the risks surrounding our baseline forecast as balanced. On the downside, low levels of resource utilization, subdued increases in unit labor costs, and the possibility that economic conditions might be less favorable than in the baseline could cause inflation to drift down over time. On the upside, concerns related to the size of the Federal Reserve's balance sheet and the ability to execute a timely exit from the current stance of policy might cause inflation to

[1] This assessment of heightened uncertainty holds even though the benchmark estimates of uncertainty about real activity have increased markedly over the past few years. In particular, as the fixed 20-year window used to assess the typical size of forecast errors has rolled forward to include the pronounced volatility of the past few years, the estimated standard errors for out-year projections of the unemployment rate almost doubled between 2008 and 2011, and have remained at this higher level with the new sample. Thus, the benchmark estimates of uncertainty about real activity are no longer dominated by the experience of the Great Moderation period. In contrast, benchmark estimates of uncertainty about inflation are essentially unchanged.

Alternative Scenarios

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

Measure and scenario	2012 H1	2012 H2	2013	2014	2015	2016-17
Real GDP						
Extended Tealbook baseline	2.3	2.7	2.8	3.3	3.6	3.4
Virtuous circle	2.5	3.6	4.4	3.4	3.2	3.1
Virtuous circle with higher inflation	2.5	3.6	4.3	3.2	2.9	3.0
Fiscal cliff	2.3	2.7	1.6	2.7	4.2	4.0
Corrosion	2.3	2.4	2.0	2.2	2.6	2.8
Disinflation	2.3	2.6	2.4	2.8	3.7	3.9
European crisis with severe spillovers	.9	-2.7	-1.5	2.8	4.5	4.4
Higher oil prices	1.9	1.8	2.3	3.2	3.7	3.8
Unemployment rate[1]						
Extended Tealbook baseline	8.2	8.0	7.7	7.4	6.8	5.6
Virtuous circle	8.2	7.8	6.9	6.3	5.9	5.3
Virtuous circle with higher inflation	8.2	7.8	6.9	6.4	6.2	5.7
Fiscal cliff	8.2	8.0	8.2	8.3	7.6	5.6
Corrosion	8.3	8.2	8.3	8.6	8.4	7.7
Disinflation	8.2	8.0	7.9	7.8	7.2	5.5
European crisis with severe spillovers	8.3	9.0	10.5	10.6	9.5	7.4
Higher oil prices	8.2	8.2	8.1	7.9	7.3	5.8
Total PCE prices						
Extended Tealbook baseline	2.0	1.7	1.5	1.5	1.7	1.8
Virtuous circle	2.0	1.7	1.5	1.6	2.0	2.2
Virtuous circle with higher inflation	2.1	1.9	2.1	2.6	3.0	2.9
Fiscal cliff	2.0	1.7	1.5	1.3	1.4	1.5
Corrosion	2.0	1.7	1.5	1.5	1.8	1.9
Disinflation	1.6	1.1	.6	.3	.4	.4
European crisis with severe spillovers	1.4	-.5	-.2	1.1	1.9	2.1
Higher oil prices	5.7	1.2	1.4	1.4	1.8	1.9
Core PCE prices						
Extended Tealbook baseline	2.0	1.7	1.7	1.7	1.8	1.9
Virtuous circle	2.0	1.7	1.7	1.8	2.1	2.3
Virtuous circle with higher inflation	2.0	1.9	2.3	2.8	3.1	3.0
Fiscal cliff	2.0	1.7	1.7	1.5	1.5	1.6
Corrosion	2.0	1.7	1.7	1.7	1.9	2.0
Disinflation	1.6	1.1	.8	.5	.5	.5
European crisis with severe spillovers	1.8	.7	.5	1.1	1.7	2.0
Higher oil prices	2.0	1.9	2.0	1.9	1.9	2.0
Federal funds rate[1]						
Extended Tealbook baseline	.1	.1	.1	1.2	2.3	3.8
Virtuous circle	.1	.5	2.2	3.1	3.7	4.6
Virtuous circle with higher inflation	.1	.5	2.7	4.1	4.7	5.2
Fiscal cliff	.1	.1	.1	.1	1.1	3.6
Corrosion	.1	.2	.1	.8	1.7	3.4
Disinflation	.1	.1	.1	.1	.1	1.8
European crisis with severe spillovers	.1	.1	.1	.1	.1	1.2
Higher oil prices	.1	.1	.1	.8	1.6	2.8

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

Risks & Uncertainty

rise, as could a sharper depreciation in the foreign exchange value of the dollar or a larger amount of damage to the supply side of the economy.

ALTERNATIVE SCENARIOS

To illustrate some of the risks to the outlook, we construct a number of alternatives to the baseline projection using simulations of staff models. The first scenario considers the upside risk that the recent improvements in some measures of economic activity are early indications that the recovery will accelerate more rapidly than anticipated. The second scenario builds on the previous one by assuming that, in the context of a robust economic expansion, the unprecedented size of the Federal Reserve's balance sheet causes inflation expectations to rise. The third scenario examines the downside risk associated with a "fiscal cliff" at the beginning of 2013. The fourth scenario considers the risk that the continued high level and duration of unemployment over the next few years lead to more-significant corrosion in the long-run productive capacity of the economy than assumed in the baseline. The fifth scenario considers the possibility that inflation will decline by more than we anticipate because the persistently wide margins of slack in labor and product markets begin to erode inflation expectations. The sixth scenario analyzes the risk to the U.S. economic outlook associated with a severe fiscal and financial crisis in Europe that spills over to the United States and the rest of the global economy. The last scenario considers the effects of a substantial increase in oil prices caused by heightened geopolitical tensions and supply disruptions.

We generate the first five scenarios using the FRB/US model and an estimated policy rule for the federal funds rate that responds to core PCE inflation and the staff's estimate of economic slack. The last two scenarios are generated using the multicountry SIGMA model and a different policy rule that employs an alternative concept of resource utilization.[2] In all of the scenarios, the size and composition of the SOMA portfolio are assumed to follow their baseline paths.

Virtuous Circle

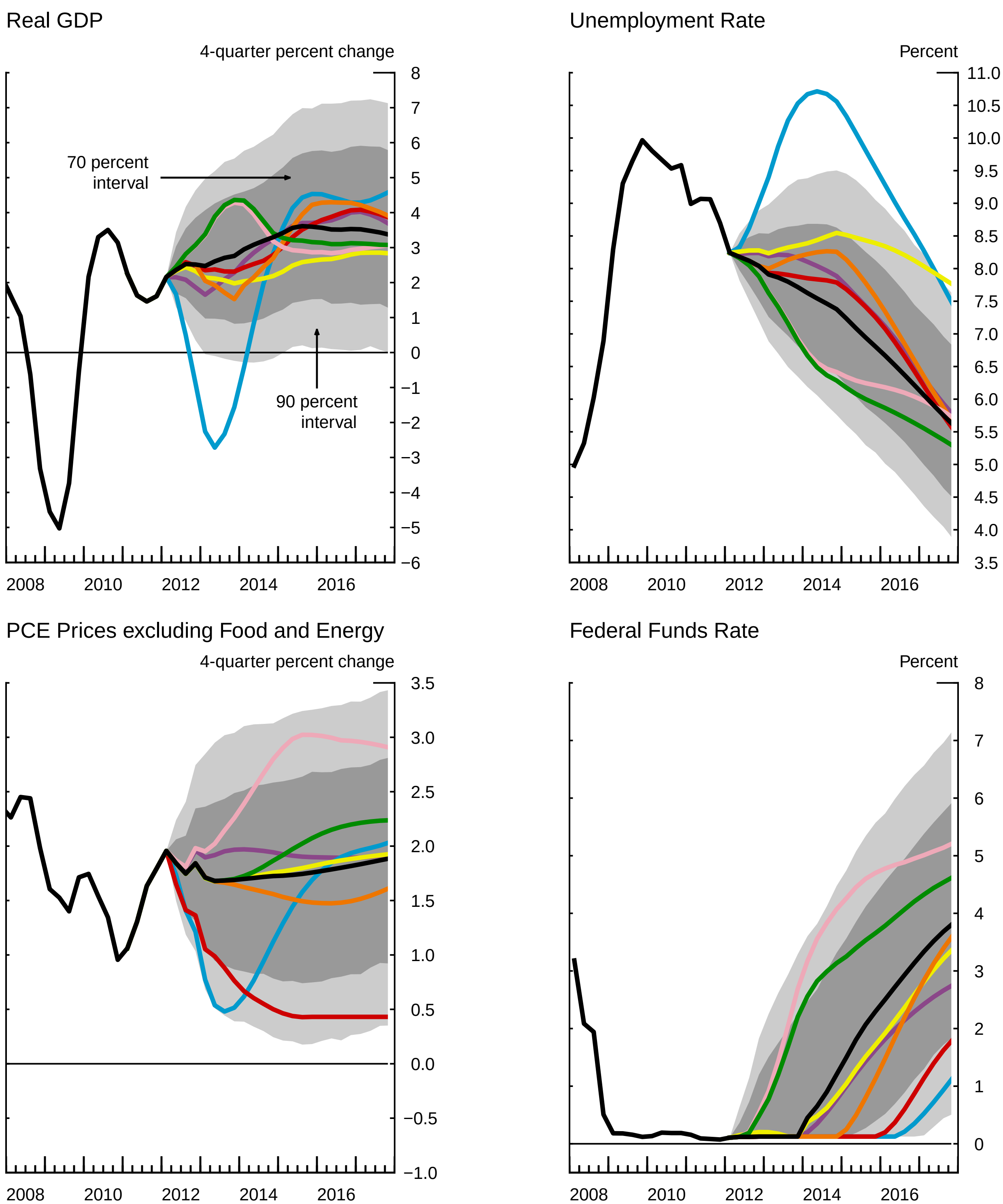
We have interpreted the incoming economic data as consistent with a gradual strengthening in real activity over the next few years. However, further declines in the unemployment rate, unexpectedly large increases in consumer spending, and the first

[2] In the simulations using the FRB/US model, the federal funds rate follows the outcome-based rule described in the appendix on policy rules in Book B. In the simulations using SIGMA, the policy rule is broadly similar but 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 a slow adjustment in wages and prices.

Forecast Confidence Intervals and Alternative Scenarios

Confidence Intervals Based on FRB/US Stochastic Simulations

- Extended Tealbook baseline
- Virtuous circle
- Virtuous circle with higher inflation
- Fiscal cliff
- Corrosion
- Disinflation
- European crisis with severe spillovers
- Higher oil prices



upturn in house prices for some time could indicate that a faster-paced recovery may be emerging. This scenario assumes that a stronger self-reinforcing cycle materializes, with increasing optimism and declining aversion to risk leading to higher consumer expenditures, more hiring and investment spending by firms, and improved credit availability and overall financial conditions: After several years during which it has been a drag on activity, the financial accelerator shifts into forward gear. This virtuous circle causes real GDP to rise at an annual rate of 3¾ percent on average until 2014, roughly 1 percentage point higher than in baseline. As a result, the unemployment rate declines to 6¼ percent by the end of 2014, 1 percentage point below baseline. Upward pressure on inflation is initially tempered by the effects of the higher level of capital investment on labor productivity and unit labor costs, along with well-anchored long-run inflation expectations. Over time, however, tighter labor and product markets cause inflation to move noticeably above baseline. In response to the stronger pace of real activity, the federal funds rate begins to rise in the second half of this year.

Virtuous Circle with Higher Inflation

In the previous scenario, we assumed that long-run inflation expectations would remain well anchored despite a fairly sizable acceleration in real economic activity. However, in the context of a faster recovery, the unprecedented size of the Federal Reserve's balance sheet and the excess reserves held by banks could fuel an expansion in lending large enough to spark concerns about the ability of monetary policy to react in a timely manner to keep inflation pressures in check. Reflecting these concerns, this scenario builds on the previous one by assuming that long-run inflation expectations rise to 2¾ percent by the end of next year, causing headline inflation to reach 2½ percent by 2014 and 3 percent thereafter. In response to higher inflation, the federal funds rate rises more steeply and is 1 percentage point higher in both 2014 and 2015 than it was in the previous scenario. With tighter monetary policy, the growth rate of real activity by the middle of the decade is somewhat more restrained and the unemployment rate ends up at 5¾ percent by the end of 2017, almost ½ percentage point higher than in the preceding scenario.

Fiscal Cliff

Our baseline projection assumes that most expiring federal tax provisions—including the tax cuts initially enacted in 2001 and 2003, relief for most taxpayers from the Alternative Minimum Tax, and a number of other non-stimulus-related tax reductions—will be extended by the end of this year. In contrast, this scenario assumes that all of these tax provisions are allowed to expire next year, increasing household and business tax payments by a total of about 2 percent of GDP relative to baseline. In addition, the automatic spending cuts required by the sequestration associated with the Budget Control Act take full effect in 2013 rather than being phased in gradually as assumed in the baseline, thereby restraining federal purchases by ¼ percent of GDP relative to baseline.[3] Moreover, these developments, in conjunction with the political wrangling likely to surround the raising of the federal debt limit late in the year, are assumed to weigh on consumer and business confidence. All told, real GDP expands only 1½ percent in 2013 and 2¾ percent in 2014, on average 1 percentage point per year slower than in the baseline.[4] As a result, the unemployment rate is still above 8 percent at the end of 2014. With a wider margin of slack in both labor and product markets, inflation edges down to 1¼ percent in 2014, and the federal funds rate does not begin to increase until early 2015.

Corrosion

Our baseline projection assumes that the persistence of a wide margin of slack in labor markets will not appreciably reduce future expansion of the productive capacity of the economy. In this scenario, the continued underutilization of labor resources begins to significantly erode the skills and labor force attachment of unemployed workers while intensifying the mismatch in the labor market. In particular, the NAIRU rises from its assumed current level of 6 percent to 7 percent by the end of 2014, 1 percentage point above baseline; the NAIRU remains at 7 percent thereafter. In addition, the trend labor force participation rate falls steadily to 63 percent by the end of 2014, 1 percentage point below baseline. This greater labor market damage reduces the level of potential output by 2 percent by the end of 2014 relative to baseline. Under these conditions, real GDP rises at an average annual rate of only a little more than 2 percent through the middle of the decade as households and businesses recognize the weaker trajectory of income and earnings. The expansion in aggregate demand is sufficiently weak that the unemployment rate remains above 8 percent through 2016. As a result, economic slack is on average little different from baseline despite the more-pronounced deterioration in the supply-side conditions of the economy, so inflation is only slightly higher. With both the

[3] After 2014, both tax rates and government spending gradually return to their baseline trajectories, leading eventually to budget deficits that are about the same as in the baseline but resulting in a lower ratio of government debt to GDP.

[4] Although taxes increase by 2 percent of GDP, the effects on spending are considerably smaller in the short run as households in the FRB/US model adjust their spending only gradually to changes in disposable income.

amount of slack and inflation similar to the baseline, the path for the federal funds rate is also comparable to the baseline.

Disinflation

The stability of various measures of expected inflation may be misleading us about the potential for further disinflation, particularly in the context of a baseline outlook in which a considerable margin of slack in labor and product markets persists for some time. In this scenario, both expected and actual inflation drift down over time, with core PCE inflation falling to below ½ percent by 2014; such declines would be in line with the predictions of some accelerationist Phillips curve models. As inflation slows, financial market participants are assumed to become increasingly concerned that the economy could fall into persistent deflation; as a result, bond premiums increase, which restrains spending modestly and raises unemployment relative to baseline. In response to lower inflation and greater economic slack, the federal funds rate remains at its effective lower bound until the end of 2015.

European Crisis with Severe Spillovers

In this scenario, the recent slippage in European financial market conditions presages an even sharper downturn, and Europe plunges into a severe financial crisis and a deep recession. This outcome could result from some combination of a disorderly sovereign default, the failure of a large European financial institution, and a loss of confidence by the public in the ability of European governments to resolve the crisis. Reflecting this stress, both sovereign and private borrowing costs in Europe soar—with corporate bond spreads rising 400 basis points above baseline—and the confidence of households and businesses plummets. Real GDP in Europe declines more than 8 percent relative to baseline by the end of 2013, notwithstanding a 20 percent depreciation in the real effective foreign exchange value of the euro. Europe's difficulties are assumed to have important financial and economic spillovers to other parts of the world, including the United States. U.S. economic activity contracts sharply in response to a widening of U.S. corporate bond spreads of more than 300 basis points, a much weaker stock market, reduced access to credit, and an erosion in household and business confidence. In addition, weaker foreign economic activity and the stronger exchange value of the dollar depress U.S. net exports. All told, U.S. real GDP declines at an annual rate of 2¾ percent in the second half of this year and falls 1½ percent more in 2013. The unemployment rate climbs to 10½ percent in 2014 before gradually receding. With substantially greater resource slack and lower import prices, overall U.S. consumer price inflation dips below

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	2.5	2.8	3.3	3.6	3.5	3.4
Confidence interval						
Tealbook forecast errors	1.2–3.8	1.0–4.5	. . .	. . .	. . .	. . .
FRB/US stochastic simulations	1.2–3.9	.8–4.5	1.1–5.1	1.5–5.8	1.4–5.9	1.3–5.8
Civilian unemployment rate						
(percent, Q4)						
Projection	8.0	7.7	7.4	6.8	6.2	5.6
Confidence interval						
Tealbook forecast errors	7.5–8.5	6.9–8.5	. . .	. . .	. . .	. . .
FRB/US stochastic simulations	7.5–8.5	6.8–8.7	6.4–8.6	5.8–8.1	5.2–7.4	4.5–6.8
PCE prices, total						
(percent change, Q4 to Q4)						
Projection	1.9	1.5	1.5	1.7	1.7	1.9
Confidence interval						
Tealbook forecast errors	1.2–2.6	.3–2.7	. . .	. . .	. . .	. . .
FRB/US stochastic simulations	1.0–2.8	.4–2.7	.2–2.7	.3–2.9	.4–2.9	.6–3.1
PCE prices excluding						
food and energy						
(percent change, Q4 to Q4)						
Projection	1.8	1.7	1.7	1.8	1.8	1.9
Confidence interval						
Tealbook forecast errors	1.4–2.3	1.0–2.4	. . .	. . .	. . .	. . .
FRB/US stochastic simulations	1.3–2.3	.9–2.5	.8–2.6	.7–2.7	.8–2.7	.9–2.8
Federal funds rate						
(percent, Q4)						
Projection	.1	.1	1.2	2.3	3.1	3.8
Confidence interval						
FRB/US stochastic simulations	.1–1.2	.1–2.2	.1–3.3	.4–4.3	1.1–5.2	1.9–5.9

Note: Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1969–2009 set of model equation residuals.

Intervals derived from Tealbook forecast errors are based on projections made from 1979–2009, except for PCE prices excluding food and energy, where the sample is 1981–2009.

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

zero in the second half of 2012 and in 2013; inflation turns positive in 2014 as an economic recovery begins to take hold.[5] Under these conditions, the federal funds rate remains near zero until the second half of 2016.

Higher Oil Prices

The continued tension with Iran over its nuclear program highlights the significant upside risks to our outlook for oil prices. In this scenario, we assume that geopolitical developments and supply disruptions temporarily push oil prices $50 per barrel above baseline in the current quarter, but that oil prices gradually recede thereafter. Although a supply-driven increase in oil prices would ordinarily be expected to cause the dollar to depreciate, we assume instead that heightened geopolitical tensions increase the demand for dollar-denominated assets and cause the dollar to appreciate slightly. U.S. domestic demand falls relative to baseline because higher oil prices effectively reduce the real incomes of households and lower the return on firms' investments, while real exports also decline due to weaker foreign economic activity. All told, U.S. real GDP rises only about 2 percent, on average, this year and next, and the unemployment rate remains elevated, ending 2014 at 8 percent, ½ percentage point higher than in the baseline. Reflecting the rise in energy costs, overall PCE inflation averages 3½ percent this year but then moderates as oil prices begin to decline. Core inflation is boosted modestly relative to baseline for several years as firms pass on their higher production costs to consumers. Although the liftoff of the federal funds rate is unchanged from baseline, the removal of monetary accommodation thereafter proceeds a bit more gradually.

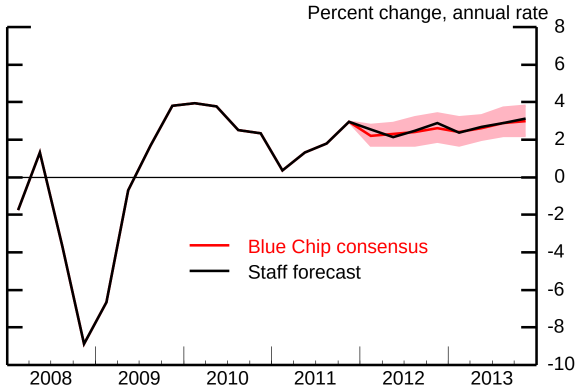
OUTSIDE FORECASTS

In the April 10 report (which was based on responses collected on April 4 and 5 before the release of the most recent labor market report), the Blue Chip consensus projection showed real GDP rising 2.4 percent over the four quarters of 2012 and increasing 2.7 percent in 2013, both similar to the staff forecast. The Blue Chip

[5] The rebound in consumer price inflation after 2013 in the simulation reflects the forward-looking nature of inflation determination in SIGMA. In particular, long-run inflation expectations remain firmly anchored at 2 percent, producer marginal costs are expected to rise as the economy recovers, and productivity is weaker (reflecting reduced capital spending). In addition, import price inflation runs significantly higher than in the baseline as the dollar's initial appreciation is gradually reversed. Under alternative specifications of SIGMA that, for instance, allow for more structural persistence in the inflation process or a less-firm anchoring of inflation expectations, inflation would remain low for a longer period.

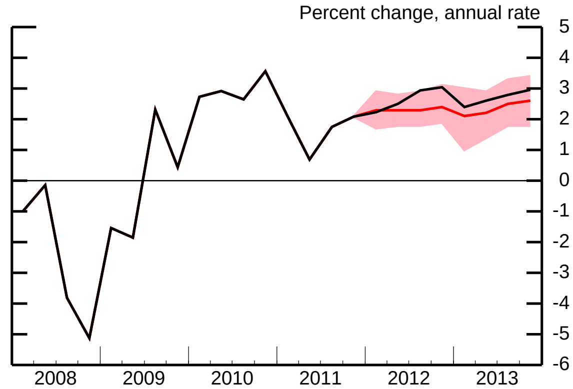
Tealbook Forecast Compared with Blue Chip
(Blue Chip survey released April 10, 2012)

Real GDP

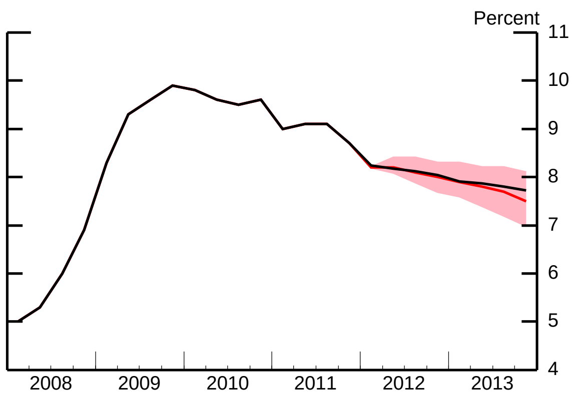


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

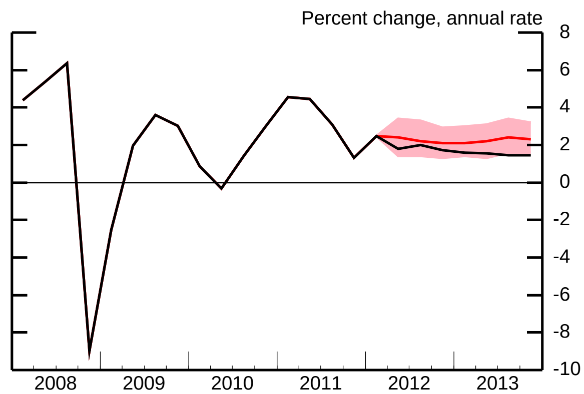
Real PCE



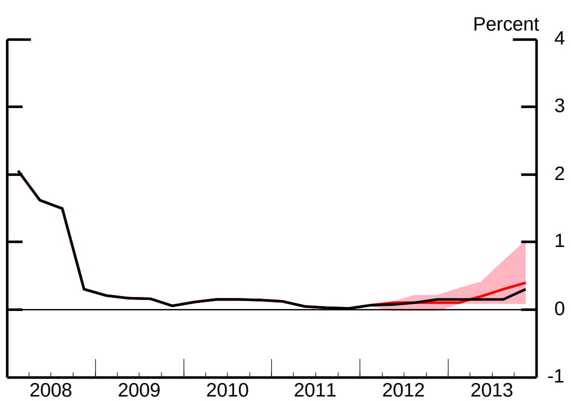
Unemployment Rate



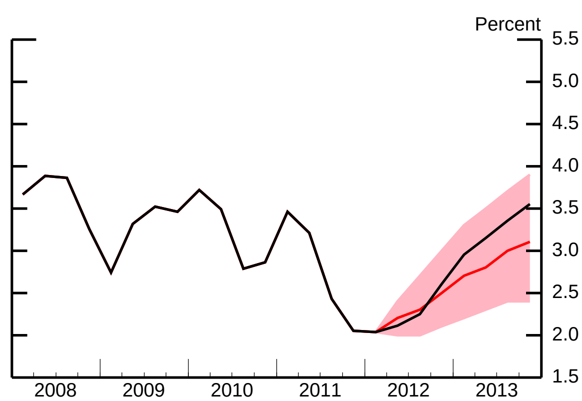
Consumer Price Index



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.

consensus forecast for the unemployment rate was 8.0 percent at the end of 2012, the same as in the staff projection, and 7½ percent at the end of 2013, ¼ percentage point below the staff projection. Regarding inflation, the consensus of Blue Chip panelists anticipated that the overall CPI will increase 2.3 percent in 2012 and 2.2 percent in 2013, ¼ and ¾ percentage point above the staff projection in, respectively, this year and 2013.

(This page is intentionally blank.)

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]	
	03/07/12	04/18/12	03/07/12	04/18/12	03/07/12	04/18/12	03/07/12	04/18/12	03/07/12	04/18/12
Quarterly										
2011:Q1	3.1	3.1	.4	.4	3.9	3.9	1.6	1.6	9.0	9.0
Q2	4.0	4.0	1.3	1.3	3.3	3.3	2.3	2.3	9.1	9.1
Q3	4.4	4.4	1.8	1.8	2.3	2.3	2.1	2.1	9.1	9.1
Q4	4.0	3.8	3.1	3.0	1.2	1.2	1.3	1.3	8.7	8.7
2012:Q1	3.4	4.6	1.8	2.5	2.1	2.5	1.8	2.2	8.4	8.2
Q2	4.2	3.5	2.2	2.1	2.2	1.6	1.7	1.8	8.4	8.2
Q3	4.1	4.3	2.6	2.5	1.5	1.8	1.6	1.7	8.3	8.1
Q4	4.3	4.5	2.9	2.9	1.4	1.7	1.6	1.7	8.2	8.0
2013:Q1	3.8	4.0	2.3	2.4	1.4	1.6	1.6	1.7	8.1	7.9
Q2	4.1	4.3	2.6	2.7	1.4	1.5	1.6	1.7	8.0	7.9
Q3	4.3	4.5	2.8	2.9	1.4	1.5	1.6	1.7	7.9	7.8
Q4	4.6	4.7	3.0	3.1	1.4	1.5	1.6	1.7	7.8	7.7
Two-quarter[2]										
2011:Q2	3.5	3.5	.8	.8	3.6	3.6	1.9	1.9	-.5	-.5
Q4	4.2	4.1	2.4	2.4	1.8	1.8	1.7	1.7	-.4	-.4
2012:Q2	3.8	4.1	2.0	2.3	2.1	2.0	1.8	2.0	-.3	-.5
Q4	4.2	4.4	2.7	2.7	1.5	1.7	1.6	1.7	-.2	-.2
2013:Q2	3.9	4.2	2.4	2.5	1.4	1.6	1.6	1.7	-.2	-.1
Q4	4.4	4.6	2.9	3.0	1.4	1.5	1.6	1.7	-.2	-.2
Four-quarter[3]										
2010:Q4	4.7	4.7	3.1	3.1	1.3	1.3	1.0	1.0	-.3	-.3
2011:Q4	3.9	3.8	1.6	1.6	2.7	2.7	1.8	1.8	-.9	-.9
2012:Q4	4.0	4.2	2.4	2.5	1.8	1.9	1.7	1.8	-.5	-.7
2013:Q4	4.2	4.4	2.7	2.8	1.4	1.5	1.6	1.7	-.4	-.3
2014:Q4	. . .	5.0	. . .	3.3	. . .	1.5	. . .	1.7	. . .	-.3
Annual										
2010	4.2	4.2	3.0	3.0	1.8	1.8	1.4	1.4	9.6	9.6
2011	3.9	3.9	1.7	1.7	2.5	2.5	1.5	1.4	8.9	8.9
2012	4.0	4.1	2.3	2.4	1.9	2.0	1.7	1.8	8.3	8.1
2013	4.1	4.3	2.6	2.6	1.5	1.6	1.6	1.7	8.0	7.8
2014	. . .	4.8	. . .	3.1	. . .	1.5	. . .	1.7	. . .	7.5

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

Greensheets

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

Item	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2011[1]	2012[1]	2013[1]	2014[1]
Real GDP	1.3	1.8	3.0	2.5	2.1	2.5	2.9	2.4	2.7	2.9	3.1	1.6	2.5	2.8	3.3
Previous Tealbook	1.3	1.8	3.1	1.8	2.2	2.6	2.9	2.3	2.6	2.8	3.0	1.6	2.4	2.7	
Final sales	1.6	3.2	1.1	2.3	2.5	2.3	2.5	2.3	2.6	2.6	2.5	1.5	2.4	2.5	3.2
Previous Tealbook	1.6	3.2	1.2	1.9	2.6	2.4	2.5	2.2	2.5	2.5	2.4	1.5	2.3	2.4	
Priv. dom. final purch.	1.9	3.3	2.7	2.4	3.2	3.3	3.3	2.9	3.2	3.3	3.4	2.5	3.1	3.2	3.9
Previous Tealbook	1.9	3.3	2.5	1.9	2.9	3.0	3.2	2.7	3.0	3.1	3.1	2.4	2.8	3.0	
Personal cons. expend.	.7	1.7	2.1	2.2	2.5	2.9	3.0	2.4	2.6	2.8	3.0	1.6	2.7	2.7	3.2
Previous Tealbook	.7	1.7	2.1	1.2	2.6	2.8	2.9	2.3	2.5	2.7	2.8	1.7	2.4	2.6	
Durables	-5.3	5.7	16.1	13.9	4.7	6.3	6.5	6.0	7.5	5.7	6.5	6.8	7.8	6.4	7.4
Nondurables	.2	-.5	.8	.5	1.4	2.9	2.9	1.8	1.9	2.3	2.4	.5	1.9	2.1	2.6
Services	1.9	1.9	.4	1.0	2.5	2.4	2.5	2.0	2.0	2.5	2.6	1.2	2.1	2.3	2.7
Residential investment	4.2	1.3	11.6	17.8	11.6	9.7	6.7	9.0	9.3	9.4	9.6	3.5	11.3	9.3	13.0
Previous Tealbook	4.2	1.3	11.5	13.9	7.7	8.7	8.0	8.1	8.2	8.2	8.3	3.5	9.6	8.2	
Business fixed invest.	10.3	15.7	5.2	.6	6.1	4.5	4.4	4.9	6.2	4.9	5.0	8.2	3.9	5.3	5.7
Previous Tealbook	10.3	15.7	3.2	4.5	3.9	3.6	4.0	4.4	4.9	4.9	4.2	7.7	4.0	4.6	
Equipment & software	6.2	16.2	7.5	1.9	8.6	6.0	5.8	6.0	7.3	5.5	5.9	9.6	5.6	6.2	6.5
Previous Tealbook	6.2	16.2	4.8	6.2	5.1	4.6	5.2	5.4	6.0	5.8	5.0	8.9	5.3	5.6	
Nonres. structures	22.6	14.4	-.9	-2.8	-.4	.2	.6	1.9	3.1	3.2	2.7	4.4	-.6	2.7	3.5
Previous Tealbook	22.6	14.4	-1.1	.0	.7	.8	.8	1.7	1.9	2.2	2.2	4.4	.6	2.0	
Net exports[2]	-416	-403	-411	-402	-399	-406	-408	-404	-401	-396	-398	-414	-404	-400	-395
Previous Tealbook[2]	-416	-403	-404	-387	-380	-379	-379	-373	-366	-359	-358	-412	-381	-364	
Exports	3.6	4.7	2.7	6.3	5.4	5.3	5.3	5.5	5.6	5.7	5.7	4.7	5.6	5.6	6.4
Imports	1.4	1.2	3.7	3.4	4.1	5.6	4.7	3.7	4.0	3.9	5.0	3.6	4.4	4.2	4.9
Gov't. cons. & invest.	-.9	-.1	-4.2	.1	-.9	-1.0	-1.1	-1.1	-1.1	-1.3	-1.4	-2.8	-.7	-1.3	-.4
Previous Tealbook	-.9	-.1	-4.2	-1.4	-.3	-.9	-1.0	-1.2	-1.1	-1.3	-1.4	-2.8	-.9	-1.3	
Federal	1.9	2.1	-6.9	.8	-2.1	-2.4	-2.8	-3.4	-3.6	-4.5	-4.9	-3.2	-1.7	-4.1	-4.4
Defense	7.0	5.0	-12.1	1.6	-2.1	-2.4	-3.0	-3.8	-4.2	-5.5	-6.1	-3.6	-1.5	-4.9	-5.0
Nondefense	-7.6	-3.8	4.5	-1.0	-2.2	-2.5	-2.5	-2.5	-2.6	-2.6	-2.6	-2.5	-2.0	-2.6	-3.4
State & local	-2.8	-1.6	-2.2	-.4	-.1	.0	.0	.4	.6	.8	.9	-2.5	-.1	.7	2.1
Change in bus. inventories[2]	39	-2	52	62	50	55	68	70	73	82	102	35	59	82	113
Previous Tealbook[2]	39	-2	57	57	45	53	66	68	71	79	100	36	55	80	
Nonfarm[2]	51	6	61	63	50	54	67	69	72	81	101	44	59	81	112
Farm[2]	-9	-6	-6	-1	0	1	1	1	1	1	1	-7	0	1	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	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Real GDP	2.8	2.4	2.2	-3.3	-.5	3.1	1.6	2.5	2.8	3.3
Previous Tealbook	2.8	2.4	2.2	-3.3	-.5	3.1	1.6	2.4	2.7	
Final sales	2.7	2.8	2.4	-2.6	-.8	2.4	1.5	2.4	2.5	3.2
Previous Tealbook	2.7	2.8	2.4	-2.6	-.8	2.4	1.5	2.3	2.4	
Priv. dom. final purch.	3.2	2.4	1.2	-4.5	-2.5	3.6	2.5	3.1	3.2	3.9
Previous Tealbook	3.2	2.4	1.2	-4.5	-2.5	3.6	2.4	2.8	3.0	
Personal cons. expend.	2.8	3.2	1.7	-2.5	-.2	3.0	1.6	2.7	2.7	3.2
Previous Tealbook	2.8	3.2	1.7	-2.5	-.2	3.0	1.7	2.4	2.6	
Durables	2.8	7.0	4.6	-13.0	3.0	10.9	6.8	7.8	6.4	7.4
Nondurables	3.1	2.9	.8	-3.1	.6	3.5	.5	1.9	2.1	2.6
Services	2.7	2.6	1.4	-.5	-.9	1.6	1.2	2.1	2.3	2.7
Residential investment	5.3	-15.7	-20.7	-24.4	-12.9	-6.3	3.5	11.3	9.3	13.0
Previous Tealbook	5.3	-15.7	-20.7	-24.4	-12.9	-6.3	3.5	9.6	8.2	
Business fixed invest.	4.5	7.8	7.9	-9.4	-14.4	11.1	8.2	3.9	5.3	5.7
Previous Tealbook	4.5	7.8	7.9	-9.4	-14.4	11.1	7.7	4.0	4.6	
Equipment & software	6.2	6.0	3.9	-13.6	-5.8	16.6	9.6	5.6	6.2	6.5
Previous Tealbook	6.2	6.0	3.9	-13.6	-5.8	16.6	8.9	5.3	5.6	
Nonres. structures	-.1	13.0	17.3	-1.2	-29.3	-1.8	4.4	-.6	2.7	3.5
Previous Tealbook	-.1	13.0	17.3	-1.2	-29.3	-1.8	4.4	.6	2.0	
Net exports[1]	-723	-729	-649	-495	-359	-422	-414	-404	-400	-395
Previous Tealbook[1]	-723	-729	-649	-495	-359	-422	-412	-381	-364	
Exports	6.7	10.2	10.1	-2.5	-.1	8.8	4.7	5.6	5.6	6.4
Imports	5.2	4.1	.8	-5.9	-6.5	10.7	3.6	4.4	4.2	4.9
Gov't. cons. & invest.	.7	1.5	1.9	2.7	1.1	.1	-2.8	-.7	-1.3	-.4
Previous Tealbook	.7	1.5	1.9	2.7	1.1	.1	-2.8	-.9	-1.3	
Federal	1.2	2.2	3.1	8.8	4.6	2.9	-3.2	-1.7	-4.1	-4.4
Defense	.4	4.4	2.6	9.8	3.5	1.5	-3.6	-1.5	-4.9	-5.0
Nondefense	2.6	-2.3	4.2	6.8	6.9	5.7	-2.5	-2.0	-2.6	-3.4
State & local	.4	1.2	1.2	-.9	-1.1	-1.7	-2.5	-.1	.7	2.1
Change in bus. inventories[1]	50	59	28	-36	-145	59	35	59	82	113
Previous Tealbook[1]	50	59	28	-36	-145	59	36	55	80	
Nonfarm[1]	50	63	29	-38	-144	61	44	59	81	112
Farm[1]	0	-4	-1	1	-1	-1	-7	0	1	1

1. Billions of chained (2005) dollars.

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

Item	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2011[1]	2012[1]	2013[1]	2014[1]
Real GDP	1.3	1.8	3.0	2.5	2.1	2.5	2.9	2.4	2.7	2.9	3.1	1.6	2.5	2.8	3.3
Previous Tealbook	1.3	1.8	3.1	1.8	2.2	2.6	2.9	2.3	2.6	2.8	3.0	1.6	2.4	2.7	
Final sales	1.6	3.2	1.2	2.3	2.5	2.3	2.5	2.3	2.6	2.6	2.5	1.5	2.4	2.5	3.2
Previous Tealbook	1.6	3.2	1.2	1.9	2.6	2.4	2.5	2.2	2.4	2.5	2.4	1.5	2.3	2.4	
Priv. dom. final purch.	1.6	2.8	2.3	2.0	2.7	2.8	2.8	2.4	2.7	2.7	2.9	2.0	2.6	2.7	3.3
Previous Tealbook	1.6	2.8	2.1	1.6	2.4	2.5	2.7	2.3	2.5	2.6	2.6	2.0	2.3	2.5	
Personal cons. expend.	.5	1.2	1.5	1.6	1.8	2.1	2.2	1.7	1.9	2.0	2.1	1.2	1.9	1.9	2.3
Previous Tealbook	.5	1.2	1.5	.9	1.9	2.0	2.1	1.6	1.8	1.9	2.0	1.2	1.7	1.8	
Durables	-.4	.4	1.2	1.0	.4	.5	.5	.5	.6	.4	.5	.5	.6	.5	.6
Nondurables	.0	-.1	.1	.1	.2	.5	.5	.3	.3	.4	.4	.1	.3	.3	.4
Services	.9	.9	.2	.5	1.2	1.1	1.2	.9	1.0	1.2	1.2	.6	1.0	1.1	1.3
Residential investment	.1	.0	.3	.4	.3	.2	.2	.2	.2	.2	.2	.1	.3	.2	.3
Previous Tealbook	.1	.0	.2	.3	.2	.2	.2	.2	.2	.2	.2	.1	.2	.2	
Business fixed invest.	1.0	1.5	.5	.1	.6	.5	.5	.5	.6	.5	.5	.8	.4	.6	.6
Previous Tealbook	1.0	1.5	.3	.5	.4	.4	.4	.5	.5	.5	.4	.8	.4	.5	
Equipment & software	.4	1.1	.6	.1	.6	.5	.4	.5	.6	.4	.5	.7	.4	.5	.5
Previous Tealbook	.4	1.1	.4	.5	.4	.4	.4	.4	.5	.4	.4	.6	.4	.4	
Nonres. structures	.5	.4	.0	-.1	.0	.0	.0	.1	.1	.1	.1	.1	.0	.1	.1
Previous Tealbook	.5	.4	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.1	
Net exports	.2	.4	-.3	.3	.0	-.3	-.1	.1	.1	.1	-.1	.0	.0	.0	.0
Previous Tealbook	.2	.4	-.1	.5	.2	.0	.0	.1	.2	.2	.0	.1	.2	.1	
Exports	.5	.6	.4	.9	.7	.7	.7	.8	.8	.8	.8	.6	.8	.8	.9
Imports	-.2	-.2	-.6	-.6	-.7	-1.0	-.8	-.7	-.7	-.7	-.9	-.6	-.8	-.7	-.9
Gov't. cons. & invest.	-.2	.0	-.8	.0	-.2	-.2	-.2	-.2	-.2	-.2	-.3	-.6	-.1	-.2	-.1
Previous Tealbook	-.2	.0	-.8	-.3	.0	-.2	-.2	-.2	-.2	-.2	-.3	-.6	-.2	-.2	
Federal	.2	.2	-.6	.1	-.2	-.2	-.2	-.3	-.3	-.3	-.4	-.3	-.1	-.3	-.3
Defense	.4	.3	-.7	.1	-.1	-.1	-.2	-.2	-.2	-.3	-.3	-.2	-.1	-.3	-.2
Nondefense	-.2	-.1	.1	.0	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1
State & local	-.3	-.2	-.3	.0	.0	.0	.0	.0	.1	.1	.1	-.3	.0	.1	.2
Change in bus. inventories	-.3	-1.4	1.8	.2	-.4	.2	.4	.0	.1	.3	.6	.1	.1	.3	.1
Previous Tealbook	-.3	-1.4	1.9	.0	-.4	.2	.4	.1	.1	.2	.7	.1	.1	.3	
Nonfarm	-.3	-1.5	1.8	.1	-.4	.1	.4	.0	.1	.3	.6	.1	.1	.3	.1
Farm	.0	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.1	.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	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2011[1]	2012[1]	2013[1]	2014[1]
GDP chain-wt. price index	2.5	2.6	.9	2.0	1.4	1.8	1.5	1.6	1.6	1.6	1.6	2.1	1.7	1.6	1.6
Previous Tealbook	2.5	2.6	.9	1.5	2.0	1.5	1.4	1.5	1.5	1.5	1.5	2.1	1.6	1.5	
PCE chain-wt. price index	3.3	2.3	1.2	2.5	1.6	1.8	1.7	1.6	1.5	1.5	1.5	2.7	1.9	1.5	1.5
Previous Tealbook	3.3	2.3	1.2	2.1	2.2	1.5	1.4	1.4	1.4	1.4	1.4	2.7	1.8	1.4	
Energy	15.0	3.3	-3.2	7.8	-1.3	3.9	1.7	-.2	-.8	-1.7	-1.6	12.8	3.0	-1.1	-1.7
Previous Tealbook	15.0	3.3	-3.2	6.3	9.5	.7	-1.0	-.9	-1.5	-1.9	-1.9	12.8	3.8	-1.6	
Food	6.4	4.7	3.3	1.3	1.5	1.7	1.7	1.6	1.6	1.5	1.5	5.2	1.5	1.6	1.5
Previous Tealbook	6.4	4.7	3.3	1.7	1.6	1.5	1.3	1.2	1.2	1.2	1.2	5.2	1.6	1.2	
Ex. food & energy	2.3	2.1	1.3	2.2	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.7	1.7
Previous Tealbook	2.3	2.1	1.3	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.8	1.7	1.6	
Ex. food & energy, market based	2.4	2.3	1.4	2.0	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.8	1.7	1.6	1.6
Previous Tealbook	2.4	2.3	1.4	1.8	1.6	1.5	1.5	1.4	1.4	1.5	1.5	1.8	1.6	1.5	
CPI	4.4	3.1	1.3	2.5	1.8	2.0	1.7	1.6	1.6	1.5	1.5	3.3	2.0	1.5	1.5
Previous Tealbook	4.4	3.1	1.3	2.4	2.6	1.5	1.3	1.4	1.3	1.3	1.3	3.3	2.0	1.3	
Ex. food & energy	2.4	2.5	1.9	2.1	2.2	1.8	1.7	1.7	1.8	1.8	1.8	2.2	1.9	1.8	1.8
Previous Tealbook	2.4	2.5	1.9	2.1	2.0	1.6	1.6	1.6	1.7	1.7	1.7	2.2	1.8	1.7	
ECI, hourly compensation[2]	3.2	1.4	1.8	2.5	2.5	2.6	2.6	2.7	2.7	2.8	2.8	2.2	2.6	2.8	3.0
Previous Tealbook[2]	3.2	1.4	1.8	2.6	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.2	2.5	2.6	
Nonfarm business sector															
Output per hour	-.3	1.8	1.0	-.5	1.7	1.4	1.9	1.2	1.6	1.9	2.0	.3	1.1	1.7	1.9
Previous Tealbook	-.3	1.8	1.1	-1.6	1.8	1.9	2.2	1.3	1.5	1.7	1.8	.4	1.1	1.6	
Compensation per hour	-.5	5.7	3.7	1.8	2.5	2.8	2.8	2.8	2.8	2.9	3.0	3.5	2.5	2.9	3.2
Previous Tealbook	-.5	5.7	3.7	2.1	2.3	2.7	2.7	2.6	2.6	2.7	2.7	3.5	2.5	2.7	
Unit labor costs	-.1	3.9	2.7	2.3	.8	1.4	.9	1.5	1.2	1.0	1.0	3.1	1.3	1.2	1.3
Previous Tealbook	-.1	3.9	2.6	3.8	.5	.8	.5	1.4	1.1	1.0	.9	3.1	1.4	1.1	
Core goods imports chain-wt. price index[3]	7.2	2.4	-.4	.3	1.1	.7	1.5	1.5	1.5	1.5	1.5	4.3	.9	1.5	1.5
Previous Tealbook[3]	7.2	2.4	-.4	-.5	1.5	1.1	1.7	1.6	1.6	1.5	1.5	4.3	.9	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	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GDP chain-wt. price index	3.5	2.9	2.6	2.1	.7	1.6	2.1	1.7	1.6	1.6
Previous Tealbook	3.5	2.9	2.6	2.1	.7	1.6	2.1	1.6	1.5	
PCE chain-wt. price index	3.2	1.9	3.5	1.7	1.5	1.3	2.7	1.9	1.5	1.5
Previous Tealbook	3.2	1.9	3.5	1.7	1.5	1.3	2.7	1.8	1.4	
Energy	21.5	-3.7	19.3	-8.8	2.6	6.2	12.8	3.0	-1.1	-1.7
Previous Tealbook	21.5	-3.7	19.3	-8.8	2.6	6.2	12.8	3.8	-1.6	
Food	1.5	1.7	4.7	7.0	-1.7	1.3	5.2	1.5	1.6	1.5
Previous Tealbook	1.5	1.7	4.7	7.0	-1.7	1.3	5.2	1.6	1.2	
Ex. food & energy	2.3	2.3	2.4	2.0	1.7	1.0	1.8	1.8	1.7	1.7
Previous Tealbook	2.3	2.3	2.4	2.0	1.7	1.0	1.8	1.7	1.6	
Ex. food & energy, market based	2.0	2.2	2.1	2.2	1.7	.7	1.8	1.7	1.6	1.6
Previous Tealbook	2.0	2.2	2.1	2.2	1.7	.7	1.8	1.6	1.5	
CPI	3.7	2.0	4.0	1.6	1.5	1.2	3.3	2.0	1.5	1.5
Previous Tealbook	3.7	2.0	4.0	1.6	1.5	1.2	3.3	2.0	1.3	
Ex. food & energy	2.1	2.7	2.3	2.0	1.7	.6	2.2	1.9	1.8	1.8
Previous Tealbook	2.1	2.7	2.3	2.0	1.7	.6	2.2	1.8	1.7	
ECI, hourly compensation[1]	2.9	3.2	3.0	2.4	1.2	2.1	2.2	2.6	2.8	3.0
Previous Tealbook[1]	2.9	3.2	3.0	2.4	1.2	2.1	2.2	2.5	2.6	
Nonfarm business sector										
Output per hour	1.6	.8	2.5	-1.1	5.3	2.3	.3	1.1	1.7	1.9
Previous Tealbook	1.6	.8	2.5	-1.1	5.3	2.3	.4	1.1	1.6	
Compensation per hour	3.5	4.5	3.6	2.5	1.8	1.4	3.5	2.5	2.9	3.2
Previous Tealbook	3.5	4.5	3.6	2.5	1.8	1.4	3.5	2.5	2.7	
Unit labor costs	1.9	3.6	1.1	3.7	-3.3	-.9	3.1	1.3	1.2	1.3
Previous Tealbook	1.9	3.6	1.1	3.7	-3.3	-.9	3.1	1.4	1.1	
Core goods imports chain-wt. price index[2]	2.2	2.5	2.9	3.7	-1.7	2.6	4.3	.9	1.5	1.5
Previous Tealbook[2]	2.2	2.5	2.9	3.7	-1.7	2.6	4.3	.9	1.5	

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

Other Macroeconomic Indicators

Item	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2011[1]	2012[1]	2013[1]	2014[1]
Employment and production															
Nonfarm payroll employment[2]	.6	.3	.5	.7	.5	.5	.6	.5	.6	.6	.6	1.8	2.2	2.3	2.5
Unemployment rate[3]	9.1	9.1	8.7	8.2	8.2	8.1	8.0	7.9	7.9	7.8	7.7	8.7	8.0	7.7	7.4
Previous Tealbook[3]	9.1	9.1	8.7	8.4	8.4	8.3	8.2	8.1	8.0	7.9	7.8	8.7	8.2	7.8	
NAIRU[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	6.0
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	
GDP gap[4]	-5.1	-5.1	-4.8	-4.7	-4.7	-4.5	-4.3	-4.3	-4.1	-3.9	-3.7	-4.8	-4.3	-3.7	-2.7
Previous Tealbook[4]	-5.3	-5.3	-5.0	-5.0	-5.0	-4.8	-4.6	-4.6	-4.4	-4.3	-4.0	-5.0	-4.6	-4.0	
Industrial production[5]	1.2	5.6	5.0	5.4	5.8	4.3	3.0	2.7	2.3	2.7	2.9	4.0	4.6	2.6	3.7
Previous Tealbook[5]	.7	6.2	3.9	3.5	5.5	3.9	3.7	2.5	2.4	2.7	3.0	3.9	4.1	2.6	
Manufacturing industr. prod.[5]	.2	5.1	5.6	10.4	4.0	3.2	2.9	2.6	2.4	3.0	3.2	4.2	5.1	2.8	4.1
Previous Tealbook[5]	.1	4.9	5.1	8.0	3.8	2.8	3.6	2.3	2.6	3.1	3.4	4.3	4.5	2.9	
Capacity utilization rate - mfg.[3]	74.4	75.2	76.1	77.8	78.3	78.8	79.2	79.3	79.4	79.7	79.9	76.1	79.2	79.9	81.3
Previous Tealbook[3]	74.4	75.1	75.8	77.1	77.6	78.0	78.5	78.7	78.8	79.1	79.5	75.8	78.5	79.5	
Housing starts[6]	.6	.6	.7	.7	.7	.7	.8	.8	.9	.9	1.0	.6	.7	.9	1.1
Light motor vehicle sales[6]	12.1	12.4	13.4	14.5	14.3	14.5	14.5	14.8	15.2	15.2	15.3	12.7	14.5	15.1	15.8
Income and saving															
Nominal GDP[5]	4.0	4.4	3.8	4.6	3.5	4.3	4.5	4.0	4.3	4.5	4.7	3.8	4.2	4.4	5.0
Real disposable pers. income[5]	-.5	.7	1.7	.3	2.3	3.2	3.6	-.4	3.1	3.2	3.4	.8	2.4	2.3	3.4
Previous Tealbook[5]	-.5	.7	1.4	1.6	2.8	3.1	3.5	-.8	2.7	2.9	3.3	.7	2.8	2.0	
Personal saving rate[3]	4.8	4.6	4.5	4.1	4.0	4.1	4.2	3.5	3.6	3.7	3.8	4.5	4.2	3.8	4.0
Previous Tealbook[3]	4.8	4.6	4.5	4.6	4.6	4.7	4.8	4.1	4.1	4.2	4.3	4.5	4.8	4.3	
Corporate profits[7]	13.7	6.9	3.5	4.1	4.5	.1	-.7	-2.6	-1.1	.8	1.5	7.0	2.0	-.4	3.7
Profit share of GNP[3]	12.7	12.8	12.8	12.8	12.8	12.7	12.5	12.3	12.2	12.1	12.0	12.8	12.5	12.0	11.9
Net federal saving[8]	-1,275	-1,161	-1,095	-1,020	-1,019	-1,000	-981	-809	-787	-761	-743	-1,183	-1,005	-775	-708
Net state & local saving[8]	-40	-83	-81	-63	-42	-35	-24	-15	0	1	4	-66	-41	-2	-22
Gross national saving rate[3]	12.4	12.9	13.4	13.3	13.3	13.4	13.4	13.5	13.6	13.8	13.9	13.4	13.4	13.9	14.4
Net national saving rate[3]	-.4	.2	.7	.8	.9	.9	1.0	1.1	1.2	1.4	1.5	.7	1.0	1.5	2.2

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.

Greensheets

Other Macroeconomic Indicators

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

Item	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Employment and production										
Nonfarm payroll employment[1]	2.4	2.1	1.2	-2.8	-5.6	.8	1.8	2.2	2.3	2.5
Unemployment rate[2]	5.0	4.5	4.8	6.9	9.9	9.6	8.7	8.0	7.7	7.4
Previous Tealbook[2]	5.0	4.5	4.8	6.9	9.9	9.6	8.7	8.2	7.8	
NAIRU[2]	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0	6.0	6.0
Previous Tealbook[2]	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0	6.0	
GDP gap[3]	.6	.8	.8	-4.5	-6.2	-4.7	-4.8	-4.3	-3.7	-2.7
Previous Tealbook[3]	.6	.8	.8	-4.5	-6.4	-4.9	-5.0	-4.6	-4.0	
Industrial production[4]	2.3	2.1	2.5	-9.0	-5.7	6.3	4.0	4.6	2.6	3.7
Previous Tealbook[4]	2.3	2.3	2.5	-9.1	-5.5	6.2	3.9	4.1	2.6	
Manufacturing industr. prod.[4]	3.4	1.8	2.8	-11.8	-6.5	6.5	4.2	5.1	2.8	4.1
Previous Tealbook[4]	3.4	2.0	2.8	-11.8	-6.1	6.1	4.3	4.5	2.9	
Capacity utilization rate - mfg.[2]	78.4	78.2	78.2	69.7	67.0	73.1	76.1	79.2	79.9	81.3
Previous Tealbook[2]	78.5	78.4	79.0	70.1	67.7	73.3	75.8	78.5	79.5	
Housing starts[5]	2.1	1.8	1.4	.9	.6	.6	.6	.7	.9	1.1
Light motor vehicle sales[5]	16.9	16.5	16.1	13.1	10.3	11.5	12.7	14.5	15.1	15.8
Income and saving										
Nominal GDP[4]	6.4	5.3	4.9	-1.2	.0	4.7	3.8	4.2	4.4	5.0
Real disposable pers. income[4]	.6	4.6	1.6	1.0	-2.4	3.5	.8	2.4	2.3	3.4
Previous Tealbook[4]	.6	4.6	1.6	1.0	-2.4	3.5	.7	2.8	2.0	
Personal saving rate[2]	1.6	2.8	2.5	6.2	4.3	5.2	4.5	4.2	3.8	4.0
Previous Tealbook[2]	1.6	2.8	2.5	6.2	4.3	5.2	4.5	4.8	4.3	
Corporate profits[6]	19.6	3.7	-8.1	-33.5	61.8	18.2	7.0	2.0	-.4	3.7
Profit share of GNP[2]	11.8	11.6	10.1	6.8	11.0	12.4	12.8	12.5	12.0	11.9
Net federal saving[7]	-283	-204	-245	-613	-1218	-1274	-1183	-1005	-775	-708
Net state & local saving[7]	26	51	12	-72	-78	-25	-66	-41	-2	-22
Gross national saving rate[2]	15.6	16.5	13.9	12.6	11.3	12.3	13.4	13.4	13.9	14.4
Net national saving rate[2]	3.6	4.4	1.7	-.6	-1.9	-.4	.7	1.0	1.5	2.2

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				2011				2012				2013			
	2011[a]	2012	2013	2014	Q1[a]	Q2[a]	Q3[a]	Q4[a]	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unified budget					Not seasonally adjusted											
Receipts[1]	2302	2478	2757	2959	488	714	568	555	509	782	632	617	572	853	715	672
Outlays[1]	3599	3590	3574	3663	949	855	895	877	966	897	849	925	920	882	848	932
Surplus/deficit[1]	-1297	-1112	-817	-704	-460	-141	-326	-322	-457	-116	-217	-307	-348	-29	-133	-260
Previous Tealbook	*-1300*	*-1127*	*-834*	*-729*	*-460*	*-141*	*-326*	*-322*	*-432*	*-140*	*-233*	*-318*	*-347*	*-31*	*-138*	*-267*
On-budget	-1364	-1113	-807	-699	-451	-202	-311	-346	-458	-142	-167	-312	-324	-71	-100	-279
Off-budget	67	1	-11	-5	-10	61	-15	24	1	26	-51	5	-24	42	-34	19
Means of financing																
Borrowing	1110	1138	877	784	260	93	389	326	398	162	251	308	368	49	153	280
Cash decrease	252	-12	20	0	225	-19	79	-28	42	-37	10	20	0	0	0	0
Other[2]	-65	-14	-80	-80	-24	67	-142	23	17	-10	-44	-20	-20	-20	-20	-20
Cash operating balance, end of period	58	70	50	50	118	137	58	86	43	80	70	50	50	50	50	50
NIPA federal sector					Seasonally adjusted annual rates											
Receipts	2534	2713	2978	3205	2528	2554	2583	2613	2713	2747	2779	2814	2996	3032	3070	3110
Expenditures	3765	3746	3813	3924	3729	3829	3744	3708	3732	3766	3778	3795	3805	3819	3832	3852
Consumption expenditures	1070	1075	1068	1041	1059	1078	1085	1067	1078	1078	1075	1072	1072	1067	1060	1052
Defense	715	717	713	692	701	723	733	710	720	719	718	716	716	713	707	700
Nondefense	355	358	355	350	358	354	352	357	359	358	357	356	356	355	353	352
Other spending	2695	2672	2745	2883	2670	2752	2659	2641	2654	2689	2703	2723	2733	2752	2772	2800
Current account surplus	-1231	-1033	-834	-719	-1201	-1275	-1161	-1095	-1020	-1019	-1000	-981	-809	-787	-761	-743
Gross investment	165	159	154	143	161	160	164	159	160	159	158	157	155	153	150	147
Gross saving less gross investment[3]	-1260	-1048	-834	-699	-1227	-1298	-1185	-1113	-1036	-1033	-1010	-987	-811	-785	-754	-730
Fiscal indicators[4]																
High-employment (HEB) surplus/deficit	-979	-782	-585	-502	-951	-1014	-899	-832	-768	-772	-755	-738	-554	-535	-513	-499
Change in HEB, percent of potential GDP	-.3	-1.4	-1.3	-.6	-.7	.3	-.8	-.5	-.4	.0	-.1	-.1	-1.1	-.1	-.2	-.1
Fiscal impetus (FI), percent of GDP	-0.3	-0.6	-1.2	-0.6	-0.6	0.4	-0.1	-1.0	-0.4	-0.7	-0.6	-0.6	-2.0	-1.0	-1.1	-0.8
Previous Tealbook	*-0.3*	*-0.5*	*-1.1*	*-0.6*	*-0.6*	*0.4*	*-0.1*	*-1.0*	*-0.7*	*-0.5*	*-0.5*	*-0.5*	*-1.8*	*-0.9*	*-0.9*	*-0.7*

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 NAIRU. 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.

Greensheets

Change in Debt of the Domestic Nonfinancial Sectors
(Percent)

Period[1]	Total	Households			Business	State and local governments	Federal government	Memo: Nominal GDP
		Total	Home mortgages	Consumer credit				
Year								
2007	8.5	6.7	6.9	5.8	13.6	5.4	4.9	4.9
2008	6.0	.1	-.5	1.5	6.2	.7	24.2	-1.2
2009	3.1	-1.7	-1.4	-4.4	-2.4	3.9	22.7	.0
2010	4.1	-2.1	-2.9	-1.8	.7	2.2	20.2	4.7
2011	3.7	-.9	-2.1	3.5	4.2	-1.9	11.4	3.8
2012	4.5	1.0	-.8	6.9	4.3	-.5	10.7	4.3
2013	4.1	2.2	.4	7.5	4.0	.6	7.3	4.4
2014	4.1	2.6	.8	7.7	4.2	1.0	6.3	5.0
Quarter								
2010:1	3.5	-3.1	-4.8	-3.9	-.1	2.4	20.6	5.5
2	3.9	-2.2	-2.5	-3.3	-1.3	-.5	22.5	5.4
3	3.7	-2.2	-2.5	-2.2	1.8	2.1	16.0	3.9
4	4.9	-.7	-1.8	2.3	2.5	4.8	16.4	4.2
2011:1	2.3	-1.9	-2.7	2.2	4.1	-3.3	7.9	3.1
2	3.0	-.6	-2.4	3.6	4.4	-3.5	8.6	4.0
3	4.4	-1.2	-1.9	1.4	3.6	.0	14.1	4.4
4	4.9	.3	-1.5	6.9	4.6	-1.0	13.1	3.8
2012:1	5.0	.4	-1.6	6.5	5.4	-1.8	12.4	4.6
2	4.3	.9	-.9	6.4	3.9	-.3	10.3	3.5
3	3.7	1.3	-.5	7.0	3.8	-.1	7.5	4.4
4	4.8	1.6	-.2	7.1	3.7	.3	11.1	4.6
2013:1	4.8	1.9	.2	7.2	3.8	.6	10.1	4.0
2	3.5	2.0	.3	7.3	3.8	.6	5.5	4.3
3	3.0	2.2	.5	7.4	3.9	.6	3.7	4.5
4	4.8	2.3	.6	7.4	4.0	.6	9.4	4.8

Note: Quarterly data are at seasonally adjusted annual rates.
1. Data after 2011:Q4 are staff projections. Changes are measured from end of the preceding period to end of period indicated except for annual nominal GDP growth, which is calculated from Q4 to Q4.

Flow of Funds Projections: Highlights
(Billions of dollars at seasonally adjusted annual rates except as noted)

Category	2011	2012	2013	2014	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4
Domestic nonfinancial sectors														
Net funds raised														
Total	893.6	1355.0	1295.0	1345.1	1030.8	1408.4	1557.0	1287.8	1055.9	1519.2	1571.1	1070.6	905.2	1632.9
Net equity issuance	-474.8	-385.2	-340.0	-360.0	-605.3	-458.7	-360.8	-380.0	-400.0	-400.0	-340.0	-340.0	-340.0	-340.0
Net debt issuance	1368.4	1740.2	1635.0	1705.1	1636.1	1867.1	1917.9	1667.8	1455.9	1919.2	1911.1	1410.6	1245.2	1972.9
Borrowing indicators														
Debt (percent of GDP)[1]	249.3	249.2	249.3	247.6	248.0	248.6	248.8	249.6	249.4	249.3	249.8	249.8	249.0	248.6
Borrowing (percent of GDP)	9.1	11.1	10.0	9.9	10.8	12.2	12.4	10.7	9.2	12.0	11.8	8.7	7.6	11.8
Households														
Net borrowing[2]	-113.9	138.7	287.9	353.7	-159.3	43.1	49.3	116.9	176.2	212.2	258.2	275.0	301.9	316.4
Home mortgages	-213.2	-78.5	39.1	81.2	-184.8	-150.3	-157.3	-88.3	-48.9	-19.5	19.5	29.3	48.9	58.8
Consumer credit	86.3	174.4	202.8	223.7	34.6	170.4	165.0	162.8	181.9	187.8	193.9	200.2	206.7	210.6
Debt/DPI (percent)[3]	114.4	110.6	108.2	105.4	113.6	112.7	112.0	111.1	110.0	109.0	109.1	108.5	107.8	107.1
Business														
Financing gap[4]	-192.3	-128.2	44.1	109.1	-252.9	-173.1	-167.7	-154.8	-121.2	-69.1	5.9	30.9	51.6	88.0
Net equity issuance	-474.8	-385.2	-340.0	-360.0	-605.3	-458.7	-360.8	-380.0	-400.0	-400.0	-340.0	-340.0	-340.0	-340.0
Credit market borrowing	473.0	496.2	479.6	533.7	411.8	532.0	628.5	456.3	450.7	449.4	464.1	466.5	486.2	501.6
State and local governments														
Net borrowing	-58.6	-14.1	17.8	29.8	1.0	-29.1	-53.9	-10.2	-2.2	9.8	17.8	17.8	17.8	17.8
Current surplus[5]	224.9	206.2	253.1	241.9	212.1	215.2	180.0	204.3	213.8	226.7	237.6	254.0	257.9	263.0
Federal government														
Net borrowing	1067.9	1119.5	849.7	787.9	1382.6	1321.2	1293.9	1104.8	831.3	1247.8	1171.1	651.3	439.4	1137.2
Net borrowing (n.s.a.)	1067.9	1119.5	849.7	787.9	389.1	326.0	398.3	162.3	251.2	307.6	367.6	48.9	153.2	280.0
Unified deficit (n.s.a.)	1251.4	1097.7	769.7	707.9	328.1	321.7	457.3	115.7	217.2	307.5	347.6	28.9	133.2	260.0
Depository institutions														
Funds supplied	200.5	542.1	499.1	620.1	498.1	606.2	861.2	415.7	415.7	475.8	486.4	481.8	502.3	526.1

Note: Data after 2011:Q4 are staff projections.
1. Average debt levels in the period (computed as the average of period-end debt positions) divided by nominal GDP.
2. Includes change in liabilities not shown in home mortgages and consumer credit.
3. Average debt levels in the period (computed as the average of period-end debt positions) divided by disposable personal income.
4. For corporations, excess of capital expenditures over U.S. internal funds.
5. NIPA state and local government saving plus consumption of fixed capital and net capital transfers.
n.s.a. Not seasonally adjusted.

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

Measure and country	2011 Q1	2011 Q2	2011 Q3	2011 Q4	Projected 2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4
Real GDP [1]												
Total foreign	3.6	2.4	3.9	1.4	3.2	2.9	2.8	2.9	3.0	3.1	3.2	3.3
Previous Tealbook	*3.6*	*2.4*	*3.8*	*1.2*	*3.1*	*2.8*	*2.8*	*3.0*	*3.0*	*3.1*	*3.2*	*3.3*
Advanced foreign economies	1.8	.1	3.1	.2	1.2	1.1	1.1	1.3	1.5	1.7	1.9	2.1
Canada	3.7	-.6	4.2	1.8	2.2	2.0	2.2	2.3	2.2	2.3	2.3	2.5
Japan	-6.9	-1.2	7.1	-.7	2.7	2.1	1.6	1.5	1.3	1.4	1.5	1.5
United Kingdom	1.0	-.2	2.3	-1.2	.9	1.6	1.2	1.3	1.7	1.9	2.3	2.5
Euro area	3.1	.6	.5	-1.3	-.8	-.9	-.7	-.3	.5	.8	1.3	1.4
Germany	5.5	1.1	2.3	-.7	.3	.5	.7	1.0	1.3	1.5	1.8	2.0
Emerging market economies	5.5	4.9	4.8	2.6	5.3	4.8	4.6	4.6	4.6	4.6	4.7	4.7
Asia	7.7	4.8	5.3	2.6	6.8	6.0	5.7	5.5	5.8	5.8	5.9	5.9
Korea	5.3	3.4	3.4	1.3	3.4	3.5	3.5	3.5	3.7	3.8	4.0	4.1
China	9.1	9.5	10.0	7.8	7.4	8.4	8.0	8.0	8.2	8.2	8.2	8.2
Latin America	3.1	5.2	4.2	2.3	3.9	3.6	3.5	3.5	3.2	3.2	3.4	3.4
Mexico	2.1	6.0	5.1	1.7	4.0	3.5	3.4	3.4	3.0	3.0	3.2	3.2
Brazil	2.5	2.0	-.2	1.3	3.2	3.5	3.8	3.8	3.7	3.8	4.0	4.0
Consumer prices [2]												
Total foreign	4.1	3.4	3.1	2.9	2.5	2.1	2.4	2.4	2.4	2.4	2.4	2.4
Previous Tealbook	*4.1*	*3.3*	*3.1*	*2.9*	*3.1*	*2.4*	*2.4*	*2.4*	*2.4*	*2.4*	*2.4*	*2.4*
Advanced foreign economies	3.0	2.4	1.1	2.5	2.1	1.5	1.4	1.4	1.3	1.3	1.3	1.4
Canada	3.3	3.4	1.0	2.9	2.6	2.1	2.0	1.8	1.8	1.8	1.8	1.9
Japan	.0	-.7	.1	-.7	1.0	-.1	-.2	-.2	-.1	-.1	-.1	.0
United Kingdom	6.7	4.0	3.7	4.2	1.9	1.9	2.2	3.4	1.7	1.6	1.6	2.0
Euro Area	3.5	3.0	1.5	3.8	2.5	1.8	1.5	1.5	1.5	1.5	1.5	1.5
Germany	3.4	2.4	1.9	2.8	2.4	2.2	1.9	1.9	1.9	1.9	1.7	1.7
Emerging market economies	4.9	4.3	4.7	3.2	2.7	2.7	3.2	3.2	3.2	3.2	3.2	3.2
Asia	5.2	4.9	5.3	2.4	2.0	2.7	3.0	3.0	3.0	3.0	3.0	3.0
Korea	6.0	2.8	4.8	2.3	2.3	2.5	2.7	2.8	2.9	3.0	3.0	3.0
China	4.6	5.8	6.2	1.8	1.4	2.1	2.8	2.9	2.9	2.9	2.9	2.9
Latin America	3.8	2.9	3.7	5.2	4.7	2.5	3.7	3.8	3.8	3.8	3.8	3.8
Mexico	3.2	2.4	3.5	4.9	4.5	2.2	3.4	3.5	3.5	3.5	3.5	3.5
Brazil	8.1	7.1	5.3	6.4	4.3	4.1	5.5	6.3	6.0	5.4	5.2	5.0

[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	2006	2007	2008	2009	2010	2011	Projected 2012	Projected 2013	Projected 2014
Real GDP [1]									
Total foreign	4.2	4.4	-.9	.9	4.4	2.8	2.9	3.2	3.6
Previous Tealbook	*4.2*	*4.4*	*-.9*	*.9*	*4.4*	*2.8*	*2.9*	*3.2*	...
Advanced foreign economies	2.6	2.6	-2.0	-1.3	2.8	1.3	1.2	1.8	2.4
Canada	1.9	2.5	-.7	-1.4	3.3	2.2	2.2	2.3	2.8
Japan	2.1	1.6	-4.8	-.6	3.2	-.6	2.0	1.4	1.6
United Kingdom	2.1	4.1	-5.4	-.8	1.7	.5	1.2	2.1	2.8
Euro area	3.8	2.3	-2.1	-2.1	2.0	.7	-.7	1.0	1.9
Germany	4.9	2.4	-1.9	-2.2	3.8	2.0	.6	1.6	2.2
Emerging market economies	6.3	6.7	.4	3.5	6.2	4.4	4.8	4.6	4.9
Asia	7.8	8.9	.8	8.0	7.7	5.1	6.0	5.8	6.0
Korea	4.6	5.8	-3.2	6.3	5.0	3.4	3.5	3.9	4.5
China	12.8	13.7	7.7	11.4	9.6	9.1	7.9	8.2	8.3
Latin America	4.8	4.5	-.3	-.9	4.6	3.7	3.6	3.3	3.5
Mexico	4.1	3.5	-1.2	-2.4	4.3	3.7	3.6	3.1	3.4
Brazil	4.9	6.6	.9	5.3	5.4	1.4	3.6	3.9	4.1
Consumer prices [2]									
Total foreign	2.2	3.7	3.3	1.3	3.2	3.4	2.4	2.4	2.5
Previous Tealbook	*2.2*	*3.7*	*3.3*	*1.3*	*3.2*	*3.4*	*2.6*	*2.4*	...
Advanced foreign economies	1.4	2.2	2.0	.2	1.7	2.2	1.6	1.3	1.4
Canada	1.4	2.5	1.8	.8	2.2	2.7	2.1	1.8	2.0
Japan	.3	.5	1.1	-2.0	-.3	-.3	.1	-.1	.0
United Kingdom	2.7	2.1	3.9	2.2	3.4	4.7	2.3	1.7	1.7
Euro Area	1.8	2.9	2.3	.4	2.0	2.9	1.8	1.5	1.6
Germany	1.3	3.1	1.7	.3	1.6	2.6	2.1	1.8	1.7
Emerging market economies	2.9	5.1	4.6	2.1	4.3	4.3	2.9	3.2	3.3
Asia	2.4	5.5	3.6	1.3	4.3	4.4	2.7	3.0	3.1
Korea	2.1	3.4	4.5	2.4	3.2	4.0	2.6	3.0	3.0
China	2.1	6.7	2.5	.6	4.7	4.6	2.3	2.9	3.0
Latin America	4.1	4.2	6.7	3.9	4.4	3.9	3.7	3.8	3.7
Mexico	4.1	3.8	6.2	4.0	4.3	3.5	3.4	3.5	3.4
Brazil	3.1	4.3	6.3	4.3	5.6	6.7	5.0	5.4	4.9

[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

	2011 Q1	2011 Q2	2011 Q3	2011 Q4	Projected 2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4
	Billions of dollars, s.a.a.r.											
U.S. current account balance	**-473.1**	**-493.7**	**-430.5**	**-496.4**	**-520.4**	**-478.3**	**-493.9**	**-522.0**	**-553.9**	**-521.0**	**-530.7**	**-554.2**
Previous Tealbook	*-474.9*	*-495.4*	*-437.7*	*-458.5*	*-467.4*	*-422.7*	*-426.3*	*-450.7*	*-480.4*	*-438.4*	*-444.0*	*-460.7*
Current account as percent of GDP	-3.2	-3.3	-2.8	-3.2	-3.4	-3.1	-3.1	-3.3	-3.4	-3.2	-3.2	-3.3
Previous Tealbook	*-3.2*	*-3.3*	*-2.9*	*-3.0*	*-3.0*	*-2.7*	*-2.7*	*-2.8*	*-3.0*	*-2.7*	*-2.7*	*-2.8*
Net goods & services	-555.8	-580.9	-538.9	-564.3	-589.7	-556.2	-566.4	-583.3	-607.8	-565.0	-561.3	-572.4
Investment income, net	220.7	238.0	251.2	210.1	216.8	221.5	219.4	210.2	201.4	187.5	177.4	167.2
Direct, net	317.1	323.6	331.8	294.3	291.0	288.0	283.9	280.6	279.8	274.5	273.2	273.8
Portfolio, net	-96.4	-85.6	-80.6	-84.3	-74.2	-66.5	-64.5	-70.4	-78.4	-87.0	-95.7	-106.6
Other income and transfers, net	-138.0	-150.9	-142.9	-142.2	-147.4	-143.5	-146.8	-148.9	-147.4	-143.5	-146.8	-148.9

Annual Data

	2006	2007	2008	2009	2010	2011	Projected 2012	2013	2014
	Billions of dollars								
U.S. current account balance	**-800.6**	**-710.3**	**-677.1**	**-376.6**	**-470.9**	**-473.4**	**-503.6**	**-540.0**	**-574.7**
Previous Tealbook	*-800.6*	*-710.3*	*-677.1*	*-376.6*	*-470.9*	*-466.6*	*-441.8*	*-455.9*	...
Current account as percent of GDP	-6.0	-5.1	-4.7	-2.7	-3.2	-3.1	-3.2	-3.3	-3.3
Previous Tealbook	*-6.0*	*-5.1*	*-4.7*	*-2.7*	*-3.2*	*-3.1*	*-2.8*	*-2.8*	...
Net goods & services	-753.3	-696.7	-698.3	-381.3	-500.0	-560.0	-573.9	-576.6	-566.9
Investment income, net	54.7	111.1	157.8	137.1	174.5	230.0	217.0	183.4	139.0
Direct, net	174.0	244.6	284.3	262.2	280.6	316.7	285.9	275.3	273.2
Portfolio, net	-119.4	-133.5	-126.5	-125.1	-106.2	-86.7	-68.9	-91.9	-134.2
Other income and transfers, net	-102.0	-124.7	-136.6	-132.3	-145.3	-143.5	-146.7	-146.7	-146.7

Abbreviations

ABCP	asset-backed commercial paper
ABS	asset-backed securities
AFE	advanced foreign economy
BEA	Bureau of Economic Analysis, Department of Commerce
BHC	bank holding company
BLS	Bureau of Labor Statistics, Department of Labor
BOE	Bank of England
BOJ	Bank of Japan
CCAR	Comprehensive Capital Analysis and Review
CDS	credit default swap
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
ECB	European Central Bank
EDO Model	Estimated Dynamic Optimization-Based Model
EME	emerging market economy
E&S	equipment and software
ETF	exchange-traded fund
EU	European Union
EUC	Emergency Unemployment Compensation
FOMC	Federal Open Market Committee; also, the Committee
FRBNY	Federal Reserve Bank of New York
FX	foreign exchange
GDP	gross domestic product

GSE	government-sponsored enterprise
HARP	Home Affordable Refinance Program
IMF	International Monetary Fund
IPO	initial public offering
LIBOR	London interbank offered rate
LLC	limited liability company
LTRO	longer-term refinancing operation
MBS	mortgage-backed securities
MEP	maturity extension program
Michigan survey	Thomson Reuters/University of Michigan Surveys of Consumers
NAIRU	non-accelerating inflation rate of unemployment
NFIB	National Federation of Independent Business
NIPA	national income and product accounts
OIS	overnight index swap
OTC	over the counter
PCE	personal consumption expenditures
PMI	purchasing managers index
REIT	real estate investment trust
repo	repurchase agreement
RRE	residential real estate
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices
SOMA	System Open Market Account
S&P	Standard & Poor’s
TIC	Treasury International Capital
TIPS	Treasury inflation-protected securities
WTI	West Texas Intermediate