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 01/10/2020.

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

September 10, 2014

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

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Domestic Economic Developments and Outlook

The information that we have received since the July Tealbook suggests a somewhat weaker pace of economic recovery than we had previously projected. The two latest monthly employment reports showed somewhat less improvement in the labor market than we had expected. In response, we have nudged down our forecast of job gains—and nudged up our forecast of the unemployment rate—through the end of the year. And overall consumer spending has been disappointing, despite strong motor vehicle sales.[1] On the brighter side, industrial production has continued to advance, and forward-looking indicators from the manufacturing surveys have been quite strong. All told, we now expect real GDP to increase at an annual rate of a little less than 3 percent in the second half of this year, ½ percentage point below the July Tealbook.

Our medium-term projection for economic activity is also a little weaker than in the July Tealbook, mainly reflecting a higher projected path for the exchange value of the dollar as well as a modestly lower projected path for house prices. Even so, we still expect output growth to pick up over the next two years as factors that have been restraining the economic recovery continue to ease and confidence in the underpinnings of the economic situation improves further. Our current forecast anticipates that real GDP will increase 2.7 percent next year and 2.9 percent in 2016, ¼ percentage point lower, on average, than our forecast in the July Tealbook. With monetary policy accommodation being withdrawn, GDP growth is anticipated to slow to 2¼ percent in 2017.

The projected path of the unemployment rate is higher in this projection, and entails less undershooting of the natural rate, than in the July Tealbook. Nevertheless, the unemployment rate still is projected to edge down gradually over the next several years and bottoms out at just a little below 5 percent in 2017, roughly ¼ percentage point below our estimate of the natural rate.

[1] This assessment may need to be revised. On Thursday, September 11, after Book A of the Tealbook closes, we are scheduled to receive second-quarter data from the Quarterly Services Survey. On Friday, September 12, we are scheduled to receive the retail sales report for August along with revised estimates for June and July.

Revisions to the Staff Projection since the Previous SEP

The FOMC last published its Summary of Economic Projections (SEP) following the June 2014 FOMC meeting. The table below compares the staff's current economic projection to the one we presented in the June Tealbook. Relative to the June Tealbook, we have marked down somewhat our projection for real GDP growth in the second half of this year and over the next three years. The unemployment rate is expected to be slightly lower at the end of this year than it was in the June Tealbook, but our projection over the subsequent three years is a bit higher than it was in our June forecast. By the end of the medium-term projection, the output gap comes into line with the signal from the unemployment rate gap.

The staff's projections for both overall and core PCE inflation are little changed, on balance, from those in the June forecast. We continue to project that both core and headline inflation will remain below the Committee's 2 percent objective through 2017. With our forecasts for inflation and resource utilization similar to what they were in the June Tealbook, and our assumption that the federal funds rate will lift off in the second quarter of 2015 unchanged, the projected path for the federal funds rate is about the same as it was in our June forecast.

Staff Economic Projections Compared with the June Tealbook

Variable	2014		2014	2015	2016	2017	Longer run
	H1	H2					
Real GDP[1]	1.1	2.9	2.0	2.7	2.9	2.3	2.0
June Tealbook	1.3	3.5	2.4	3.0	3.2	2.6	2.0
Unemployment rate[2]	6.2	5.9	5.9	5.4	5.1	4.9	5.2
June Tealbook	6.3	6.0	6.0	5.4	5.0	4.7	5.2
PCE inflation[1]	1.8	1.1	1.5	1.5	1.6	1.7	2.0
June Tealbook	1.7	1.4	1.5	1.4	1.5	1.7	2.0
Core PCE inflation[1]	1.6	1.5	1.5	1.6	1.7	1.8	n.a.
June Tealbook	1.5	1.4	1.5	1.6	1.7	1.8	n.a.
Federal funds rate[2]	.09	.13	.13	1.07	2.25	3.16	3.75
June Tealbook	.13	.13	.13	1.04	2.32	3.29	3.75
Memo: Federal funds rate, end of period	.13	.13	.13	1.17	2.34	3.22	3.75
June Tealbook	.13	.13	.13	1.15	2.41	3.35	3.75

1. Percent change from final quarter of preceding period to final quarter of period indicated.
2. Percent, final quarter of period indicated.
n.a. Not available.

The recent price data have come in softer than we expected. We continue to think that core inflation will slow from the second-quarter pace of 2 percent, and we now project core PCE price inflation of 1½ percent in both the third and fourth quarters. Over the medium term, we still expect core inflation to step up gradually as resource slack diminishes, reaching 1.8 percent in 2017; the path is a bit lower than in July, mainly reflecting the weaker outlook for real activity. Over the medium term, consumer energy prices are expected to be fairly flat, causing headline inflation to run a little below core inflation.

Key Background Factors

Monetary Policy

- Our assumptions for the current LSAP program are unchanged from the previous projection. We assume that asset purchases will conclude by the end of October, leaving the cumulative amount of purchases under the current program at close to $1.5 trillion.

- We continue to assume the federal funds rate will lift off from its effective lower bound in the second quarter of 2015. We construe the two-quarter lag from the assumed end in asset purchases to the liftoff of the federal funds rate to be consistent with the “considerable time” language in the Committee’s recent statements.

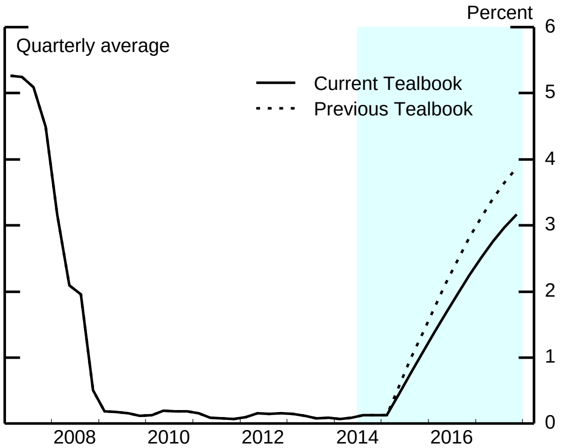
- Following liftoff, the federal funds rate rises at a pace determined by the prescriptions of an inertial version of the Taylor (1999) policy rule. The rule puts the federal funds rate at about 2.3 percent at the end of 2016 (60 basis points lower than in the July Tealbook) and at 3.2 percent at the end of 2017 (70 basis points lower than in the July Tealbook). Both figures are little changed relative to the June Tealbook.

Other Interest Rates

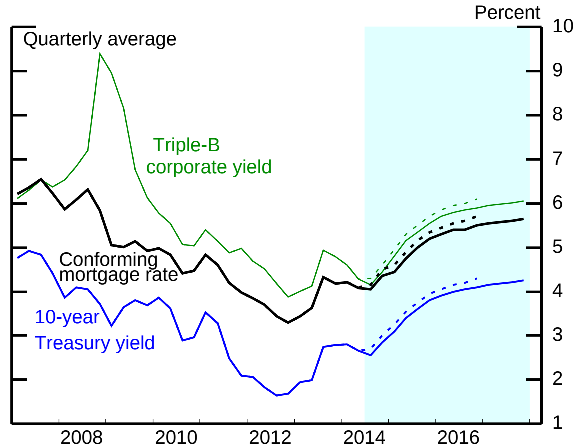
- The anticipated trajectory for the 10-year Treasury yield averages about 15 basis points lower over the medium term than in the July Tealbook, reflecting the downward adjustment to the projected path of the federal funds rate. Our projection continues to call for a significant rise in Treasury yields, primarily because of the movement of the 10-year valuation window through

Key Background Factors underlying the Baseline Staff Projection

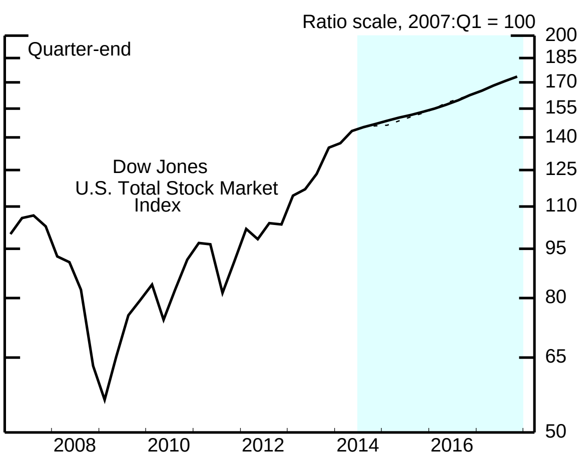
Federal Funds Rate



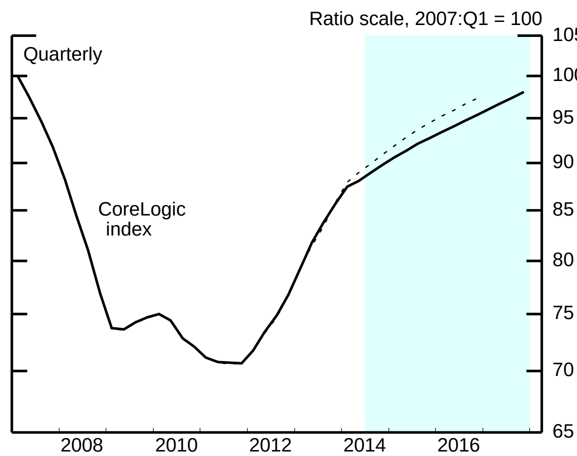
Long-Term Interest Rates



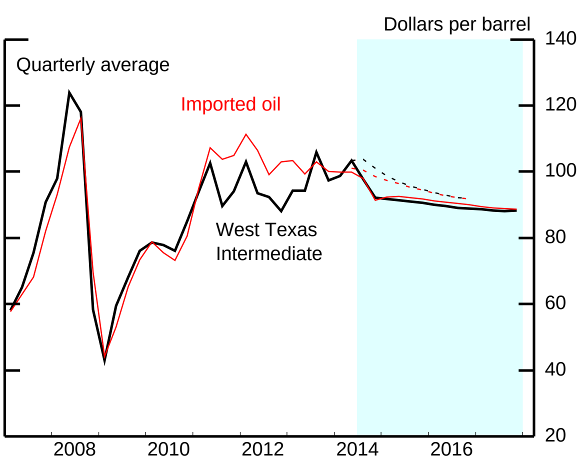
Equity Prices



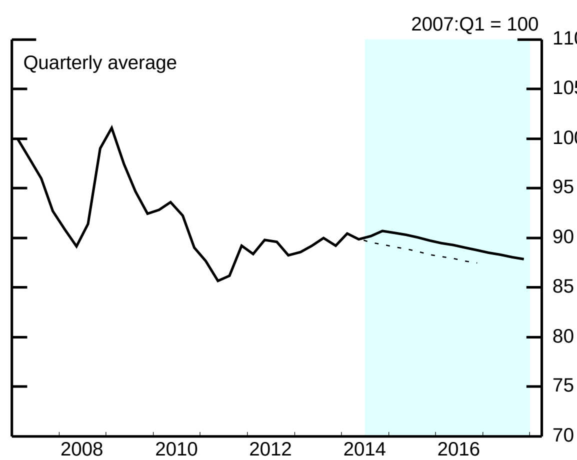
House Prices



Crude Oil Prices



Broad Real Dollar



the period of extremely low short-term interest rates as well as a gradual waning of the effects of the FOMC's balance sheet policies.

- Our forecasts for corporate bond yields and mortgage rates in the medium term have revised essentially in line with our revisions to the path for the Treasury yield.

Equity Prices and Home Prices

- The current level of equity prices is in line with our July Tealbook projection. Our forecast has stock prices rising at an average annual growth rate of 5½ percent in the projection period.

- Compared with the July Tealbook projection, the incoming house price data have been weaker than expected, on balance, and we have extrapolated forward some of that weakness. As a result, house prices, which are currently slightly above their historical relationship with rents, return to our rough benchmark of fair valuation a bit more quickly in this projection than in the July Tealbook. We expect house price appreciation to continue to slow—from 12 percent in 2013 to 5 percent this year and about 3 percent per year from 2015 to 2017.

Fiscal Policy

- Our assumptions for fiscal policy are essentially unchanged from the July Tealbook. The box "Fiscal Policy Restraint and Government Budget Conditions" reviews the profile of fiscal impetus over the projection period.

Foreign Economic Activity and the Dollar

- We estimate that real GDP in the foreign economies rose at an annual rate of nearly 3 percent in the third quarter, up from a 2¼ percent pace in the first half. We expect foreign growth to pick up a bit further to around 3¼ percent over the rest of the forecast period. This forecast is little changed from that in the previous Tealbook.

- The broad nominal index for the dollar has appreciated about 1¾ percent since the previous Tealbook, with the dollar rising 4 to 5 percent against the euro, yen, and pound. Going forward, we expect the broad real dollar to depreciate at a 1 percent pace, with all the depreciation coming against the currencies of

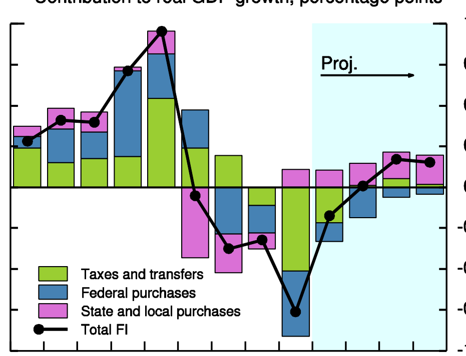
Fiscal Policy Restraint and Government Budget Conditions

Over the past several years, fiscal policymakers at all levels of government have enacted spending reductions and tax increases as a reaction to the deterioration in budget conditions after the most recent recession. In response, discretionary fiscal policy actions, on balance, have been a drag on economic growth in recent years. Government budget conditions have improved, however, and pressures for additional fiscal restraint are expected to diminish substantially this year and over the medium term.

The left-hand panel at the bottom of this page shows the staff's measure of fiscal impetus (FI), which is our estimate of the contribution to real GDP growth from discretionary changes in fiscal policy (excluding multiplier effects). We estimate that the drag on real GDP growth from fiscal policy actions at all levels of government was 1 percentage point in 2013, but that it is narrowing to only ¼ percentage point in 2014 (the black line). As shown by the blue portion of the bars, decreases in real federal purchases were an important factor in the restraint estimated for last year, but they are making a much smaller negative contribution this year. Since 2011, federal purchases have contracted because of the Budget Control Act's discretionary spending caps and the reductions in overseas military operations. But federal purchases declined more precipitously in 2013, reflecting the onset of the federal spending sequestration as well the government shutdown that temporarily held down purchases in the fourth quarter of that year. The contribution to fiscal restraint from changes in taxes and transfers (the green portion of the bars) was sizable last year, reflecting the expiration of the temporary payroll tax cut as well as the implementation of tax increases on high-income households. However, these tax changes are estimated to exert a smaller drag on consumption spending growth this year than last, and the restraint from the ending of the Emergency Unemployment Compensation program at the beginning of this year will be about offset, in our estimation, by the boost to consumption that we expect will be induced by the expansion of health insurance coverage under the Affordable Care Act.

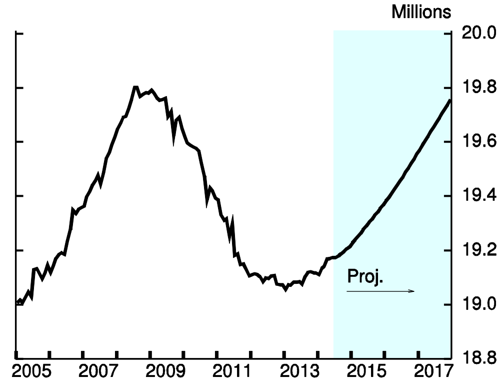
Finally, modest increases in state and local purchases (the purple portion of the bars) provided a small boost to real GDP growth last year and are expected to do so this year as well, largely manifesting as gains in state and local employment. As shown in the lower-right panel, state and local government payrolls have been expanding over the past six quarters.

Total Fiscal Impetus (FI)
Contribution to real GDP growth, percentage points



Source: Staff estimate.

Level of State and Local Employment



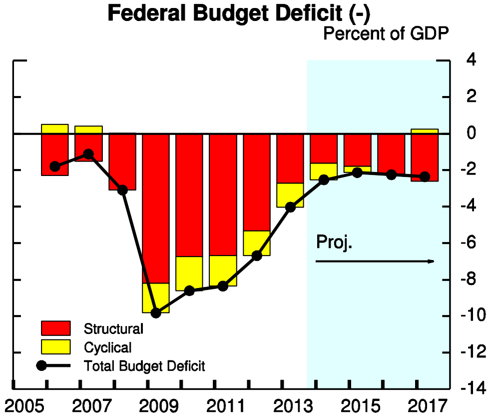
Source: Bureau of Labor Statistics; staff assumptions.

Fiscal restraint and the effects of the continuing economic recovery have led to improved budget conditions for federal, state, and local governments. For example, as shown by the black line in the left-hand panel at the bottom of this page, the federal budget deficit declined from 10 percent of GDP in 2009 to 4 percent last year. Changes in federal fiscal policies have reduced the structural deficit (the red portion of the bars), which excludes the effects of endogenous movements in tax revenues and spending that result from the business cycle (the yellow portion of the bars). We expect the deficit to remain around 2½ percent of GDP over the medium term, a level consistent with temporarily stabilizing the ratio of federal debt to GDP above 70 percent, given our projection for GDP. Over the medium term and beyond, the normalization of interest rates will push up federal debt-servicing costs as a share of GDP. In addition, the aging of the population and ongoing increases in health-care costs are expected to put more sizable upward pressure on the structural deficit over the longer term.

Similar factors will also restrain state and local budgets over the medium and longer terms, including pressures from their underfunded employee pension sytems and from rising costs for Medicaid and health-care programs for state and local government retirees. State and local tax receipts, shown in the lower-right panel, have posted moderate gains since the second half of 2010 and are projected to continue increasing at a similar pace over the medium term. Initially, these revenue increases were used to improve budget positions and shore up depleted rainy day funds, but since last year these greater revenues have supported modest increases in hiring. Over the medium term, we expect this pace of revenue growth to allow state and local governments to slowly restore their employment to its previous peak, even though long-term rising costs for health and retirement programs will weigh heavily on these governments' budgets for the foreseeable future.

All told, recent improvements in government budget conditions have reduced the need for further fiscal restraint over the medium term. However, the current high level of federal debt, along with the longer-term budget pressures facing all governments, allow little room for expansionary fiscal policy actions. Indeed, further budget restraint will likely be needed to reduce federal debt and provide fiscal policymakers with the capacity to respond to unforeseen events.

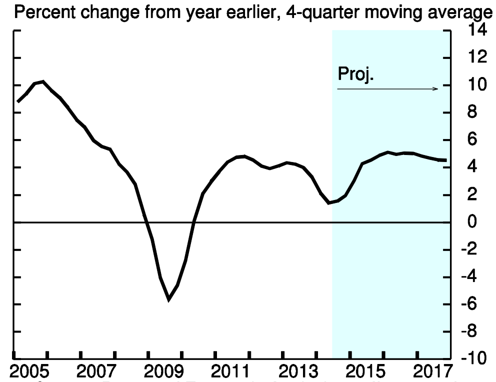
Federal Budget Deficit (-)



Source: *Monthly Treasury Statement;* staff assumptions.

State and Local Current Tax Receipts

Percent change from year earlier, 4-quarter moving average



Source: Bureau of Economic Analysis; staff assumptions.

the emerging market economies, while the dollar appreciates against the currencies of the advanced economies. The projected pace of dollar depreciation is little changed from the previous Tealbook, thereby maintaining the higher level of the dollar throughout the projection period.

Oil and Other Commodity Prices

- The spot price of Brent crude oil has fallen about $8 per barrel since the time of the previous Tealbook, although continued concerns about the longer-term outlook for global oil production amid geopolitical turmoil have led farther-dated futures prices to fall by less. Consequently, we project that the price of imported oil will decline less steeply than in the previous forecast, falling from about $92 per barrel at the end of this year to $89 per barrel at the end of 2017—a forecast about $7 per barrel and $2 per barrel less, respectively, than in the July Tealbook.

- Nonfuel commodity prices are down slightly from the July Tealbook. Among the categories with the largest price declines are iron ore, owing to continued expansions of Australian shipments, and corn and soybeans, reflecting favorable weather conditions. Over the forecast period, we project nonfuel commodity prices to increase only slightly.

Recent Developments and the Near-Term Outlook for Real GDP

The most recent information indicates that aggregate output in the first half of this year was not quite as anemic as earlier estimates had suggested. However, the bulk of the upward revision was concentrated in inventory investment, and we unwound some of the inventory surprise in the second half. Moreover, we pushed down our near-term projection significantly in reaction to the surprising softness in consumer spending in July. We now anticipate that real GDP growth will average an annual rate of a little less than 3 percent in the second half of the year, about ½ percentage point less than in the previous forecast.

- Overall consumer spending this quarter appears to be on a considerably weaker trajectory than we had expected despite very strong motor vehicle sales in August. Indeed, we are now forecasting that real PCE will increase at an annual rate of only 2 percent in the third quarter, 1½ percentage points below our forecast in the July Tealbook. Some of the downward revision can be traced to the effects of unusually cool summer weather on energy demand, a pattern that will reverse as temperatures normalize. Even after accounting for these weather-related swings, however, the data in hand suggest that the pace of spending has remained lackluster. In light of these data—which extend a string of negative PCE surprises—we trimmed our forecast for spending growth in the next several quarters.

- Incoming data about housing activity have been encouraging. Existing home sales have moved up at a brisk pace in recent months, and starts and permits have improved from the low levels recorded early in the year. We continue to forecast a modest acceleration in activity over the remainder of this year, as ongoing job gains and diminishing concerns about the economic outlook support the recovery in household formation, boosting the demand for new homes and hence construction activity.

- Investment in equipment and intangibles increased at a moderate pace of about 5 percent in the first half of the year and is projected to remain close to that rate in the second half. Business investment in nonresidential structures (outside of the drilling sector) rose only modestly, on average, in the first half of the year, and our forecast for the second half calls for more of the same.

- Even with a strong rebound in the second quarter, real exports only edged higher, on net, over the first half of this year. In the second half, exports are expected to rise at a moderate annual rate of 4 percent, depressed a bit by the drag from past dollar appreciation. Real imports are expected to rise at a moderate pace of 2¼ percent in the second half, in part held back by a continued decline in imports of oil. Altogether, the external sector is expected to contribute ¼ percentage point to real GDP growth in the second half of this year after having subtracted a full percentage point in the first half.

- Smoothing through wide swings in motor vehicle production, manufacturing output appears to have increased moderately, on net, in July and August. Looking ahead, we project manufacturing production to expand at a moderate annual rate of about 3½ percent in the second half of the year, broadly similar to our forecast in the July Tealbook. That said, national and regional manufacturing surveys have been quite strong and may point to some upside risk in this forecast.

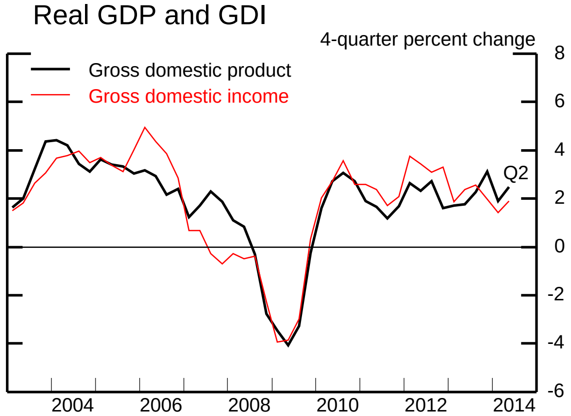
Summary of the Near-Term Outlook
(Percent change at annual rate except as noted)

Measure	2014:H1		2014:Q3		2014:Q4	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
Real GDP	**.3**	**1.1**	**3.6**	**2.8**	**3.3**	**3.0**
Private domestic final purchases	2.0	2.4	3.6	2.9	3.9	3.9
Personal consumption expenditures	1.6	1.8	3.4	2.0	3.7	3.4
Residential investment	.0	1.4	4.9	9.9	11.2	11.8
Nonres. private fixed investment	4.9	5.5	4.2	6.1	3.0	4.1
Government purchases	.2	.5	.0	-1.0	-.5	-.1
Contributions to change in real GDP						
Inventory investment[1]	-.5	.0	.2	.1	.2	-.1
Net exports[1]	-.9	-1.0	.3	.5	-.1	-.2
Unemployment rate[2]	**6.2**	**6.2**	**6.0**	**6.1**	**5.8**	**5.9**
PCE chain price index	**1.8**	**1.8**	**1.7**	**1.3**	**1.3**	**.9**
Ex. food and energy	1.6	1.6	1.8	1.5	1.5	1.4

1. Percentage points.
2. Percent. For 2014:H1, the 2014:Q2 value is shown.

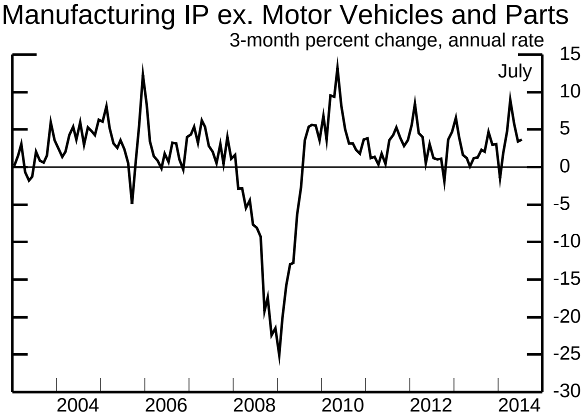
Recent Nonfinancial Developments (1)

Real GDP and GDI



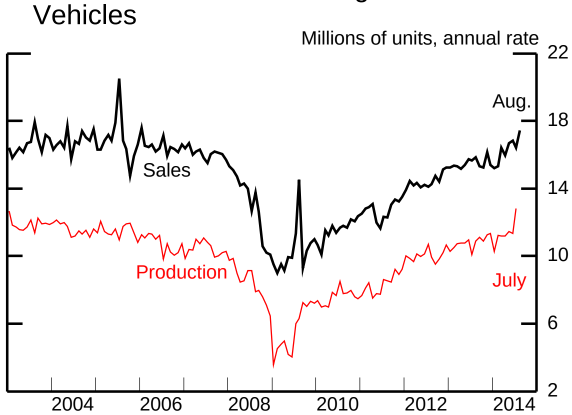
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Manufacturing IP ex. Motor Vehicles and Parts



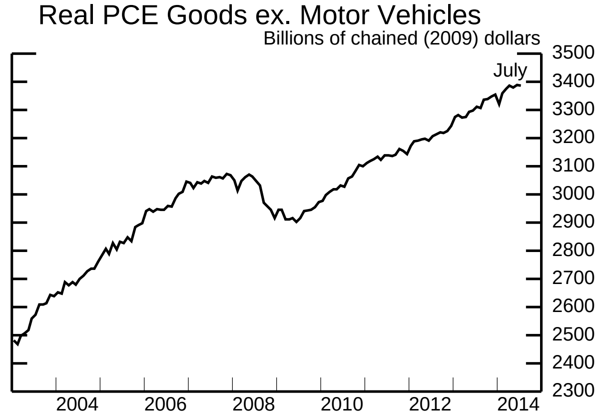
Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Sales and Production of Light Motor Vehicles



Source: Ward's Communications.

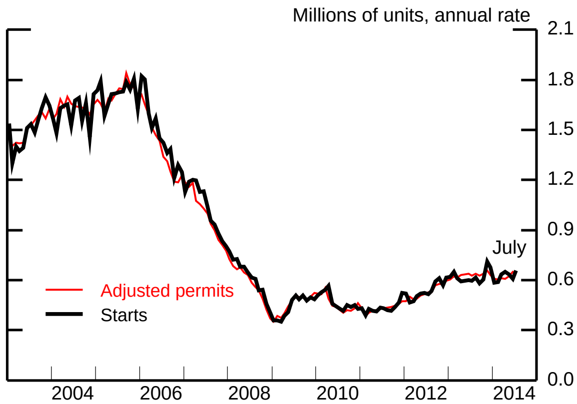
Real PCE Goods ex. Motor Vehicles



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

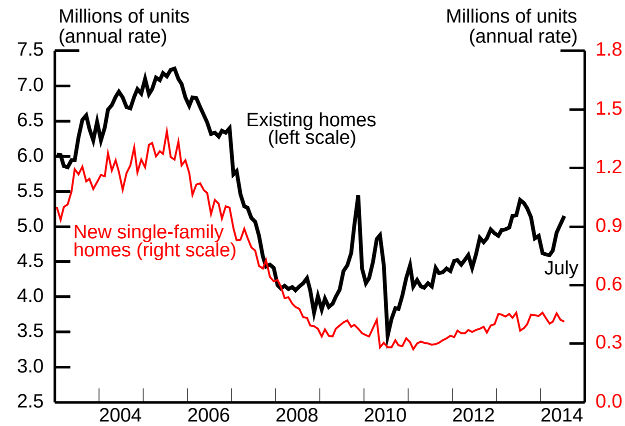
Recent Nonfinancial Developments (2)

Single-Family Housing Starts and Permits



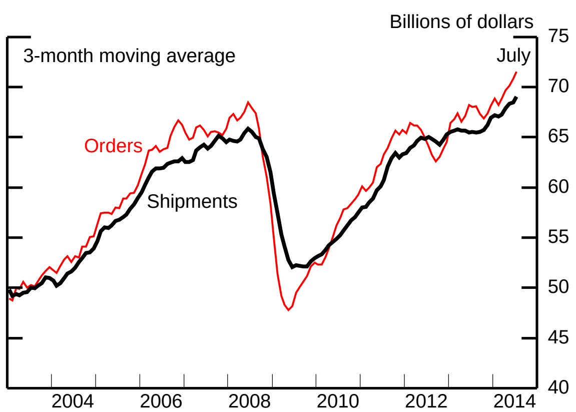
Note: Adjusted permits equal permit issuance plus total starts outside of permit-issuing areas.
Source: U.S. Census Bureau.

Home Sales



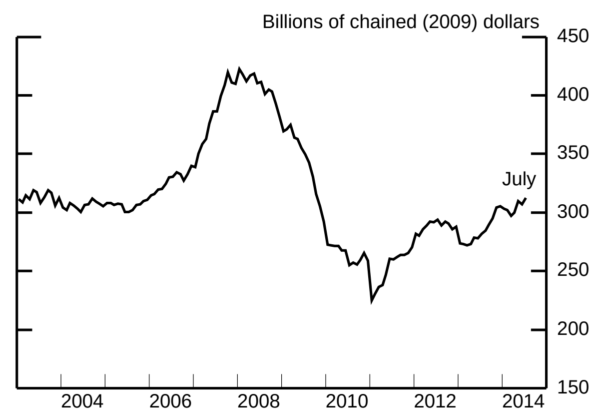
Source: For existing, National Association of Realtors; for new, U.S. Census Bureau.

Nondefense Capital Goods ex. Aircraft



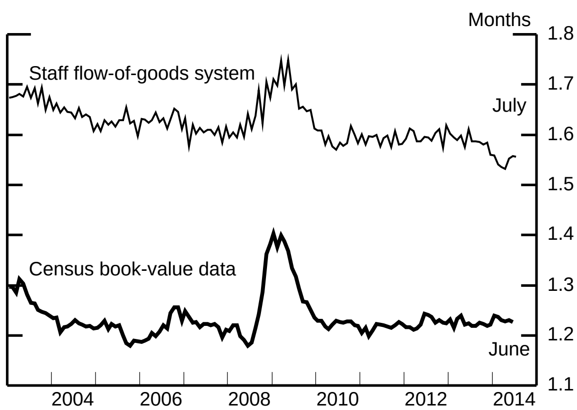
Source: U.S. Census Bureau.

Nonresidential Construction Put in Place



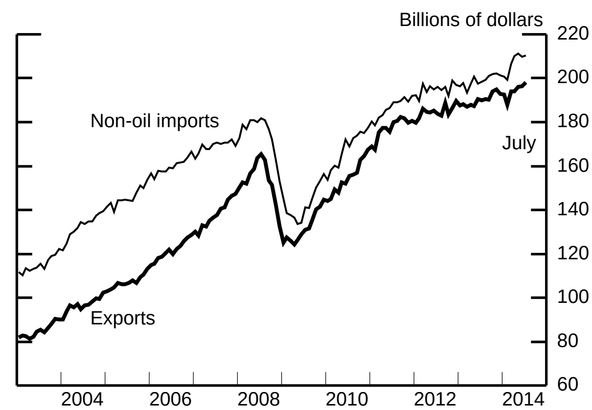
Note: Nominal CPIP deflated by BEA prices through 2014:Q1 and by the staff's estimated deflator thereafter.
Source: U.S. Census Bureau.

Inventory Ratios ex. Motor Vehicles



Note: Flow-of-goods system inventories include manufacturing and mining industries except motor vehicles and parts and 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 calculations.

Exports and Non-oil Imports



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

Potential GDP and the Natural Rate of Unemployment

The BEA's annual revision to real GDP and GDI, published at the end of July, did not substantially alter the recent relationship between the unemployment rate and output. In particular, the tensions we perceive between product and labor market developments in the first half of this year remain unresolved. We therefore have held to the strategy, laid out in the July Tealbook, of reacting to these tensions by adjusting potential GDP growth in 2014 so as to keep the output gap from becoming grossly misaligned with our assessment of the degree of slack in the labor market. We expect potential GDP to rise 1¾ percent next year and to accelerate gradually thereafter, the same as in the July Tealbook.[2]

The revised NIPA figures and incoming data did lead us to make some adjustments to our estimates of potential output:

- On net, the level of real GDP in the final quarter of 2013 was reported to be ¼ percent lower than in the previous vintage of NIPA data, and—consistent with our practice in response to previous NIPA revisions—we made small downward adjustments to our estimates of potential growth over the past several years such that the output gap at the end of 2013 was unrevised relative to the July Tealbook.

- In light of the two employment reports released since the July Tealbook, we see current and prospective labor market conditions as a little weaker than we previously believed and the unemployment rate gap as a little wider than expected. In order to preserve the relative positioning of the output and unemployment gaps, and with GDP growth revised up in the first half of the year, we marked up our assumption for the growth of potential GDP this year by ½ percentage point. This revision unwinds part of the downward adjustments to potential GDP that we made in July.

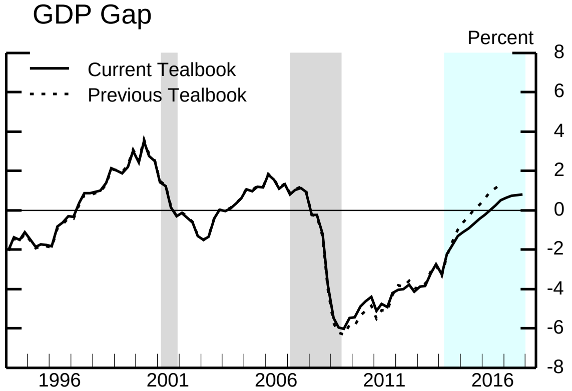
[2] We made no adjustments to the natural rate of unemployment this forecast round; thus, we continue to assume that the natural rate completed the decline to its long-run level of 5.2 percent in the second quarter of this year.

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

Measure	1974-95	1996-2000	2001-07	2008-10	2011-13	2014	2015	2016	2017
Potential real GDP	3.1	3.4	2.6	1.7	1.6	.5	1.7	1.9	2.0
Previous Tealbook	3.1	3.4	2.6	1.9	1.5	.0	1.7	1.9	
Selected contributions[1]									
Structural labor productivity[2]	1.6	2.9	2.8	1.5	1.2	.6	1.7	1.8	1.9
Previous Tealbook	1.6	2.7	2.6	1.8	1.1	.0	1.7	1.8	
Capital deepening	.7	1.5	.9	.4	.4	.6	.6	.7	.7
Multifactor productivity	.7	1.1	1.6	.9	.7	-.1	.9	1.0	1.0
Structural hours	1.5	1.0	.7	.2	.6	.2	.3	.3	.3
Previous Tealbook	1.5	1.0	.7	.2	.6	.2	.3	.3	
Labor force participation	.4	.0	-.3	-.4	-.5	-.8	-.5	-.5	-.5
Previous Tealbook	.4	.0	-.3	-.4	-.5	-.8	-.5	-.5	
Memo:									
GDP gap[3]	-1.8	2.5	.9	-4.4	-2.8	-1.3	-.4	.5	.8
Previous Tealbook	-1.8	2.5	1.0	-4.8	-2.8	-1.0	.3	1.3	

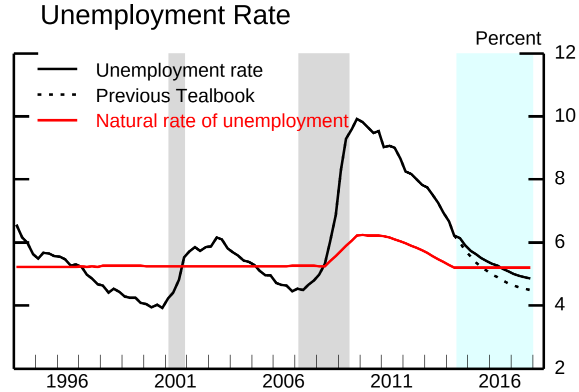
Note: For multiyear periods, the percent change is the annual average from Q4 of the year preceding the first year shown to Q4 of the last year shown.
1. Percentage points.
2. Total business sector; Previous Tealbook line reports structural labor productivity for the nonfarm business sector.
3. Percent 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.

GDP Gap



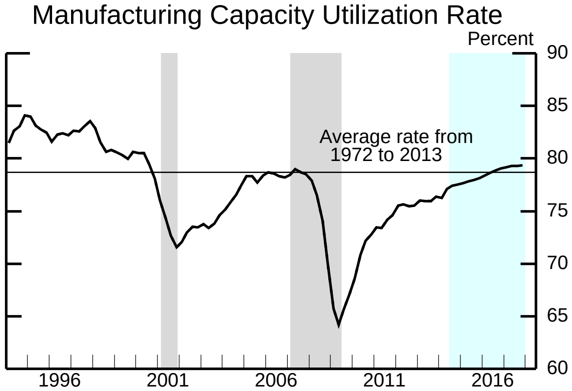
Note: The GDP gap is the percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.
Source: U.S. Dept. of Commerce, BEA; staff assumptions.

Unemployment Rate



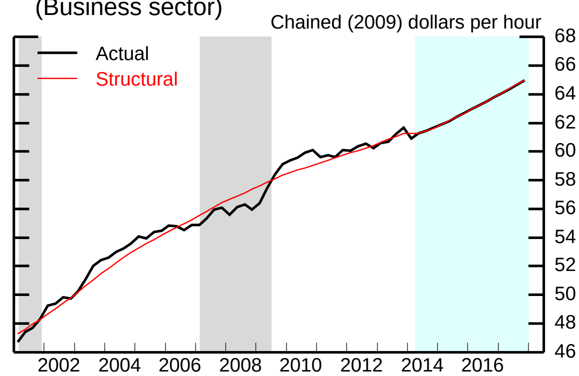
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

Manufacturing Capacity Utilization Rate



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

Structural and Actual Labor Productivity
(Business sector)



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

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

The Medium-Term Outlook for Real GDP

We continue to project a pickup in the pace of output growth over the next two years, but we have tempered the acceleration somewhat in this projection. We now expect GDP growth to move up from 2 percent in 2014 to 2.7 percent in 2015 and to almost 3 percent in 2016. In 2017, as monetary policy accommodation continues to be removed, output growth slows, but at 2¼ percent, it remains above potential.

- The net downward revision to GDP growth is largely a consequence of the higher path for the dollar as well as the modestly lower path for house prices assumed in this projection.

- Given the persistent weakness in household spending in recent quarters relative to our forecasting models, we adjusted the time profile of real PCE growth. The adjustments included building in a little more sluggishness this year and next year and then adding a little more strength thereafter to bring the level of spending more nearly back in line with fundamentals.

- As in previous Tealbooks, we expect that GDP growth will be supported by a further waning of restraint from changes in fiscal policy and a gradual expansion in the availability of mortgage credit. Moreover, as activity and employment continue to strengthen, consumer and business confidence should improve and provide additional support to spending growth.

The Outlook for the Labor Market

The incoming data suggest that conditions in the labor market continue to improve, but at a somewhat slower pace than we anticipated in the July Tealbook.

- Gains in nonfarm payroll employment averaged about 180,000 in July and August—the two reports released since the July Tealbook—well below the monthly increases of 250,000 that we had been expecting. Some special factors may have contributed to the shortfall relative to our expectations, but we nonetheless nudged down our forecast for the average monthly job gain in the final four months of this year, from 240,000 in the previous Tealbook to 220,000 in the current Tealbook.[3]

- The unemployment rate in August stood at 6.1 percent, 0.1 percentage point above our forecast in the July Tealbook. The labor force participation rate was 62.8 percent in August, in line with our July expectations.

- The preliminary reading on the staff's labor market conditions index (LMCI), which summarizes the movements in 19 labor market indicators, was up slightly over the past two months. Movements in the LMCI continue to indicate that labor market conditions over the past year have improved by less than would be inferred from viewing only the decline in the unemployment rate.

Taking all of this information on board, as well as the weaker outlook for economic activity, we now anticipate that slack in the labor market will be eliminated somewhat later than in our previous projection.

- We have nudged down our forecast for monthly job gains, and we now expect them to average about 190,000 over 2015 and 2016, compared with the average of around 220,000 that we projected in the July Tealbook. In 2017, the pace of job gains is expected to slow to about 150,000 per month.

- Over the medium term, the unemployment rate is around 0.4 percentage point higher than in the previous projection, and it drifts down to 4.9 percent at the end of 2017, ¼ percentage point below the natural rate.

The Outlook for Inflation

In response to faster-than-expected declines in oil prices, we have marked down our projection for total PCE price inflation in the second half of this year. But otherwise, the price projection is very similar to the one we presented in the July Tealbook, with

[3] Among the special factors, many employees of the Market Basket grocery store chain in New England were temporarily off payrolls in August due to a labor dispute. In addition, there is some reason to believe that the August payroll gain was understated. On average over the past decade, August payroll gains have been revised up by about 60,000 jobs between the first and third readings. (There were unusually few auto layoffs in July and therefore fewer recalls in August, but this factor washes out over the two months.)

core PCE price inflation expected to step up gradually over the medium term as resource slack is eliminated.

- The July reading on core PCE prices supported our view that some of the large price increases in the second quarter would prove to be transitory. In fact, that reading was even a little lower than we expected, leading to a downward revision of ¼ percentage point to our forecast for core inflation in the current quarter. We took little signal from the July surprise beyond this quarter. All told, we now expect core PCE prices to rise at a rate of 1½ percent in both the third and fourth quarters—held down slightly by the traces of residual seasonality that we find in these data and by lower core import price inflation.

- With the recent drop in crude oil prices, which has already started to feed through to lower gasoline prices, we now expect PCE energy prices to decrease at an annual rate of about 6 percent in the second half of this year, a larger decline than we had projected in the July Tealbook. Energy prices are projected to be relatively flat over the remainder of the projection.

- Food price inflation has begun to ease, as favorable crop conditions have contributed to a marked decline in farm prices. Accordingly, we project PCE food price inflation to slow to an annual rate of 1½ percent in the second half of the year from 3 percent in the first half.

- After rising at an annual rate of only ¼ percent in the second quarter, prices of core imported goods are expected to increase at a still-subdued pace of ½ percent in the second half of 2014, restrained by the ongoing drag from dollar appreciation. Core import price inflation is then expected to average around 1¼ percent per year, consistent with moderate foreign inflation and our projection for only slight dollar depreciation.

- In the medium term, we have revised down slightly the core inflation projection in response to the wider margin of resource slack. We forecast that core PCE inflation will edge up 0.1 percentage point per year over the medium term, reaching 1.8 percent in 2017. Total PCE inflation follows a similar contour to core inflation, but the fairly flat path of consumer energy prices leaves total PCE inflation a touch below core price inflation in each of the next three years.

- Compensation per hour in the business sector is now estimated to have increased at a pace of 4½ percent in the first half of this year, 3 percentage points faster than in the July Tealbook. But in light of the extreme volatility of these estimates and the relatively moderate increases of average hourly earnings and the employment cost index over the same period, we have interpreted the first-half strength in compensation per hour as broadly consistent with our forecast of a general acceleration as resources become more fully utilized.

The Long-Term Outlook

- Beyond 2017, the federal funds rate continues to be set according to the prescriptions of an inertial version of the Taylor (1999) rule. This policy rule assumes a long-run equilibrium level of the nominal federal funds rate of 3¾ percent.

- The Federal Reserve's holdings of securities continue to put downward pressure on longer-term interest rates, albeit to a diminishing extent. The process of returning the SOMA portfolio to a normal size is expected to be completed by 2021. Risk premiums on corporate equities and corporate bonds edge down toward their longer-run levels.

- The federal budget deficit continues to widen beyond 2017, primarily reflecting fast-rising transfer payments for retirement and health-care programs. The ratio of federal debt to GDP is about 73 percent in 2018 and edges up thereafter.

- The real foreign exchange value of the dollar moves down about 1¼ percent in 2018 and stays constant after that. The price of crude oil holds steady in real terms. Foreign real GDP rises at an annual rate of about 3 percent from 2018 to 2020.

- The natural rate of unemployment is 5.2 percent, and potential GDP rises around 2 percent per year on average from 2018 to 2020.

- With the output above its potential level, the federal funds rate is slightly above its longer-run value in 2019.

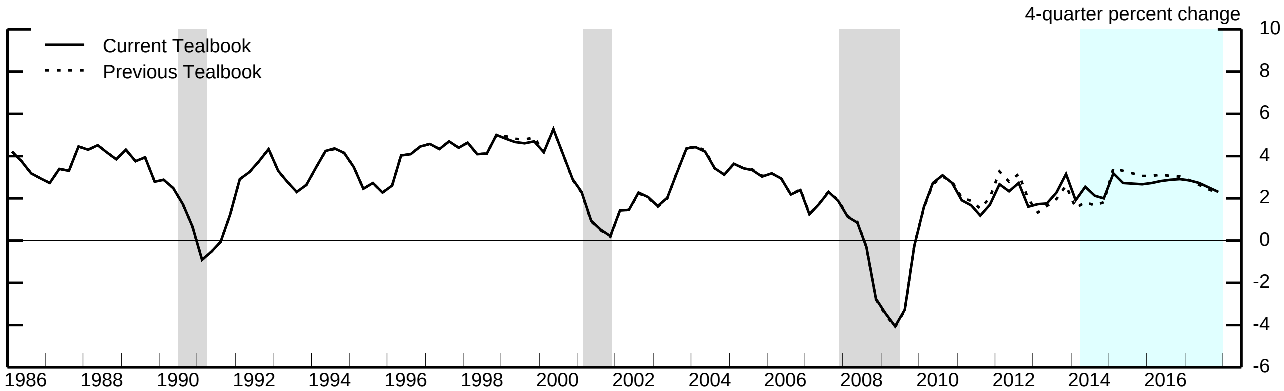
- As monetary policy accommodation is being withdrawn, real GDP slows to a touch below 2 percent in 2018 and then continues to run for a while slightly below the assumed growth rate of potential output. The unemployment rate stays flat at just under 5 percent in 2018 before gradually edging up toward its natural rate.

- Consumer price inflation remains a bit below the long-term objective of the Committee at the end of 2017. However, with the unemployment rate below the natural rate, longer-run inflation expectations gradually move up to the Committee's target, and consumer price inflation reaches 2 percent by 2019.

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

Measure	2014	2014 H1	2014 H2	2015	2016	2017
Real GDP	**2.0**	**1.1**	**2.9**	**2.7**	**2.9**	**2.3**
Previous Tealbook	1.8	.3	3.4	3.0	3.0	2.2
Final sales	2.0	1.1	2.9	2.6	2.9	2.5
Previous Tealbook	2.0	.8	3.2	3.2	3.0	
Personal consumption expenditures	2.3	1.8	2.7	3.0	2.8	2.5
Previous Tealbook	2.6	1.6	3.6	3.4	2.8	
Residential investment	6.0	1.4	10.8	11.0	10.7	6.0
Previous Tealbook	3.9	.0	8.0	13.7	11.9	
Nonresidential structures	6.8	7.8	5.9	-.7	1.1	.7
Previous Tealbook	3.8	.7	7.0	1.7	2.6	
Equipment and intangibles	4.8	4.8	4.9	3.1	4.2	3.0
Previous Tealbook	4.4	6.1	2.7	5.0	4.9	
Federal purchases	-2.0	-.5	-3.4	-3.3	-1.1	-.8
Previous Tealbook	-1.6	-.4	-2.7	-3.2	-1.2	
State and local purchases	1.2	1.1	1.3	1.5	1.8	2.0
Previous Tealbook	1.0	.7	1.3	1.4	1.8	
Exports	2.2	.3	4.0	4.4	5.1	5.4
Previous Tealbook	2.0	-.7	4.8	5.0	5.5	
Imports	4.4	6.5	2.3	4.0	4.6	3.9
Previous Tealbook	4.2	5.2	3.2	4.6	4.6	
	Contributions to change in real GDP (percentage points)					
Inventory change	.0	.0	.0	.1	.1	-.2
Previous Tealbook	-.2	-.5	.2	-.1	.0	
Net exports	-.4	-1.0	.2	-.1	-.1	.1
Previous Tealbook	-.4	-.9	.1	-.1	.0	

Real GDP

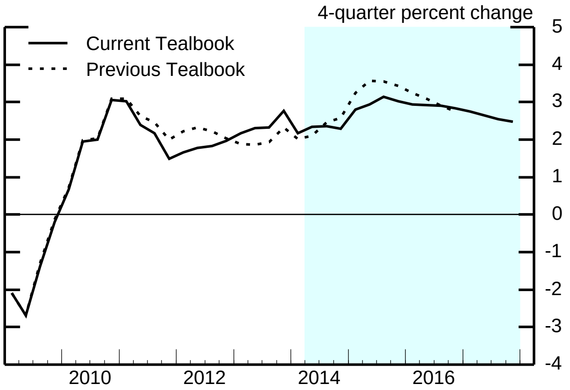


Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

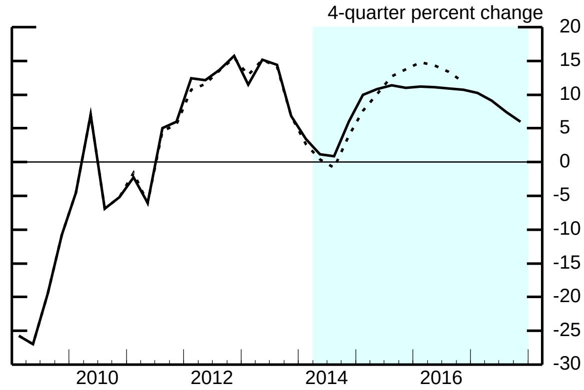
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Components of Final Demand

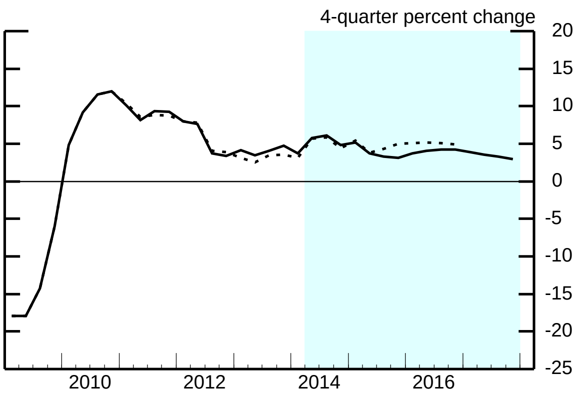
Personal Consumption Expenditures



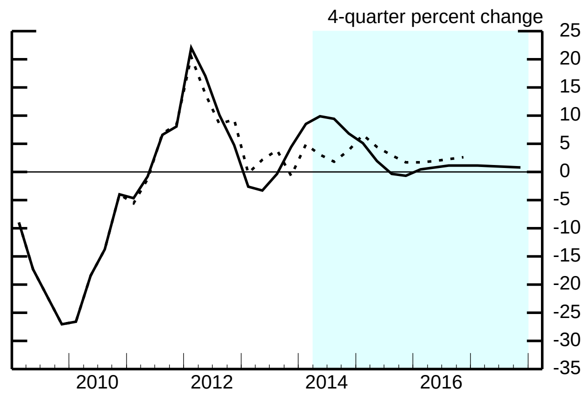
Residential Investment



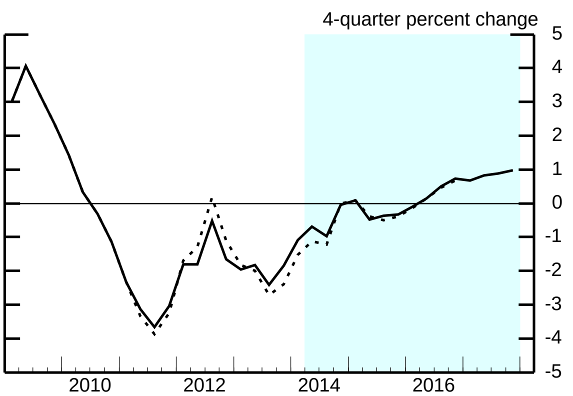
Equipment and Intangibles



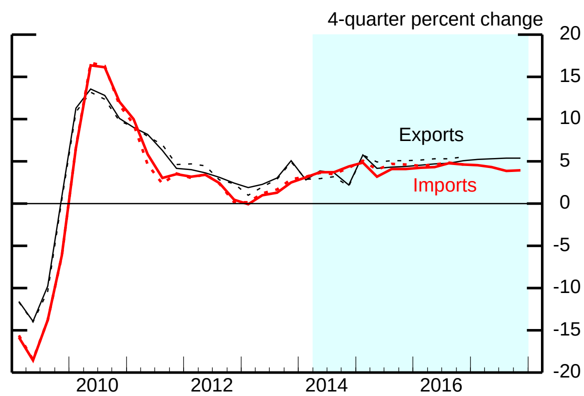
Nonresidential Structures



Government Consumption & Investment



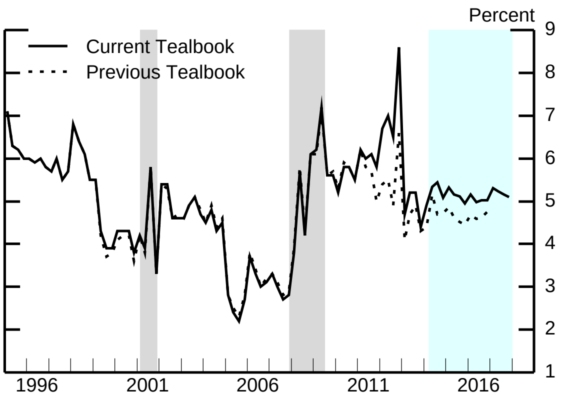
Exports and Imports



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

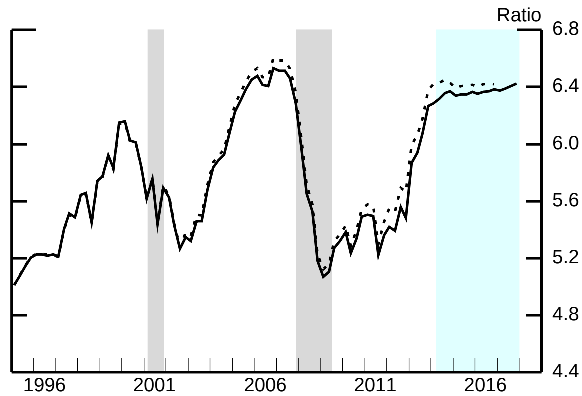
Aspects of the Medium-Term Projection

Personal Saving Rate



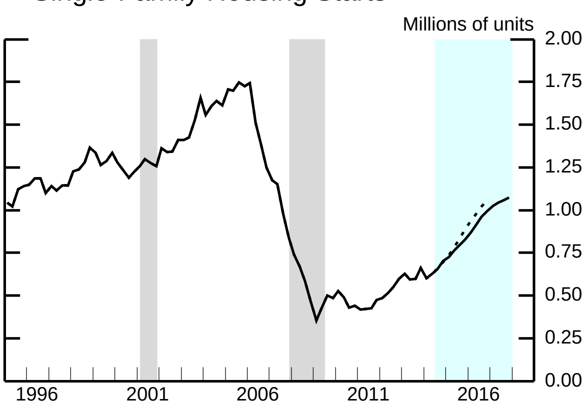
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Wealth-to-Income Ratio



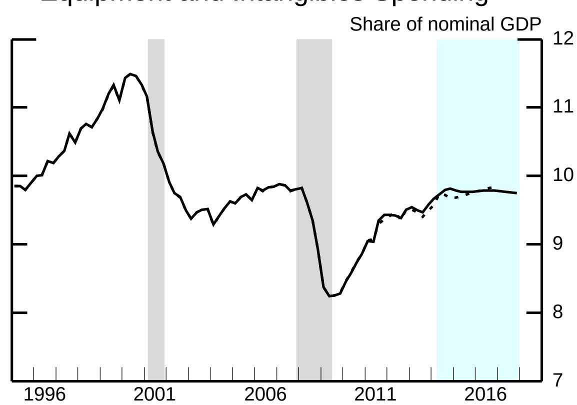
Note: Ratio of household net worth to disposable personal income.
Source: For net worth, Federal Reserve Board, Financial Accounts of the United States; for income, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



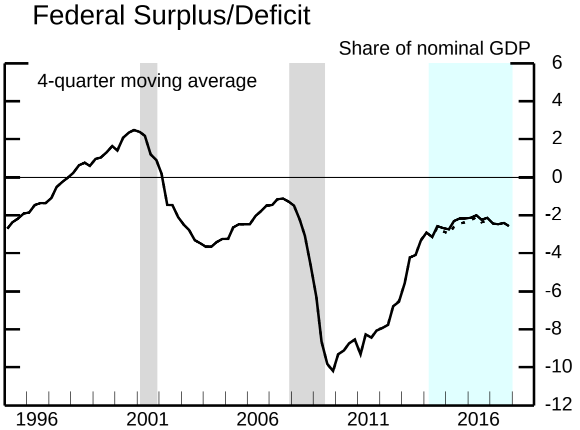
Source: U.S. Census Bureau.

Equipment and Intangibles Spending



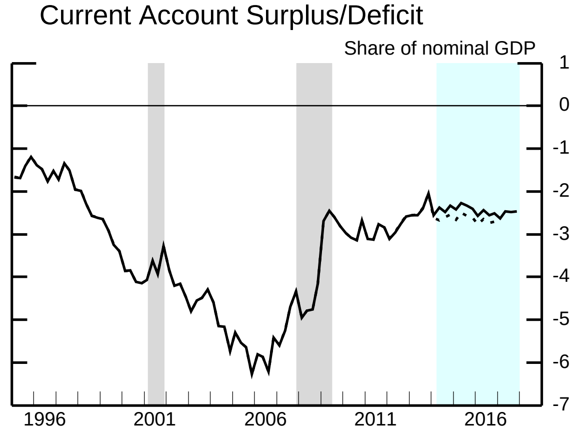
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

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.

The Outlook for the Labor Market

Measure	2014	2014 H1	2014 H2	2015	2016	2017
Output per hour, business[1]	.0	-1.3	1.3	1.7	1.8	1.9
Previous Tealbook	-.1	-2.1	1.8	1.5	1.4	
Nonfarm private employment[2]	211	222	200	180	180	130
Previous Tealbook	230	222	238	210	205	
Labor force participation rate[3]	62.8	62.8	62.8	62.6	62.4	62.2
Previous Tealbook	62.8	62.8	62.8	62.7	62.6	
Civilian unemployment rate[3]	5.9	6.2	5.9	5.4	5.1	4.9
Previous Tealbook	5.8	6.2	5.8	5.1	4.7	4.5

1. Percent change from final quarter of preceding period at annual rate. Note that in previous Tealbooks, this table showed output per hour for the nonfarm business sector; it now shows current and previous projections of output per hour for the total business sector.
2. Thousands, average monthly changes.
3. Percent, average for the final quarter in the period.
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

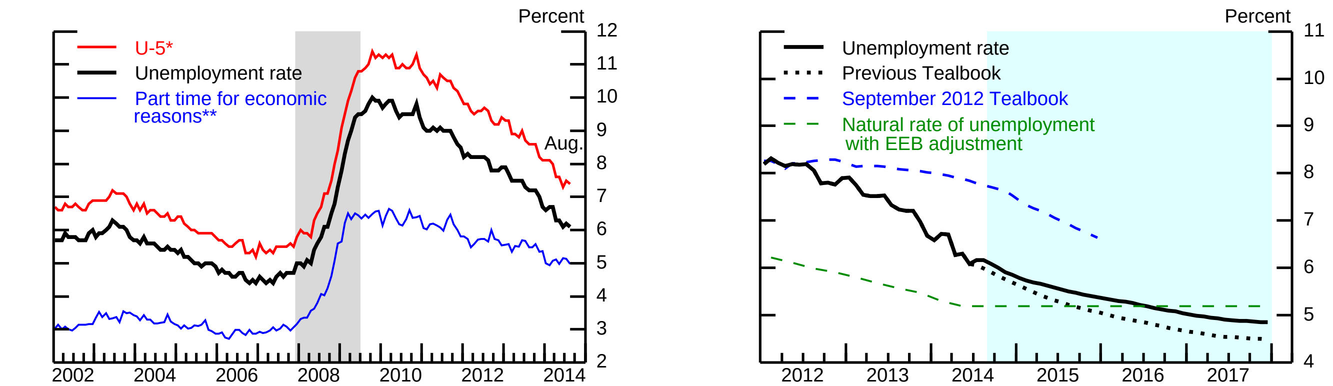
Inflation Projections
(Percent change at annual rate from final quarter of preceding period)

Measure	2014	2014 H1	2014 H2	2015	2016	2017
PCE chain-weighted price index	1.5	1.8	1.1	1.5	1.6	1.7
Previous Tealbook	1.7	1.8	1.5	1.5	1.6	1.8
Food and beverages	2.2	2.9	1.5	.9	1.5	1.8
Previous Tealbook	2.3	2.9	1.7	.8	1.3	
Energy	-.9	4.6	-6.0	.6	-.1	.2
Previous Tealbook	2.1	4.7	-.5	-.6	-.3	
Excluding food and energy	1.5	1.6	1.5	1.6	1.7	1.8
Previous Tealbook	1.6	1.6	1.6	1.7	1.8	1.9
Prices of core goods imports[1]	1.0	1.5	.5	1.1	1.3	1.3
Previous Tealbook	1.4	1.6	1.2	1.3	1.3	

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

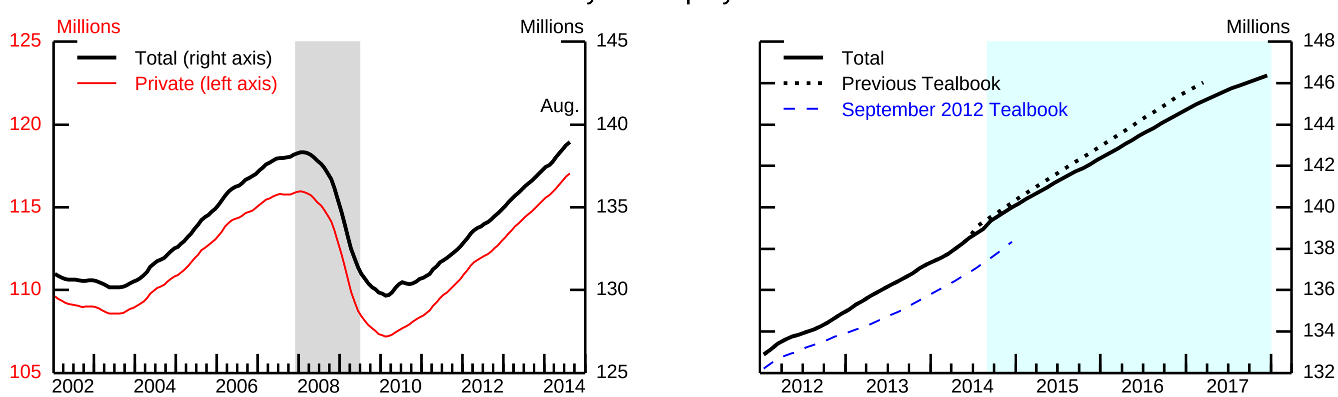
Labor Market Developments and Outlook (1)

Measures of Labor Underutilization



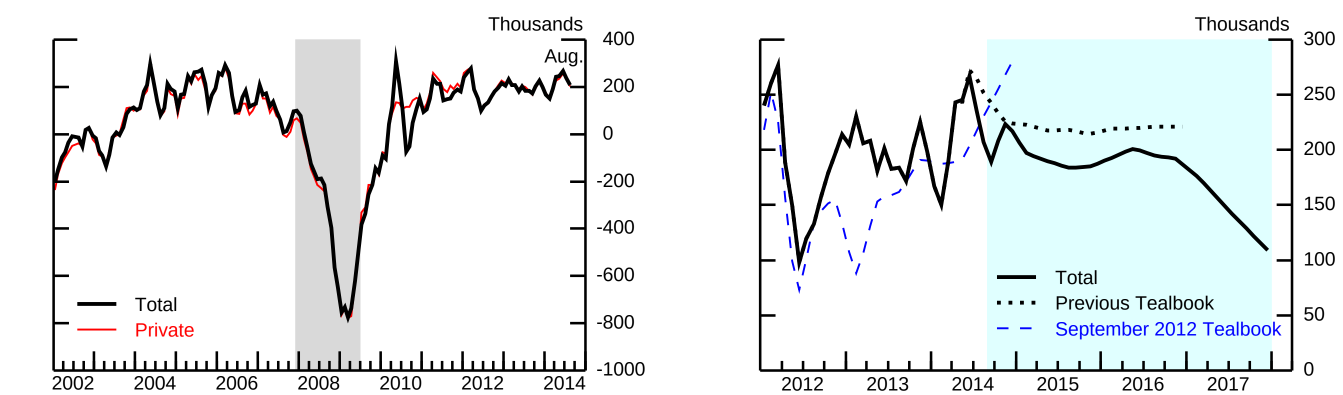
* U-5 measures total unemployed persons plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force.
** Percent of Current Population Survey employment.
EEB Extended and emergency unemployment benefits.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

Level of Payroll Employment*



* 3-month moving averages in history; average levels in each quarter during the forecast period.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

Change in Payroll Employment*

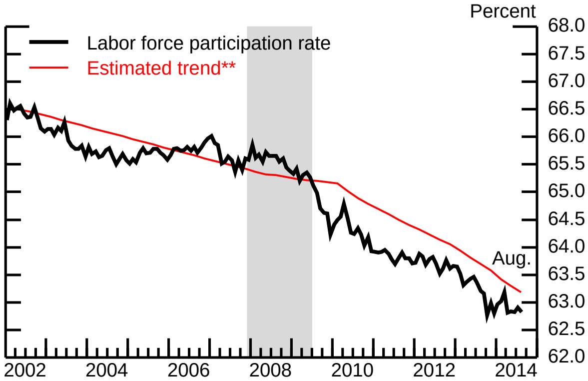


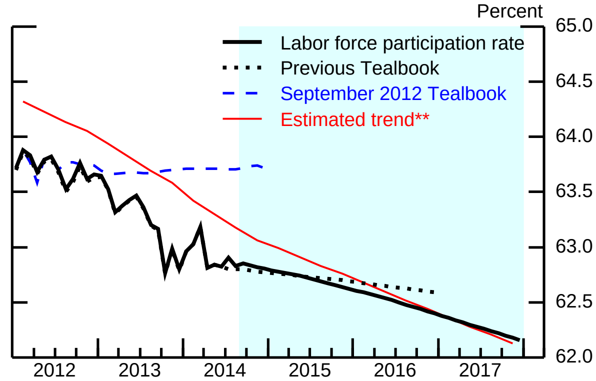
* 3-month moving averages in history; average monthly changes in each quarter during the forecast period.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

Note: In September 2012, judgmental projections were prepared through 2015 for the Summary of Economic Projections variables, including the unemployment rate, while projections for other variables, including the labor force participation rate and payroll employment, were prepared only through 2014. This exhibit therefore reports a 2015 projection from the September 2012 Tealbook only for the unemployment rate.
The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

Labor Market Developments and Outlook (2)

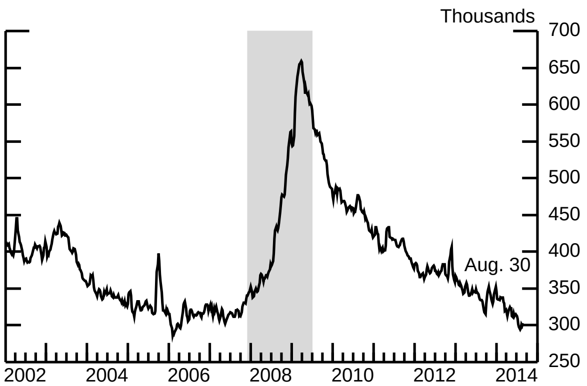
Labor Force Participation Rate*





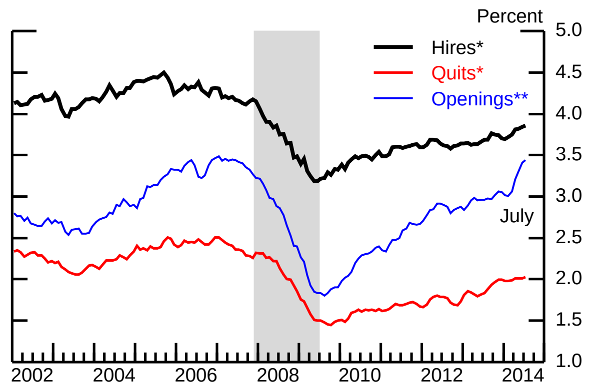
* Published data adjusted by staff to account for changes in population weights.
** Includes staff estimate of the effect of extended and emergency unemployment benefits.
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

Initial Unemployment Insurance Claims*



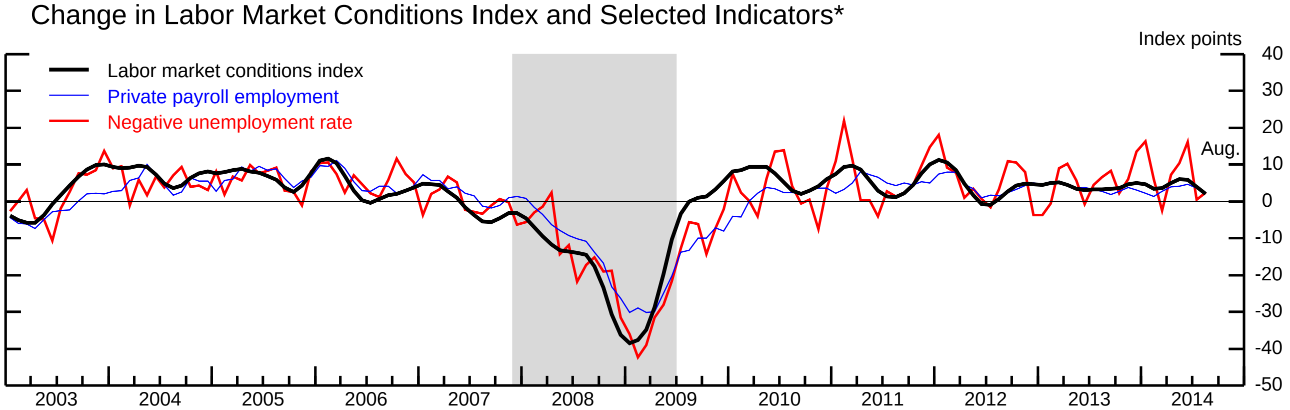
* 4-week moving average.
Source: U.S. Department of Labor, Employment and Training Administration.

Private Hires, Quits, and Job Openings



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

Change in Labor Market Conditions Index and Selected Indicators*



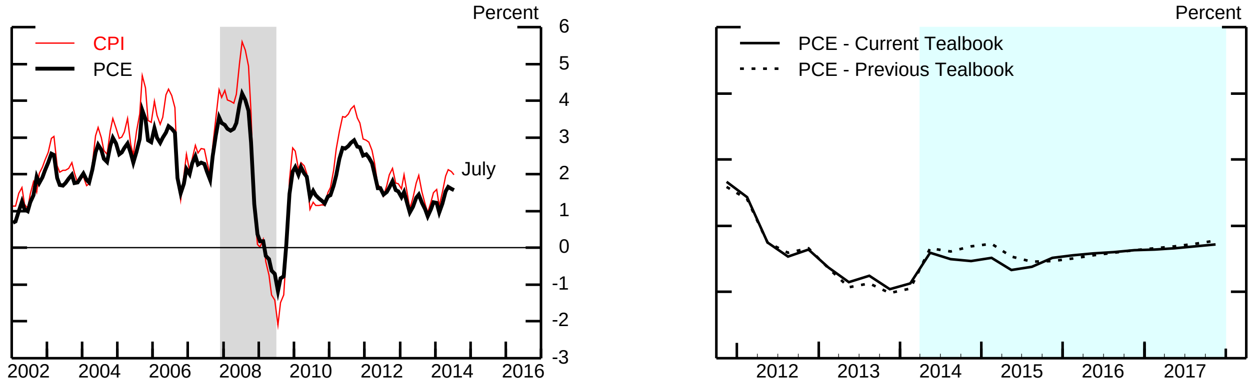
Note: Labor market conditions index estimated by staff; indexes for unemployment rate and private payroll employment are standardized deviations from estimated trend.
* 3-month moving average.

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

Inflation Developments and Outlook (1)

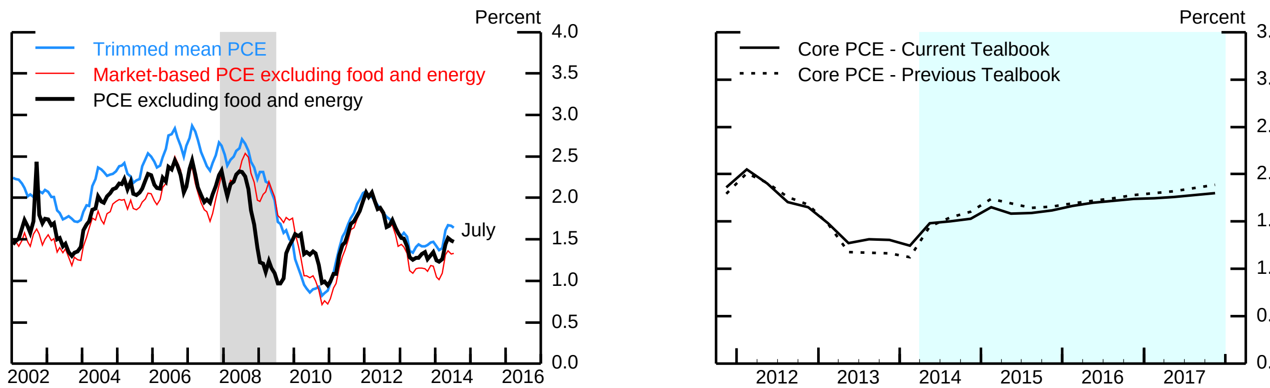
(Percent change from year-earlier period)

Headline Consumer Price Inflation



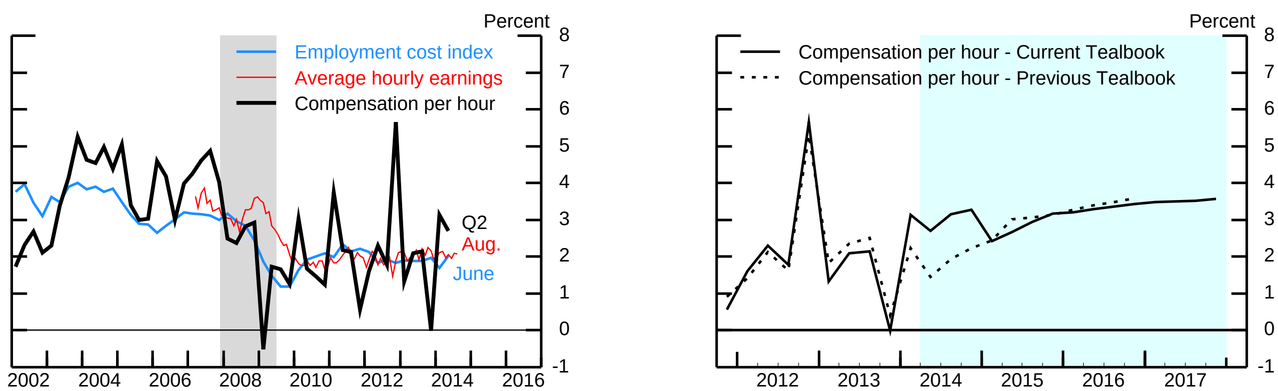
Source: For CPI, U.S. Department of Labor, Bureau of Labor Statistics; for PCE, U.S. Department of Commerce, Bureau of Economic Analysis.

Measures of Underlying PCE Price Inflation



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

Labor Cost Growth

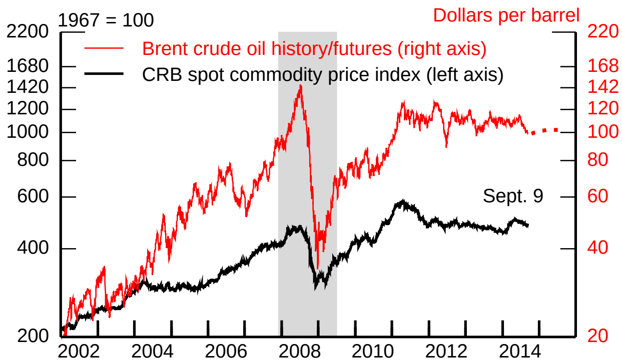


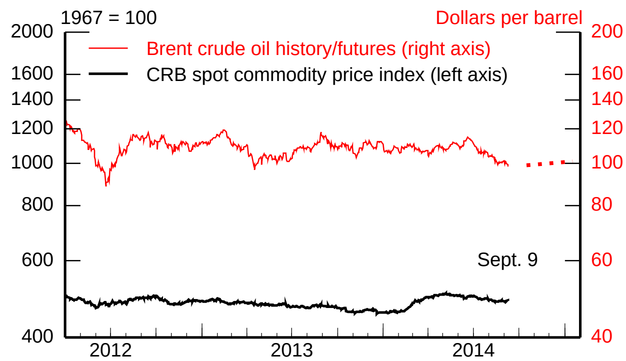
Source: U.S. Department of Labor, Bureau of Labor Statistics.
Note: Previous Tealbooks showed compensation per hour for the nonfarm business sector; the above charts now show current and previous projections of compensation per hour for the total business sector. Average hourly earnings are for the private nonfarm sector. The employment cost index is for the private sector.

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

Inflation Developments and Outlook (2)
(Percent change from year-earlier period, except as noted)

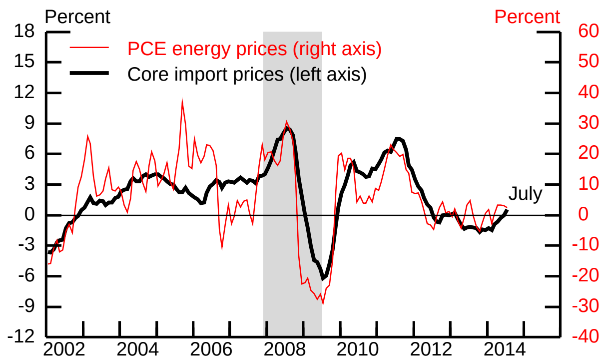
Commodity and Oil Price Levels

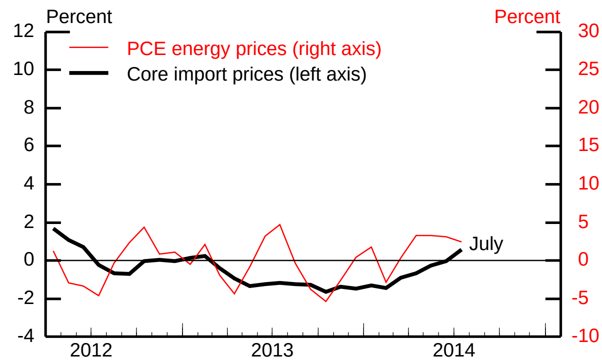




Note: Futures prices (dotted lines) are the latest observations on monthly futures contracts.
Source: For oil prices, U.S. Department of Energy, Energy Information Agency; for commodity prices, Commodity Research Bureau (CRB).

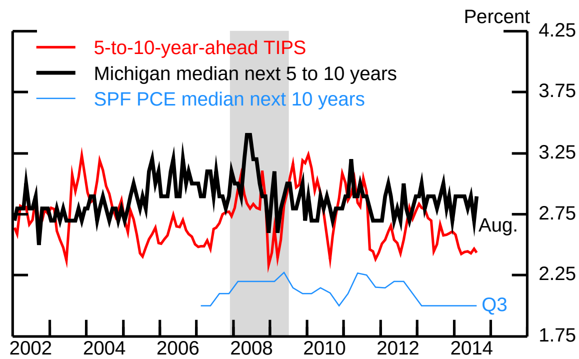
Energy and Import Price Inflation

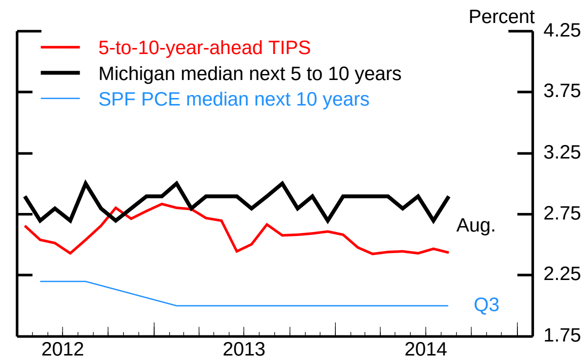




Source: For core import prices, U.S. Dept. of Labor, Bureau of Labor Statistics; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Long-Term Inflation Expectations





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

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

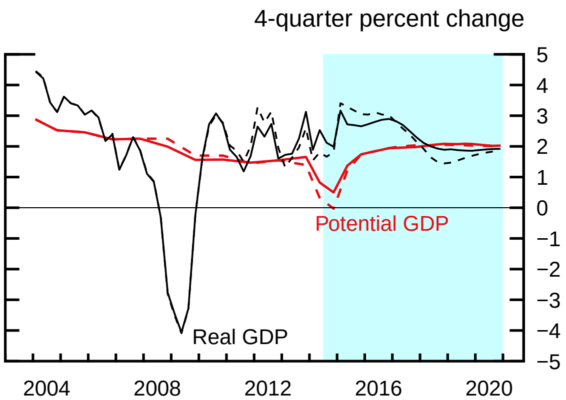
The Long-Term Outlook

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

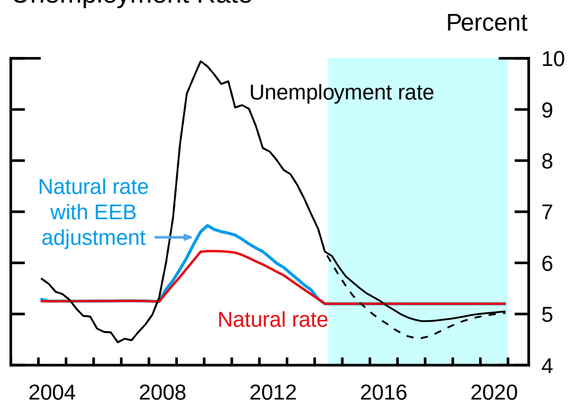
Measure	2014	2015	2016	2017	2018	2019	Longer run
Real GDP	2.0	2.7	2.9	2.3	1.9	1.9	2.0
Previous Tealbook	1.8	3.0	3.0	2.2	1.4	1.7	2.0
Civilian unemployment rate[1]	5.9	5.4	5.1	4.9	4.9	5.0	5.2
Previous Tealbook	5.8	5.1	4.7	4.5	4.7	4.9	5.2
PCE prices, total	1.5	1.5	1.6	1.7	1.9	2.0	2.0
Previous Tealbook	1.7	1.5	1.6	1.8	2.0	2.0	2.0
Core PCE prices	1.5	1.6	1.7	1.8	1.9	2.0	2.0
Previous Tealbook	1.6	1.7	1.8	1.9	2.0	2.0	2.0
Federal funds rate[1]	.1	1.1	2.3	3.2	3.7	3.9	3.8
Previous Tealbook	.1	1.4	2.8	3.8	4.2	4.3	3.8
10-year Treasury yield[1]	2.9	3.8	4.1	4.3	4.5	4.6	4.6
Previous Tealbook	3.0	4.0	4.3	4.6	4.7	4.7	4.6

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

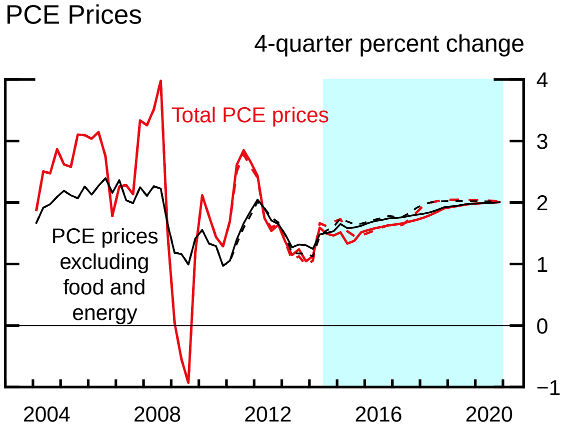
Real GDP



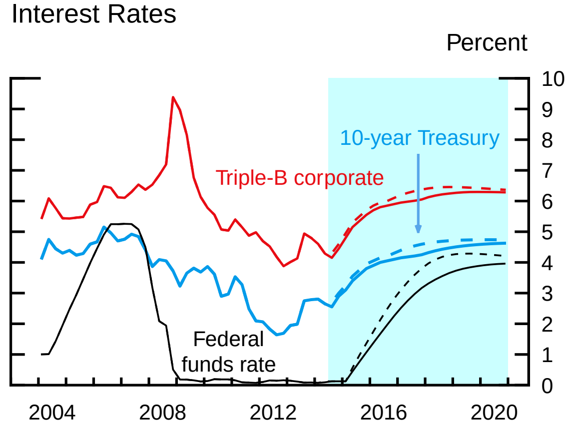
Unemployment Rate



PCE Prices



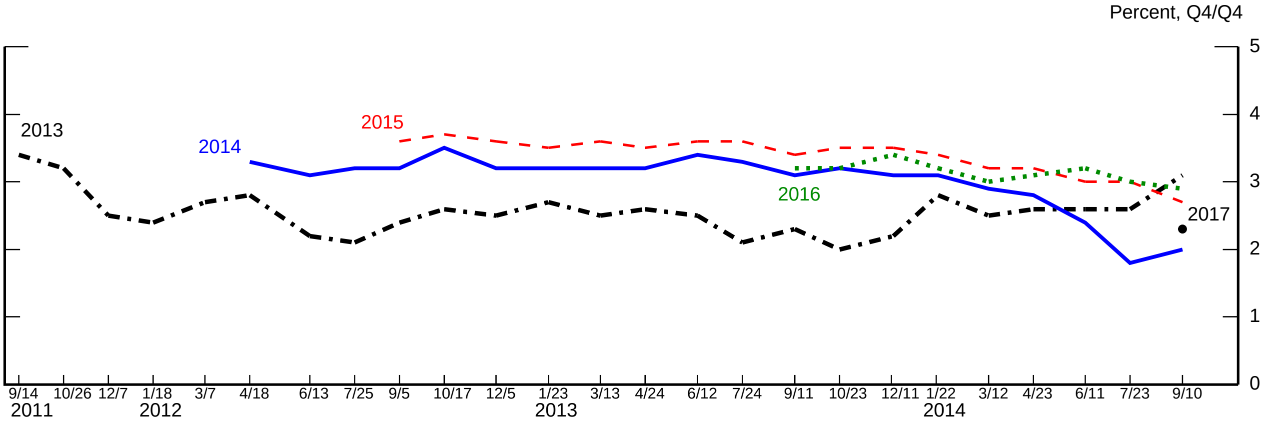
Interest Rates



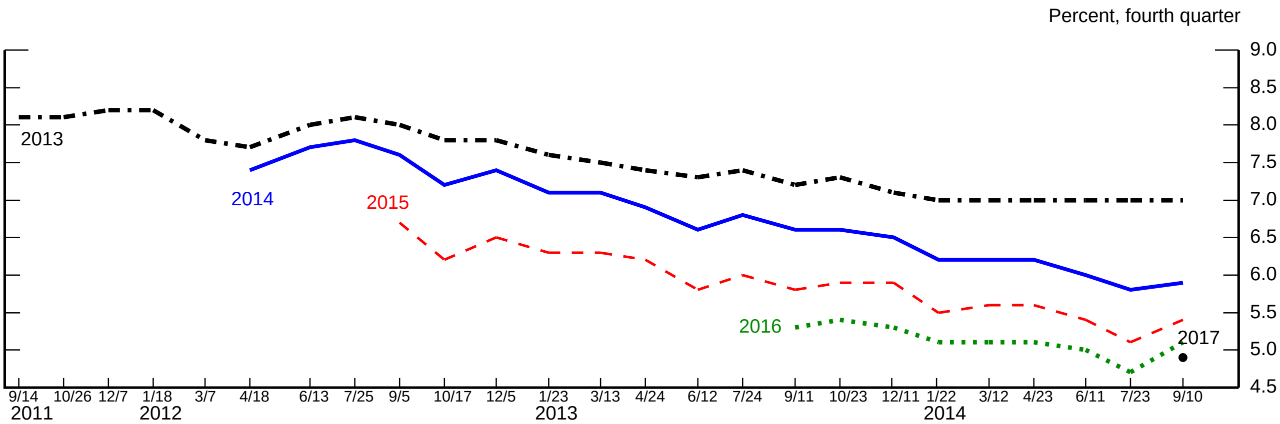
Note: In each panel, shading represents the projection period, and dashed lines are the previous Tealbook.

Evolution of the Staff Forecast

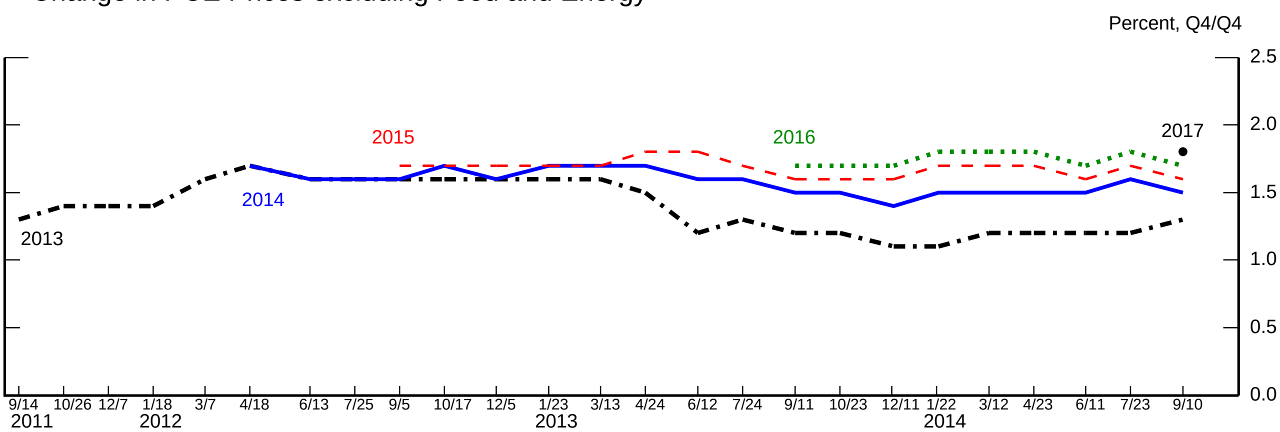
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy



International Economic Developments and Outlook

Real GDP growth in the foreign economies edged up from 2 percent in the first quarter to 2¼ percent in the second. Growth rebounded strongly in Canada, China, and Mexico, supported by a reversal of the first-quarter weakness in exports. In contrast, the Japanese economy contracted sharply following the April 1 tax increase, activity stagnated in the euro area, and the Brazilian economy fell into recession. Although the euro-area economy was significantly weaker than expected, upward surprises in some other countries, including Canada and Mexico, left total foreign growth in the second quarter only slightly below our July estimate.

We continue to expect foreign growth to rise to a 3 percent pace in the second half of this year. Along with the recovery of the Japanese economy from its tax-induced slump, we expect some firming of growth in the euro area and emerging Asia and a modest resumption of growth in Brazil. Foreign growth should then settle around 3¼ percent over the next three years as monetary policies in the advanced foreign economies (AFEs) remain supportive.

Inflation has stayed very low in the euro area and inflation expectations have declined, leading the European Central Bank (ECB) to cut interest rates and announce plans to purchase private assets. With euro-area inflation expected to remain significantly below the 2 percent target, the ECB is projected to keep its policy rate near zero through 2017. (See the box "Euro Area: Inflation Developments and Outlook.") The Bank of Japan (BOJ) also is likely to keep its policy rate near zero as inflation remains below target. In contrast, in other major AFEs, with inflation approaching 2 percent and economic slack diminishing, policy stimulus is likely to be gradually withdrawn: We assume that tightening will begin early next year in the United Kingdom and around the middle of the year in Canada.

We are attentive to several risks to the foreign outlook. In the euro area, disappointing growth and persistently low inflation raise the possibility that the recovery will stagnate, which could prompt the ECB to respond with a full-blown asset purchase program that includes government bonds. Another downside risk is the possibility that geopolitical tensions, especially an escalation of the crisis in Ukraine, will disrupt world energy and financial markets. (These two scenarios are explored in the Risks and

Euro Area: Inflation Developments and Outlook

Twelve-month headline inflation in the euro area has declined further this year, falling to 0.3 percent in August (see the upper-left figure on the following page). In peripheral Europe, inflation rates have fallen into negative territory, posing concerns that a debt-deflation spiral could derail the fragile recovery. Market measures of inflation expectations have moved down as well. As shown in the upper-right figure on the following page, five-year inflation expectations had been declining for some time, and they fell dramatically in August. Similarly, inflation expectations between 5 and 10 years ahead—the ECB' s preferred measure of inflation expectations—drifted lower this year before dropping to below 2 percent in August (a development seen only twice before). Thus, financial markets appear to be giving greater weight to the possibility that inflation will remain persistently below the ECB's objective and, more generally, to the risks of deflation, which have pushed down euro-area bond yields (not shown). This pessimism has been reinforced by the slackening of the already anemic pace of the economic recovery, reflected in the second quarter's flat GDP and the weakness of more recent indicators.

To address these mounting concerns, in June the ECB cut its policy rates, announced targeted longer-term refinancing operations, and said it would explore purchases of asset-backed securities (ABS). With the outlook continuing to flag, the ECB surprised markets at its September 4 meeting by again cutting interest rates and pledging to begin purchasing ABS and covered bonds in October.[1] We expect that these actions will support the euro-area recovery and thereby contribute to a reduction in slack and a firming of core and headline inflation rates (lower-left figure on the following page).

Given the steady deterioration of the inflation outlook in the past few years, our projection that this trend will reverse might seem optimistic. However, a simple accounting decomposition of quarterly headline inflation into energy, food, and core inflation (shown in the lower-right figure on the following page) suggests that much of the weakness since the third quarter of last year can be explained by a sharp fall in food and energy prices (particularly of natural gas), as the supply outlook for crops improved and unusually warm winter weather depressed energy consumption. Going forward, with food and energy prices bottoming out, headline inflation should rise toward core, which has held much steadier in recent quarters. Moreover, it bears noting that the declines in inflation that have occurred this year are evident only when inflation is measured on a 12-month basis. When measured on a quarterly basis, inflation has been moving up since it had fallen to near zero in late 2013; data through August suggest that quarterly headline inflation should rise to about ¾ percent in the current quarter.

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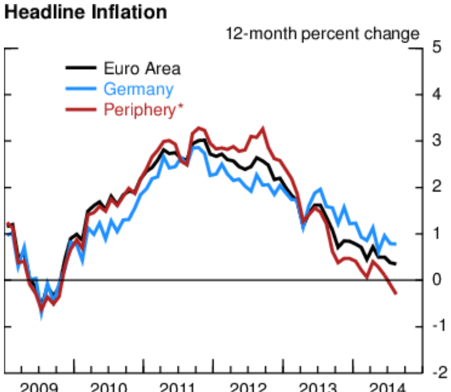
[1] The ECB will announce details of this asset purchase program at its October policy meeting.

Our expectations-augmented Phillips curve models, which explicitly consider the role of other factors such as economic slack and inflation expectations, support the importance of supply shocks (proxied by changes in oil and import prices) in restraining euro-area inflation since the end of 2013.[2] The disappointing performance of the euro-area economy in the first two quarters of this year, which unexpectedly widened output gaps, also contributes, albeit modestly, to lower inflation than our model predicted earlier in the year. With growth projected to pick up, output gaps should narrow, which should also lend some slight impetus to inflation.

However, uncertainty about the outlook for the euro area remains significant, as still-elevated debt levels and high unemployment rates continue to weigh on the fragile recovery. Accordingly, there is some risk that the euro-area economy could experience a prolonged period of disappointing growth and low inflation, necessitating further monetary policy stimulus. This scenario is explored in the Risks and Uncertainty section.

Headline Inflation

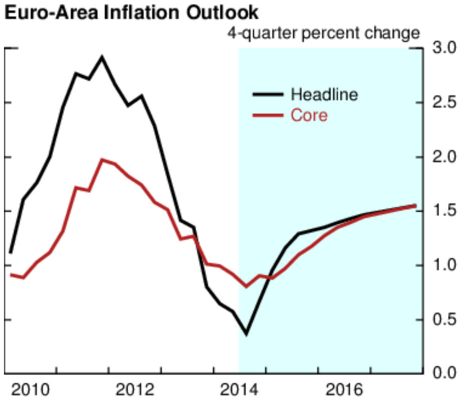


*Periphery includes Ireland, Italy, Portugal, and Spain.

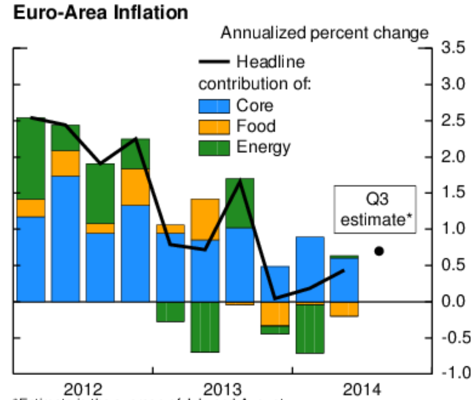
Euro-Area Inflation Expectations*

*Derived from inflation swaps.

Euro-Area Inflation Outlook



Euro-Area Inflation



*Estimate is the average of July and August.

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[2] As discussed in the January 2014 Tealbook box "Inflation Developments in the Advanced Foreign Economies," our inflation models relate quarterly headline inflation to a measure of longer-term inflation expectations, the staff's estimate of the output gap, changes in consumption taxes, a set of supply shocks (changes in oil and import prices), and a residual that captures sources of variation in inflation not accounted for by the model.

Uncertainty section.) Finally, the possibility of a financial crisis in China remains on the table.

Advanced Foreign Economies

- ***Euro area.*** Euro-area GDP was flat in the second quarter, a substantially weaker outcome than estimated in the July Tealbook, as output contracted in Germany and Italy. Although the negative surprise is partly explained by transitory factors, more recent data also point to somewhat less underlying strength, with retail sales in July below their second-quarter level and the composite PMI softening through August. Accordingly, we expect GDP to grow at only a 1 percent pace in the second half of this year before firming to a still-subdued 2 percent rate in 2016 and 2017, supported by accommodative monetary policy.

  With data through August in hand, we estimate that inflation will move up from 0.4 percent in the second quarter to ¾ percent in the current quarter, and we project an increase to 1½ percent by the end of 2016 as the output gap narrows. Nevertheless, market-based inflation expectations have fallen as economic data have been disappointing. In response to these developments, the ECB surprised markets by cutting its key policy rates 10 basis points at its September meeting, reducing its main refinancing rate to 0.05 percent and the rate on its deposit facility to negative 0.2 percent. The ECB also announced that, starting in October, it will purchase asset-backed securities and covered bonds; our working assumption is that purchases will total about €300 billion. We estimate that these measures will add ¼ percent to GDP after two years and nearly 0.1 percentage point to inflation. We assume that the ECB will keep its main refinancing rate unchanged through the end of 2017.

- ***United Kingdom.*** The U.K. economy continues to grow at a solid rate, although recent manufacturing PMI and retail sales data suggest some moderation from the robust 3¼ percent pace of the first half of the year. We see growth averaging 2¾ percent in the second half before stabilizing at a near-trend pace of 2½ percent thereafter. We expect U.K. inflation to remain around 2 percent over the forecast period. With the output gap narrowing and inflation near target, we still see the Bank of England (BOE) hiking rates fairly soon. However, we have pushed back our assumption for when liftoff

Int'l Econ Devel & Outlook

will occur by one quarter to the first quarter of 2015, largely in response to the dovish tone of the August *Inflation Report*, in which the BOE suggested that recent subdued wage growth could indicate more slack than previously thought. The possibility that Scotland could choose to be an independent country in the September 18 referendum is a risk to the outlook for the U.K. economy and for monetary policy.

- ***Japan.*** We expect GDP to rise at a 2 percent pace in the second half of this year as the economy rebounds from April's tax hike. In addition to the normalization of private consumption, second-half growth is supported by a substantial rise in public spending aimed at partially offsetting the effects of the tax increase. Growth should slow to an average pace of 1 percent over the remainder of the forecast period, partly reflecting drag from another tax hike planned for October 2015. Removing the effect of April's tax hike, inflation has been running about 1¼ percent in recent months, and we see it edging up to 1½ percent by the end of the forecast period. With growth slowing and inflation well below target, we continue to anticipate that the BOJ will step up the pace of asset purchases in early 2015.

- ***Canada.*** GDP growth rebounded more than we had expected in the second quarter, to 3.1 percent, after having been held to just 0.9 percent in the first quarter by severe winter weather and weak U.S. demand. Recent data, including exports in July and the manufacturing PMI in August, were also stronger than we had expected. We now see GDP growth in the second half of this year at 2¾ percent, a touch above the July Tealbook projection. Thereafter, we forecast GDP growth to slow to a near-potential pace of 2¼ percent by 2017 as monetary stimulus is gradually withdrawn. July inflation data showed an easing of energy prices, supporting our forecast that headline inflation will slow to 1½ percent in the second half of this year, after which it should move up to average about 2 percent. We still expect that the Bank of Canada will begin raising its target for the overnight interest rate in the third quarter of 2015.

Emerging Market Economies

- ***China.*** Recent data suggest that Chinese GDP growth has moderated a bit, as expected, from 7¾ percent in the second quarter. Although exports were surprisingly strong in July and August, other indicators for July, including industrial production, investment, and retail sales, decelerated more than expected. Responding to the somewhat weaker momentum in domestic demand, we marked down growth a touch beyond the current quarter. All told, we see GDP growth edging down to 7½ percent in the second half of the year and moderating further to just under 7 percent in 2017. In our baseline forecast, the ongoing softening in property prices and credit growth serves to reduce financial imbalances and promote longer-term financial stability. However, there is some chance that these trends could intensify, leading to more severe financial stresses and a much sharper decline in real growth. Inflation was very low in the first half of the year, reflecting food and fuel price declines. We expect inflation to pick up to 3½ percent in the current quarter as these declines are partly reversed, and then to settle at 3 percent over the remainder of the forecast period.

- ***Other Emerging Asia.*** Real GDP growth in the rest of emerging Asia picked up to 3¼ percent in the second quarter from 2½ percent in the first, as exports generally rebounded from the first-quarter slump and, in some economies, domestic demand strengthened. Notably, in Thailand, an abatement of political tensions led to a rebound in GDP after a sharp first-quarter contraction, and in India higher government spending supported vigorous growth. In contrast, real GDP fell unexpectedly in Hong Kong, reflecting a shortfall in tourism from China and weakness in the construction sector. Growth also weakened in Korea as April's ferry disaster depressed consumer sentiment, prompting the government to unveil a fiscal stimulus package and the Bank of Korea to loosen monetary policy. The overall tone of more recent indicators for the region, including exports, PMIs, and industrial production, has been positive; we expect growth to rise to 4 percent in the second half of the year and to average 4¼ percent over the remainder of the forecast.

- ***Latin America.*** After a prolonged period of weakness, **Mexican** GDP surged 4¼ percent in the second quarter, 1¼ percentage points faster than forecast in the July Tealbook. The rebound of U.S. activity helped boost Mexican exports, the construction sector continued to recover, and the fiscal drag from the tax hikes in early 2014 appeared to wane. We have GDP growth averaging a solid 3¾ percent over the forecast period, as U.S. manufacturing activity remains robust, the construction sector continues to recover, and structural reforms begin to pay off. Inflation is projected to average a little above 3 percent.

- **Brazil**'s economy fell into recession in the first half of the year. Real GDP contracted at an annual rate of 2½ percent in the second quarter, and first-quarter growth was revised down into negative territory. The second-quarter contraction was due primarily to a sharp drop in investment as uncertainty about the outcome of next month's elections lowered confidence and exacerbated existing weakness in capital expenditures. Based on recent increases in exports and industrial production, we expect growth to resume in the current quarter, but at only a ½ percent pace. With the economy exhibiting weaker momentum than we previously assessed, we lowered the growth path going forward. We estimate that inflation stepped down to 6 percent in the current quarter as the World Cup pressures on service prices dissipated. We expect inflation to remain high over the remainder of the forecast period, averaging 5¼ percent.

- ***Other Emerging Market Economies.*** The economies of Russia and Ukraine appear to be suffering as the result of the conflict in Ukraine. In recent weeks, tensions escalated again: Russia deployed military troops in eastern Ukraine, Western nations increased sanctions on Russia, and Russia retaliated by banning imports of some food products from the West. Ukraine's government signed a cease-fire agreement with the separatists on September 5, but there have been reports of sporadic fighting. We expect the situation to remain volatile and the economies of Russia and Ukraine to remain weak over the next several quarters. Late last month, the IMF approved the disbursement of $1.4 billion to Ukraine, the second tranche of the Stand-By Arrangement approved in April, but warned that the ongoing crisis poses risks for the program.

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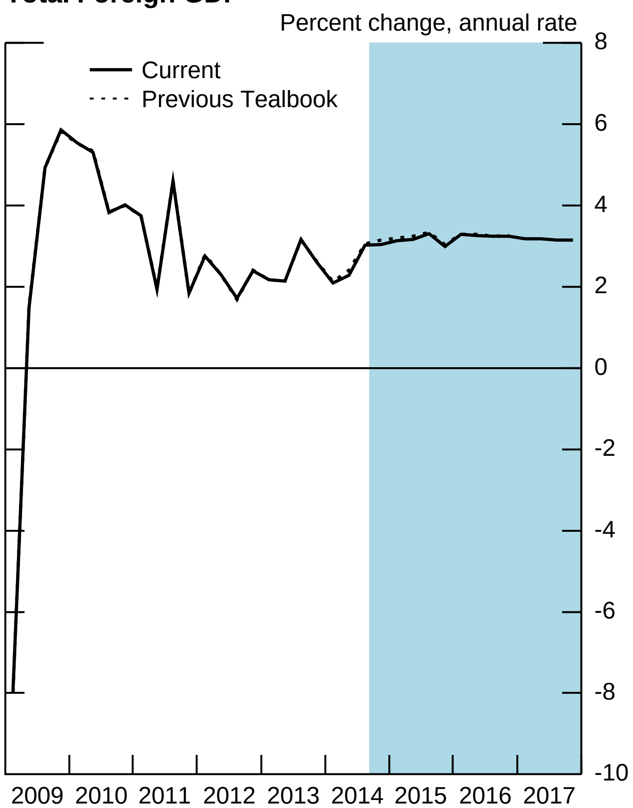
The Foreign GDP Outlook

Real GDP* Percent change, annual rate

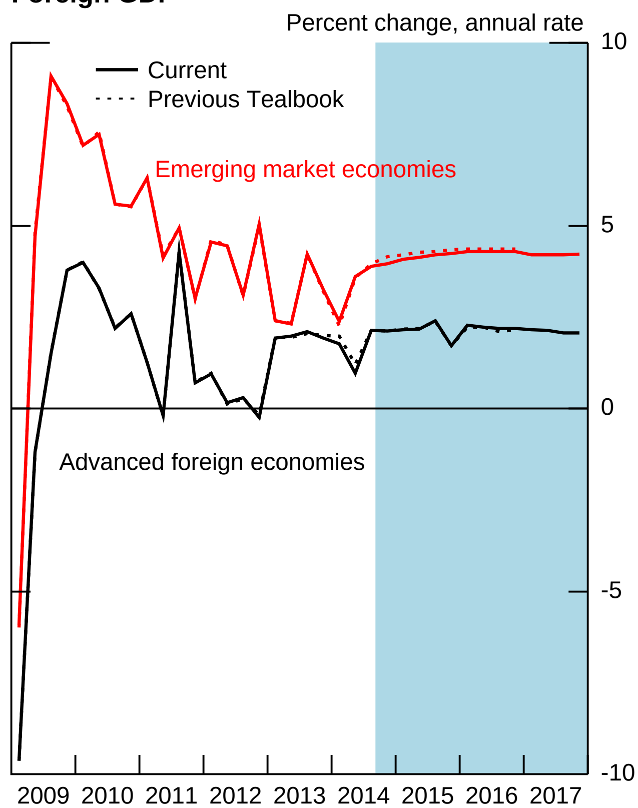
	2013	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015	2016	2017
1. Total Foreign	**2.5**	**2.1**	**2.3**	**3.0**	**3.0**	**3.2**	**3.3**	**3.2**
Previous Tealbook	*2.5*	*2.1*	*2.4*	*3.1*	*3.1*	*3.2*	*3.3*	*...*
2. Advanced Foreign Economies	**2.0**	**1.8**	**1.0**	**2.1**	**2.1**	**2.1**	**2.2**	**2.1**
Previous Tealbook	*2.0*	*2.0*	*1.2*	*2.1*	*2.1*	*2.1*	*2.2*	*...*
3. Canada	2.7	0.9	3.1	2.7	2.7	2.6	2.5	2.3
4. Euro Area	0.5	0.9	0.1	1.0	1.3	1.8	2.0	2.0
5. Japan	2.4	6.0	-7.1	2.2	1.7	0.6	1.2	1.1
6. United Kingdom	2.7	3.3	3.4	2.8	2.6	2.6	2.4	2.4
7. Emerging Market Economies	**3.0**	**2.4**	**3.6**	**3.9**	**4.0**	**4.2**	**4.3**	**4.2**
Previous Tealbook	*3.0*	*2.3*	*3.6*	*4.0*	*4.2*	*4.3*	*4.4*	*...*
8. China	7.6	5.5	7.8	7.6	7.4	7.1	7.1	6.9
9. Emerging Asia ex. China	3.6	2.5	3.2	3.9	4.0	4.3	4.4	4.1
10. Mexico	0.6	1.8	4.2	3.7	3.5	3.6	3.7	3.7
11. Brazil	2.2	-0.6	-2.4	0.5	1.5	1.9	2.2	2.3

* GDP aggregates weighted by shares of U.S. merchandise exports.

Total Foreign GDP



Foreign GDP



The Foreign Inflation Outlook

Consumer Prices*

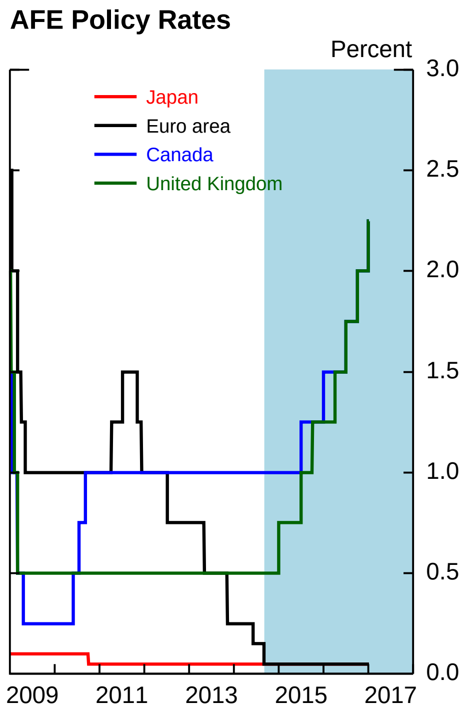
Percent change, annual rate

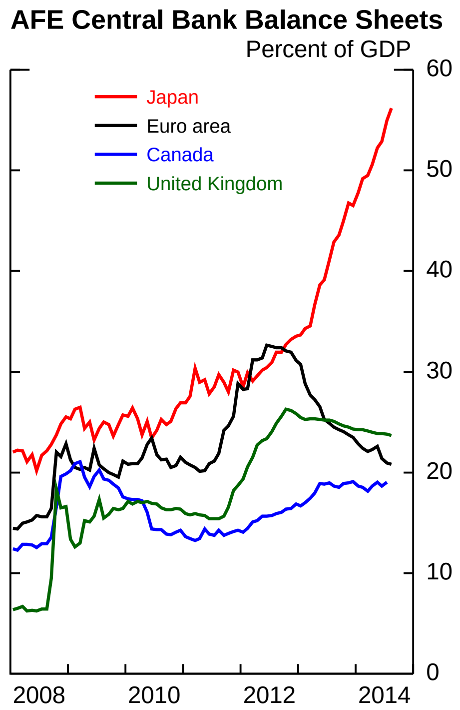
	2013	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015	2016	2017
1. Total Foreign	**2.3**	**2.0**	**3.0**	**2.4**	**2.4**	**2.6**	**2.6**	**2.6**
Previous Tealbook	*2.3*	*2.0*	*3.0*	*2.6*	*2.5*	*2.6*	*2.6*	*...*
2. Advanced Foreign Economies	**1.0**	**1.1**	**3.3**	**1.2**	**1.2**	**1.7**	**1.6**	**1.7**
Previous Tealbook	*1.0*	*1.1*	*3.2*	*1.3*	*1.4*	*1.7*	*1.6*	*...*
3. Canada	1.0	2.8	3.7	1.5	1.4	1.7	2.0	2.1
4. Euro Area	0.8	0.2	0.4	0.8	1.2	1.3	1.5	1.6
5. Japan	1.4	0.4	9.4	1.3	0.8	2.3	1.3	1.4
6. United Kingdom	2.1	1.1	1.9	2.1	2.3	1.9	1.9	2.0
7. Emerging Market Economies	**3.3**	**2.7**	**2.8**	**3.3**	**3.3**	**3.4**	**3.3**	**3.3**
Previous Tealbook	*3.3*	*2.7*	*2.8*	*3.6*	*3.4*	*3.4*	*3.3*	*...*
8. China	2.9	0.8	2.0	3.4	3.0	3.0	3.0	3.0
9. Emerging Asia ex. China	3.4	2.9	3.1	2.2	3.3	3.5	3.4	3.4
10. Mexico	3.7	5.2	3.0	3.6	3.3	3.3	3.3	3.3
11. Brazil	5.9	6.5	7.4	6.0	5.8	5.4	5.3	5.3

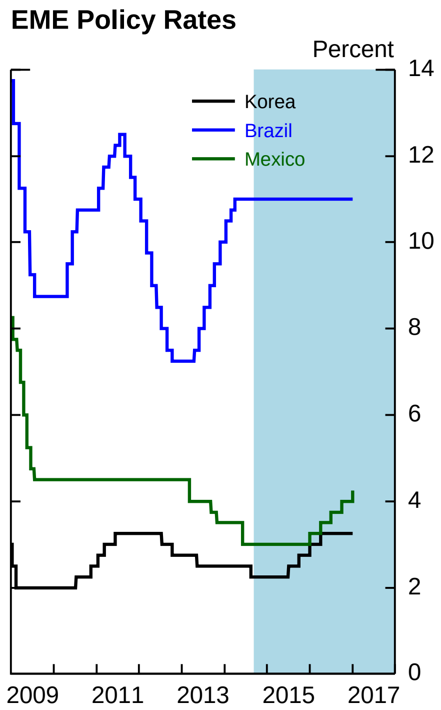
* CPI aggregates weighted by shares of U.S. non-oil imports.

Int'l Econ Devel & Outlook

Foreign Monetary Policy

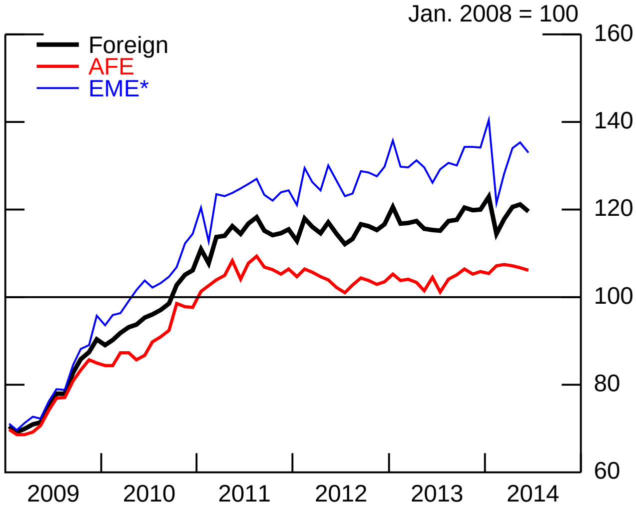






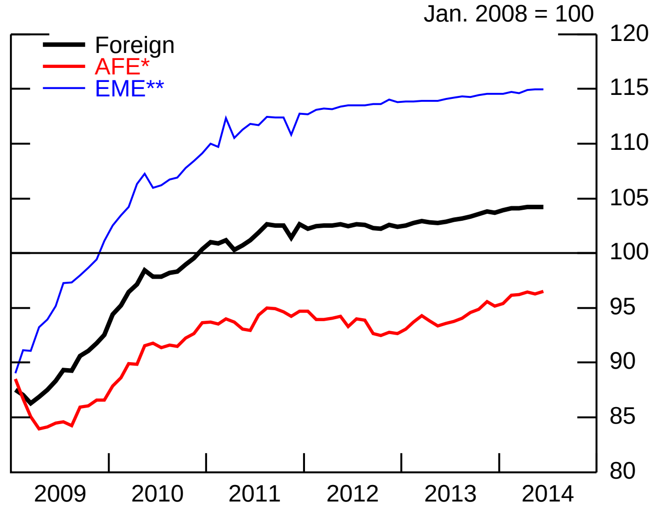
Recent Foreign Indicators

Nominal Exports



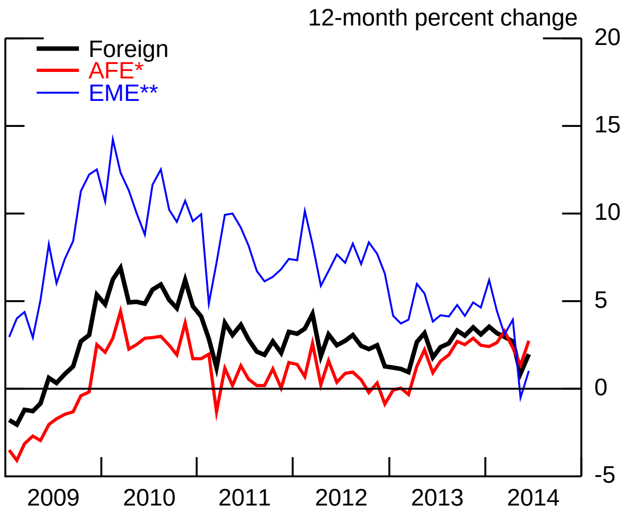
* Excludes Venezuela.

Industrial Production



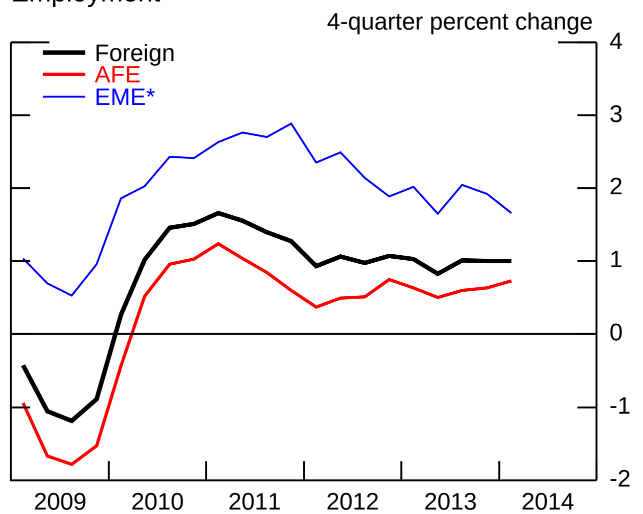
* Excludes Australia and Switzerland.
** Excludes Colombia, Hong Kong, the Philippines, and Venezuela.

Retail Sales



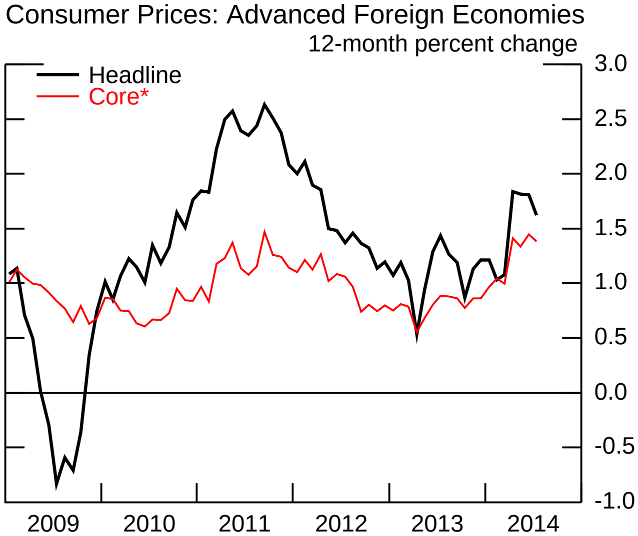
* Excludes Australia and Switzerland.
** Includes Brazil, China, Indonesia, Korea, Singapore, and Taiwan.

Employment



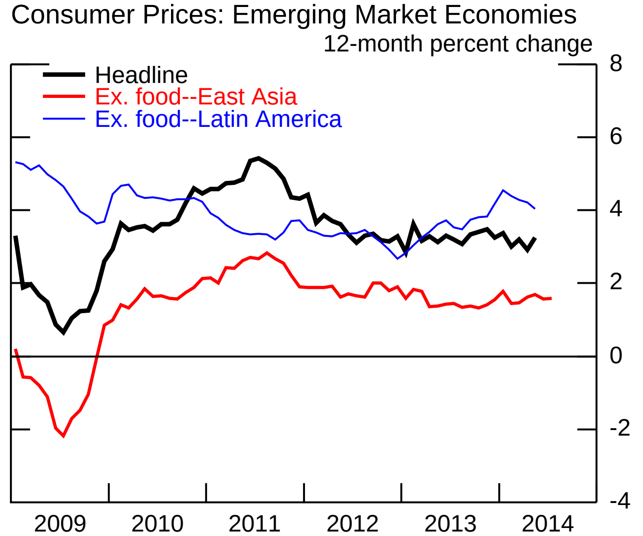
* Excludes Argentina and Mexico.

Consumer Prices: Advanced Foreign Economies



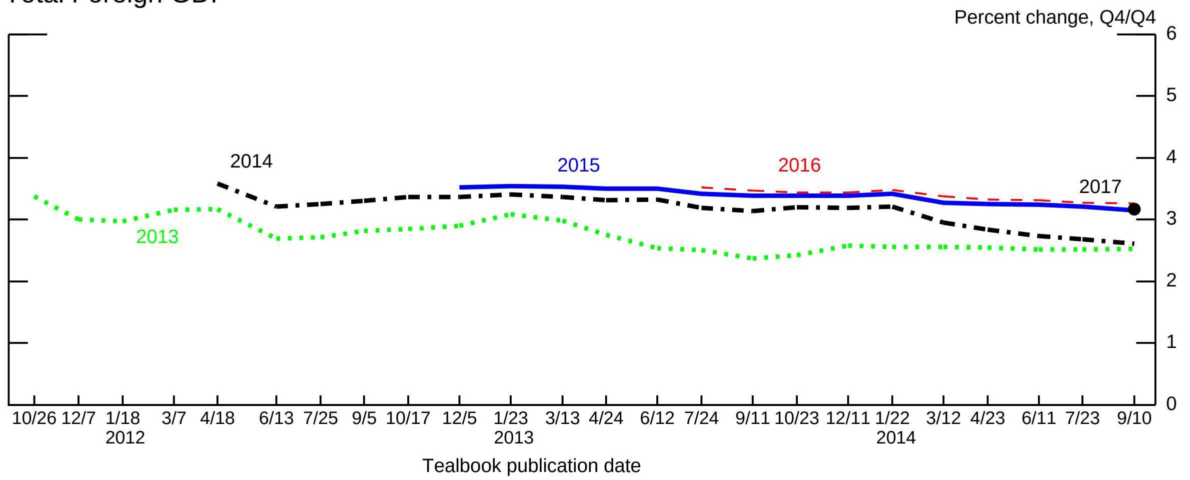
Note: Excludes Australia, Sweden, and Switzerland.
* Excludes all food and energy; staff calculation.
Source: Haver Analytics and CEIC.

Consumer Prices: Emerging Market Economies

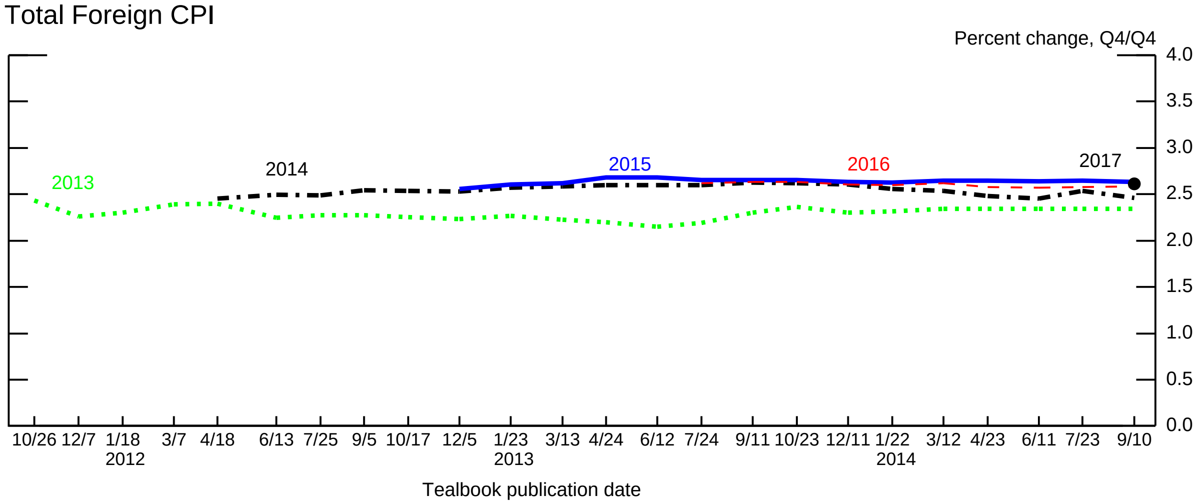


Evolution of Staff's International Forecast

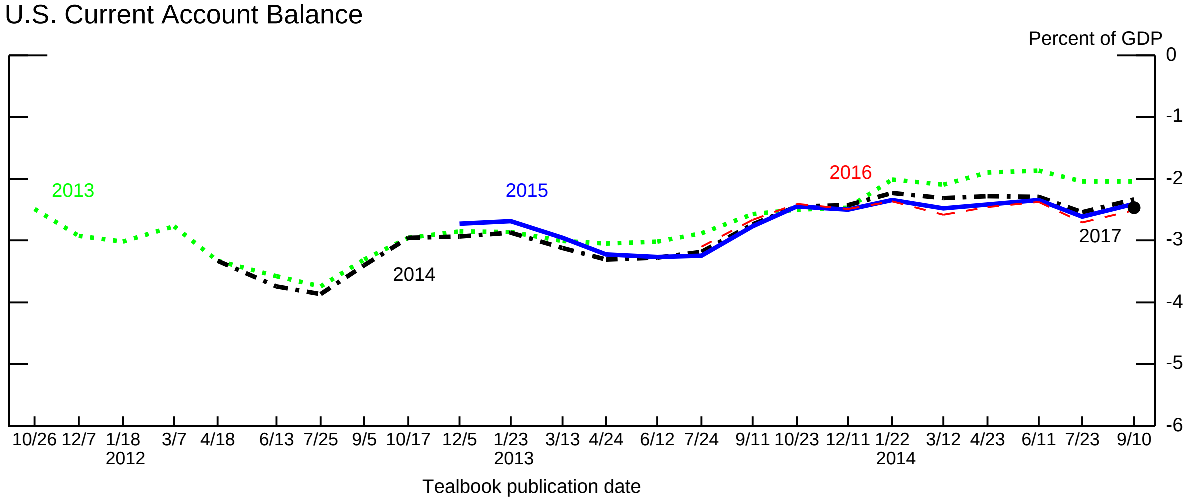
Total Foreign GDP



Total Foreign CPI



U.S. Current Account Balance



Int'l Econ Devel & Outlook

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Financial Developments

Domestic financial market reactions to incoming news on economic activity, monetary policy, and geopolitical events were each relatively small and mainly offsetting over the intermeeting period. Broad measures of domestic equity prices edged up over the period, as market participants apparently interpreted incoming data on U.S. economic activity as, on balance, somewhat better than expected. Yields on nominal Treasury securities were also up a touch, likely boosted by Federal Reserve communications that were seen as pointing to slightly less accommodation than had been expected. However, disappointing news on economic activity in Europe and growing expectations for further monetary accommodation from the ECB appear to have put some downward pressure on nominal Treasury yields. The conflict in Ukraine and other geopolitical tensions weighed on market sentiment at times but appeared to have only small net effects over the period.

- The S&P 500 index was up 1 percent over the period. Corporate bond spreads were roughly unchanged, on net, as high-yield bonds recovered from a sharp selloff early in the intermeeting period.

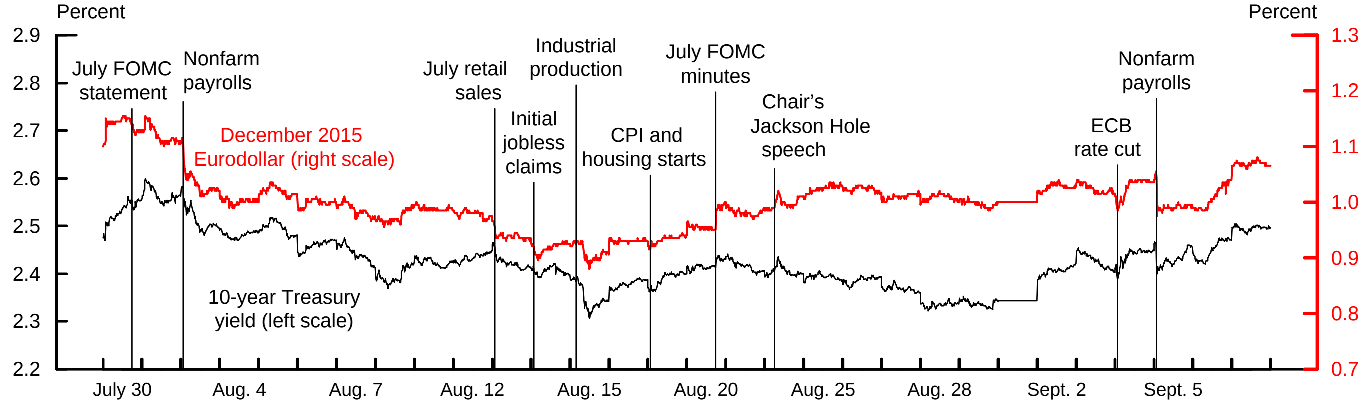
- Yields on nominal Treasury securities were up 1 to 7 basis points across the yield curve, and TIPS-based measures of inflation compensation declined amid lower oil prices and lower-than-expected data on CPI inflation.

- Yields on the sovereign debt of European economies continued to decline over the intermeeting period, as expectations for euro-area growth and inflation fell and as market participants increased their expectations for monetary accommodation abroad. The broad index of the dollar appreciated about 1¾ percent over the period, with solid gains against most currencies.

- Financing conditions for nonfinancial businesses remained quite favorable. However, financing conditions for households were mixed: Auto loans were widely available, standards and terms for credit card lending were tight but eased somewhat, and access to residential mortgages remained limited for all but those with excellent credit histories.

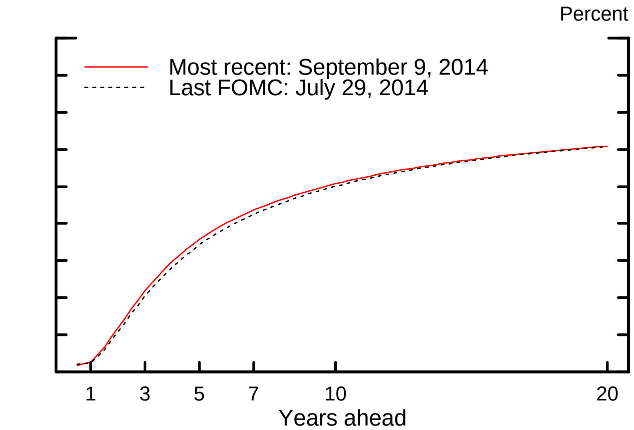
Policy Expectations and Treasury Yields

Selected Interest Rates



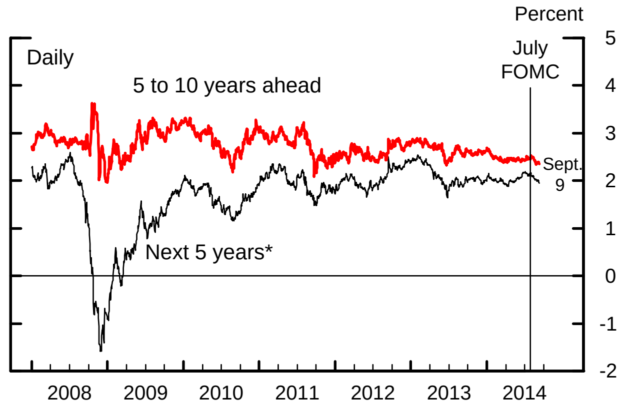
Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m.
Source: Bloomberg.

Treasury Yield Curve



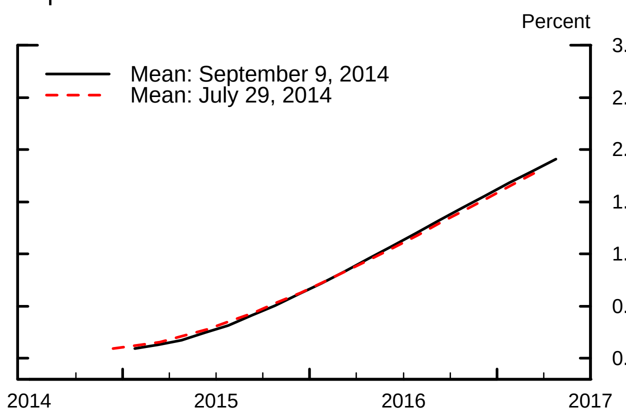
Note: Smoothed yield curve estimated from off-the-run Treasury coupon securities. Yields shown are those on notional par Treasury securities with semiannual coupons.
Source: Federal Reserve Board.

Inflation Compensation



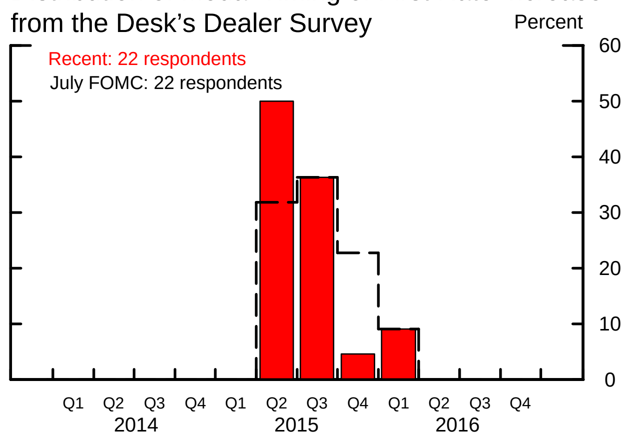
Note: Estimates based on smoothed nominal and inflation-indexed Treasury yield curves.
* Adjusted for lagged indexation of Treasury Inflation-Protected Securities (carry effect).
Source: Barclays PLC and staff estimates.

Implied Federal Funds Rate



Note: Mean is estimated using overnight index swap quotes and includes a term premium of zero basis points per month.
Source: Bloomberg; CME Group.

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



Source: Desk's dealer survey from September 8, 2014.

Financial Developments

POLICY EXPECTATIONS AND TREASURY YIELDS

Yields on nominal Treasury securities edged higher, on balance, over the period. Rates might have been expected to rise a few basis points, as the passage of time brought the expected date of the first increase in the federal funds rate closer.[1] U.S. economic data were, on balance, reportedly seen by Treasury market participants as about in line with expectations. Some market participants pointed to the declines in yields in other advanced economies, especially those in the euro area, as having put some downward pressure on U.S. Treasury yields. In addition, TIPS-based measures of inflation compensation declined over the intermeeting period, particularly in the near term, reportedly reflecting the lower-than-expected inflation readings from the July CPI data and a decline in oil prices. Geopolitical risk, including the tensions in Ukraine and the Middle East, also appeared to boost demand for Treasury securities and weigh on their yields at times, but the net effect appears to have been small.

Federal Reserve communications were, on balance, interpreted as signaling slightly less accommodative monetary policy than had been expected. In particular, although the July FOMC statement was viewed as generally in line with expectations, the July minutes were seen as modestly less accommodative. Market participants reportedly focused especially on the indication that policymakers generally agreed that the recent improvement in labor market conditions had been greater than anticipated. The discussion of normalization also garnered attention but reportedly did not materially affect market pricing. The Chair's speech at the Jackson Hole economic policy symposium was interpreted as consistent with the message from the minutes.

The path of the federal funds rate implied by a straight read of financial market quotes was essentially unchanged, on net, over the intermeeting period.[2] However, half of the respondents to the September primary dealer survey pointed to the second quarter of 2015 as the most likely date for liftoff, with the other half pointing to the third quarter or later, and the distribution of the modal timing of the first rate increase has shifted slightly toward earlier dates. The median dealer's projection for the longer-run level of

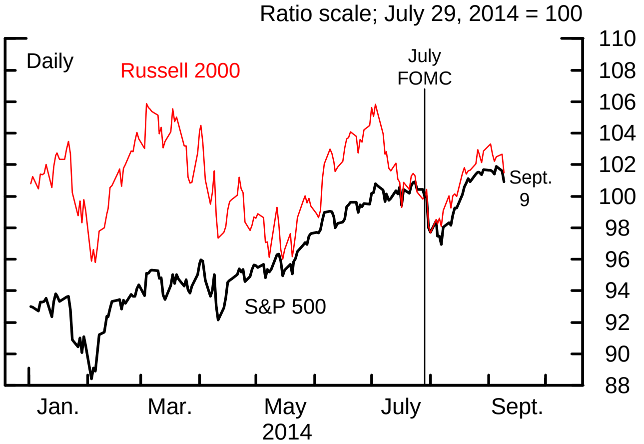
[1] Treasury yields reflect both the expected average level of short-term policy rates inside the maturity "window" of the Treasury security and a term premium. As the expected date of policy liftoff approaches, the maturity window moves further into the period during which short-term rates are expected to rise. This movement, by itself, puts upward pressure on Treasury yields.

[2] The effective federal funds rate averaged 9 basis points over the intermeeting period, with the intraday standard deviation averaging about 5 basis points.

Financial Developments

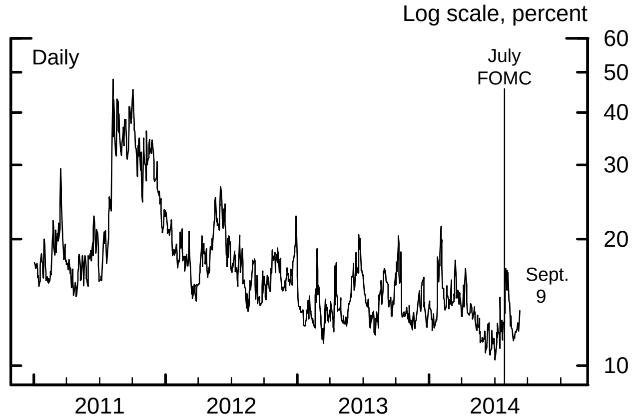
Bond and Equity Markets

Equity Price Indexes



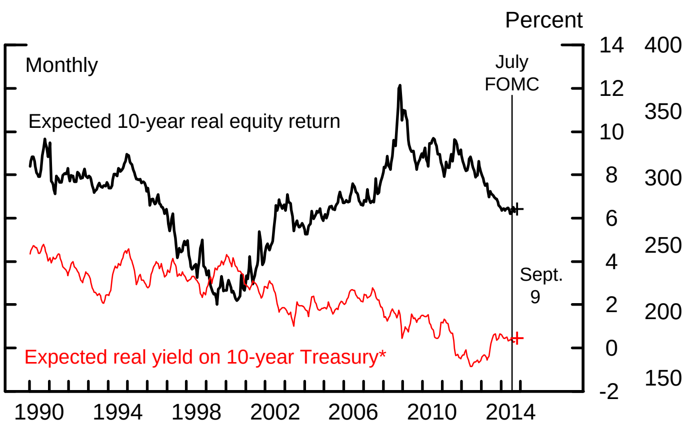
Source: Bloomberg.

Implied Volatility on S&P 500 (VIX)



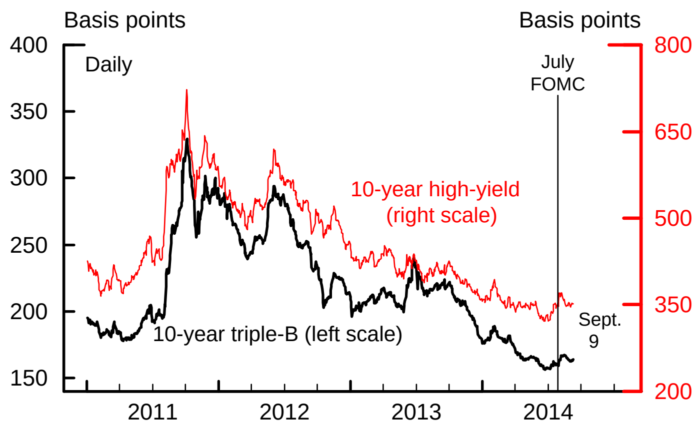
Source: Chicago Board Options Exchange.

Equity Risk Premium



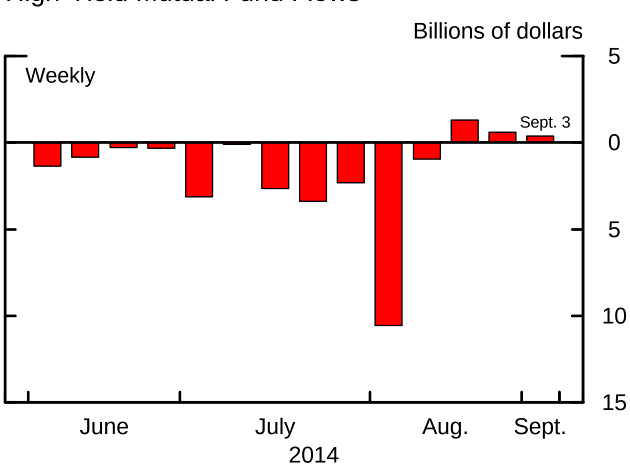
* Off-the-run 10-year Treasury yield less Philadelphia Fed 10-year expected inflation.
+ Denotes the latest observation using daily interest rates and stock prices and latest earnings data.
Source: Thomson Reuters Financial.

Corporate Bond Spreads



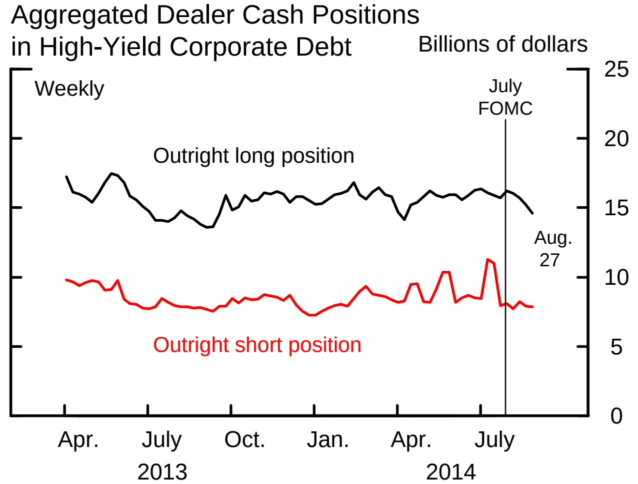
Note: Spreads over 10-year Treasury yield.
Source: Staff estimates of smoothed corporate yield curves based on Merrill Lynch data and smoothed Treasury yield curve.

High-Yield Mutual Fund Flows



Source: Investment Company Institute.

Aggregated Dealer Cash Positions in High-Yield Corporate Debt



Note: Corporate debt includes U.S. dollar-denominated debt securities issued by corporations incorporated in the United States.
Source: Federal Reserve Board, FR 2004A, Weekly Report of Dealer Positions. The FR 2004 was revised effective April 1, 2013.

the federal funds rate is 3.5 percent, unchanged from the July survey, while the median expected spread between the ON RRP and IOER rates immediately following liftoff increased from 20 basis points in the July survey to 25 basis points in September, consistent with the normalization discussion in the July FOMC minutes.

EQUITY PRICES AND BOND SPREADS

Broad measures of domestic equity prices were up a bit over the intermeeting period, as equity market investors appeared to interpret the incoming economic data as providing more evidence that the economic recovery is gaining traction. Geopolitical tensions appeared to be a drag on stock prices at times, and market volatility moved up notably early in the period. However, this increase was short lived, and measures of realized and implied equity price volatility were little changed, on net, over the period.

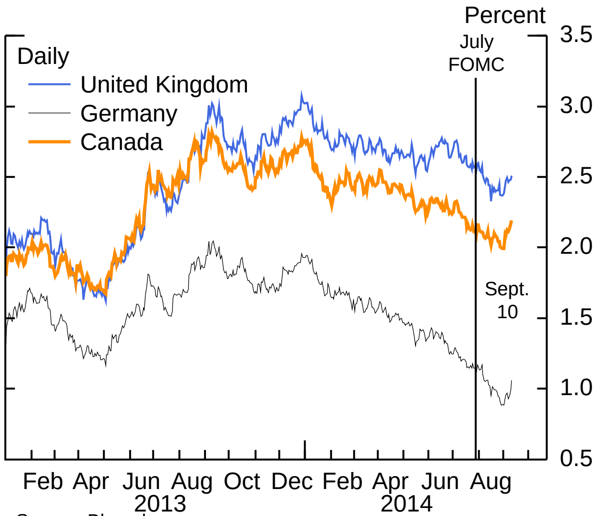
The spreads between yields on corporate bonds and those on comparable-maturity Treasury securities were about unchanged, on balance, over the intermeeting period. High-yield bond mutual funds experienced sharp outflows early in the period, and spreads on such bonds widened noticeably. However, spreads subsequently reversed, and such bond funds have attracted modest inflows in recent weeks. Measures of liquidity in the corporate bond market remained stable in the face of these substantial flows, and responses to the most recent Senior Credit Officer Opinion Survey on Dealer Financing Terms indicated little change in corporate bond market functioning. Dealers' inventories of high-yield corporate bonds held fairly steady amid the large swings in mutual fund flows early in the period, consistent with market reports that retail outflows were quickly met by purchases from institutional investors.

FOREIGN DEVELOPMENTS

Over the intermeeting period, market participants shifted attention away from geopolitical risks toward weaker-than-expected data releases abroad as well as actual and prospective easing in the stance of monetary policy in the euro area. Sovereign yields in European economies declined, and euro-area peripheral spreads narrowed substantially on net. Near- to medium-term inflation expectations in the euro area, which have been trending down for some time, declined substantially in August. The shift in monetary policy expectations supported equity prices, with broad foreign indexes generally ending the period somewhat higher, and contributed to an appreciation in the broad index of the foreign exchange value of the dollar.

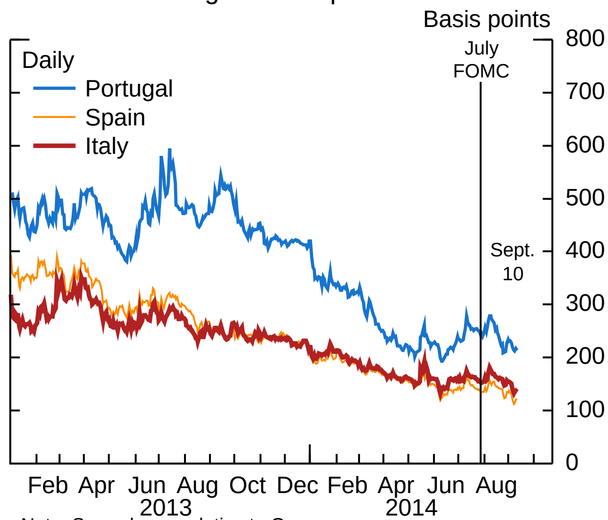
Foreign Developments

AFE 10-Year Nominal Benchmark Yields



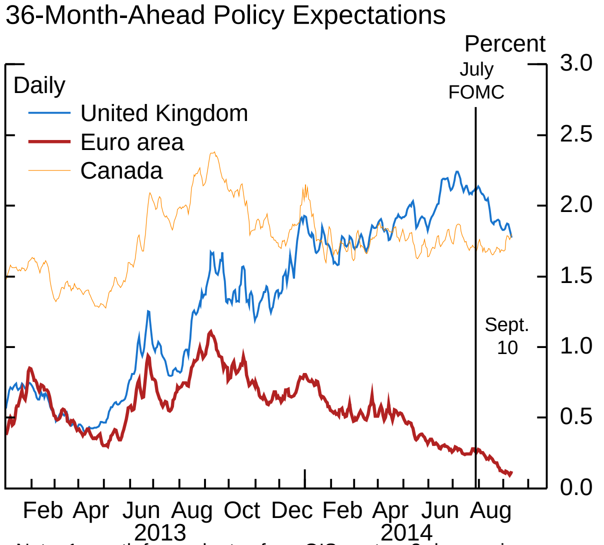
Source: Bloomberg.

10-Year Sovereign Bond Spreads



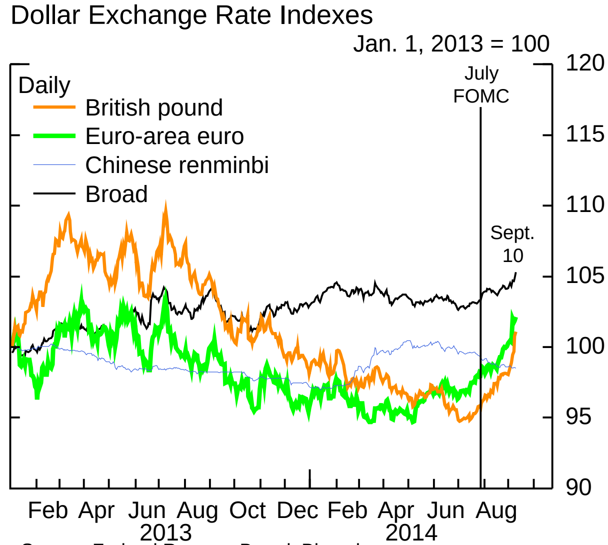
Note: Spreads are relative to Germany.
Source: Bloomberg.

36-Month-Ahead Policy Expectations



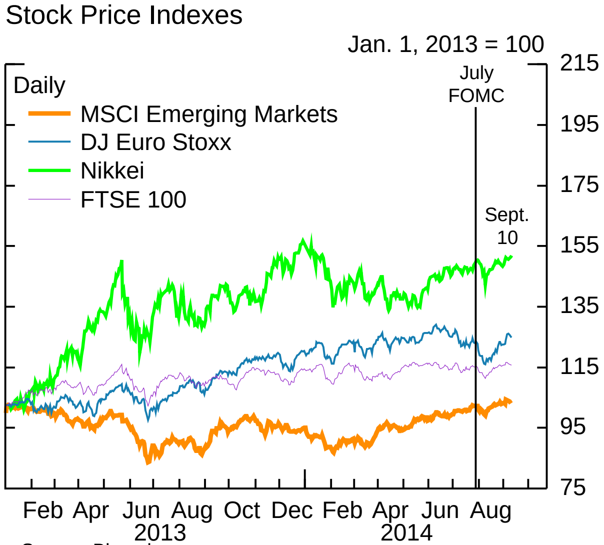
Note: 1-month forward rates from OIS quotes, 3-day moving average.
Source: Bloomberg.

Dollar Exchange Rate Indexes



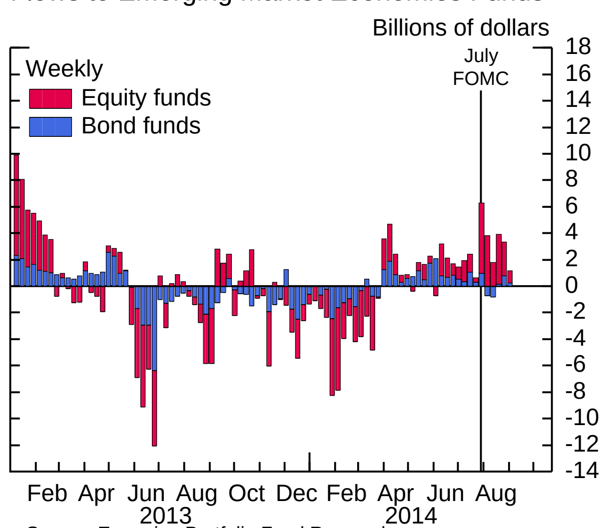
Source: Federal Reserve Board; Bloomberg.

Stock Price Indexes



Source: Bloomberg.

Flows to Emerging Market Economies Funds



Source: Emerging Portfolio Fund Research.

Financial Developments

ECB President Mario Draghi's Jackson Hole remarks were read as more accommodative than expected, and the ECB subsequently announced a cut of 10 basis points in both its main refinancing rate, to 0.05 percent, and its deposit rate, to negative 0.2 percent. In addition, the ECB pledged to begin purchasing asset-backed securities and covered bonds in October. The euro depreciated more than 1 percent immediately following the ECB announcement. Over the period, German 2-year government bond yields declined about 10 basis points to negative 7 basis points. German yields are now negative out to maturities of 3 years. Meanwhile, 10-year sovereign bond yields for the peripheral European economies moved to record lows, and spreads on those securities continued to narrow.

Following the release of the BOE's *Inflation Report*, which highlighted the weakness of recent wage growth, near-term policy expectations moved lower. Government bond yields in the United Kingdom also fell over the period. In early September, the pound depreciated sharply against the dollar and implied pound–dollar volatility spiked after polls on the Scottish independence referendum to be held on September 18 showed an increase in the probability of secession.

The broad index of the dollar rose about 1¾ percent over the period. Weaker-than-expected foreign data, more accommodative monetary policy expectations in advanced foreign economies, and the Scottish referendum polls contributed to an increase of about 3 percent in the major currency index over the period. In addition to the large appreciations of the dollar against the euro and the pound, the dollar rose substantially against the yen and strengthened against most other currencies, except the renminbi.

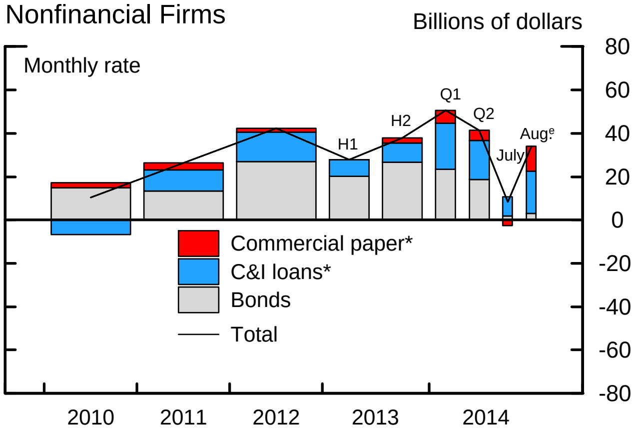
In line with U.S. equities, foreign equity prices declined early in the period in response to geopolitical news and ongoing concerns surrounding the failure and restructuring of Banco Espírito Santo in Portugal. However, most major foreign equity indexes have since retraced their losses and are up on net. Flows into emerging market equity and bond funds remained positive over the period.

Business Finance

Financing conditions for domestic businesses stayed favorable during the intermeeting period. Corporate bond issuance slowed in July and August amid a fairly typical summer lull, and elevated volatility in the high-yield bond market early in the intermeeting period may also have restrained issuance a bit. However, issuance

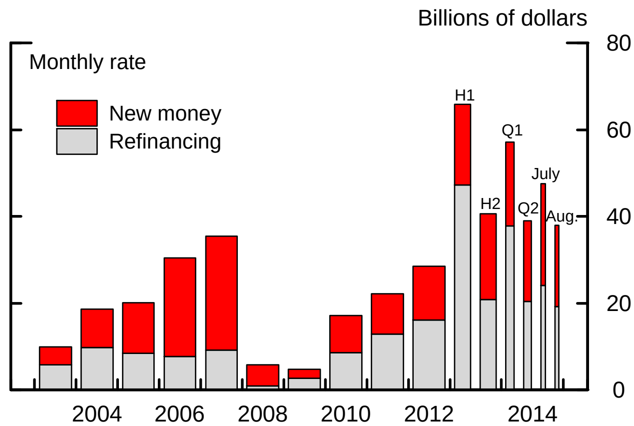
Business Finance

Selected Components of Net Debt Financing, Nonfinancial Firms



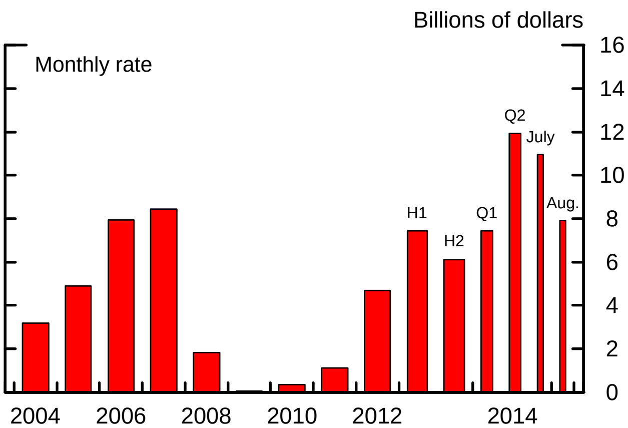
e Estimate.
* Period-end basis, seasonally adjusted.
Source: Depository Trust & Clearing Corporation; Mergent Fixed Investment Securities Database; Federal Reserve Board.

Institutional Leveraged Loan Issuance



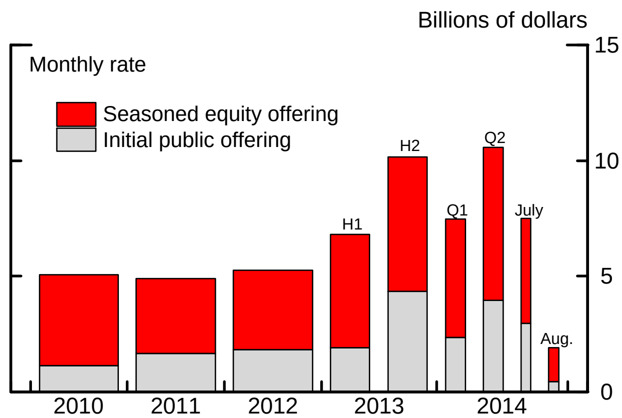
Source: Thomson Reuters LPC LoanConnector.

U.S. CLO Issuance



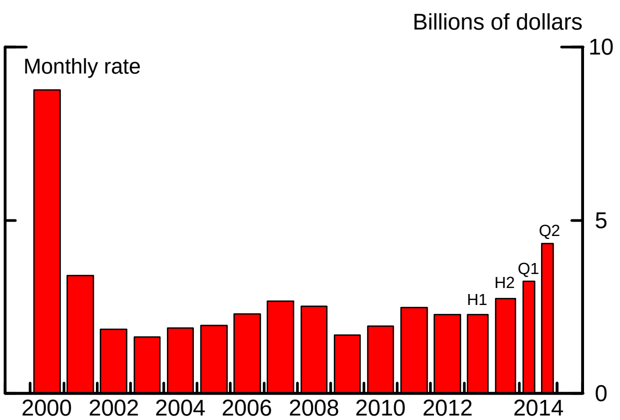
Source: Thomson Reuters LPC LoanConnector.

Gross Proceeds from Nonfinancial Equity Issuance



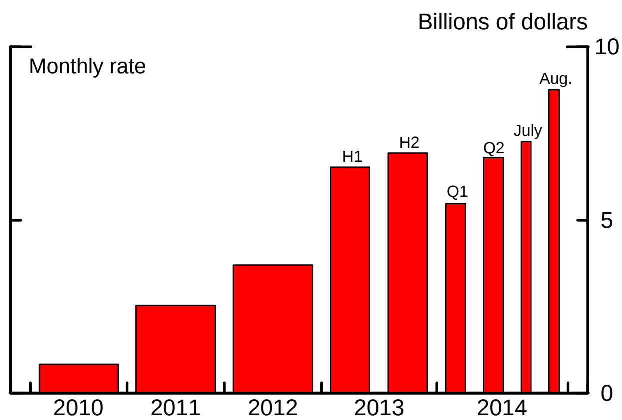
Source: Securities Data Company.

Venture Capital



Source: PricewaterhouseCoopers and National Venture Capital Association, MoneyTree Report.

CMBS Issuance



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

Financial Developments

rebounded strongly in the first week of September. The level of nonfinancial commercial paper outstanding rose noticeably over the intermeeting period, while commercial and industrial (C&I) loans on banks' books continued to grow robustly. Supervisory data suggest that the growth in C&I loans during the second quarter was broad based across major industries, including strong growth in loans to core sectors such as manufacturing, trade, and transportation.

Issuance of leveraged loans has remained robust in recent months. Although demand for such loans by retail investors—typically through mutual funds—has been slowly declining since the beginning of the year, CLO managers continue to be a strong source of demand for newly issued loans, and CLO issuance has stayed quite rapid. Standards and terms for leveraged loans have reportedly stabilized but remain relatively loose.

Despite favorable equity market valuations, gross equity issuance slowed in July and continued to be subdued in August, mostly reflecting summer seasonal patterns. However, the number of pending IPOs is large, and venture capital funding in the second quarter was at its highest level since 2001.

Credit conditions in the commercial real estate (CRE) sector continued to ease. Underwriting standards on CMBS reportedly eased further amid strong competition among lenders, and issuers reportedly have been engaging in increased "rating shopping." The volume of CMBS issuance remained robust in July and August, and unusually strong origination volumes are expected over the next few months. CRE loans on banks' books continued to grow solidly in July and August, and Call Report data indicate that the pace of construction lending picked up in the second quarter.

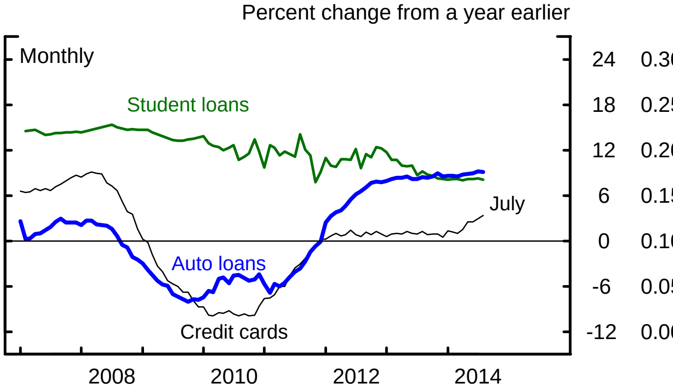
Household Finance

Financing conditions for households were mixed over the intermeeting period: Auto loans were widely available, standards and terms for credit card lending were tight but eased somewhat, and access to residential mortgages remained limited for all but those with excellent credit histories.

Auto loans stayed widely available to consumers, including to those with subprime credit records. While the credit performance of auto loans, on balance, has held up well in recent quarters, it has worsened somewhat for lenders with more exposure to

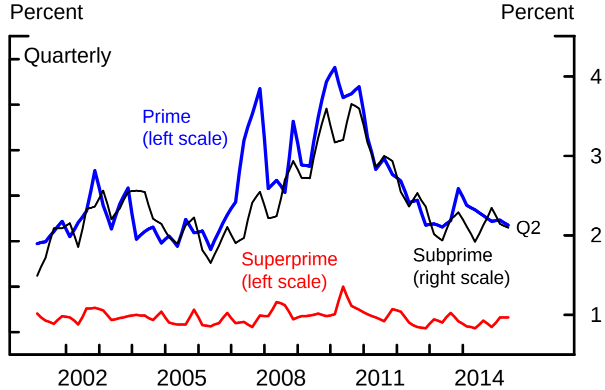
Household Finance

Consumer Credit



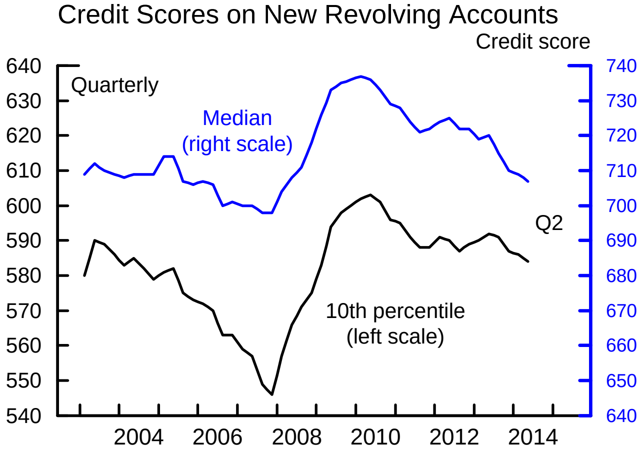
Note: The data are not seasonally adjusted.
Source: Federal Reserve Board.

Auto Loan Delinquency Rates



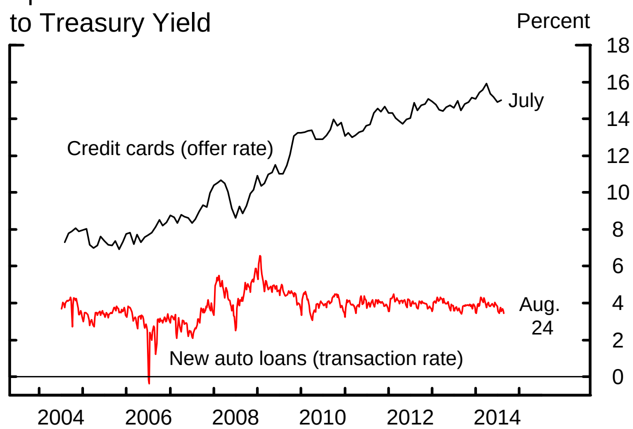
Note: Delinquency is at least 60 days past due, excluding severe derogatory loans; risk groups are assigned based on credit scores 4 quarters ago. Prime is between 660 and 779; superprime is greater than 779.
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax.

Credit Scores on New Revolving Accounts



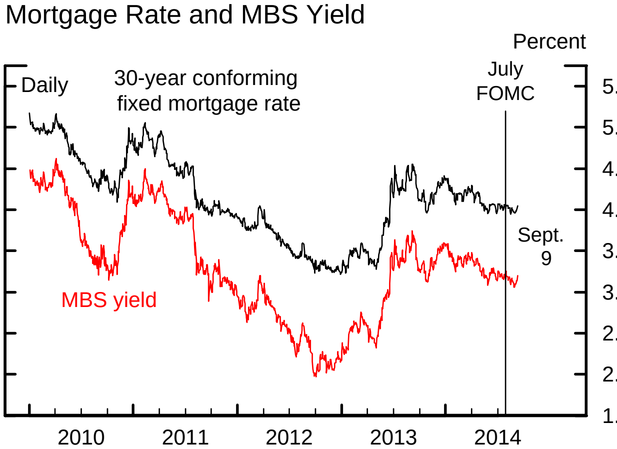
Note: Derived from the number of revolving accounts opened in the past 6 months.
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax.

Spread of Consumer Interest Rates to Treasury Yield



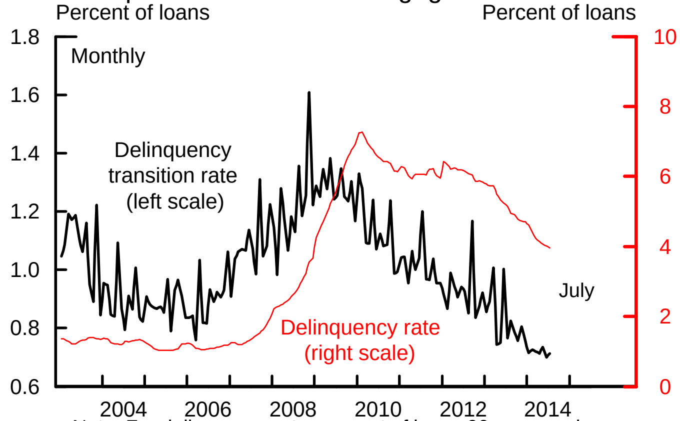
Note: Spreads are relative to 2-year Treasury yield. For credit cards, the data are monthly; for auto loans, the data are weekly.
Source: For credit cards, Mintel; for auto loans, PIN.

Mortgage Rate and MBS Yield



Note: The MBS yield is the Fannie Mae 30-year current-coupon rate.
Source: For MBS yield, Barclays; for mortgage rate, Loansifter.

Delinquencies on Prime Mortgages



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

Financial Developments

subprime borrowers. Some of these lenders have reportedly started to rein in lending to individuals with very poor credit histories.

Standards and terms for credit card lending remained tight, on balance, in recent quarters but continued to ease somewhat. During the second quarter, the median credit score of newly opened revolving accounts edged down further, and spreads of interest rates offered in credit card mailings over yields on Treasury securities, though still elevated, narrowed somewhat. Partly reflecting such continuing improvements in financing conditions, credit card lending advanced further in July, leaving the outstanding balance of such loans at its highest level in four years, although it remains about 14 percent below the peak level seen prior to the financial crisis. Delinquency rates on credit card debt stayed at historically low levels.

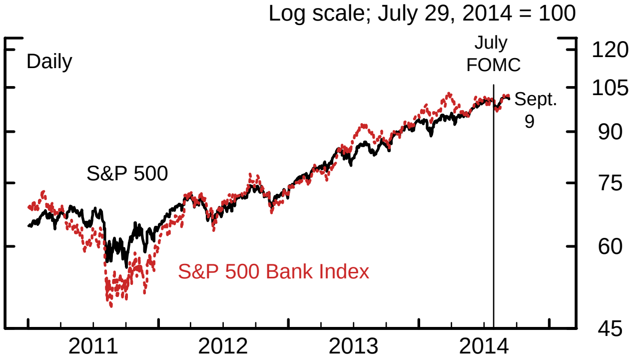
Measures of financing conditions for residential mortgages were little changed over the intermeeting period. Although conditions remained tight, they have eased some over the past year. Total mortgage balances on household credit reports declined at an annual rate of about 3 percent in the second quarter as new mortgage originations continued to be subdued; more timely indicators of purchase and refinance activity stayed at low levels through September 5. Interest rates on 30-year fixed-rate mortgages were little changed at about 4 percent, approximately 50 basis points below last fall's highs.

Banking Developments and Money

The stock prices of large U.S. bank holding companies (BHCs) changed little, on net, over the intermeeting period, while CDS spreads for large BHCs edged down. In the second quarter, the profitability of BHCs remained in line with levels seen over the previous two years but was still well below the levels that prevailed in the decade prior to the financial crisis. Net interest margins changed little from the previous quarter, with compressed margins being driven by continued low interest rates as well as increased holdings of high-quality liquid assets, which banks are reportedly purchasing in part to meet Basel III liquidity requirements. In particular, holdings of U.S. Treasury securities at commercial banks that are subject to the standard liquidity coverage ratio requirement have risen $100 billion thus far this year. Through the second quarter (the latest data available), the bulk of the increase occurred in medium- and longer-term maturities. Loan performance at banks continued to improve in the second quarter, as delinquencies fell across most loan types.

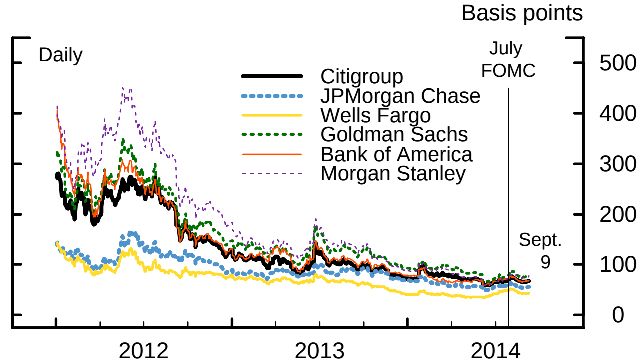
Banking Developments and Money

S&P 500 Stock Price Indexes



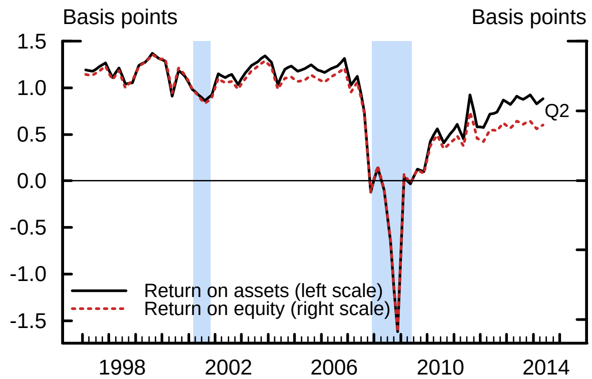
Source: Bloomberg.

CDS Spreads of Large Bank Holding Companies



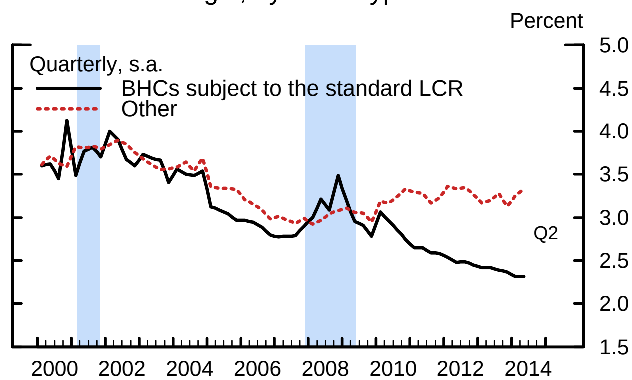
Source: Markit.

Return on Assets and Return on Equity



Source: Federal Reserve Board, FR Y-9C, Consolidated Financial Statements for Holding Companies.

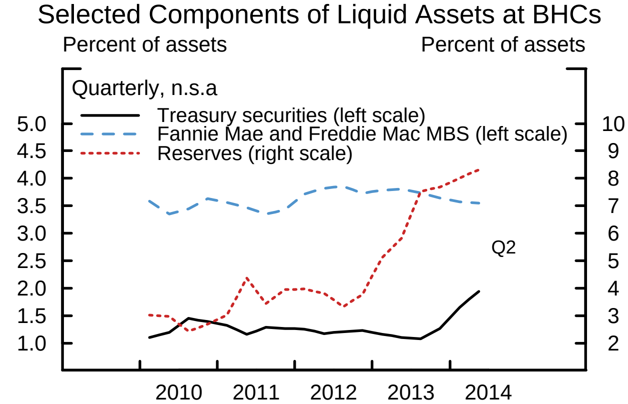
Net Interest Margin, by BHC Type



Note: Bank holding companies (BHCs) subject to the standard liquidity coverage ratio (LCR): Bank of America, Bank of New York Mellon, BB&T, Citigroup, Capital One, Goldman Sachs, JPMorgan Chase, Morgan Stanley, Northern Trust, PNC Financial, State Street, U.S. Bancorp, and Wells Fargo.

Source: Federal Reserve Board, FR Y-9C, Consolidated Financial Statements for Holding Companies.

Selected Components of Liquid Assets at BHCs



Note: For bank holding companies (BHCs) subject to the standard liquidity coverage ratio: Bank of America, Bank of New York Mellon, BB&T, Citigroup, Capital One, Goldman Sachs, JPMorgan Chase, Morgan Stanley, Northern Trust, PNC Financial, State Street, U.S. Bancorp, and Wells Fargo.

Source: Federal Reserve Board, FR Y-9C, Consolidated Financial Statements for Holding Companies.

Growth of M2 and Its Components

Percent, s.a.a.r.

	M2	Liquid deposits	Small time deposits	Retail MMFs	Curr.
2013	6.1	7.9	-13.8	2.0	6.6
2014:Q1	6.6	8.3	-8.3	-4.1	7.3
2014:Q2	6.6	7.5	-8.6	.6	10.4
July	7.5	9.5	.7	-11.1	5.6
Aug.	3.3	3.0	-5.7	11.0	4.7
July & Aug. (avg.)	5.4	6.3	-2.5	-.1	5.2

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

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

M2 expanded at a 5½ percent annual rate over July and August, in line with growth during the first half of the year. The monetary base rose at an annual rate of about 20 percent over the intermeeting period, as the end of the most recent tests of the Term Deposit Facility led to a shift of funds from the facility back into reserve balances.[3]

Short-Term Funding Markets and Federal Reserve Operations

Unsecured overnight funding markets were stable during the intermeeting period. Rates for triparty Treasury repo among counterparties that are eligible to participate in the ON RRP exercise and rates for GCF Treasury repo declined somewhat over the period but, for the most part, remained above the fixed rate offered in the ON RRP exercise.

As a result of somewhat lower market repo rates, ON RRP take-up, on average, was a little higher than in the prior intermeeting period. Money market funds have continued to be major and stable participants in the ON RRP exercise, with daily average usage of $122 billion as of September 9. Total take-up was significantly higher on the last trading day of July and modestly higher on the last trading day of August than it had been in the days just prior to those dates. Prime money funds, in particular, more than doubled their take-up on these month-ends relative to adjacent days.

In outright open market operations, the Federal Reserve purchased $20 billion in Treasury securities and committed to purchase $41 billion in MBS over the period. As of September 3, the Federal Reserve's outright holdings of Treasury securities topped $2.4 trillion, and its holdings of mortgage-backed securities were about $1.7 trillion.

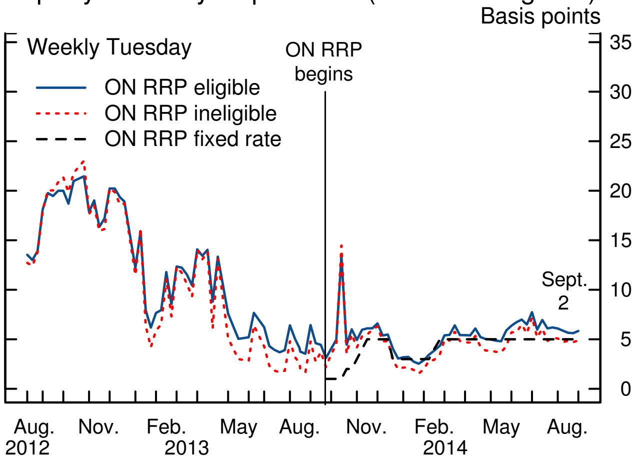
Liquidity conditions in the Treasury and MBS markets remained stable. The ratio of the Open Market Desk's MBS settlements to gross issuance of these securities further decreased in August to about 30 percent from a high of about 95 percent in March, reflecting a reduction in purchases and an increase in gross issuance of MBS. The dollar-

[3] As part of the continuing program of operational testing of policy tools, the Federal Reserve announced, on September 4, plans to conduct a series of eight consecutive seven-day term deposit operations through the Term Deposit Facility beginning in October. The term deposits in these operations will include an early withdrawal feature, subject to a penalty. Market participants noted that the early withdrawal feature will likely increase demand for term deposits because it will allow banks to count these balances as high-quality liquid assets in the calculation of their liquidity coverage ratios (LCRs). The LCR requirement will be phased in starting early next year, but it has reportedly already begun to affect banks' behavior.

Financial Developments

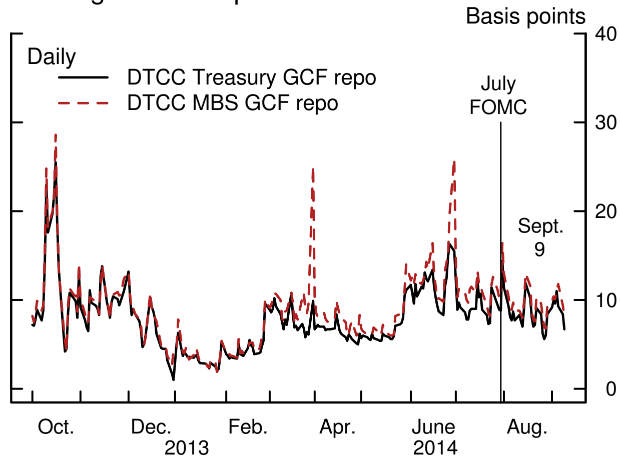
Short-Term Funding and Federal Reserve Operations

Triparty Treasury Repo Rates (Volume Weighted)



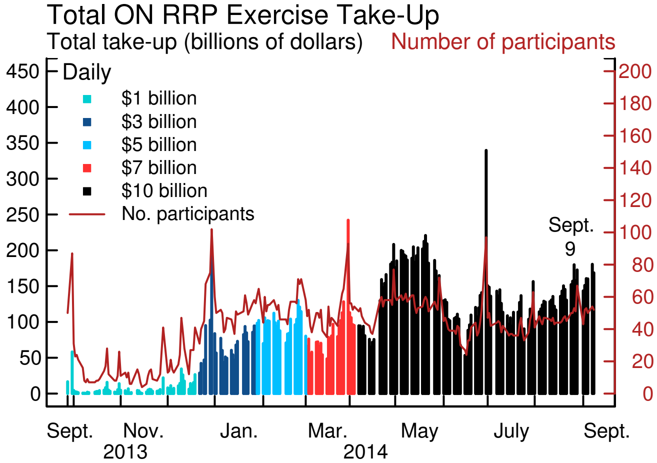
Note: ON RRP is overnight reverse repurchase agreement.
Source: Federal Reserve Bank of New York.

Overnight GCF Repo Rates



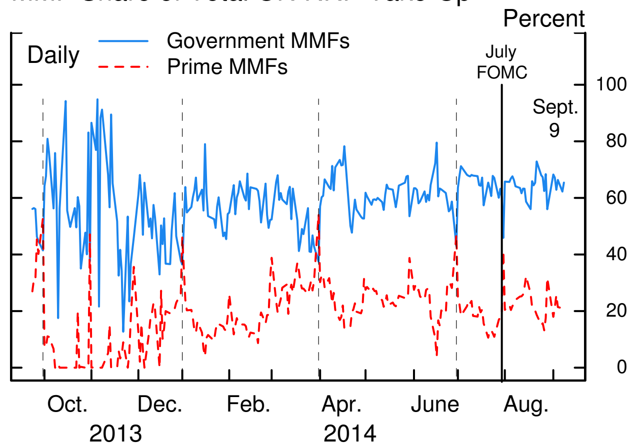
Note: GCF is general collateral finance; repo is repurchase agreement.
Source: Depository Trust & Clearing Corporation (DTCC).

Total ON RRP Exercise Take-Up



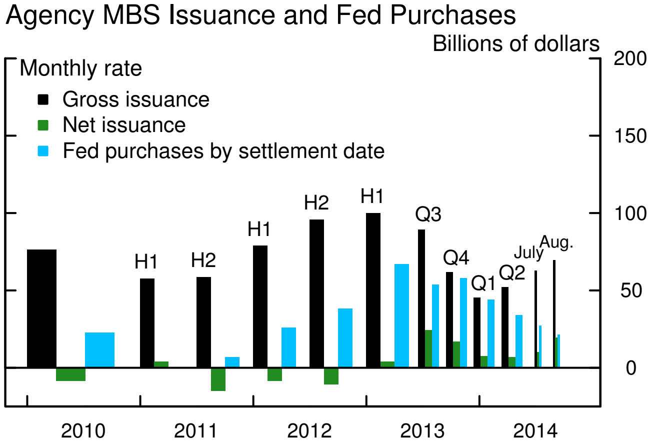
Note: ON RRP is overnight reverse repurchase agreement.
Source: Federal Reserve Bank of New York.

MMF Share of Total ON RRP Take-Up



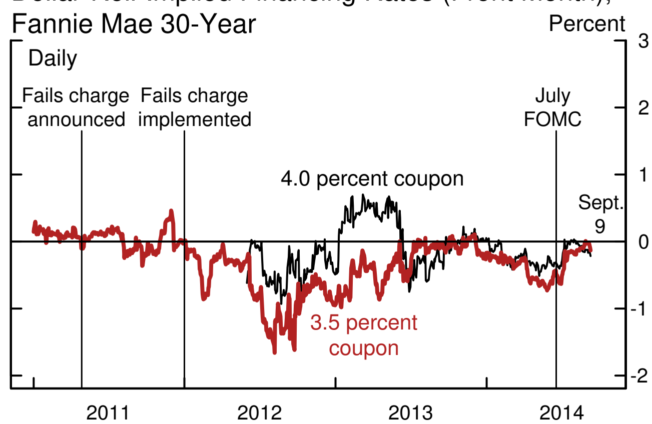
Note: Government money market funds (MMFs) include Treasury-only as well as Treasury and agency funds. Dashed vertical lines mark quarter-ends. ON RRP is overnight reverse repurchase agreement.
Source: Depository Trust & Clearing Corporation; Federal Reserve Bank of New York.

Agency MBS Issuance and Fed Purchases



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

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



Source: J.P. Morgan.

Financial Developments

roll-implied financing rates for main production-coupon agency MBS remained higher than their average levels over the first half of the year, consistent with limited settlement pressures in MBS markets.

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Risks and Uncertainty

ASSESSMENT OF RISKS

We continue to view the extent of uncertainty around our projections for real GDP growth and the unemployment rate as roughly in line with the average of the past 20 years (the benchmark used by the FOMC), a period that includes considerable volatility. As always, a number of upside and downside risks attend our forecast for economic activity; importantly, however, we see neither monetary policy nor fiscal policy as being well positioned to help the economy withstand adverse shocks. Consequently, we continue to believe that the risks to our forecast for real GDP growth are tilted a little to the downside. By contrast, we continue to view the risks around our projection for the unemployment rate as roughly balanced, with the risk of a higher unemployment rate from adverse demand-side developments largely countered by the possibility that the unemployment rate could continue to surprise us to the downside.

Our view of the risks to the economic outlook is informed by the staff's quarterly quantitative surveillance assessment. The assessment delivered in July saw the vulnerability of the financial system to adverse shocks as moderate in general, albeit building slightly. Overall, this assessment reflected the modest use of leverage in most parts of the financial sector, low-to-moderate levels of maturity and credit transformation in the financial sector, and the lack of acceleration in borrowing by the nonfinancial sector as a whole. That said, the assessment also indicated that the risks to the financial system associated with an abrupt market shift had stepped up as a result of unusually subdued levels of actual and implied volatilities in a range of markets, the continued deterioration of underwriting standards for leveraged loans, and increased asset valuation pressures—especially for some fixed-income securities.

With regard to inflation, we see significant uncertainty around our projection but do not view the current level of uncertainty as unusually high. Measures of long-term inflation expectations have remained stable in recent years despite fluctuations in the prices of crude oil, other commodities, and imports more generally, and also despite the deep recession and subsequent slack in labor and product markets. Furthermore, we view the risks to our inflation forecast as balanced. On the downside, there is the possibility that the lengthy run of inflation below the Committee's 2 percent objective could prove more deeply ingrained and more difficult to correct than we expect, especially if long-

Alternative Scenarios

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

Measure and scenario	2014		2015	2016	2017	2018-19
	H1	H2				
Real GDP						
Extended Tealbook baseline	1.1	2.9	2.7	2.9	2.3	1.9
Anchored expectations	1.1	2.9	2.6	2.7	2.1	1.8
Unanchored expectations	1.1	2.9	2.6	2.7	2.1	1.8
Higher trend LFPR	1.1	2.8	2.7	3.5	3.1	2.3
No room to grow	1.1	2.8	2.3	1.9	1.0	.9
Weaker euro area growth	1.1	2.7	2.2	2.9	2.5	2.0
Escalating geopolitical tensions	1.1	2.6	1.4	2.8	2.8	2.2
Unemployment rate[1]						
Extended Tealbook baseline	6.2	5.9	5.4	5.1	4.9	5.0
Anchored expectations	6.2	5.9	5.5	5.3	5.2	5.3
Unanchored expectations	6.2	5.9	5.5	5.3	5.2	5.4
Higher trend LFPR	6.2	6.2	5.9	5.5	5.0	4.8
No room to grow	6.2	5.9	5.4	5.4	5.6	6.1
Weaker euro area growth	6.2	5.9	5.6	5.4	5.1	5.1
Escalating geopolitical tensions	6.2	5.9	5.9	5.8	5.4	5.3
Total PCE prices						
Extended Tealbook baseline	1.8	1.1	1.5	1.6	1.7	1.9
Anchored expectations	1.8	2.1	3.1	2.1	1.8	2.0
Unanchored expectations	1.8	2.1	3.2	2.5	2.4	2.5
Higher trend LFPR	1.8	1.1	1.5	1.7	1.8	1.9
No room to grow	1.8	1.2	1.7	1.9	2.0	2.1
Weaker euro area growth	1.8	.6	1.1	1.5	1.7	1.9
Escalating geopolitical tensions	1.8	3.8	1.7	.3	1.1	2.0
Core PCE prices						
Extended Tealbook baseline	1.6	1.5	1.6	1.7	1.8	2.0
Anchored expectations	1.6	2.5	3.2	2.2	1.9	2.1
Unanchored expectations	1.6	2.5	3.3	2.6	2.5	2.6
Higher trend LFPR	1.6	1.5	1.6	1.8	1.9	2.0
No room to grow	1.6	1.6	1.8	2.0	2.1	2.2
Weaker euro area growth	1.6	1.4	1.4	1.6	1.7	2.0
Escalating geopolitical tensions	1.6	1.5	1.4	1.6	1.7	2.0
Federal funds rate[1]						
Extended Tealbook baseline	.1	.1	1.1	2.3	3.2	3.9
Anchored expectations	.1	.1	1.9	3.1	3.6	3.7
Unanchored expectations	.1	.1	1.9	3.3	4.0	4.2
Higher trend LFPR	.1	.1	.1	1.0	2.4	3.9
No room to grow	.1	.1	1.9	3.5	4.4	4.4
Weaker euro area growth	.1	.1	.7	1.8	2.7	3.7
Escalating geopolitical tensions	.1	.1	.1	.1	1.9	3.3

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

Risks & Uncertainty

term inflation expectations move down or if low levels of resource utilization persist longer or have larger effects than we currently project. On the upside, an increase in inflation expectations—potentially related to concerns about the size of the Federal Reserve's balance sheet and the ability to execute a timely exit from the current stance of policy—could cause inflation to rise. Inflation could also move up as a result of significant unanticipated increases in the prices of oil and other commodities caused by overseas developments, a stronger-than-expected economic recovery, or a larger amount of damage to the supply side of the economy than is assumed in the baseline.

Alternative Scenarios

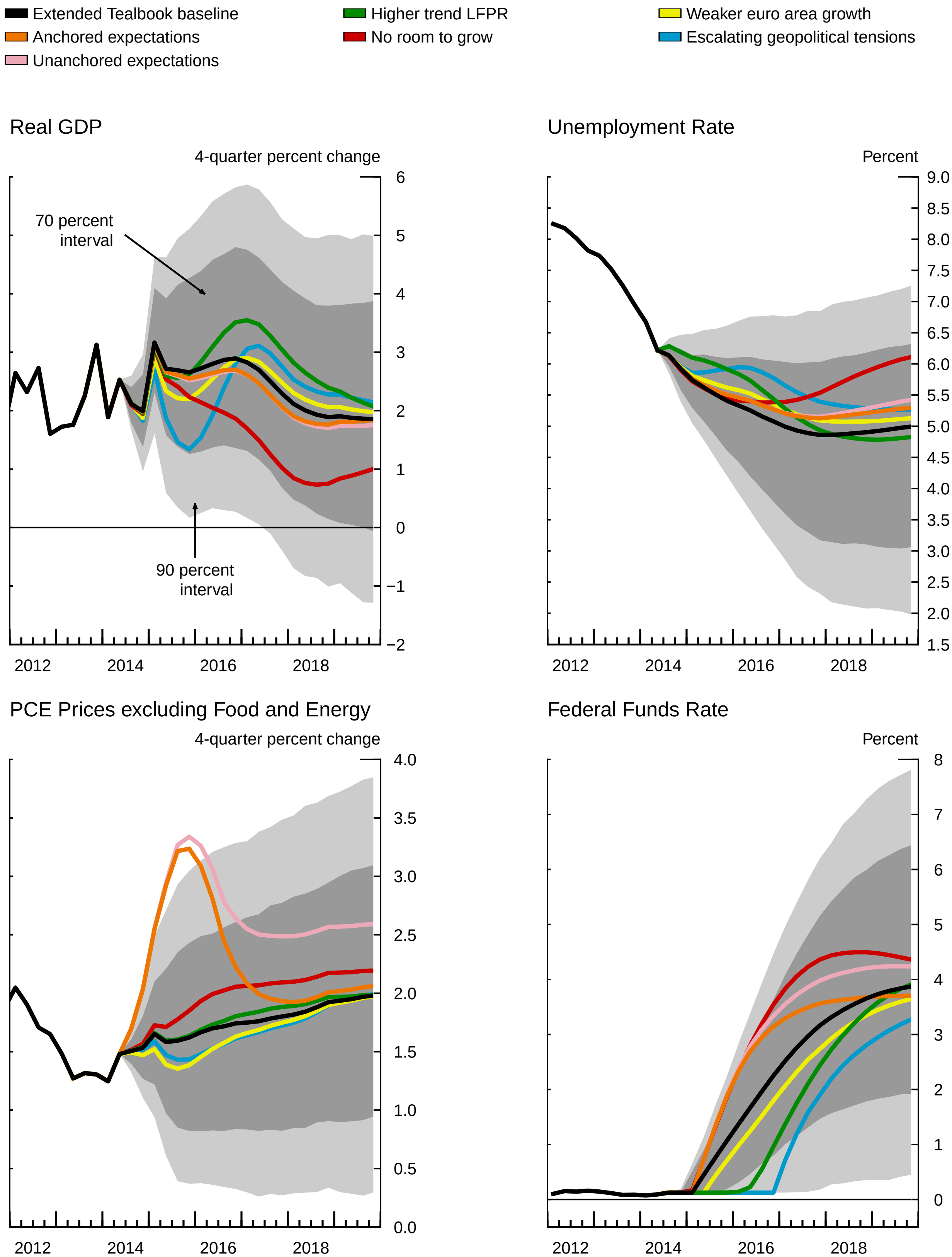
To illustrate some of the risks to the outlook, we construct a number of alternatives to the baseline projection using simulations of staff models. In the first two scenarios, the economy is hit by temporary supply shocks that boost inflation. In the first variant, long-term inflation expectations remain on their baseline path; in the second, long-term inflation expectations become unanchored and move up, leading to a much more persistent increase in inflation. In the third scenario, slack in labor markets is much greater than we have assumed in the baseline, reflecting a stronger trend in labor force participation. The fourth scenario features a deeper and more protracted reduction in potential output growth than assumed in the baseline. In the fifth scenario, weaker-than-expected growth in the euro area and very low core inflation prompt the ECB to markedly expand its program of asset purchases. The final scenario assumes that geopolitical tensions intensify further, causing oil prices to rise, global financial conditions to deteriorate, and household and business confidence to weaken.

We generate the first four scenarios using the FRB/US model and the final two using the multicountry SIGMA model. Once the federal funds rate has lifted off from its effective lower bound, its movements are governed—as in the baseline forecast—by an inertial version of the Taylor (1999) rule. The date of liftoff in each scenario is set using a mechanical procedure intended to be broadly consistent with the guidance provided in the Committee's recent statements.[1] In all cases, we assume that the size and composition of the SOMA portfolio follow their baseline paths.

[1] Specifically, in the first four scenarios, the inertial Taylor (1999) rule takes over in the quarter following the observation of an unemployment rate below 5.8 percent, the level of unemployment prevailing in the baseline one quarter prior to liftoff. For the last two scenarios, we assume a broadly

Forecast Confidence Intervals and Alternative Scenarios

Confidence Intervals Based on FRB/US Stochastic Simulations



Higher Inflation with Anchored Inflation Expectations

This scenario and the next compare the effects of a shock to inflation under alternative assumptions about inflation expectations.[2] In this scenario, long-term inflation expectations evolve according to the staff's baseline assumption, whereas in the next, they become unanchored and respond to the realizations of higher inflation.[3]

In both scenarios, transitory price and wage shocks raise core inflation to 3¼ percent by the end of next year. Assuming that long-term inflation expectations follow the baseline, as we do in this first scenario, then once the temporary price and wage shocks fade, core inflation declines quickly and by 2017 runs slightly below 2 percent. The federal funds rate lifts off in the same quarter as in the baseline, and with inflation substantially higher, reaches 3 percent by the end of 2016, ¾ percentage point above the baseline. The tighter policy restrains real activity somewhat, and by 2017, the unemployment rate is about ¼ percentage point higher than in the baseline projection.

Higher Inflation with Unanchored Inflation Expectations

In this scenario, we apply the same wage and price shocks as in the previous one, but we allow long-term inflation expectations to become unanchored. In particular, long-term inflation expectations are assumed to be adaptive. Accordingly, in response to the shocks that boost wages and prices in the near term, long-term inflation expectations drift up. As in the previous scenario, the federal funds rate lifts off in the same quarter as in the baseline. Under the assumed inertial version of the Taylor (1999) rule, the federal funds rate remains about ½ percentage point above its baseline path late in the decade. This response of the federal funds rate, however, raises the unemployment rate only marginally compared with the previous scenario, which is not sufficiently aggressive to make much progress in returning inflation to the Committee's objective over this horizon, with actual inflation remaining elevated through 2019. At that time, the policy rule

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similar policy rule to the one used in the first four scenarios. One key difference relative to the FRB/US simulations is that the policy rule in SIGMA uses a measure of slack equal to the difference between actual output and the model's estimate of the level of output that would occur in the absence of slow adjustment of wages and prices.

[2] In the baseline, long-term inflation expectations are assumed to be 1.8 percent through 2017. In 2018, they begin to gradually move up to the Committee's 2 percent objective.

[3] The memorandum to the FOMC dated September 5, 2014, by Thomas Laubach, John Roberts, Jae Sim, and Brad Strum explores the economic consequences of alternative paths for long-term inflation expectations. The simulations in this scenario (anchored inflation expectations) and the next (unanchored inflation expectations) start with long-term inflation expectations at 1.8 percent, and differ from the simulations in the memo in that we introduce price and wage shocks. The adaptive expectations mechanism adopted in the next scenario is the same as the one used in the memo.

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

Measure	2014	2015	2016	2017	2018	2019
Real GDP						
(percent change, Q4 to Q4)						
Projection	2.0	2.7	2.9	2.3	1.9	1.9
Confidence interval						
Tealbook forecast errors	1.2–2.8	.8–4.5	.8–5.0	. . .	. . .	. . .
FRB/US stochastic simulations	1.4–2.6	1.3–4.3	1.4–4.8	.7–4.2	.1–3.8	-.1–3.9
Civilian unemployment rate						
(percent, Q4)						
Projection	5.9	5.4	5.1	4.9	4.9	5.0
Confidence interval						
Tealbook forecast errors	5.6–6.3	4.6–6.2	3.9–6.3	. . .	. . .	. . .
FRB/US stochastic simulations	5.6–6.2	4.6–6.1	3.8–6.1	3.2–6.0	3.1–6.2	3.1–6.3
PCE prices, total						
(percent change, Q4 to Q4)						
Projection	1.5	1.5	1.6	1.7	1.9	2.0
Confidence interval						
Tealbook forecast errors	1.0–1.9	.4–2.6	.4–2.8	. . .	. . .	. . .
FRB/US stochastic simulations	1.1–1.9	.6–2.5	.5–2.7	.6–2.9	.7–3.1	.8–3.2
PCE prices excluding food and energy						
(percent change, Q4 to Q4)						
Projection	1.5	1.6	1.7	1.8	1.9	2.0
Confidence interval						
Tealbook forecast errors	1.2–1.8	.9–2.3	.7–2.8	. . .	. . .	. . .
FRB/US stochastic simulations	1.3–1.8	.8–2.4	.8–2.6	.8–2.8	.9–2.9	.9–3.1
Federal funds rate						
(percent, Q4)						
Projection	.1	1.1	2.3	3.2	3.7	3.9
Confidence interval						
FRB/US stochastic simulations	.1–.1	.2–1.8	.8–3.6	1.5–5.2	1.8–6.0	1.9–6.4

Note: Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1969–2013 set of model equation residuals.

Intervals derived from Tealbook forecast errors are based on projections made from 1979 to 2013, except for PCE prices excluding food and energy, where the sample is 1981–2013.

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

balances an inflation rate running ½ percentage point above target against an unemployment rate that is ¼ percentage point above its natural rate.

Higher Trend Labor Force Participation Rate

The staff baseline assumes that most of the 3 percentage point decline in the labor force participation rate since the beginning of the Great Recession reflects structural factors, and attributes only about ½ percentage point of the decline to cyclical factors. It is possible, however, that some of the changes that the staff associates with structural factors—such as the increase in retirements and school enrollment—may in part be related to the recession and subsequent sluggish recovery and may reverse in a strong labor market. Reflecting the wide range of estimates on the cyclical shortfall in the labor force participation rate, this scenario assumes that structural factors have been less important in accounting for the decline in the labor force participation rate.[4] In particular, we assume the current level of the labor force participation rate is about 1½ percentage points below its trend level, compared with ½ percentage point in the baseline, implying more slack in labor and product markets.

In this reinterpretation of aggregate supply conditions, the unemployment rate overstates the overall improvement in the labor market to a much greater extent than in the baseline. As the labor force participation rate rises toward its higher trend level, the unemployment rate moves about ½ percentage point above baseline by 2016. The unemployment rate remains above the assumed threshold for liftoff of the federal funds rate for an additional five quarters. The extended period of monetary policy accommodation boosts spending, and real GDP rises 3½ percent in 2016 and 3 percent in 2017. By mid-2018, this stronger growth is sufficient to pull the unemployment rate slightly below baseline. Competing forces pull inflation in different directions: While the initially higher unemployment rate tends to hold down inflation, the high degree of monetary policy accommodation boosts short-term inflation expectations in the FRB/US model. On net, inflation is a little above the baseline, with core inflation at 1¾ percent in 2016 and almost 2 percent in 2017.

[4] While the path for the labor force participation rate assumed in the baseline is well supported by the analysis presented in the 2014 FEDS paper by Stephanie Aaronson, Tomaz Cajner, Bruce Fallick, Felix Galbis-Reig, Christopher L. Smith, and William Wascher, "Labor Force Participation: Recent Developments and Future Prospects" (www.federalreserve.gov/pubs/feds/2014/201464/201464abs.html), that paper and the references therein also point to a wide range of estimates of the labor force participation gap.

No Room to Grow

Some of the models we consult suggest that potential output may be lower than is assumed in the baseline projection and may grow more slowly in the future. In this scenario, we assume that structural productivity gains in recent years have been slower than the staff currently estimates and continue to be so over the projection period, and that the natural rate of unemployment has been constant at 6¼ percent since early 2011 and will remain at that level in the future. With these assumptions, potential output has expanded at an annual rate of only 1 percent since 2011; looking ahead, it rises at only a 1¼ percent pace through 2019. As a consequence of this revision to potential output, the output gap is estimated to be closed by the current quarter.

Compared with the baseline, real GDP growth is substantially slower as households and firms base their spending on lower levels and rates of growth of permanent income and potential output. Inflation is higher than in the baseline, reflecting the effects of both tighter resource utilization and smaller productivity gains, which contribute to greater cost pressures. The unemployment rate begins to move up by early 2017 but still has not risen to the higher assumed natural rate of 6¼ percent by the end of 2019. Inflation is about 2¼ percent in that year. Given enough time, the Taylor rule governing the setting of the federal funds rate would eventually drive the unemployment rate above its assumed natural rate and bring inflation back down to 2 percent.

Weaker Growth in the Euro Area

Although our baseline forecast projects a noticeable pickup in euro-area GDP growth relative to its languid pace in the first half of this year, the euro-area economy faces substantial downside risks. This scenario assumes that some of these downside risks materialize—with euro-area core inflation drifting lower, confidence weakening, and financial conditions tightening modestly—and that these developments in turn prompt the ECB to implement large-scale purchases of euro-area sovereign bonds. These asset purchases are assumed to begin later this year and eventually cumulate to €1 trillion. Notwithstanding this aggressive monetary easing and a 5 percent depreciation of the euro against the dollar, real GDP in the euro area still falls about 2 percent below baseline by the end of 2016.[5]

The weaker foreign activity and the stronger dollar in turn cause U.S. real net exports to fall relative to the baseline. Nevertheless, given that financial spillovers to economies outside of Europe are quite limited in this scenario, the overall impact on the U.S. economy is modest.[6] All told, U.S. real GDP expands roughly 2¼ percent in 2015, ½ percentage point less than in the baseline. With a higher unemployment rate, the federal funds rate lifts off one quarter later than in the baseline.

Escalating Geopolitical Tensions

Tensions between Russia and Ukraine thus far have left only a small imprint on global markets. In this scenario, we consider a major and sustained escalation in tensions—involving the imposition of additional sanctions on Russia by the West and Russian counter actions—which severely affect global energy markets and also have sizable spillovers to global financial markets and confidence. We assume that this crisis persists for about a year before gradually easing.

These developments affect the global economy through a number of channels. First, this scenario assumes a deep curtailment of Russian oil exports, causing global oil prices to jump more than $40 per barrel and to remain high for the next year. Second, Russia cuts off natural gas exports to Europe. Finally, consumer and investor confidence fall and financial market conditions deteriorate noticeably, with corporate and household borrowing spreads rising and flight-to-safety flows boosting the dollar. In response, real GDP in the advanced foreign economies falls about 2½ percent relative to the baseline by the end of next year, with Europe suffering disproportionately because of its closer financial and economic ties to Russia. Real GDP in the emerging market economies falls about 3½ percent relative to the baseline by the end of next year as declining capital inflows contribute to a marked tightening of financial conditions.

[5] The specification of the ECB large-scale asset purchase program is similar to the one discussed in the June 2014 Tealbook IEDO box titled "ECB Policy Actions and Options." In our current scenario, the ECB asset purchases attenuate the fall in euro-area GDP by about 1½ percent by the end of 2016 and increases core inflation by about ¼ percentage point.

[6] Considered in isolation, the large-scale asset purchases by the ECB are estimated to have a small positive effect on U.S. GDP, since the effects of stronger economic activity in the euro area on U.S. real net exports slightly outweigh the contractionary effects of dollar appreciation.

U.S. real activity is depressed as higher oil prices reduce disposable income and the return to investment. Real net exports decline markedly in response to weaker foreign activity and an appreciation of the broad real dollar. These adverse effects are reinforced by a rise in corporate borrowing costs and a decline in confidence. All told, U.S. real GDP growth is less than 1½ percent in 2015, and the unemployment rate remains above 5¾ percent through mid-2016. Core inflation falls little relative to the baseline, as the upward impetus from higher oil prices is offset by weaker activity and a stronger dollar. Under these conditions, the federal funds rate remains at its effective lower bound until late 2016.

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

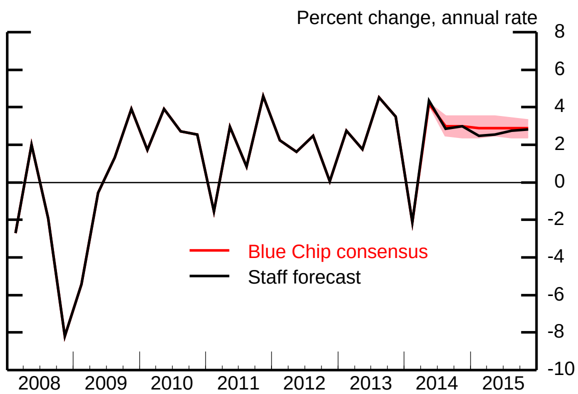
Measure and projection	2014 Previous Tealbook	2014 Current Tealbook	2015 Previous Tealbook	2015 Current Tealbook	2016 Previous Tealbook	2016 Current Tealbook
Real GDP						
Staff	1.8	2.0	3.0	2.7	3.0	2.9
FRB/US	1.5	1.9	2.5	3.1	2.3	2.7
EDO	1.6	2.0	2.8	2.9	2.8	2.9
Blue Chip	1.6	2.0	2.9	2.9	. . .	. . .
Unemployment rate[1]						
Staff	5.8	5.9	5.1	5.4	4.7	5.1
FRB/US	6.0	6.1	5.4	5.5	5.1	5.2
EDO	6.5	6.3	6.5	6.2	6.4	6.2
Blue Chip	6.0	6.0	5.6	5.5	. . .	. . .
Total PCE prices						
Staff	1.7	1.5	1.5	1.5	1.6	1.6
FRB/US	1.7	1.5	1.4	1.5	1.4	1.5
EDO	1.7	1.7	1.7	1.7	1.7	1.8
Blue Chip[2]	2.3	2.2	2.1	2.1	. . .	. . .
Core PCE prices						
Staff	1.6	1.5	1.7	1.6	1.8	1.7
FRB/US	1.6	1.6	1.6	1.6	1.6	1.6
EDO	1.6	1.6	1.7	1.7	1.7	1.8
Blue Chip	. . .	. . .	. . .	. . .	. . .	. . .
Federal funds rate[1]						
Staff	.1	.1	1.4	1.1	2.8	2.3
FRB/US	.1	.1	1.0	.8	1.7	1.4
EDO	1.0	.5	2.0	1.6	2.6	2.4
Blue Chip[3]	.1	.1	.9	.9	. . .	. . .

Note: Blue Chip forecast completed on September 10, 2014.
1. Percent, average for Q4.
2. Consumer price index.
3. Treasury bill rate.
... Not applicable. The Blue Chip forecast is not available for core inflation.

Risks & Uncertainty

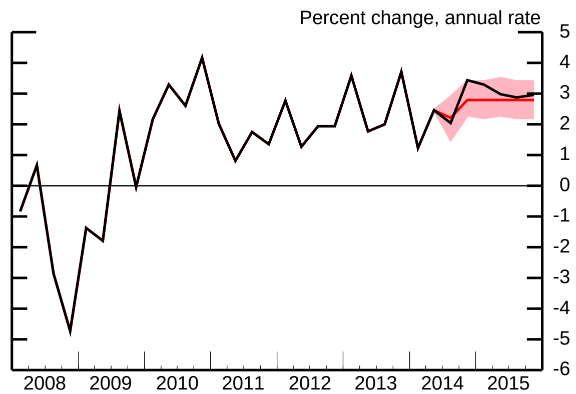
Tealbook Forecast Compared with Blue Chip
(Blue Chip survey released September 10, 2014)

Real GDP

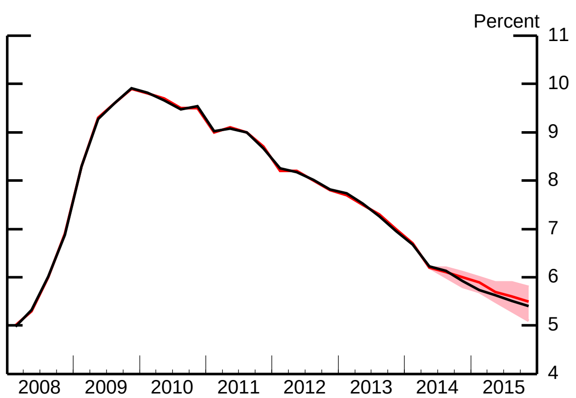


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

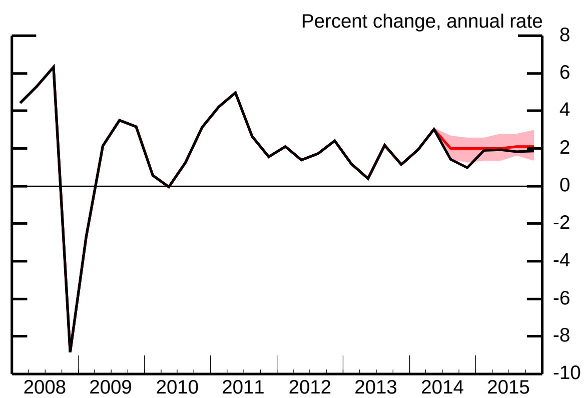
Real PCE



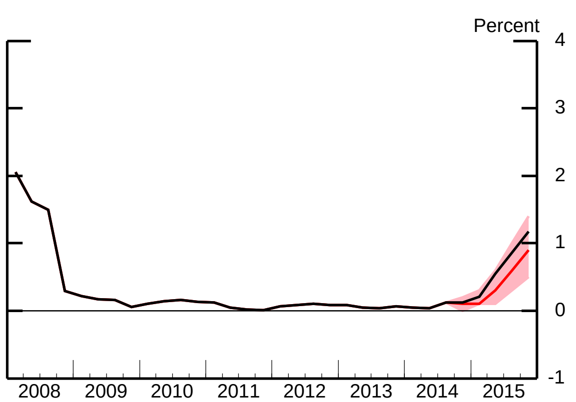
Unemployment Rate



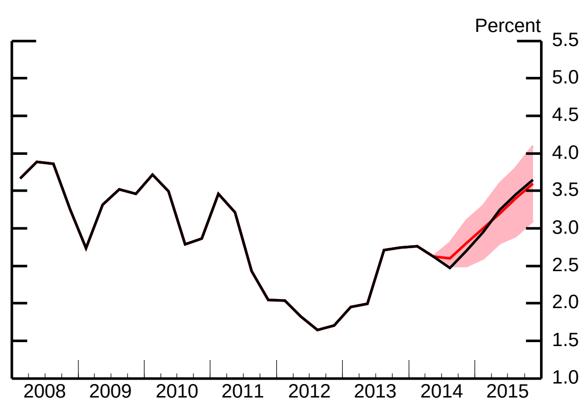
Consumer Price Index



Treasury Bill Rate



10-Year Treasury Yield



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

Assessment of Key Macroeconomic Risks (1)

Probability of Inflation Events

(4 quarters ahead—2015:Q3)

Probability that the 4-quarter change in total PCE prices will be ...	Staff	FRB/US	EDO	BVAR
Greater than 3 percent				
Current Tealbook	.04	.04	.11	.06
Previous Tealbook	.05	.04	.12	.24
Less than 1 percent				
Current Tealbook	.33	.31	.29	.15
Previous Tealbook	.25	.27	.26	.07

Probability of Unemployment Events

(4 quarters ahead—2015:Q3)

Probability that the unemployment rate will ...	Staff	FRB/US	EDO	BVAR
Increase by 1 percentage point				
Current Tealbook	.01	.01	.20	.01
Previous Tealbook	.01	.01	.25	.00
Decrease by 1 percentage point				
Current Tealbook	.31	.26	.08	.30
Previous Tealbook	.42	.28	.08	.62

Probability of Near-Term Recession

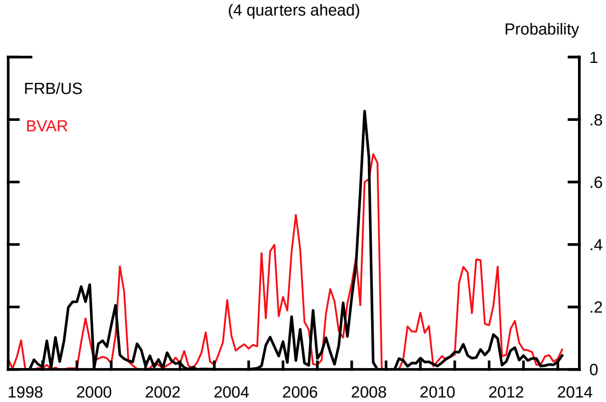
Probability that real GDP declines in each of 2014:Q4 and 2015:Q1	Staff	FRB/US	EDO	BVAR	Factor Model
Current Tealbook	.03	.02	.02	.02	.07
Previous Tealbook	.03	.04	.04	.11	.09

Note: "Staff" represents Tealbook forecast errors applied to the Tealbook baseline; baselines for FRB/US, BVAR, EDO, and the factor model are generated by those models themselves, up to the current-quarter estimate. Data for the current quarter are taken from the staff estimate for the second Tealbook in each quarter; if the second Tealbook for the current quarter has not yet been published, the preceding quarter is taken as the latest historical observation.

Assessment of Key Macroeconomic Risks (2)

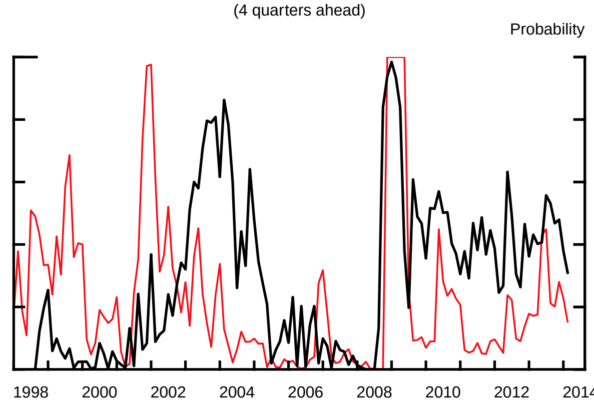
Probability that Total PCE Inflation Is above 3 Percent

(4 quarters ahead)



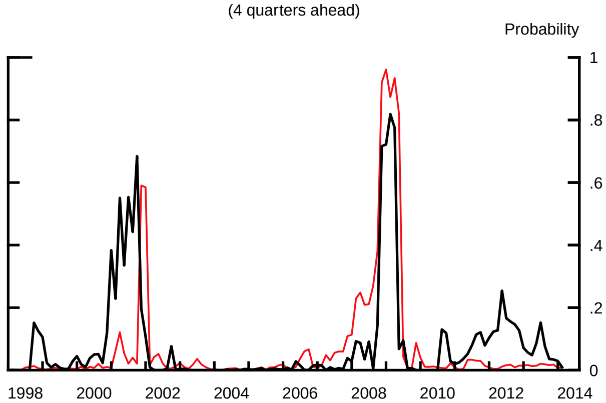
Probability that Total PCE Inflation Is below 1 Percent

(4 quarters ahead)



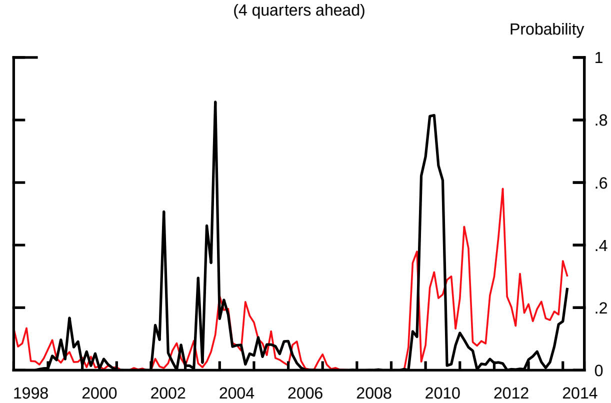
Probability that the Unemployment Rate Increases 1 ppt

(4 quarters ahead)

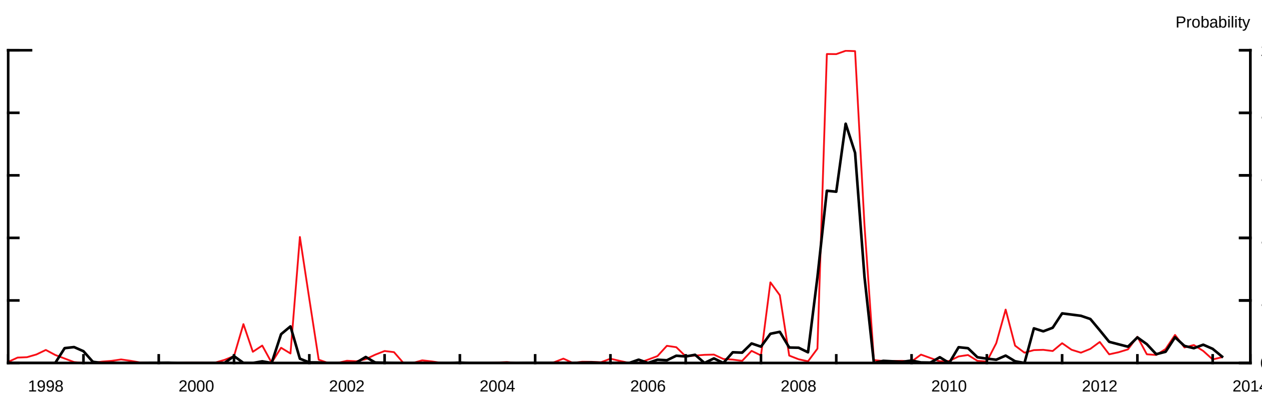


Probability that the Unemployment Rate Decreases 1 ppt

(4 quarters ahead)



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



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

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]	
	07/23/14	09/10/14	07/23/14	09/10/14	07/23/14	09/10/14	07/23/14	09/10/14	07/23/14	09/10/14
Quarterly										
2014:Q1	-1.7	-.8	-2.9	-2.1	1.4	1.4	1.2	1.2	6.7	6.7
Q2	5.4	6.6	3.5	4.4	2.3	2.3	1.9	2.0	6.2	6.2
Q3	5.4	4.5	3.6	2.8	1.7	1.3	1.8	1.5	6.0	6.1
Q4	5.0	4.6	3.3	3.0	1.3	.9	1.5	1.4	5.8	5.9
2015:Q1	5.2	4.4	3.3	2.5	1.5	1.6	1.7	1.7	5.6	5.7
Q2	4.8	4.3	3.0	2.6	1.5	1.6	1.8	1.7	5.4	5.6
Q3	4.8	4.4	3.1	2.7	1.4	1.5	1.6	1.6	5.2	5.5
Q4	4.4	4.5	2.8	2.8	1.4	1.4	1.5	1.5	5.1	5.4
2016:Q1	5.2	4.7	3.2	2.8	1.7	1.7	1.9	1.9	5.0	5.3
Q2	5.2	4.7	3.3	2.9	1.7	1.7	1.9	1.8	4.9	5.3
Q3	4.5	4.7	2.8	3.0	1.6	1.6	1.7	1.6	4.8	5.2
Q4	4.4	4.6	2.7	2.9	1.5	1.5	1.7	1.6	4.7	5.1
Two-quarter[2]										
2014:Q2	1.8	2.8	.3	1.1	1.8	1.8	1.6	1.6	-.8	-.8
Q4	5.2	4.6	3.4	2.9	1.5	1.1	1.6	1.5	-.4	-.3
2015:Q2	5.0	4.4	3.2	2.5	1.5	1.6	1.7	1.7	-.4	-.3
Q4	4.6	4.4	2.9	2.8	1.4	1.5	1.6	1.6	-.3	-.2
2016:Q2	5.2	4.7	3.3	2.8	1.7	1.7	1.9	1.8	-.2	-.1
Q4	4.5	4.7	2.8	3.0	1.6	1.6	1.7	1.6	-.2	-.2
Four-quarter[3]										
2013:Q4	4.1	4.6	2.6	3.1	1.0	1.0	1.2	1.3	-.8	-.8
2014:Q4	3.5	3.7	1.8	2.0	1.7	1.5	1.6	1.5	-1.2	-1.1
2015:Q4	4.8	4.4	3.0	2.7	1.5	1.5	1.7	1.6	-.7	-.5
2016:Q4	4.8	4.7	3.0	2.9	1.6	1.6	1.8	1.7	-.4	-.3
2017:Q4		4.1	2.2	2.3	1.8	1.7	1.9	1.8	-.2	-.2
Annual										
2013	3.4	3.7	1.9	2.2	1.1	1.2	1.2	1.3	7.4	7.4
2014	3.3	3.7	1.7	2.1	1.5	1.4	1.4	1.4	6.2	6.2
2015	5.0	4.6	3.2	2.8	1.5	1.4	1.7	1.6	5.3	5.6
2016	4.8	4.6	3.0	2.8	1.6	1.6	1.7	1.7	4.8	5.2
2017		4.4	2.5	2.6	1.7	1.7	1.8	1.8	4.6	4.9

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

Greensheets

Changes in Real Gross Domestic Product and Related Items

(Percent, annual rate except as noted)

Item	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2014[1]	2015[1]	2016[1]	2017[1]
Real GDP	4.4	2.8	3.0	2.5	2.6	2.7	2.8	2.8	2.9	3.0	2.9	2.0	2.7	2.9	2.3
Previous Tealbook	3.5	3.6	3.3	3.3	3.0	3.1	2.8	3.2	3.3	2.8	2.7	1.8	3.0	3.0	2.2
Final sales	3.1	2.8	3.1	2.6	2.5	2.6	2.7	2.9	2.9	2.8	2.9	2.0	2.6	2.9	2.5
Previous Tealbook	2.9	3.4	3.1	3.2	3.2	3.2	3.2	3.2	3.0	2.8	3.0	2.0	3.2	3.0	
Priv. dom. final purch.	3.7	2.9	3.9	3.2	3.2	3.2	3.3	3.4	3.4	3.3	3.1	2.9	3.2	3.3	2.6
Previous Tealbook	3.5	3.6	3.9	4.0	4.0	4.0	3.8	3.7	3.5	3.3	3.1	2.9	4.0	3.4	
Personal cons. expend.	2.5	2.0	3.4	3.3	3.0	2.9	3.0	2.9	2.9	2.8	2.7	2.3	3.0	2.8	2.5
Previous Tealbook	2.1	3.4	3.7	3.7	3.5	3.3	3.2	3.0	2.8	2.6	2.6	2.6	3.4	2.8	
Durables	14.3	7.0	11.2	7.4	7.1	7.1	7.4	6.4	6.4	6.2	5.5	8.8	7.3	6.1	3.9
Nondurables	1.9	1.4	2.2	2.7	2.4	2.3	2.3	2.0	2.3	2.2	2.4	1.4	2.4	2.2	2.3
Services	.8	1.5	2.6	2.8	2.5	2.4	2.5	2.7	2.6	2.5	2.3	1.6	2.5	2.5	2.3
Residential investment	8.6	9.9	11.8	9.7	11.9	12.1	10.4	10.7	11.1	11.4	9.6	6.0	11.0	10.7	6.0
Previous Tealbook	4.4	4.9	11.2	10.2	14.4	15.4	15.0	14.5	12.3	11.6	9.2	3.9	13.7	11.9	
Nonres. priv. fixed invest.	9.5	6.1	4.1	1.0	2.1	2.7	3.2	3.8	3.6	3.3	3.2	5.3	2.2	3.5	2.4
Previous Tealbook	11.3	4.2	3.0	4.4	4.1	4.4	4.0	4.5	4.8	4.3	3.8	4.3	4.2	4.4	
Equipment & intangibles	8.5	5.2	4.6	2.4	2.8	3.5	3.8	4.6	4.4	4.0	3.8	4.8	3.1	4.2	3.0
Previous Tealbook	11.7	3.3	2.1	5.0	4.9	5.3	4.7	5.2	5.4	4.8	4.2	4.4	5.0	4.9	
Nonres. structures	12.9	9.3	2.6	-3.6	-.4	.0	1.1	1.1	1.0	1.0	1.2	6.8	-.7	1.1	.7
Previous Tealbook	10.0	7.7	6.4	2.6	1.3	1.3	1.7	2.2	2.7	2.7	2.7	3.8	1.7	2.6	
Net exports[2]	-459	-440	-447	-450	-452	-452	-458	-461	-464	-472	-467	-448	-453	-466	-459
Previous Tealbook[2]	-453	-440	-444	-450	-451	-453	-455	-455	-458	-464	-455	-444	-452	-458	
Exports	10.9	4.2	3.8	4.3	4.4	4.7	4.1	4.9	5.0	5.2	5.3	2.2	4.4	5.1	5.4
Imports	10.9	.5	4.2	4.0	4.1	3.8	4.2	4.6	4.6	5.5	3.6	4.4	4.0	4.6	3.9
Gov't. cons. & invest.	1.7	-1.0	-.1	-.3	-.6	-.5	.0	.7	.4	1.0	.9	.0	-.3	.7	1.0
Previous Tealbook	1.2	.0	-.5	-.4	-.6	-.5	.0	.6	.5	.8	.8	.0	-.4	.7	
Federal	-.9	-4.3	-2.5	-3.1	-4.0	-3.7	-2.5	-1.0	-2.0	-.6	-.9	-2.0	-3.3	-1.1	-.8
Defense	.9	-5.0	-2.4	-3.5	-4.9	-4.4	-2.7	-1.3	-3.1	-1.5	-1.4	-2.6	-3.9	-1.8	-1.4
Nondefense	-3.7	-3.2	-2.6	-2.3	-2.6	-2.6	-2.3	-.4	-.3	.8	-.2	-.8	-2.4	.0	.0
State & local	3.4	1.2	1.3	1.4	1.5	1.5	1.5	1.6	1.7	1.9	2.0	1.2	1.5	1.8	2.0
Change in priv. inventories[2]	78	80	77	75	76	81	87	83	83	94	96	67	80	89	79
Previous Tealbook[2]	69	78	86	93	86	82	67	66	80	82	70	70	82	75	

1. Change from fourth quarter of previous year to fourth quarter of year indicated.
2. Billions of chained (2009) 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	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Real GDP	-2.8	-.2	2.7	1.7	1.6	3.1	2.0	2.7	2.9	2.3
Previous Tealbook	-2.8	-.2	2.8	2.0	2.0	2.6	1.8	3.0	3.0	2.2
Final sales	-2.1	-.4	2.0	1.5	2.1	2.6	2.0	2.6	2.9	2.5
Previous Tealbook	-2.2	-.4	2.0	1.8	2.5	1.8	2.0	3.2	3.0	
Priv. dom. final purch.	-4.1	-2.4	3.5	2.6	2.6	3.2	2.9	3.2	3.3	2.6
Previous Tealbook	-4.1	-2.3	3.5	3.0	2.9	2.5	2.9	4.0	3.4	
Personal cons. expend.	-2.0	-.2	3.1	1.5	2.0	2.8	2.3	3.0	2.8	2.5
Previous Tealbook	-2.0	-.1	3.1	2.0	2.0	2.3	2.6	3.4	2.8	
Durables	-12.9	2.5	9.3	4.8	7.5	5.9	8.8	7.3	6.1	3.9
Nondurables	-2.7	.2	3.3	.4	1.0	2.5	1.4	2.4	2.2	2.3
Services	.3	-.8	2.0	1.4	1.5	2.4	1.6	2.5	2.5	2.3
Residential investment	-24.3	-10.8	-5.2	6.0	15.8	6.9	6.0	11.0	10.7	6.0
Previous Tealbook	-24.3	-10.8	-5.2	5.6	15.5	6.9	3.9	13.7	11.9	
Nonres. priv. fixed invest.	-8.9	-12.2	8.1	9.0	3.7	4.7	5.3	2.2	3.5	2.4
Previous Tealbook	-8.9	-12.2	8.1	8.6	5.0	2.6	4.3	4.2	4.4	
Equipment & intangibles	-11.8	-6.0	12.0	9.2	3.3	4.8	4.8	3.1	4.2	3.0
Previous Tealbook	-11.8	-6.0	12.0	8.7	3.9	3.5	4.4	5.0	4.9	
Nonres. structures	-1.2	-27.1	-4.0	8.0	4.8	4.4	6.8	-.7	1.1	.7
Previous Tealbook	-1.2	-27.1	-4.0	8.3	9.3	-.7	3.8	1.7	2.6	
Net exports[1]	-558	-395	-459	-459	-452	-420	-448	-453	-466	-459
Previous Tealbook[1]	-547	-392	-463	-446	-431	-412	-444	-452	-458	
Exports	-2.8	.8	10.1	4.2	2.4	5.1	2.2	4.4	5.1	5.4
Imports	-6.0	-6.2	12.0	3.5	.4	2.5	4.4	4.0	4.6	3.9
Gov't. cons. & invest.	3.3	2.3	-1.1	-3.0	-1.7	-1.9	.0	-.3	.7	1.0
Previous Tealbook	3.3	2.3	-1.1	-3.3	-1.1	-2.4	.0	-.4	.7	
Federal	8.4	3.9	3.2	-4.0	-2.6	-6.3	-2.0	-3.3	-1.1	-.8
Defense	9.4	3.6	2.0	-4.1	-4.9	-6.1	-2.6	-3.9	-1.8	-1.4
Nondefense	6.5	4.6	5.5	-3.9	1.4	-6.6	-.8	-2.4	.0	.0
State & local	.2	1.3	-4.0	-2.3	-1.0	1.2	1.2	1.5	1.8	2.0
Change in priv. inventories[1]	-34	-148	58	38	57	64	67	80	89	79
Previous Tealbook[1]	-34	-148	58	34	58	82	70	82	75	

1. Billions of chained (2009) dollars.

Greensheets

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

Item	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2014[1]	2015[1]	2016[1]	2017[1]
Real GDP	4.4	2.8	3.0	2.5	2.6	2.7	2.8	2.8	2.9	3.0	2.9	2.0	2.7	2.9	2.3
Previous Tealbook	3.5	3.6	3.3	3.3	3.0	3.1	2.8	3.2	3.3	2.8	2.7	1.8	3.0	3.0	2.2
Final sales	3.2	2.8	3.1	2.6	2.5	2.6	2.7	2.9	2.8	2.7	2.9	2.0	2.6	2.8	2.5
Previous Tealbook	2.9	3.4	3.1	3.2	3.2	3.2	3.2	3.2	3.0	2.8	3.0	2.0	3.2	3.0	
Priv. dom. final purch.	3.1	2.5	3.2	2.7	2.7	2.7	2.8	2.9	2.9	2.8	2.6	2.4	2.7	2.8	2.2
Previous Tealbook	3.0	3.0	3.3	3.4	3.3	3.3	3.2	3.1	3.0	2.8	2.6	2.4	3.3	2.9	
Personal cons. expend.	1.7	1.4	2.3	2.2	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.6	2.1	1.9	1.7
Previous Tealbook	1.5	2.3	2.6	2.5	2.4	2.3	2.2	2.1	1.9	1.8	1.8	1.8	2.4	1.9	
Durables	1.0	.5	.8	.5	.5	.5	.6	.5	.5	.5	.4	.6	.5	.5	.3
Nondurables	.3	.2	.3	.4	.4	.3	.3	.3	.3	.3	.4	.2	.4	.3	.3
Services	.4	.7	1.2	1.3	1.2	1.1	1.1	1.2	1.2	1.1	1.1	.7	1.2	1.1	1.1
Residential investment	.3	.3	.4	.3	.4	.4	.4	.4	.4	.4	.4	.2	.4	.4	.2
Previous Tealbook	.1	.2	.3	.3	.5	.5	.5	.5	.4	.4	.3	.1	.5	.4	
Nonres. priv. fixed invest.	1.2	.8	.5	.1	.3	.3	.4	.5	.5	.4	.4	.7	.3	.4	.3
Previous Tealbook	1.3	.5	.4	.5	.5	.5	.5	.6	.6	.5	.5	.5	.5	.5	
Equipment & intangibles	.8	.5	.4	.2	.3	.3	.4	.4	.4	.4	.4	.5	.3	.4	.3
Previous Tealbook	1.1	.3	.2	.5	.5	.5	.5	.5	.5	.5	.4	.4	.5	.5	
Nonres. structures	.4	.3	.1	-.1	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
Previous Tealbook	.3	.2	.2	.1	.0	.0	.0	.1	.1	.1	.1	.1	.0	.1	
Net exports	-.3	.5	-.2	-.1	-.1	.0	-.1	-.1	-.1	-.2	.1	-.4	-.1	-.1	.1
Previous Tealbook	-.3	.3	-.1	-.2	.0	.0	-.1	.0	-.1	-.2	.2	-.4	-.1	.0	
Exports	1.4	.6	.5	.6	.6	.6	.6	.7	.7	.7	.7	.3	.6	.7	.7
Imports	-1.7	-.1	-.7	-.6	-.7	-.6	-.7	-.7	-.7	-.9	-.6	-.7	-.7	-.7	-.6
Gov't. cons. & invest.	.3	-.2	.0	.0	-.1	-.1	.0	.1	.1	.2	.2	.0	-.1	.1	.2
Previous Tealbook	.2	.0	-.1	-.1	-.1	-.1	.0	.1	.1	.1	.1	.0	-.1	.1	
Federal	-.1	-.3	-.2	-.2	-.3	-.2	-.2	-.1	-.1	.0	-.1	-.1	-.2	-.1	-.1
Defense	.0	-.2	-.1	-.1	-.2	-.2	-.1	-.1	-.1	-.1	-.1	-.1	-.2	-.1	-.1
Nondefense	-.1	-.1	-.1	-.1	-.1	-.1	-.1	.0	.0	.0	.0	.0	-.1	.0	.0
State & local	.4	.1	.2	.2	.2	.2	.2	.2	.2	.2	.2	.1	.2	.2	.2
Change in priv. inventories	1.2	.1	-.1	-.1	.0	.1	.2	-.1	.0	.3	.1	.0	.1	.1	-.2
Previous Tealbook	.6	.2	.2	.1	-.2	-.1	-.4	.0	.4	.0	-.3	-.2	-.1	.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	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2014[1]	2015[1]	2016[1]	2017[1]
GDP chain-wt. price index	2.1	1.6	1.6	1.9	1.7	1.6	1.6	1.9	1.8	1.7	1.6	1.7	1.7	1.8	1.8
Previous Tealbook	1.8	1.8	1.7	1.9	1.7	1.6	1.5	1.9	1.8	1.7	1.6	1.6	1.7	1.8	
PCE chain-wt. price index	2.3	1.3	.9	1.6	1.6	1.5	1.4	1.7	1.7	1.6	1.5	1.5	1.5	1.6	1.7
Previous Tealbook	2.3	1.7	1.3	1.5	1.5	1.4	1.4	1.7	1.7	1.6	1.5	1.7	1.5	1.6	1.8
Energy	5.2	-4.0	-8.0	1.0	1.0	.4	.1	-.1	.0	.1	-.2	-.9	.6	-.1	.2
Previous Tealbook	5.3	-.1	-.9	-.2	-.7	-.7	-.8	-.6	-.4	-.1	-.2	2.1	-.6	-.3	
Food	4.5	2.2	.9	.8	.8	.9	1.1	1.4	1.5	1.5	1.5	2.2	.9	1.5	1.8
Previous Tealbook	4.4	2.5	1.0	.6	.6	.8	1.1	1.3	1.4	1.3	1.3	2.3	.8	1.3	
Ex. food & energy	2.0	1.5	1.4	1.7	1.7	1.6	1.5	1.9	1.8	1.6	1.6	1.5	1.6	1.7	1.8
Previous Tealbook	1.9	1.8	1.5	1.7	1.8	1.6	1.5	1.9	1.9	1.7	1.7	1.6	1.7	1.8	1.9
Ex. food & energy, market based	1.8	1.6	1.4	1.7	1.7	1.6	1.5	1.9	1.8	1.6	1.6	1.5	1.6	1.7	1.8
Previous Tealbook	1.9	1.8	1.5	1.7	1.8	1.6	1.5	1.9	1.9	1.7	1.7	1.5	1.7	1.8	
CPI	3.0	1.4	1.0	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.9	1.9	2.0
Previous Tealbook	3.0	2.0	1.7	1.8	1.8	1.8	1.8	1.9	2.0	1.9	1.9	2.2	1.8	1.9	
Ex. food & energy	2.5	1.7	1.9	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.1	1.9	2.1	2.1	2.1
Previous Tealbook	2.5	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.2	
ECI, hourly compensation[2]	3.4	2.3	2.5	2.8	2.7	2.8	2.8	3.3	3.1	3.1	3.2	2.3	2.7	3.2	3.4
Previous Tealbook[2]	2.3	2.8	2.7	2.9	2.8	2.9	2.9	3.5	3.3	3.3	3.4	2.2	2.9	3.4	
Business sector															
Output per hour	2.5	1.1	1.5	1.4	1.6	1.8	1.8	1.7	1.7	1.9	1.8	.0	1.7	1.8	1.9
Previous Tealbook	2.0	2.3	1.4	1.7	1.5	1.7	1.2	1.8	1.7	1.2	1.1	-.1	1.5	1.4	
Compensation per hour	2.1	2.0	2.2	3.4	3.1	3.1	3.1	3.6	3.4	3.4	3.4	3.3	3.2	3.4	3.6
Previous Tealbook	.8	2.9	2.8	3.2	3.0	3.1	3.1	3.8	3.5	3.5	3.6	2.2	3.1	3.6	
Unit labor costs	-.4	.9	.7	1.9	1.5	1.2	1.3	1.9	1.6	1.5	1.6	3.3	1.5	1.6	1.7
Previous Tealbook	-1.2	.6	1.4	1.5	1.5	1.4	1.9	2.0	1.8	2.3	2.4	2.4	1.6	2.1	
Core goods imports chain-wt. price index[3]	.2	.9	.1	.5	1.2	1.3	1.3	1.5	1.3	1.3	1.3	1.0	1.1	1.3	1.3
Previous Tealbook[3]	.5	1.3	1.2	1.2	1.3	1.3	1.3	1.5	1.3	1.3	1.3	1.4	1.3	1.3	

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	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
GDP chain-wt. price index	1.9	.4	1.8	1.9	1.8	1.4	1.7	1.7	1.8	1.8
Previous Tealbook	1.9	.4	1.8	1.8	1.8	1.4	1.6	1.7	1.8	
PCE chain-wt. price index	1.5	1.2	1.3	2.7	1.6	1.0	1.5	1.5	1.6	1.7
Previous Tealbook	1.5	1.2	1.3	2.6	1.7	1.0	1.7	1.5	1.6	1.8
Energy	-8.2	2.3	6.4	12.0	2.1	-2.6	-.9	.6	-.1	.2
Previous Tealbook	-8.2	2.3	6.4	11.7	2.1	-1.5	2.1	-.6	-.3	
Food	6.9	-1.8	1.3	5.1	1.2	.7	2.2	.9	1.5	1.8
Previous Tealbook	6.9	-1.8	1.3	5.1	1.2	.8	2.3	.8	1.3	
Ex. food & energy	1.6	1.4	1.0	1.9	1.6	1.3	1.5	1.6	1.7	1.8
Previous Tealbook	1.6	1.4	1.0	1.8	1.7	1.2	1.6	1.7	1.8	1.9
Ex. food & energy, market based	2.2	1.8	.7	1.9	1.5	1.2	1.5	1.6	1.7	1.8
Previous Tealbook	2.2	1.8	.7	1.9	1.5	1.2	1.5	1.7	1.8	
CPI	1.6	1.5	1.2	3.3	1.9	1.2	1.8	1.9	1.9	2.0
Previous Tealbook	1.6	1.5	1.2	3.3	1.9	1.2	2.2	1.8	1.9	
Ex. food & energy	2.0	1.8	.6	2.2	1.9	1.7	1.9	2.1	2.1	2.1
Previous Tealbook	2.0	1.8	.6	2.2	1.9	1.7	2.1	2.1	2.2	
ECI, hourly compensation[1]	2.4	1.2	2.1	2.2	1.8	2.0	2.3	2.7	3.2	3.4
Previous Tealbook[1]	2.4	1.2	2.1	2.2	1.8	2.0	2.2	2.9	3.4	
Business sector										
Output per hour	-.2	5.6	1.7	.0	.3	2.4	.0	1.7	1.8	1.9
Previous Tealbook	-.3	5.6	1.7	.4	.7	1.9	-.1	1.5	1.4	
Compensation per hour	2.9	1.3	1.2	.6	5.7	.0	3.3	3.2	3.4	3.6
Previous Tealbook	2.9	1.3	1.4	.9	5.3	.4	2.2	3.1	3.6	
Unit labor costs	3.2	-4.2	-.4	.6	5.4	-2.3	3.3	1.5	1.6	1.7
Previous Tealbook	3.2	-4.2	-.3	.5	4.6	-1.4	2.4	1.6	2.1	
Core goods imports chain-wt. price index[2]	3.9	-1.9	2.3	4.3	.2	-1.0	1.0	1.1	1.3	1.3
Previous Tealbook[2]	3.9	-1.9	2.3	4.2	.1	-1.1	1.4	1.3	1.3	

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

Other Macroeconomic Indicators

Item	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2014[1]	2015[1]	2016[1]	2017[1]
Employment and production															
Nonfarm payroll employment[2]	.8	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	2.5	2.3	2.3	1.8
Unemployment rate[3]	6.2	6.1	5.9	5.7	5.6	5.5	5.4	5.3	5.3	5.2	5.1	5.9	5.4	5.1	4.9
Previous Tealbook[3]	6.2	6.0	5.8	5.6	5.4	5.2	5.1	5.0	4.9	4.8	4.7	5.8	5.1	4.7	4.5
Natural rate of unemployment[3]	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Previous Tealbook[3]	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	
GDP gap[4]	-2.2	-1.8	-1.3	-1.1	-.9	-.7	-.4	-.2	.0	.3	.5	-1.3	-.4	.5	.8
Previous Tealbook[4]	-2.3	-1.6	-1.0	-.6	-.3	.0	.3	.6	.9	1.1	1.3	-1.0	.3	1.3	
Industrial production[5]	5.5	3.0	3.2	3.5	3.6	2.5	2.2	3.4	3.2	3.0	2.9	3.9	2.9	3.1	2.3
Previous Tealbook[5]	5.5	3.7	4.1	4.4	3.6	3.0	2.7	3.7	2.9	3.1	3.1	4.3	3.4	3.2	
Manufacturing industr. prod.[5]	6.8	3.8	3.0	2.6	3.1	3.0	3.1	3.3	3.6	3.3	3.1	3.7	3.0	3.3	2.6
Previous Tealbook[5]	6.7	3.4	3.5	3.3	3.9	3.5	3.4	3.4	3.7	3.2	3.0	3.8	3.5	3.3	
Capacity utilization rate - mfg.[3]	77.1	77.4	77.6	77.6	77.8	78.0	78.2	78.4	78.6	78.9	79.0	77.6	78.2	79.0	79.3
Previous Tealbook[3]	77.1	77.3	77.6	77.7	78.0	78.3	78.4	78.6	78.9	79.0	79.1	77.6	78.4	79.1	
Housing starts[6]	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.5	1.0	1.2	1.4	1.5
Light motor vehicle sales[6]	16.5	16.7	16.6	16.6	16.6	16.7	16.7	16.7	16.7	16.7	16.7	16.4	16.7	16.7	16.7
Income and saving															
Nominal GDP[5]	6.6	4.5	4.6	4.4	4.3	4.4	4.5	4.7	4.7	4.7	4.6	3.7	4.4	4.7	4.1
Real disposable pers. income[5]	4.2	2.5	2.0	4.4	2.3	2.7	2.3	3.8	2.2	3.0	2.6	3.0	2.9	2.9	2.6
Previous Tealbook[5]	5.5	1.4	3.9	4.3	2.4	2.9	3.1	3.9	2.4	2.8	3.2	3.1	3.2	3.1	
Personal saving rate[3]	5.3	5.4	5.1	5.3	5.2	5.1	5.0	5.2	5.0	5.0	5.0	5.1	5.0	5.0	5.1
Previous Tealbook[3]	5.2	4.7	4.7	4.9	4.6	4.5	4.5	4.7	4.6	4.6	4.8	4.7	4.5	4.8	
Corporate profits[7]	34.5	4.9	.5	1.6	1.5	4.9	4.3	4.3	5.3	3.4	4.0	-1.1	3.0	4.2	3.6
Profit share of GNP[3]	11.9	11.9	11.8	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.8	11.7	11.7	11.6
Net federal saving[8]	-590	-477	-480	-504	-489	-492	-481	-543	-522	-535	-536	-527	-491	-534	-621
Net state & local saving[8]	-227	-246	-235	-238	-225	-226	-221	-214	-205	-207	-208	-237	-227	-209	-194
Gross national saving rate[3]	18.1	18.4	18.2	18.2	18.3	18.3	18.3	18.3	18.4	18.5	18.5	18.2	18.3	18.5	18.6
Net national saving rate[3]	3.4	4.2	3.8	3.8	3.9	3.9	3.9	3.8	4.0	4.0	4.1	3.8	3.9	4.1	4.0

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

Greensheets

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

Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Employment and production										
Nonfarm payroll employment[1]	-2.8	-5.6	.8	2.0	2.2	2.4	2.5	2.3	2.3	1.8
Unemployment rate[2]	6.9	9.9	9.5	8.7	7.8	7.0	5.9	5.4	5.1	4.9
Previous Tealbook[2]	6.9	9.9	9.5	8.7	7.8	7.0	5.8	5.1	4.7	4.5
Natural rate of unemployment[2]	5.6	6.2	6.2	6.0	5.8	5.4	5.2	5.2	5.2	5.2
Previous Tealbook[2]	5.6	6.2	6.2	6.0	5.8	5.4	5.2	5.2	5.2	
GDP gap[3]	-3.8	-5.5	-4.4	-4.2	-4.1	-2.8	-1.3	-.4	.5	.8
Previous Tealbook[3]	-4.0	-5.8	-4.8	-4.3	-3.9	-2.8	-1.0	.3	1.3	
Industrial production[4]	-8.9	-5.5	6.2	3.2	3.2	3.3	3.9	2.9	3.1	2.3
Previous Tealbook[4]	-8.9	-5.5	6.2	3.2	3.2	3.3	4.3	3.4	3.2	
Manufacturing industr. prod.[4]	-11.6	-6.1	6.4	3.1	3.5	2.9	3.7	3.0	3.3	2.6
Previous Tealbook[4]	-11.6	-6.1	6.4	3.1	3.5	2.9	3.8	3.5	3.3	
Capacity utilization rate - mfg.[2]	70.0	67.1	72.7	74.6	75.5	76.4	77.6	78.2	79.0	79.3
Previous Tealbook[2]	70.0	67.1	72.7	74.6	75.5	76.4	77.6	78.4	79.1	
Housing starts[5]	.9	.6	.6	.6	.8	.9	1.0	1.2	1.4	1.5
Light motor vehicle sales[5]	13.1	10.4	11.5	12.7	14.4	15.5	16.4	16.7	16.7	16.7
Income and saving										
Nominal GDP[4]	-.9	.1	4.6	3.6	3.5	4.6	3.7	4.4	4.7	4.1
Real disposable pers. income[4]	1.1	-.7	2.6	1.7	5.0	-1.9	3.0	2.9	2.9	2.6
Previous Tealbook[4]	1.1	-.6	2.5	1.4	3.6	-.2	3.1	3.2	3.1	
Personal saving rate[2]	6.1	5.6	5.5	5.8	8.6	4.4	5.1	5.0	5.0	5.1
Previous Tealbook[2]	6.1	5.7	5.5	5.0	6.6	4.3	4.7	4.5	4.8	
Corporate profits[6]	-30.8	53.7	18.0	6.8	3.8	4.7	-1.1	3.0	4.2	3.6
Profit share of GNP[2]	6.9	10.6	12.0	12.3	12.4	12.4	11.8	11.7	11.7	11.6
Net federal saving[7]	-634	-1,249	-1,329	-1,244	-1,079	-649	-527	-491	-534	-621
Net state & local saving[7]	-165	-272	-237	-216	-233	-225	-237	-227	-209	-194
Gross national saving rate[2]	14.9	14.6	15.2	16.1	17.8	17.9	18.2	18.3	18.5	18.6
Net national saving rate[2]	-1.6	-1.7	-.4	.8	2.8	3.0	3.8	3.9	4.1	4.0

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

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

Item	Fiscal year				2014				2015				2016			
	2014	2015	2016	2017	Q1[a]	Q2[a]	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unified budget					Not seasonally adjusted											
Receipts[1]	3,032	3,277	3,449	3,577	656	938	774	738	680	1,034	825	768	723	1,096	862	799
Outlays[1]	3,476	3,669	3,870	4,048	897	890	852	932	938	915	884	963	980	957	970	980
Surplus/deficit[1]	-444	-392	-421	-471	-241	47	-78	-193	-258	119	-59	-195	-256	139	-108	-181
Previous Tealbook	*-456*	*-438*	*-445*	*-505*	*-241*	*47*	*-90*	*-211*	*-271*	*109*	*-65*	*-202*	*-261*	*134*	*-115*	*-192*
On-budget	-479	-433	-451	-489	-238	-3	-55	-222	-245	65	-30	-220	-241	85	-76	-203
Off-budget	35	41	30	18	-3	51	-23	29	-13	54	-29	25	-16	54	-32	22
Means of financing:																
Borrowing	765	419	541	591	262	-46	179	213	161	-44	89	225	286	-109	138	211
Cash decrease	-69	88	0	0	20	3	-18	-6	139	-45	0	0	0	0	0	0
Other[2]	-252	-115	-120	-120	-42	-4	-82	-13	-42	-30	-30	-30	-30	-30	-30	-30
Cash operating balance, end of period	158	70	70	70	142	139	158	164	25	70	70	70	70	70	70	70
NIPA federal sector					Seasonally adjusted annual rates											
Receipts	3,282	3,497	3,680	3,831	3,243	3,286	3,393	3,416	3,484	3,522	3,566	3,608	3,656	3,703	3,752	3,796
Expenditures	3,823	3,988	4,200	4,428	3,803	3,875	3,869	3,896	3,988	4,010	4,058	4,089	4,198	4,225	4,287	4,332
Consumption expenditures	953	946	947	961	957	956	949	947	951	946	941	939	949	948	951	953
Defense	608	605	604	609	610	610	606	605	608	605	602	601	606	605	605	606
Nondefense	345	341	343	352	347	345	343	341	343	341	340	339	343	344	346	347
Other spending	2,870	3,042	3,253	3,467	2,846	2,919	2,920	2,949	3,036	3,064	3,116	3,149	3,250	3,277	3,336	3,379
Current account surplus	-541	-491	-520	-597	-560	-589	-477	-480	-504	-489	-492	-481	-543	-522	-535	-536
Gross investment	256	248	242	239	251	255	252	251	249	246	244	243	243	241	241	241
Gross saving less gross investment[3]	-524	-459	-475	-541	-539	-570	-453	-454	-474	-454	-453	-439	-499	-475	-486	-485
Fiscal indicators[4]																
High-employment (HEB) surplus/deficit	-364.3	-394.5	-472.8	-592.7	-344.5	-419.0	-335.4	-360.1	-403.3	-399.0	-415.5	-417.9	-486.6	-478.9	-507.8	-524.5
Change in HEB, percent of potential GDP	-1.2	.1	.3	.5	-.1	.4	-.5	.1	.2	.0	.1	.0	.3	-.1	.1	.1
Fiscal impetus (FI), percent of GDP	-.5	-.3	.0	.0	-.7	-.4	-.5	-.4	-.6	-.2	-.2	-.2	-.1	-.1	.0	.0
Previous Tealbook	*-.5*	*-.3*	*-.1*	*.0*	*-.7*	*-.6*	*-.4*	*-.5*	*-.6*	*-.2*	*-.2*	*-.2*	*-.1*	*-.1*	*.0*	*-.1*

1. Budget receipts, outlays, and surplus/deficit include corresponding social security (OASDI) categories. The OASDI surplus and the Postal Service surplus are excluded from the on-budget surplus and shown separately as off-budget, as classified under current law.
2. Other means of financing are checks issued less checks paid, accrued items, and changes in other financial assets and liabilities.
3. Gross saving is the current account surplus plus consumption of fixed capital of the general government as well as government enterprises.
4. HEB is gross saving less gross investment (NIPA) of the federal government in current dollars, with cyclically sensitive receipts and outlays adjusted to the staff's measure of potential output and the natural rate of unemployment. The sign on Change in HEB, as a percent of nominal potential GDP, is reversed. FI is the weighted difference of discretionary changes in federal spending and taxes in chained (2009) 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

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

	----Projected----											
	2014				2015				2016			
Measure and country	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP[1]												
Total foreign	2.1	2.3	3.0	3.0	3.1	3.2	3.3	3.0	3.3	3.3	3.3	3.3
Previous Tealbook	*2.1*	*2.4*	*3.1*	*3.1*	*3.2*	*3.2*	*3.3*	*3.0*	*3.3*	*3.3*	*3.2*	*3.3*
Advanced foreign economies	1.8	1.0	2.1	2.1	2.2	2.2	2.4	1.7	2.3	2.2	2.2	2.2
Canada	.9	3.1	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.5
Japan	6.0	-7.1	2.2	1.7	1.4	1.2	2.9	-3.2	1.7	1.0	1.0	1.1
United Kingdom	3.3	3.4	2.8	2.6	2.6	2.6	2.6	2.4	2.4	2.4	2.4	2.5
Euro area	.9	.1	1.0	1.3	1.6	1.8	1.9	1.9	1.9	2.0	2.0	2.0
Germany	3.3	-.6	1.8	1.8	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0
Emerging market economies	2.4	3.6	3.9	4.0	4.1	4.1	4.2	4.2	4.3	4.3	4.3	4.3
Asia	3.6	4.9	5.3	5.3	5.3	5.3	5.3	5.4	5.4	5.4	5.4	5.4
Korea	3.8	2.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
China	5.5	7.8	7.6	7.4	7.2	7.2	7.1	7.1	7.1	7.1	7.1	7.1
Latin America	1.3	2.6	2.9	2.9	3.1	3.2	3.3	3.4	3.4	3.4	3.4	3.4
Mexico	1.8	4.2	3.7	3.5	3.5	3.6	3.6	3.7	3.7	3.7	3.7	3.7
Brazil	-.6	-2.4	.5	1.5	1.7	1.9	2.1	2.1	2.2	2.2	2.2	2.2
Consumer prices[2]												
Total foreign	2.0	3.0	2.4	2.4	2.5	2.5	2.5	3.0	2.6	2.6	2.6	2.6
Previous Tealbook	*2.0*	*3.0*	*2.6*	*2.5*	*2.5*	*2.5*	*2.6*	*3.0*	*2.6*	*2.6*	*2.6*	*2.6*
Advanced foreign economies	1.1	3.3	1.2	1.2	1.3	1.4	1.5	2.6	1.6	1.6	1.7	1.7
Canada	2.8	3.7	1.5	1.4	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.0
Japan	.4	9.4	1.3	.8	.9	1.0	1.1	6.4	1.2	1.3	1.3	1.4
United Kingdom	1.1	1.9	2.1	2.3	1.8	1.8	1.8	2.3	1.8	1.8	1.9	1.9
Euro area	.2	.4	.8	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.5	1.5
Germany	.1	.4	1.6	1.4	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7
Emerging market economies	2.7	2.8	3.3	3.3	3.4	3.4	3.4	3.3	3.3	3.3	3.3	3.3
Asia	1.6	2.4	3.0	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Korea	1.4	2.2	1.3	2.7	3.2	3.2	3.2	3.1	3.2	3.2	3.2	3.1
China	.8	2.0	3.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Latin America	5.7	4.0	4.1	3.8	3.8	3.8	3.7	3.7	3.7	3.7	3.7	3.7
Mexico	5.2	3.0	3.6	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Brazil	6.5	7.4	6.0	5.8	5.4	5.4	5.4	5.4	5.3	5.3	5.3	5.3

[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	2009	2010	2011	2012	2013	2014 (Projected)	2015 (Projected)	2016 (Projected)	2017 (Projected)
Real GDP[1]									
Total foreign	.9	4.7	3.0	2.3	2.5	2.6	3.2	3.3	3.2
Previous Tealbook	*.9*	*4.7*	*3.0*	*2.3*	*2.5*	*2.7*	*3.2*	*3.3*	
Advanced foreign economies	-1.5	3.0	1.5	.3	2.0	1.8	2.1	2.2	2.1
Canada	-1.4	3.6	2.4	1.0	2.7	2.4	2.6	2.5	2.3
Japan	-.6	3.5	.2	-.3	2.4	.6	.6	1.2	1.1
United Kingdom	-2.5	1.8	1.1	.2	2.7	3.0	2.6	2.4	2.4
Euro area	-2.3	2.3	.7	-1.0	.5	.8	1.8	2.0	2.0
Germany	-2.2	4.2	2.2	.3	1.4	1.6	2.0	2.1	1.8
Emerging market economies	3.9	6.5	4.6	4.3	3.0	3.5	4.2	4.3	4.2
Asia	7.8	8.0	5.0	5.6	5.1	4.7	5.3	5.4	5.2
Korea	4.9	6.1	3.0	2.1	3.6	3.5	4.1	4.1	3.9
China	11.3	9.7	8.7	7.8	7.6	7.1	7.1	7.1	6.9
Latin America	.0	4.7	4.1	3.2	1.2	2.4	3.2	3.4	3.4
Mexico	-1.2	4.5	4.2	3.3	.6	3.3	3.6	3.7	3.7
Brazil	5.3	5.3	1.3	1.8	2.2	-.2	1.9	2.2	2.3
Consumer prices[2]									
Total foreign	1.2	3.2	3.4	2.3	2.3	2.5	2.6	2.6	2.6
Previous Tealbook	*1.2*	*3.2*	*3.4*	*2.3*	*2.3*	*2.5*	*2.6*	*2.6*	
Advanced foreign economies	.2	1.7	2.2	1.3	1.0	1.7	1.7	1.6	1.7
Canada	.8	2.2	2.7	.9	1.0	2.4	1.7	2.0	2.1
Japan	-2.0	-.3	-.3	-.2	1.4	2.9	2.3	1.3	1.4
United Kingdom	2.2	3.4	4.6	2.6	2.1	1.9	1.9	1.9	2.0
Euro area	.4	2.0	2.9	2.3	.8	.7	1.3	1.5	1.6
Germany	.3	1.6	2.6	2.0	1.3	.9	1.6	1.7	1.7
Emerging market economies	2.0	4.3	4.3	3.1	3.3	3.1	3.4	3.3	3.3
Asia	1.2	4.3	4.5	2.6	3.1	2.5	3.2	3.2	3.2
Korea	2.4	3.2	3.9	1.7	1.1	1.9	3.2	3.2	3.2
China	.6	4.6	4.6	2.1	2.9	2.3	3.0	3.0	3.0
Latin America	3.9	4.4	4.0	4.3	4.0	4.4	3.8	3.7	3.6
Mexico	4.0	4.3	3.5	4.1	3.7	3.8	3.3	3.3	3.3
Brazil	4.3	5.6	6.7	5.6	5.9	6.4	5.4	5.3	5.3

[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

	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4
	Projected											
	Billions of dollars, s.a.a.r.											
U.S. current account balance	**-435.5**	**-410.9**	**-434.4**	**-413.7**	**-433.7**	**-411.3**	**-425.9**	**-444.1**	**-481.0**	**-461.7**	**-487.8**	**-486.5**
Previous Tealbook	*-444.6*	*-460.3*	*-453.8*	*-450.4*	*-477.8*	*-453.4*	*-472.2*	*-485.1*	*-518.1*	*-501.9*	*-526.1*	*-525.0*
Current account as percent of GDP	-2.6	-2.4	-2.5	-2.3	-2.4	-2.3	-2.3	-2.4	-2.6	-2.4	-2.5	-2.5
Previous Tealbook	*-2.6*	*-2.7*	*-2.6*	*-2.5*	*-2.7*	*-2.5*	*-2.6*	*-2.6*	*-2.8*	*-2.6*	*-2.7*	*-2.7*
Net goods & services	-498.1	-521.0	-496.1	-479.3	-485.5	-475.9	-480.0	-490.5	-498.4	-490.2	-504.4	-503.5
Investment income, net	195.4	207.0	203.1	205.1	203.4	197.4	189.6	179.5	169.0	161.4	152.1	150.0
Direct, net	277.8	282.9	278.0	279.9	286.8	295.5	304.4	311.7	318.3	326.1	333.2	346.3
Portfolio, net	-82.4	-75.8	-74.9	-74.8	-83.4	-98.1	-114.9	-132.2	-149.3	-164.7	-181.2	-196.3
Other income and transfers, net	-132.7	-96.9	-141.4	-139.5	-151.6	-132.9	-135.5	-133.1	-151.6	-132.9	-135.5	-133.1

Annual Data

	2009	2010	2011	2012	2013	2014	2015	2016	2017
						Projected			
	Billions of dollars								
U.S. current account balance	**-380.8**	**-443.9**	**-459.3**	**-460.8**	**-400.3**	**-423.6**	**-428.8**	**-479.3**	**-498.3**
Previous Tealbook	*-380.8*	*-443.9*	*-459.3*	*-460.8*	*-400.3*	*-452.3*	*-472.1*	*-517.8*	
Current account as percent of GDP	-2.6	-3.0	-3.0	-2.9	-2.4	-2.4	-2.4	-2.5	-2.5
Previous Tealbook	*-2.6*	*-3.0*	*-3.0*	*-2.8*	*-2.4*	*-2.6*	*-2.6*	*-2.7*	
Net goods & services	-383.8	-494.7	-548.6	-537.6	-476.4	-498.6	-483.0	-499.1	-493.9
Investment income, net	132.3	185.7	229.0	211.4	208.5	202.6	192.5	158.1	133.8
Direct, net	257.7	288.0	298.6	281.6	290.9	279.6	299.6	331.0	368.4
Portfolio, net	-125.4	-102.3	-69.5	-70.2	-82.3	-77.0	-107.1	-172.9	-234.6
Other income and transfers, net	-129.3	-135.0	-139.8	-134.6	-132.4	-127.6	-138.3	-138.3	-138.3

Abbreviations

AFE	advanced foreign economy
BEA	Bureau of Economic Analysis
BHC	bank holding company
BOE	Bank of England
BOJ	Bank of Japan
CDS	credit default swap
C&I	commercial and industrial
CLO	collateralized loan obligation
CMBS	commercial mortgage-backed securities
CPI	consumer price index
CRE	commercial real estate
Desk	Open Market Desk
ECB	European Central Bank
FOMC	Federal Open Market Committee; also, the Committee
GCF	general collateral finance
GDI	gross domestic income
GDP	gross domestic product
IMF	International Monetary Fund
IOER	interest on excess reserves
IPO	initial public offering
LMCI	labor market conditions index
LSAP	large-scale asset purchase
MBS	mortgage-backed securities
NIPA	national income and product accounts
ON RRP	overnight reverse repurchase agreement
PCE	personal consumption expenditures
PMI	purchasing managers index
repo	repurchase agreement

SOMA	System Open Market Account
S&P	Standard & Poor's
TIPS	Treasury Inflation-Protected Securities