Prefatory Note

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

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

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Class II FOMC – Restricted (FR)

Report to the FOMC on Economic Conditions and Monetary Policy

Book A

Economic and Financial Conditions: Current Situation and Outlook

April 23, 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 data on spending and production we have received since the March Tealbook appear consistent, on balance, with our view that the weakness in economic activity in the first quarter of 2014 will prove to be transitory. The effects of the unusually cold and snowy winter weather seem to be abating, as consumer spending and factory output have turned up since earlier in the year. And while we have lowered our estimate of real GDP growth in the first quarter to an annual rate of only ¾ percent, this downward revision primarily reflects an unexpected decline in exports, which we expect to be temporary. One lingering concern is residential construction, for which the data continue to be softer than we had anticipated; even for this sector, though, we see the fundamentals as being supportive of a higher level of activity. All told, we continue to project real GDP growth to step up to a 3½ percent pace in the current quarter, unchanged from our forecast in the March Tealbook.

The March employment report suggests that labor market conditions have been improving about as we had anticipated in the previous Tealbook. Payroll gains in the first quarter were little different than we had written down, and, while the unemployment rate in March was a touch higher than we had projected, the workweek and the labor force participation rate were both a bit higher as well.

The key background factors underlying the forecast are also little revised. Accordingly, beyond the near term we expect economic growth to increase at a pace essentially unchanged from the March Tealbook. We project that real GDP growth will move up from 2½ percent in 2013 to 2¾ percent this year and a little above 3 percent per year in 2015 and 2016, reflecting the waning of some of the forces—such as restrictive federal fiscal policy changes—that have restrained economic growth in recent years. This projected pace is, on average, roughly 1 percentage point above our estimate of potential growth over the medium term. As a result, the unemployment rate declines from around 6½ percent in the current quarter to about 5 percent at the end of 2016, slightly below our estimate of its natural rate.

Recent readings on consumer prices have been largely as anticipated, and our inflation forecast over the next couple of years is also little changed. As before, we expect core PCE inflation to increase from 1¼ percent in 2013 to 1½ percent this year, then rise to 1¾ percent in 2015 and 2016—reflecting a projected pickup in core import price inflation this year, diminishing margins of slack in labor and product markets over the medium term, and stable longer-run inflation expectations. While we now expect consumer energy prices to increase somewhat faster than core prices this year, we continue to expect energy prices to edge down thereafter, with the result that headline inflation is projected to run a touch below core inflation in 2015 and 2016.

As always, numerous risks surround our outlook. As in the March Tealbook, we view the uncertainty around our projection for real GDP growth, inflation, and the unemployment rate as roughly in line with the average of the past 20 years, a period that includes considerable volatility. While we still see the risks to GDP growth as tilted a little to the downside, largely because neither monetary policy nor fiscal policy appear well positioned to offset any future adverse shocks to the economy, we continue to see the risks around our outlook for the unemployment rate and for inflation as roughly balanced.

KEY BACKGROUND FACTORS

Monetary Policy

- Our assumptions for the current LSAP program are essentially unchanged. We assume that asset purchases will continue to slow at a relatively steady pace and will conclude before the end of this year, leaving the cumulative amount of purchases under the current program at close to $1.5 trillion.

- The path of the federal funds rate is also about unchanged. In particular, as in the March Tealbook, we assume that the federal funds rate will lift off from its effective lower bound in the second quarter of 2015, two quarters after the end of asset purchases. Thereafter, the federal funds rate follows the prescriptions of the inertial Taylor (1999) rule.

Other Interest Rates

- The projected path for the 10-year Treasury yield is modestly lower in 2014, reflecting a slight decline in rates since March, but is thereafter projected to follow about the same path as in the previous Tealbook. Our forecast continues to call for a significant rise in Treasury yields, primarily because of the movement of the 10-year valuation window through 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.

- Spreads for investment-grade corporate bonds and for mortgages have been relatively stable. Consequently, our forecasts for corporate bond yields and mortgage rates in the medium term have been revised essentially in line with our revisions to the path for Treasury yields.

Equity Prices and Home Prices

- Equity prices have fallen slightly, on net, since March, undershooting our forecast for modest gains. However, our view of fundamentals is unrevised, and we project that stock market prices by the end of this year will be at about the same level as in the March Tealbook. Our trajectory implies an average annual growth rate of roughly 6 percent over the projection period.

- Recent readings on house prices have been somewhat above our expectations, leading us to revise up slightly the level of prices through the medium term. Nevertheless, we continue to expect house price appreciation to gradually step down from 11 percent in 2013 to about 3 percent in 2016.

Fiscal Policy

- Our assumptions for fiscal policy are unrevised from the March Tealbook. Despite the expiration of the EUC program, we continue to expect the drag on economic growth from fiscal policy changes to ease this year as the pace of decline in real federal purchases slows and the effect of the tax increases put in place last year wanes. The restraint on real GDP growth (excluding multiplier effects) from fiscal policy actions at all levels of government is projected to diminish from about 1 percentage point in 2013 to ½ percentage point this year, ¼ percentage point in 2015, and roughly zero in 2016.

Foreign Economic Activity and the Dollar

- We estimate that the pace of real GDP growth in the foreign economies slackened from nearly 3 percent at an annual rate in the second half of 2013 to 2¼ percent in the first quarter, almost ½ percentage point below our March Tealbook forecast. Growth slowed most markedly in emerging Asia, affected by Chinese authorities' attempts to rein in domestic credit growth and by a reduction in exports of high-tech goods, particularly to the United States. As U.S. demand strengthens and policy in China becomes more supportive, we expect foreign economic growth to step back up to an average rate of 3¼ percent over the medium term.

- The broad nominal index for the dollar is little changed on net since the previous Tealbook. Going forward, we continue to expect the broad real dollar to depreciate at an annual rate of about 1¼ percent, with the decline occurring entirely against the currencies of the emerging market economies.

Oil and Other Commodity Prices

- The trajectory for the price of crude oil is roughly unchanged from the March Tealbook. Escalating tensions between Russia and Ukraine, as well as the prospect of disruptions to Russia's energy exports, have put some upward pressure on prices, but slowing growth in China and the prospective resumption of oil exports from Libya have weighed on prices. On net, these developments left the spot price of Brent crude oil up just over $1 per barrel since the time of the previous Tealbook. We project the price of imported oil to average $100 per barrel in the current quarter and then to decline gradually, reaching $88 per barrel at the end of 2016.

- The broad index of nonfuel commodity prices that we follow has increased about 3 percent since the previous Tealbook, in part reflecting higher agricultural prices. As in the March Tealbook, we expect our overall nonfuel commodity price index to increase only slightly further over the medium term.

Recent Developments and the Near-Term Outlook for Real GDP

We now estimate that real GDP increased at an annual rate of only ¾ percent in the first quarter, ¾ percentage point less than we had projected in the March Tealbook.[1] We continue to estimate that adverse winter weather held down first-quarter GDP growth about ¼ percentage point; however, there is substantial uncertainty around that figure, and, indeed, some outside analysts put the effect at more than 1 percentage point. We

[1] According to the BEA's third estimate, real GDP rose at a 2½ percent rate in the fourth quarter, ¼ percentage point faster than previously estimated. The BEA will release its advance estimate of real GDP growth for 2014:Q1 on April 30, the second day of the FOMC meeting.

also see other factors, including the sharp decline in exports and surprisingly soft readings on residential construction, as temporarily holding down the first-quarter growth rate. As these influences fade, we expect real GDP to rise at a 3½ percent rate in the current quarter—unchanged from our previous projection.

- On net, the incoming consumption data have been in line with our March Tealbook projection. In particular, the strong pickup in retail sales and motor vehicle sales in March are consistent with our projection for a faster rate of consumer spending growth in the second quarter than in the first.

- In contrast, the news on housing activity has been disappointing. Single-family and multifamily housing starts and existing home sales all remained muted in February and March after tumbling in January. In addition, new home sales dropped back in March. While inclement weather likely played some role in the first quarter weakness for starts and sales, the latest readings on building permit issuance—which is more forward looking than starts and tends to be less sensitive to weather—suggest that underlying activity has remained lackluster so far this year. Nevertheless, we continue to expect housing activity to strengthen over the next several months, supported by some payback of weather effects, the still-favorable affordability of housing, and continued jobs gains.

- Incoming data on nonresidential private fixed investment have been mixed: Although readings for nonresidential structures have been relatively strong, data on orders and shipments of capital goods point to weaker-than-expected spending on business equipment over the first half of 2014. On net, we have kept our projection for nonresidential private fixed investment over this period essentially unchanged at a modest 3½ percent rate of increase.

- Incoming data suggest inventory investment is roughly in line with our March Tealbook projection. Changes in inventories are projected to subtract about ¼ percentage point from GDP growth in both the first and second quarters.

- Real federal purchases are estimated to have risen at an annual rate of 3¼ percent in the first quarter, reflecting the rebound from the government shutdown in the fourth quarter, but then are expected to fall 2½ percent in the second quarter as purchases revert to their downward trend. State and local government purchases are projected to be about flat, on balance, in the first half of this year.

- After adding 1 percentage point to real GDP growth at the end of last year, we estimate that net exports subtracted 1 percentage point from growth in the first quarter of this year. This estimate is ¾ percentage point more negative than in our previous forecast, as real exports declined markedly, reversing a large part of the sharp increase in the fourth quarter of last year. In the current quarter, net exports are expected to turn up slightly, as exports rise more in line with the projected pace of foreign economic growth and import growth remains subdued.

- Following a sharp decline in January that was largely weather induced, manufacturing production rebounded sharply in February and rose further in March. We expect factory output to expand at a moderate pace, on balance, in the near term, in line with the positive readings on new orders from the national and regional manufacturing surveys. (See the box "The Effects of the Energy Boom on Industrial Production" for additional information on the industrial sector.)

THE MEDIUM-TERM OUTLOOK FOR REAL GDP

We project real GDP to grow 2¾ percent for 2014 as a whole and to rise a little more than 3 percent per year in 2015 and 2016—about unchanged from the March Tealbook.

- Our projection for faster real GDP growth over the medium term relative to last year—even as interest rates rise further—reflects our expectation that some of the forces that have been holding back growth in recent years will recede. In particular, the restraint from changes in fiscal policy is expected to wane, and we think that mortgage credit will gradually become more broadly available. We also expect that a growing sense among households and firms of diminishing downside risks to the recovery will improve confidence and provide additional support to consumer spending, business investment, and hiring.

- The small changes in our financial assumptions have essentially no net effect on our real GDP projection over the medium term.

- We have made no changes to our supply-side assumptions this round. Thus, with the GDP forecast little changed, we continue to project the GDP gap to narrow from about 3 percent currently to zero by the middle of 2016 and actual GDP to be ½ percent *above* potential GDP by the end of that year.

THE OUTLOOK FOR THE LABOR MARKET

Incoming data on the labor market have been roughly in line with our expectations and suggest continuing gradual improvement in labor market conditions.

- Total nonfarm payrolls rose 192,000 in March, and although this reading was a little weaker than we had expected, upward revisions to January and February left the level of payrolls in March in line with our prior forecast.[2] Accordingly, we left our projection for total payroll gains in the current quarter unrevised from the March Tealbook assumption of 210,000 per month.

- The unemployment rate held steady at 6.7 percent in March; we had expected it to tick down to 6.6 percent. The participation rate, however, unexpectedly rose 0.2 percentage point.

- The staff's labor market conditions index, which summarizes the movements in 19 labor market indicators, moved up slightly in March.

As in our previous projection, slack in the labor market is anticipated to decline slowly over the medium term, in line with the pace of overall economic growth.

- The unemployment rate is projected to decrease, on average, roughly ½ percentage point per year over the medium term, reaching 5 percent at the end of 2016, a little below our estimate of the natural rate. This projection is unchanged from the previous Tealbook.

[2] Weather appears to have had only a small effect on payroll employment in the first quarter. In contrast, the workweek appears to have been more affected by bad weather in January and February; in March, it returned to a level roughly in line with its average over the past year.

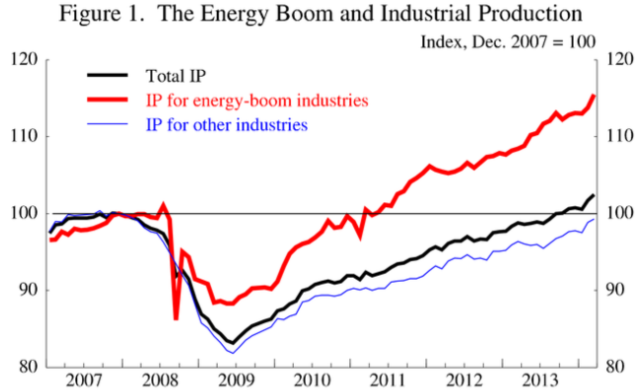
The Effects of the Energy Boom on Industrial Production

The increasing use of hydraulic fracturing (fracking) and horizontal drilling techniques has pushed up domestic production of oil and gas nearly 50 percent since 2007. Yet this output is only part of the overall effect of the energy boom on industrial production (IP), which comprises manufacturing, mining, and utilities. We broadly estimate that total production gains related to the energy boom, described in more detail below, make up a significant share of the gain in IP (the black line in figure 1) since its trough during the recent recession. Indeed, although IP currently stands 2½ percent above its pre-recession level, excluding the output of industries related to the energy boom, IP remains about 1½ percent below its previous peak (the blue line).

Output gains in industries closely associated with the energy boom have contributed 27 percent of the growth in IP since its trough (right hand column of table 1), and these gains have operated through three channels. First, the *direct effect* comprises the contribution to IP of the increases in oil and gas extraction and in drilling; it also accounts for the production declines of other energy sources that these new supplies have displaced (for example, the reduction in coal mining as electric utilities shift away from coal in favor of natural gas). As shown in table 1, this effect accounts for 18 percent of the recovery in IP since its trough.

Second, the *build-out effect* measures output gains for products that support oil and gas infrastructure and exploration, including steel (for pipelines), railcars and barges (for transporting oil from areas without pipelines), and new drilling-related machines. To calculate this effect, we weighted IP for the industries related to the oil and gas sector by an estimate of how much of each industry's output is used by oil and gas producers. For instance, we estimate that all of the production of oil and gas machinery is used by the oil and gas sector, and that roughly 25 percent of the production of construction supplies is used by that sector (based, in part, on the drilling and mining share of overall nonresidential investment). The resulting build-out effect accounts for about 6 percent of the growth in IP since mid-2009. This estimate is likely conservative, as many industries have contributed to the energy boom in ways that are hard to observe.

Figure 1. The Energy Boom and Industrial Production



Note: Energy-boom industries are those included in direct, build-out, and downstream effects.
Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization"; staff estimates.

Table 1. Estimated Contributions of the Energy Boom to Total IP Growth (June 2009 to March 2014)

	Percentage point contribution	Share
Total IP (percent increase)	23.0	100
Energy-boom industries	6.2	27
Direct	4.1	18
Build out	1.4	6
Downstream	.7	3
Other industries	16.8	73

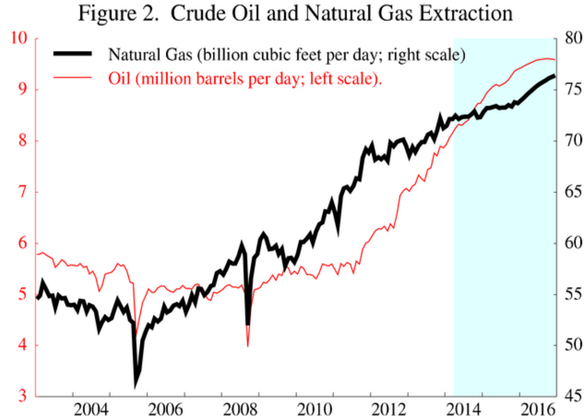
Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization"; staff estimates.

Finally, the *downstream effects* of the energy boom measure the contributions from the output of industries that most heavily rely on oil and gas as direct inputs (for example, some chemicals and refined petroleum products). Although these industries account for only 3 percent of total IP growth since the trough, the energy boom has been transformative for some downstream industries—particularly petrochemicals and fertilizers, for which natural gas is an important input.[1] Prior to the energy boom, many facilities in these industries had been slated for closure. However, the surge in natural gas production led to remarkable declines in prices, providing a notable cost advantage for U.S. producers relative to their international competitors. As the lower prices persisted, not only were scheduled capacity reductions canceled, but expansions were planned. In contrast, downstream effects related to oil have likely been minimal, as prices, which are set globally, have not been materially affected by the increased supplies of oil.

Looking ahead, the output of industries related to the energy boom should continue to support the industrial sector. The Department of Energy (DOE) projects further gains in oil and gas extraction in coming years, and we estimate that the resulting direct effects will boost the level of IP about 2½ percent by the end of 2016 (figure 2). DOE projections have regularly been revised upward in recent years, so future direct effects could be even larger. The contribution of future build-out effects is harder to quantify, but the new extraction techniques require more frequent drilling, which in turn requires more new machinery, pipelines, and transportation infrastructure; furthermore, continued exploration will likely lead to the development of new oil and gas fields.

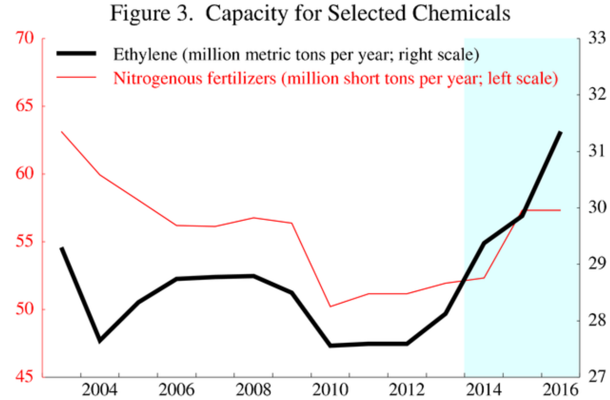
Although downstream industries have contributed only modestly to IP growth to date, significant ongoing investments for new plants and the expansion of existing plants will likely increase the downstream effects in coming years. For example, as seen in figure 3, industry capacity for nitrogenous fertilizers, which use natural gas as a feedstock, and for ethylene, which is a fundamental petrochemical, is expected to increase about 15 percent by 2016 as existing facilities expand and new ones come online.

Figure 2. Crude Oil and Natural Gas Extraction



Note: Shaded region indicates forecast data.
Source: U.S. Department of Energy.

Figure 3. Capacity for Selected Chemicals



Note: Shaded region indicates forecast data.
Source: For ethylene, *Oil & Gas Journal, ICIS Chemical Business;* for fertilizer, International Fertilizer Development Center.

[1] See Will Melick (2013), "The Energy Boom and Manufacturing in the United States: A First Look," International Finance Discussion Papers Note (Washington: Board of Governors of the Federal Reserve System, December), www.federalreserve.gov/econresdata/notes/ifdp-notes/2013/the-energy-boom-and-manufacturing-in-the-united-states-a-first-look-20131203.html.

- We expect total payrolls to increase 210,000 per month, on average, in 2014 and then to rise at an average monthly pace of 220,000 in 2015 and 2016—also unchanged from the previous Tealbook.

THE OUTLOOK FOR INFLATION

Incoming data for core inflation have been about in line with our March Tealbook projection, while food and energy prices have come in a little higher. Over the medium term, our forecast for inflation is essentially unchanged from the March Tealbook.

- With the March PPI and CPI data in hand, we estimate that total PCE prices increased at an annual rate of 1½ percent in the first quarter and that core consumer prices rose 1¼ percent. For the current quarter, we expect both total and core PCE inflation of 1½ percent.

- Prices for natural gas moved up notably in March as the extremely cold winter drove natural gas inventories to their lowest levels in more than 10 years. As a result, energy prices are likely to increase a bit more than core prices this year. In 2015 and 2016, we expect consumer energy prices to drift gradually downward, in line with the projected path for crude oil prices.

- Food prices have risen more than expected in the past couple of months in response to drought conditions in some parts of the country and the outbreak of a severe virus that has reduced swine stocks. As a result, we expect food prices to increase at about a 2 percent pace over the first half of this year but then to moderate to a pace just below core as the effects of these transitory influences wane.

- Core import prices are estimated to have risen at a 1¼ percent pace in the first quarter after having declined in 2013. With the dollar depreciating modestly in our projection and commodity prices edging up, we expect import price inflation to remain around the first-quarter pace through the medium term.

- Core PCE inflation is anticipated to gradually edge up from 1¼ percent in 2013 to 1½ percent this year and 1¾ percent in 2015 and 2016. This contour reflects the rise in core import price inflation this year, the diminishing resource slack throughout the forecast, and longer-run inflation expectations that remain well anchored. Reflecting the small projected declines in consumer energy prices, total PCE inflation is expected to run a touch below core price inflation in 2015 and 2016, leaving inflation at the end of the medium-term projection somewhat below the FOMC's long-run target.

THE LONG-TERM OUTLOOK

- Beyond 2016, the federal funds rate continues to be set according to the prescriptions of the inertial Taylor (1999) rule. (This policy rule assumes a long-run equilibrium level of the nominal federal funds rate of 4 percent. For a different perspective, see the box "Alternative View: A Lower Long-Run Natural Rate of Interest.")

- The federal funds rate gradually rises from 2¼ percent in the fourth quarter of 2016 to a little above 4 percent in 2019 and 2020. The Federal Reserve's holdings of securities continue to put downward pressure on longer-term interest rates, albeit to a diminishing extent, and the process of returning the SOMA portfolio to a normal size is expected to be completed by 2021.

- Real GDP growth slows to 2½ percent in 2017 but remains above our estimate of potential growth. The unemployment rate edges down further and is almost ½ percentage point below its natural rate at the end of 2017. As monetary policy accommodation continues to be gradually withdrawn, gains in real GDP slow to below their potential pace, causing the unemployment rate to move back toward its natural rate.

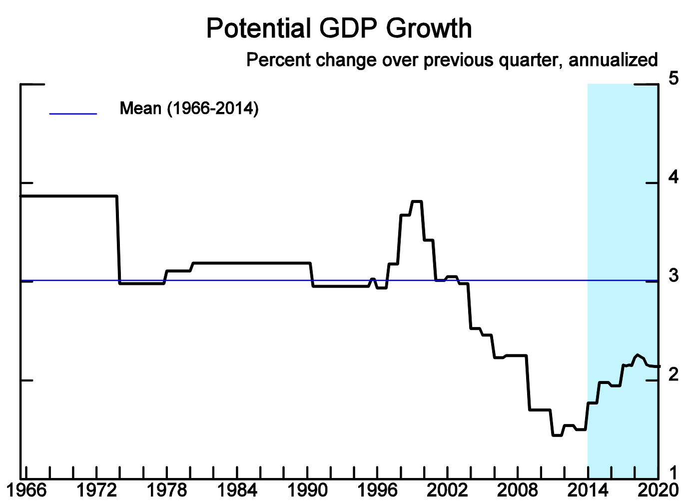
- Consumer price inflation remains below the long-run objective of the Committee in early 2017. However, with longer-run inflation expectations assumed to remain well anchored and the unemployment rate below the natural rate, consumer price inflation moves up to 2 percent by 2018.

Alternative View: A Lower Long-Run Natural Rate of Interest

This box proposes that the natural rate of interest—the risk-free real rate consistent with inflation at target and a closed output gap—will remain at a low level for many years to come.[1] It provides an alternative view to the staff's assumption that the nominal federal funds rate will return to 4 percent as the equilibrium real interest rate returns to 2 percent in the longer run.

The natural rate of interest is the real rate at which the demand and supply of loanable funds are equal in an economy in which prices increase at the desired rate. The demand for loanable funds rises with the rate of return on investment. In the steady state of a standard growth model, optimal investment decisions imply that the real interest rate falls as growth rates of productivity and the population decline. As shown in the figure below, the staff estimates that recent slow growth in these factors has pushed potential output growth well below its historical mean and projects that potential output growth will remain low in the medium and longer term. This projection is supported by research showing that recent structural productivity growth is considerably below rates in the late 1990s and early 2000s and is likely to remain at this lower pace.[2] Moreover, other research suggests that the contribution to productivity growth from increases in human capital is likely to slow substantially and that growth in the labor force will be well below historical norms.[3] With weaker potential output growth, we should expect a natural real rate well below the average of about 2 percent over the 15 years prior to the Great Recession.

Turning to the supply of loanable funds, over the past decades there has been a trend inflow of capital to the United States from abroad as a result of the global savings glut. Going forward, the strong global appetite for safe U.S. assets will likely continue to put downward pressure on



Note: The blue shaded area denotes the forecast period.
Source: Staff calculations and FRB/US extension of staff forecast.

1 Prepared by Matthias Paustian.

2 See John Fernald (2012), "Productivity and Potential Output before, during, and after the Great Recession," Working Paper Series 2012-18 (San Francisco: Federal Reserve Bank of San Francisco, September).

3 See John G. Fernald and Charles I. Jones (2014), "The Future of U.S. Economic Growth," NBER Working Paper Series 19830 (Cambridge, Mass.: National Bureau of Economic Research, January), and references therein.

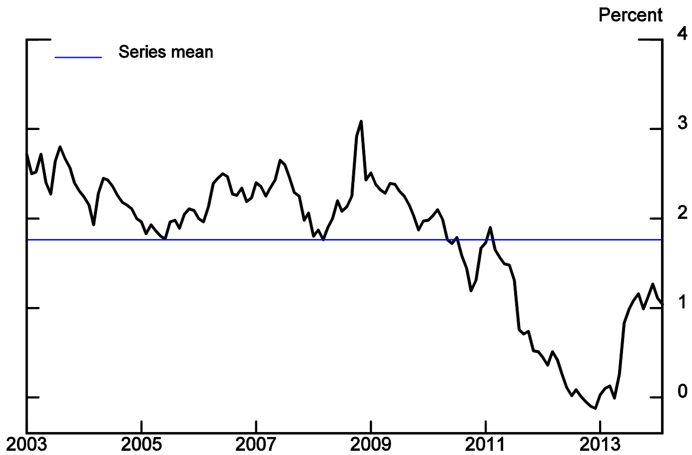
the natural rate, as the current account surpluses in East Asia and in Middle Eastern oil-producing countries continue to be channeled to the United States.

In addition, the financial crisis likely led households, investors, and regulators to raise their subjective estimates of the likelihood of future large adverse macroeconomic shocks. Such a reassessment depresses the risk-free natural rate for two reasons. First, it increases precautionary savings, leading to a persistent increase in the supply of funds. Thus, while household debt-to-income ratios have fallen roughly 20 percentage points since the crisis, deleveraging may not yet be fully complete. Indeed, in the aftermath of Sweden's banking crisis in the early 1990s, debt-to-income ratios fell about 40 percentage points. Second, a rise in perceptions of risk leads to tighter lending standards, reduces aggregate demand, and calls for a lower risk-free rate to counteract the downward pressure on inflation and real activity.

Bond market participants seem to concur with the view that the long-run natural rate has fallen. The figure below shows the average yield on Treasury inflation-protected securities, or TIPS, with maturities of more than 10 years. Although the yield has recovered from the especially low levels prevailing in the aftermath of the financial crisis, it remains quite low at about 1 percent. This low yield suggests an average short-run real rate of interest at long horizons that is below the pre-crisis average of about 2 percent.[4]

Monetary policy typically aims to close the output gap and keep inflation near its targeted level by setting the real federal funds rate equal to the natural rate of interest. Consequently, a lower trend path for the natural rate over the longer term implies a lower average policy rate. This may give rise to two policy challenges. First, a lower average policy rate implies a greater probability that the zero lower bound will be binding over the next decade or so. Second, if low risk-free rates interact with other distortions in the financial system to generate search-for-yield behavior, risks to financial stability may be exacerbated.

Long-Term Average TIPS Yield

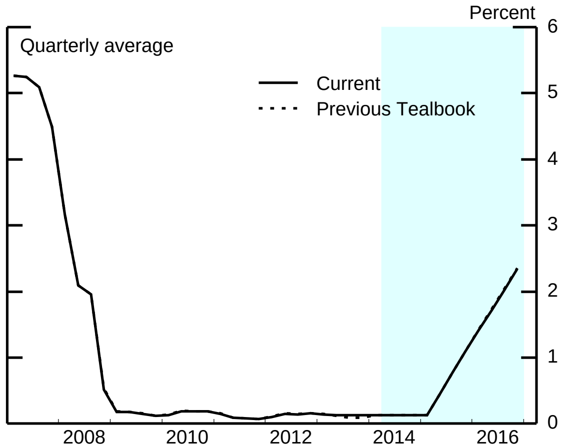


Source: Board of Governors of the Federal Reserve System, Statistical Release H.15, "Selected Interest Rates."

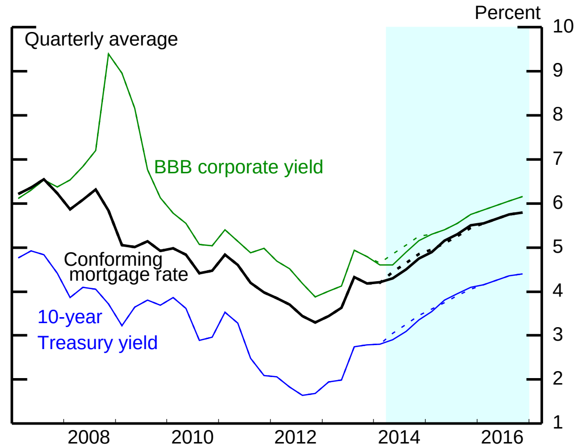
[4] The staff view could be consistent with these data if the term premium were currently extremely low. However, standard estimates of the term premium are based on forecasts of future short rates that revert to the historical mean very quickly. These estimates tend to overemphasize the role of the term premium for movements of long yields.

Key Background Factors underlying the Baseline Staff Projection

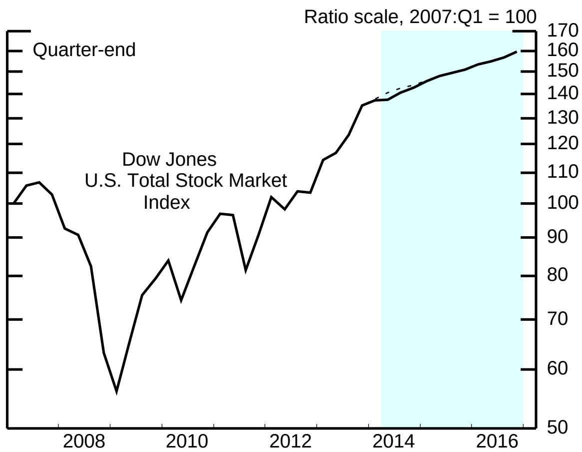
Federal Funds Rate



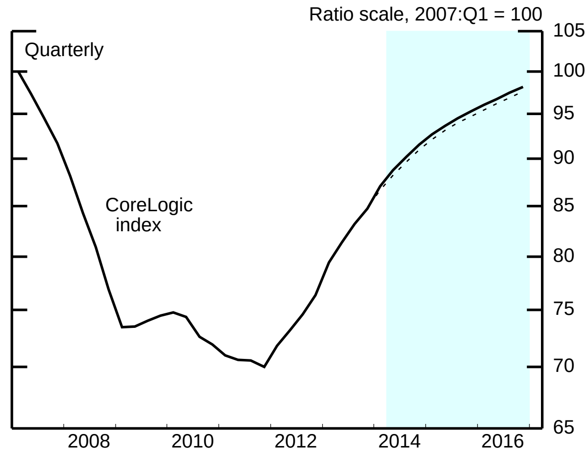
Long-Term Interest Rates



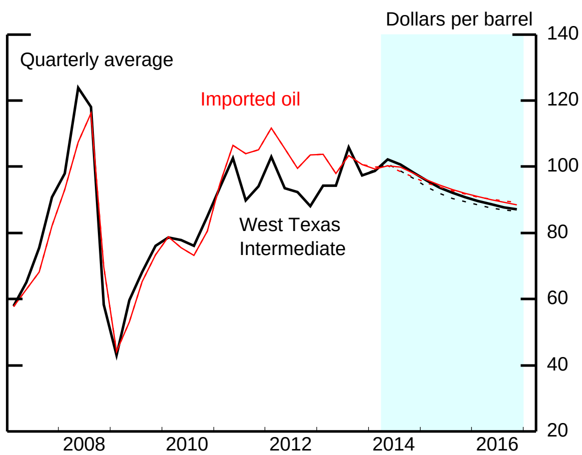
Equity Prices



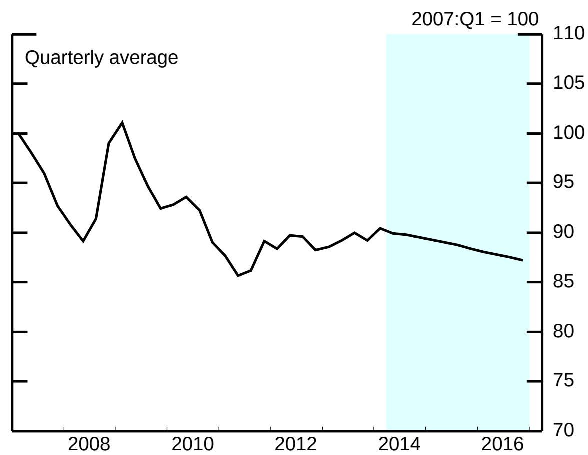
House Prices



Crude Oil Prices



Broad Real Dollar



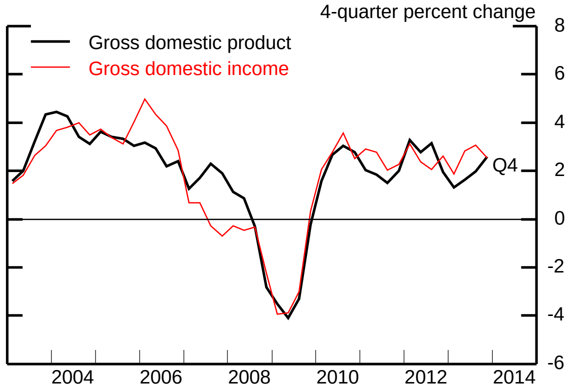
Summary of the Near-Term Outlook
(Percent change at annual rate except as noted)

Measure	2013:Q4 Previous Tealbook	2013:Q4 Current Tealbook	2014:Q1 Previous Tealbook	2014:Q1 Current Tealbook	2014:Q2 Previous Tealbook	2014:Q2 Current Tealbook
Real GDP	**2.2**	**2.6**	**1.5**	**.7**	**3.5**	**3.5**
Private domestic final purchases	2.5	3.2	2.5	2.3	4.2	4.0
Personal consumption expenditures	2.6	3.3	2.6	2.5	3.7	3.8
Residential investment	-8.6	-7.9	2.9	-2.1	10.4	6.3
Nonres. private fixed investment	5.5	5.7	1.6	2.2	5.7	4.7
Government purchases	-5.2	-5.2	.3	.2	-.5	-.3
Contributions to change in real GDP						
Inventory investment[1]	.1	.0	-.4	-.3	-.2	-.2
Net exports[1]	1.0	1.0	-.2	-1.0	.2	.3
Unemployment rate	**7.0**	**7.0**	**6.6**	**6.7**	**6.5**	**6.6**
PCE chain price index	**1.0**	**1.1**	**1.4**	**1.5**	**1.3**	**1.6**
Ex. food and energy	1.3	1.3	1.2	1.3	1.5	1.5

1. Percentage points.

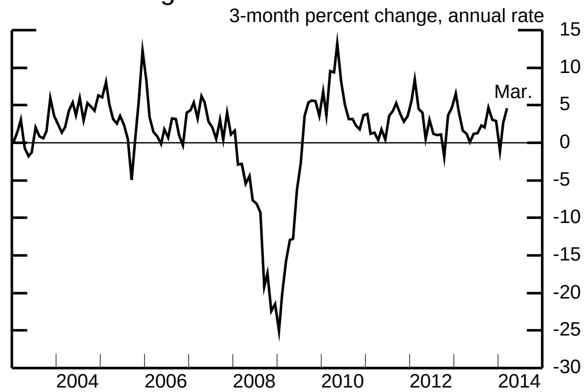
Recent Nonfinancial Developments (1)

Real GDP and GDI



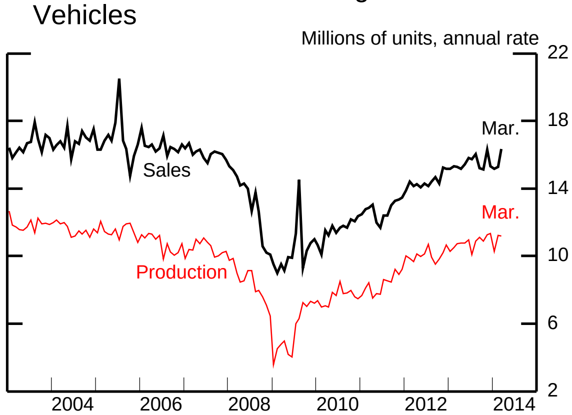
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Manufacturing IP ex. Motor Vehicles and Parts



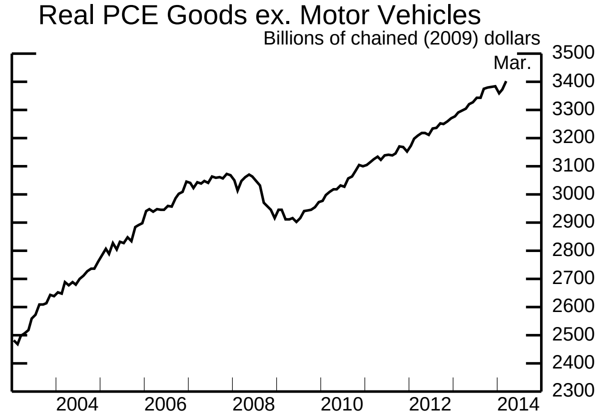
Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Sales and Production of Light Motor Vehicles



Source: Ward's Communications.

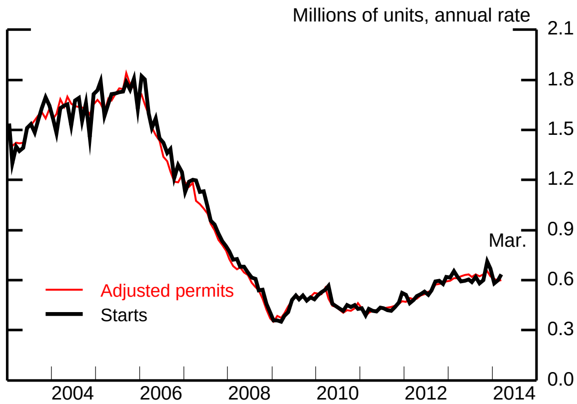
Real PCE Goods ex. Motor Vehicles



Note: Figures for January, February, and March 2014 are staff estimates based on available source data.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

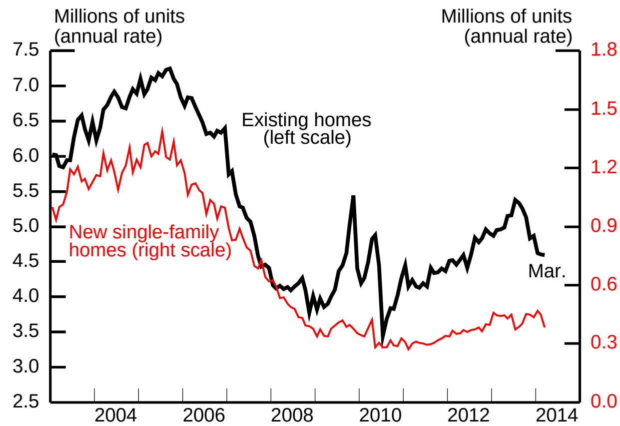
Recent Nonfinancial Developments (2)

Single-Family Housing Starts and Permits



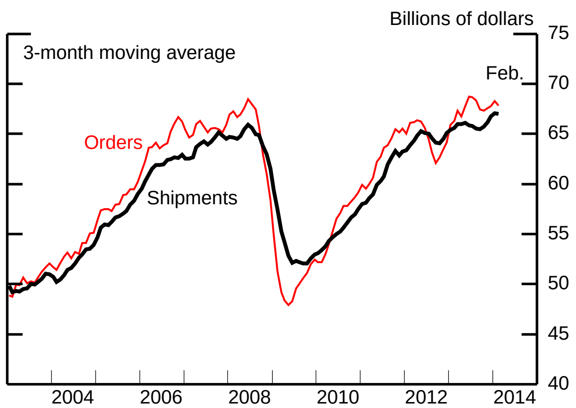
Note: Adjusted permits equal permit issuance plus total starts outside of permit-issuing areas.
Source: U.S. Census Bureau.

Home Sales



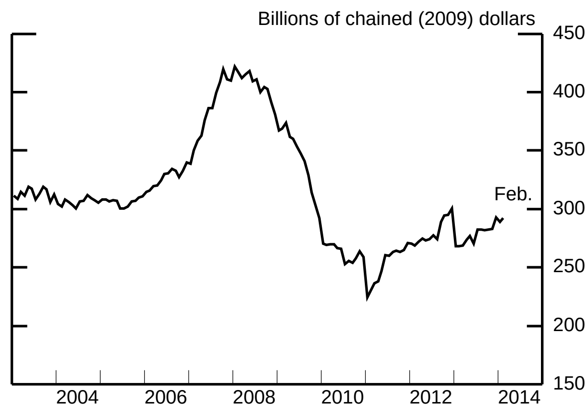
Source: For existing, National Association of Realtors; for new, U.S. Census Bureau.

Nondefense Capital Goods ex. Aircraft



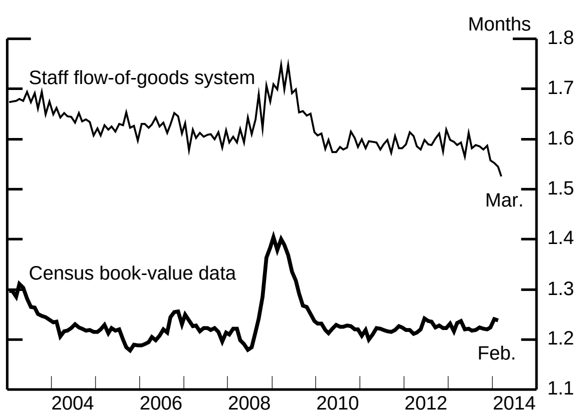
Source: U.S. Census Bureau.

Nonresidential Construction Put in Place



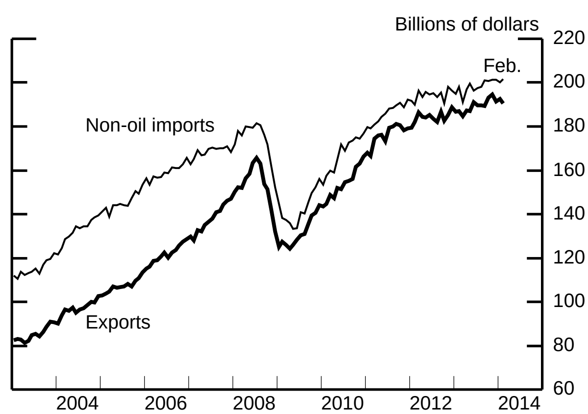
Note: Nominal CPIP deflated by BEA prices through 2013:Q4 and by staff's estimated deflator thereafter.
Source: U.S. Census Bureau.

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



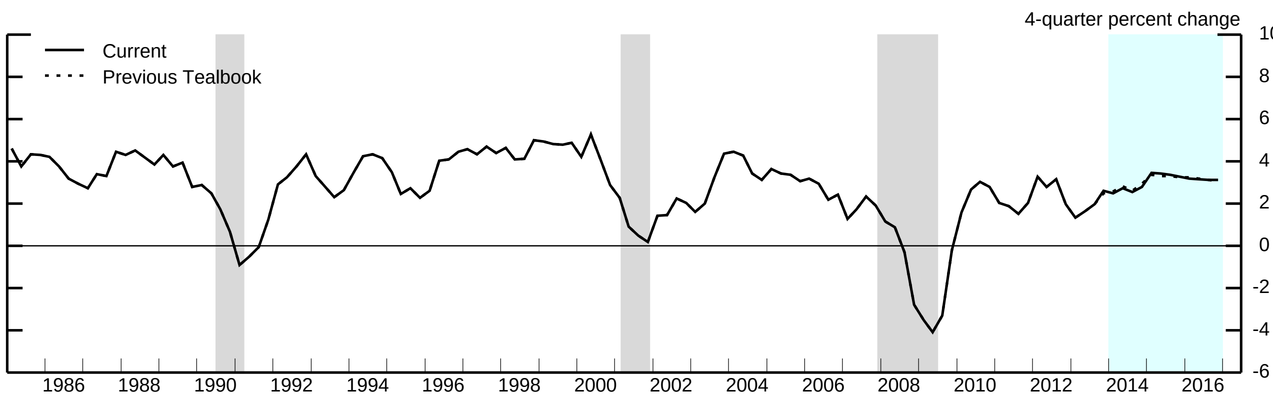
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; U.S. Census Bureau.

Domestic Econ Devel & Outlook

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

Measure	2013	2014	2014 H1	2014 H2	2015	2016
Real GDP	**2.6**	**2.8**	**2.0**	**3.5**	**3.2**	**3.1**
Previous Tealbook	2.5	2.9	2.5	3.4	3.2	3.0
Final sales	1.8	2.9	2.3	3.6	3.5	3.2
Previous Tealbook	1.7	3.0	2.8	3.3	3.4	3.1
Personal consumption expenditures	2.3	3.6	3.1	4.1	3.7	2.9
Previous Tealbook	2.1	3.5	3.2	3.8	3.7	2.9
Residential investment	6.9	8.7	2.0	15.8	14.5	12.0
Previous Tealbook	6.7	9.8	6.6	13.1	15.1	11.0
Nonresidential structures	-.7	6.0	6.5	5.4	2.6	2.0
Previous Tealbook	-.6	4.6	4.6	4.7	2.4	1.9
Equipment and intangibles	3.5	3.8	2.5	5.2	5.7	5.6
Previous Tealbook	3.4	4.2	3.4	5.0	5.8	5.0
Federal purchases	-6.2	-1.3	.4	-2.9	-3.5	-1.1
Previous Tealbook	-6.2	-1.7	-.8	-2.7	-3.6	-1.2
State and local purchases	.2	.3	-.3	.8	1.1	1.5
Previous Tealbook	.2	.4	.3	.5	1.1	1.5
Exports	4.9	1.7	-1.2	4.6	5.0	5.6
Previous Tealbook	4.9	3.1	1.7	4.4	4.9	5.6
Imports	2.8	3.2	1.1	5.4	4.9	4.6
Previous Tealbook	2.8	3.3	1.6	5.1	4.9	4.5
	Contributions to change in real GDP (percentage points)					
Inventory change	.7	-.1	-.2	-.1	-.2	-.1
Previous Tealbook	.8	-.1	-.3	.1	-.2	.0
Net exports	.2	-.3	-.3	-.3	-.1	.0
Previous Tealbook	.2	-.1	.0	-.2	-.1	.0

Real GDP

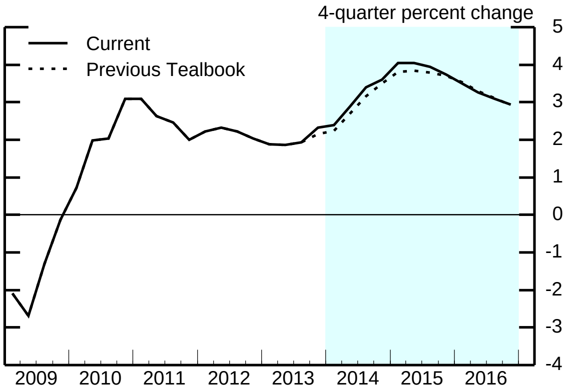


Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

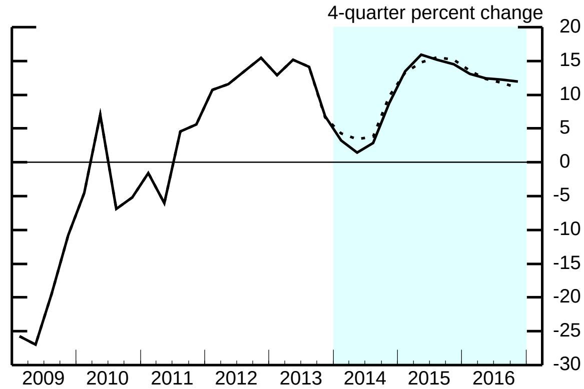
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Components of Final Demand

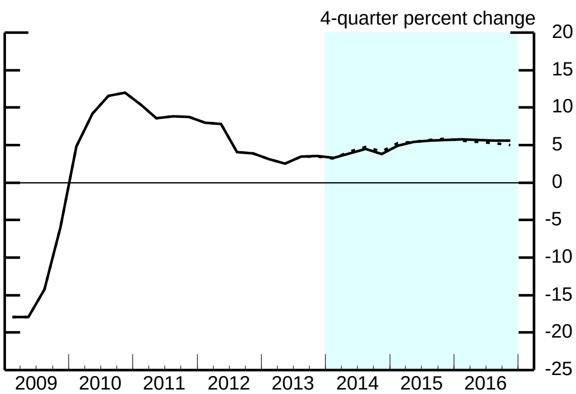
Personal Consumption Expenditures



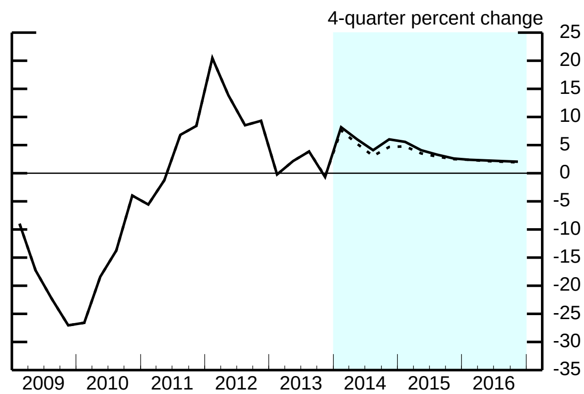
Residential Investment



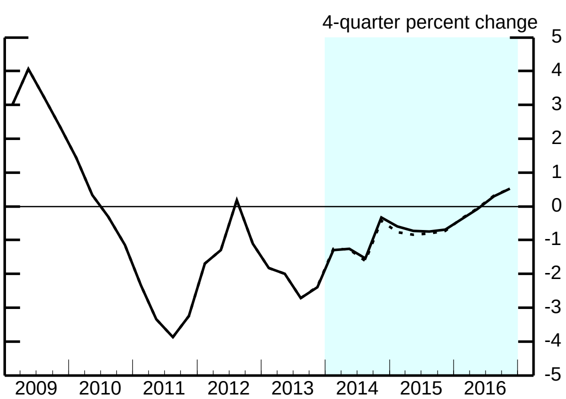
Equipment and Intangibles



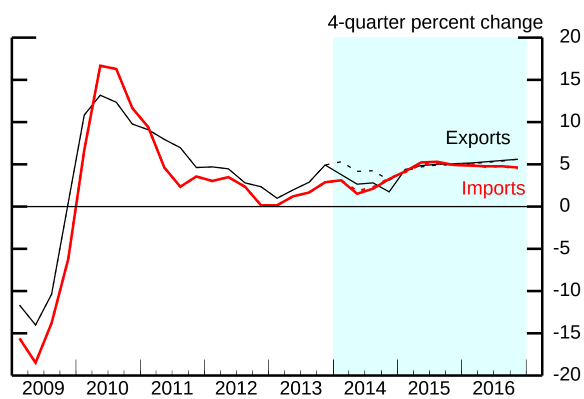
Nonresidential Structures



Government Consumption & Investment



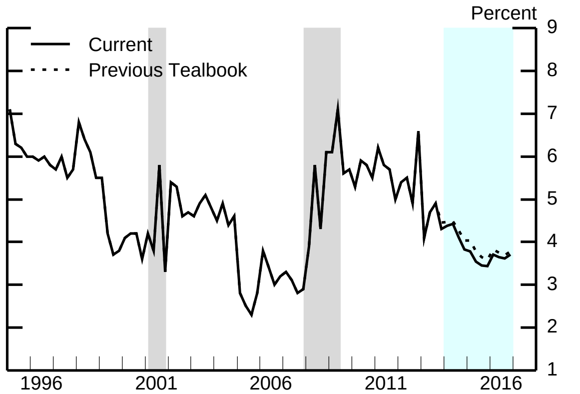
Exports and Imports



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

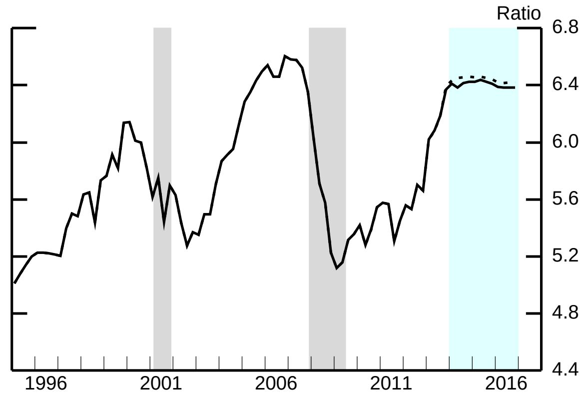
Aspects of the Medium-Term Projection

Personal Saving Rate



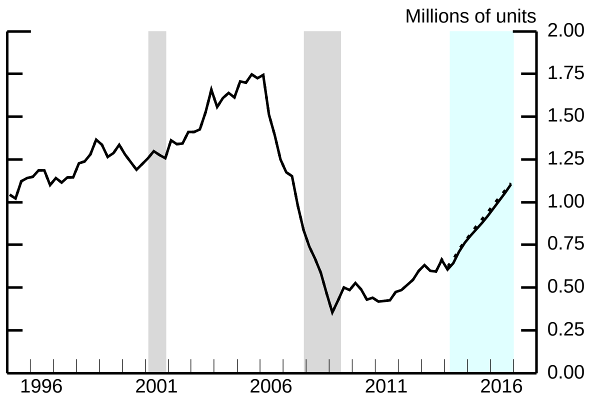
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Wealth-to-Income Ratio



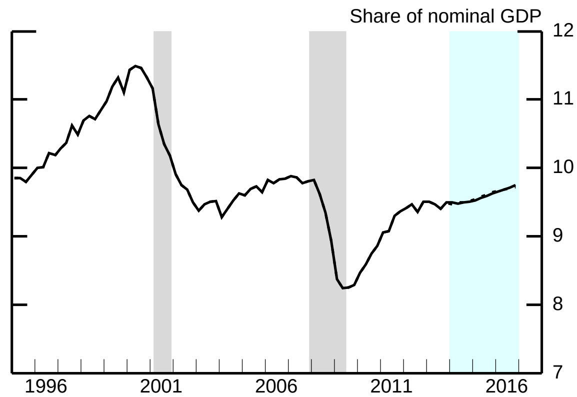
Note: Household net worth as a ratio to disposable personal income.
Source: For net worth, Federal Reserve Board, Financial Accounts of the United States; for income, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



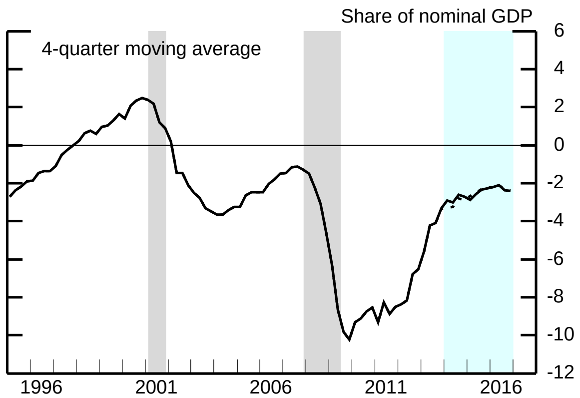
Source: U.S. Census Bureau.

Equipment and Intangibles Spending



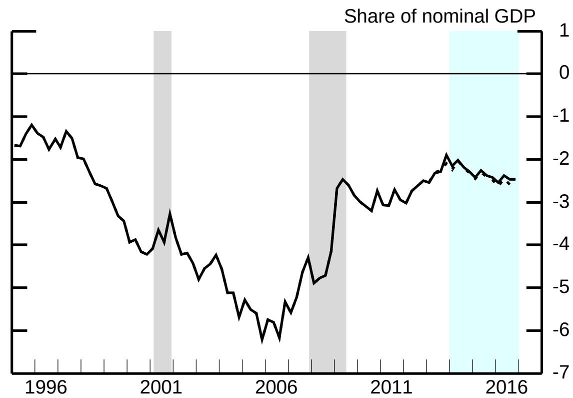
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Federal Surplus/Deficit



Source: *Monthly Treasury Statement.*

Current Account Surplus/Deficit



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

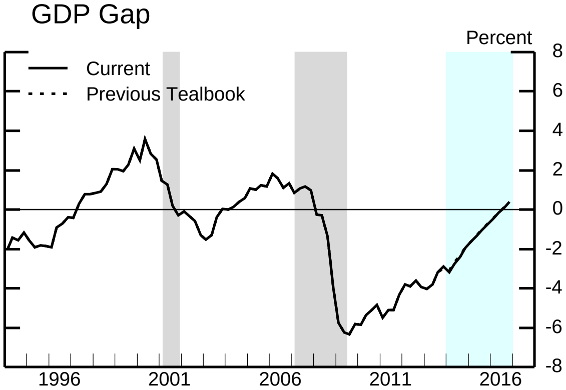
Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

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
Potential real GDP	3.1	3.4	2.6	1.9	1.5	1.8	2.0	1.9
Previous Tealbook	3.1	3.4	2.6	1.9	1.5	1.8	2.0	1.9
Selected contributions[1]								
Structural NFB labor productivity[2]	1.6	2.7	2.6	1.8	1.2	1.4	1.8	1.8
Previous Tealbook	1.6	2.7	2.6	1.8	1.2	1.4	1.8	1.8
Structural hours	1.5	1.0	.7	.2	.6	.7	.6	.3
Previous Tealbook	1.5	1.0	.7	.2	.6	.7	.6	.3
Labor force participation	.4	.0	-.3	-.4	-.5	-.3	-.4	-.4
Previous Tealbook	.4	.0	-.3	-.4	-.5	-.3	-.4	-.4
Memo:								
GDP gap[3]	-1.9	2.5	1.0	-4.8	-2.9	-2.0	-.7	.4
Previous Tealbook	-1.9	2.5	1.0	-4.8	-3.0	-1.9	-.7	.4

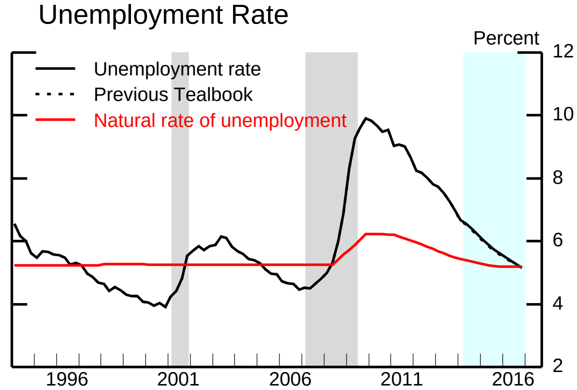
Note: For multiyear periods, the percent change is the annual average from Q4 of the year preceding the first year shown to Q4 of the last year shown.
1. Percentage points.
2. Because of substantial revisions from the Bureau of Economic Analysis to productive investment as part of the latest comprehensive revision, staff estimates of the components of structural productivity are not available for this Tealbook.
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



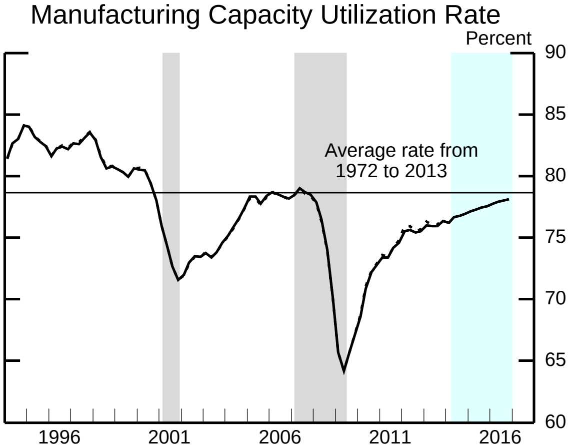
Note: The GDP gap is the percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.
Source: U.S. Dept. of Commerce, BEA; staff assumptions.

Unemployment Rate



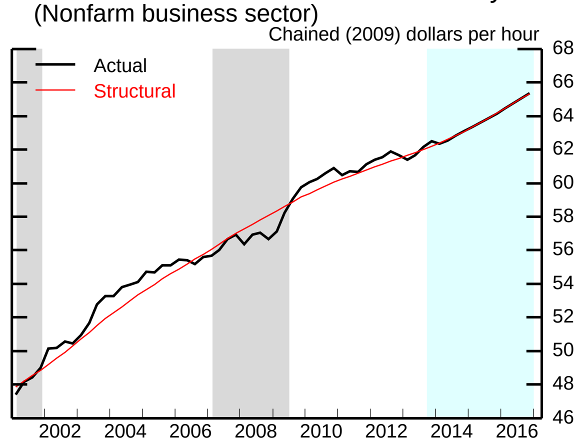
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

Manufacturing Capacity Utilization Rate



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

Structural and Actual Labor Productivity
(Nonfarm 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 Outlook for the Labor Market

Measure	2013	2014	2014 H1	2014 H2	2015	2016
Output per hour, nonfarm business[1]	1.4	.9	.0	1.9	1.6	1.9
Previous Tealbook	1.2	1.4	1.3	1.4	1.4	1.8
Nonfarm private employment[2]	197	214	199	229	224	202
Previous Tealbook	197	212	197	228	224	202
Labor force participation rate[3]	62.8	63.1	63.1	63.1	63.0	62.9
Previous Tealbook	62.8	63.0	63.0	63.0	63.0	62.9
Civilian unemployment rate[3]	7.0	6.2	6.6	6.2	5.6	5.1
Previous Tealbook	7.0	6.2	6.5	6.2	5.6	5.1

1. Percent change from final quarter of preceding period at annual rate.
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.

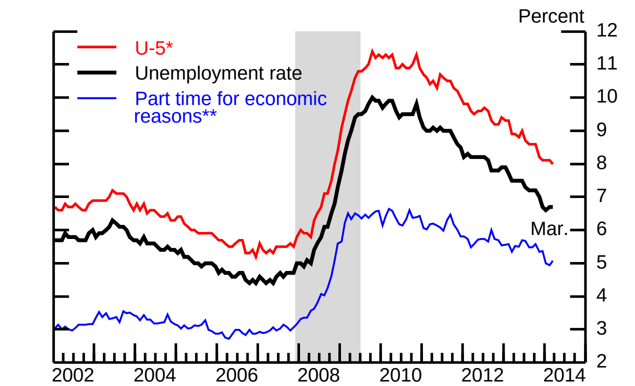
Inflation Projections
(Percent change at annual rate from final quarter of preceding period)

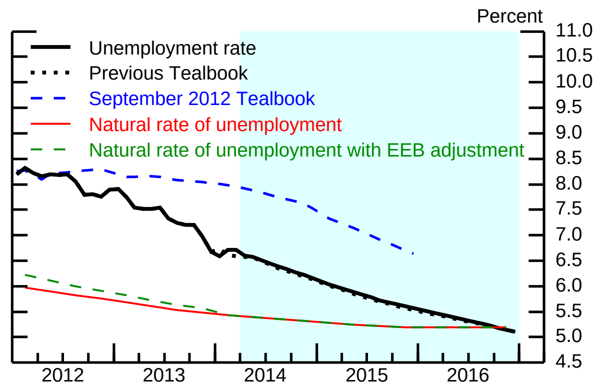
Measure	2013	2014	2014 H1	2014 H2	2015	2016
PCE chain-weighted price index	1.0	1.6	1.5	1.6	1.5	1.6
Previous Tealbook	1.0	1.5	1.4	1.6	1.5	1.7
Food and beverages	.8	1.7	2.0	1.4	1.3	1.4
Previous Tealbook	.8	1.1	.9	1.3	1.3	1.4
Energy	-1.5	2.3	2.8	1.7	-1.2	-.9
Previous Tealbook	-1.5	1.5	1.8	1.2	-.8	-.3
Excluding food and energy	1.2	1.5	1.4	1.6	1.7	1.8
Previous Tealbook	1.2	1.5	1.4	1.6	1.7	1.8
Prices of core goods imports[1]	-1.1	1.3	1.1	1.5	1.3	1.3
Previous Tealbook	-1.1	1.1	.8	1.4	1.3	1.4

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)

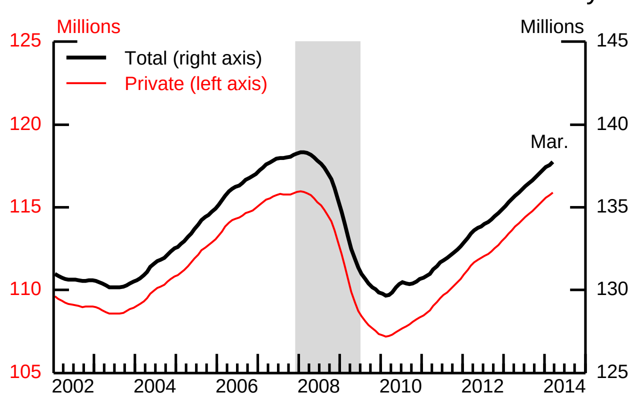
Measures of Labor Underutilization

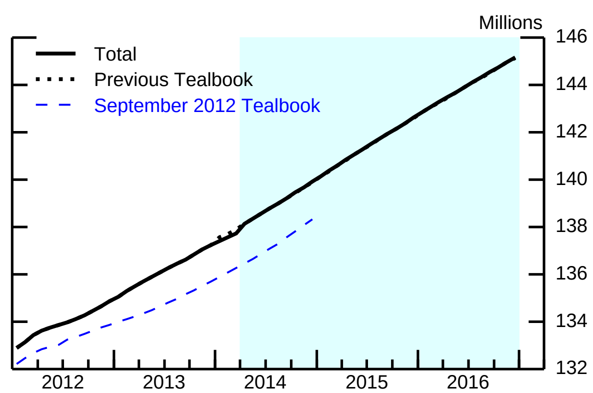




* U-5 measures total unemployed persons plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force.
** Percent of Current Population Survey employment.
EEB Extended and emergency unemployment benefits.
Source: U.S. Department of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

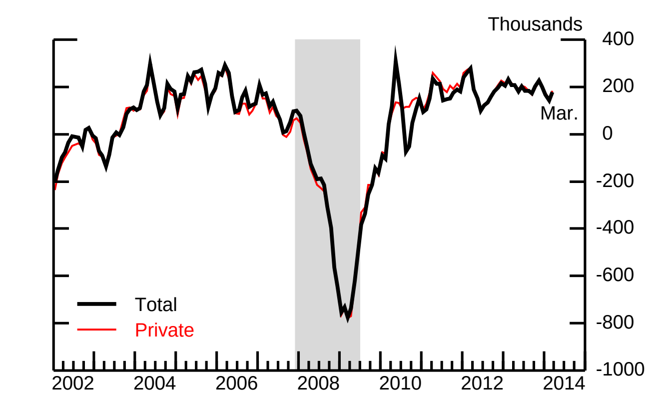
Level of Payroll Employment*

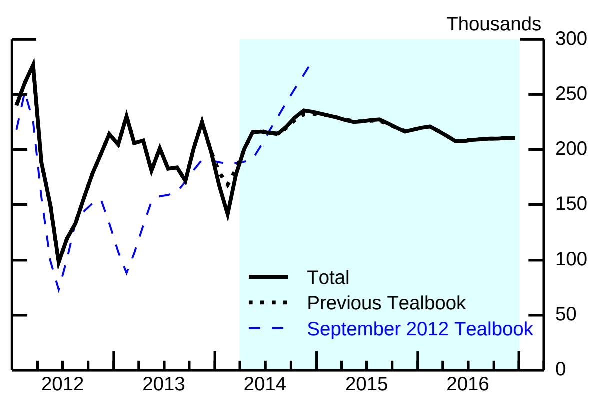




* 3-month moving averages in history; average levels in each quarter during the forecast period.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

Change in Payroll Employment*



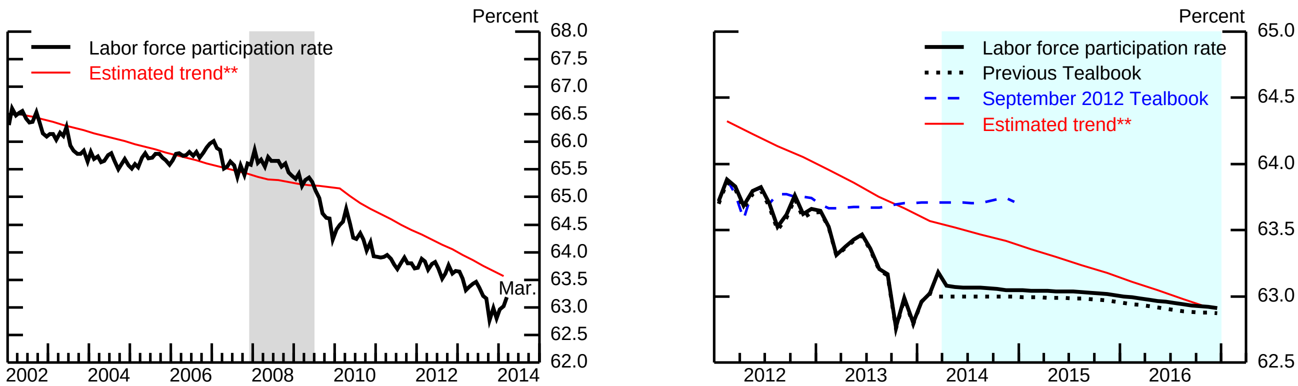


* 3-month moving averages in history; average monthly changes in each quarter during the forecast period.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

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.

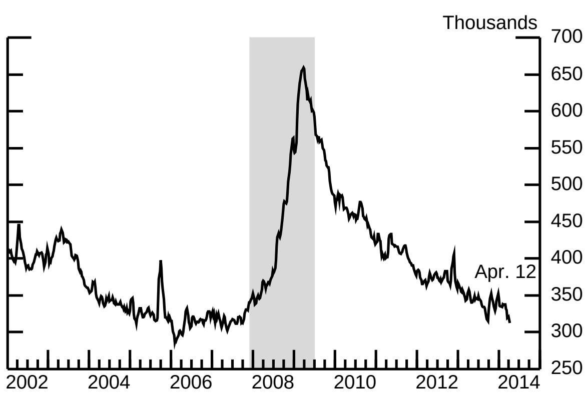
Labor Market Developments and Outlook (2)

Labor Force Participation Rate*



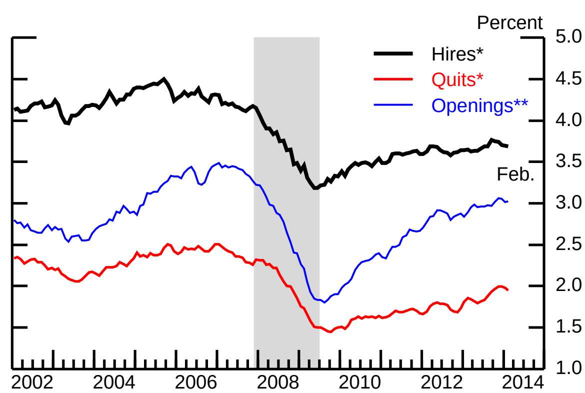
* Published data adjusted by staff to account for changes in population weights.
** Includes staff estimate of the effect of extended and emergency unemployment benefits.
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

Initial Unemployment Insurance Claims*



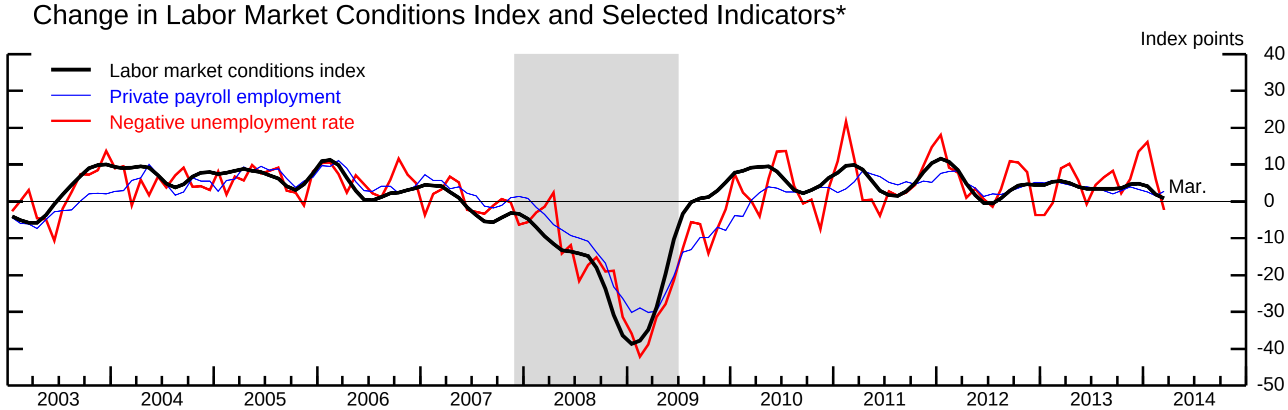
* 4-week moving average.
Source: U.S. Department of Labor, Employment and Training Administration.

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*



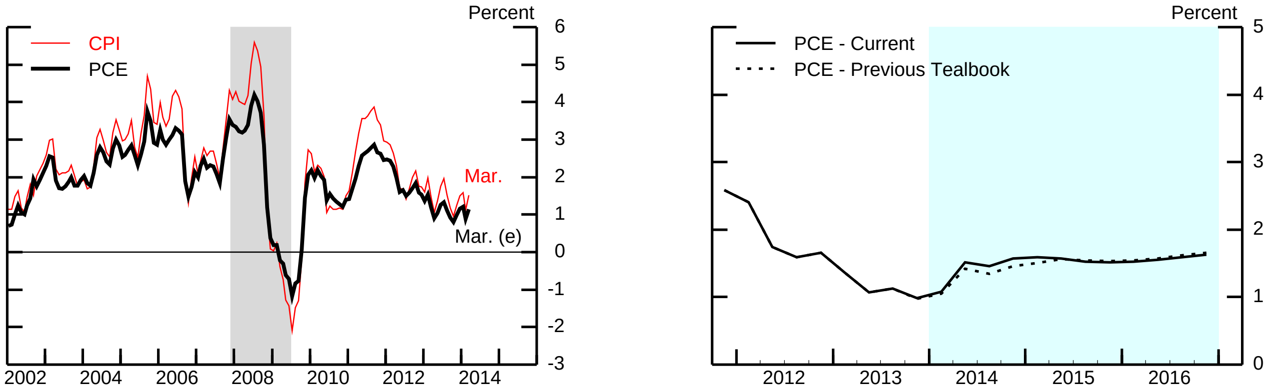
Note: Labor market conditions index estimated by staff; indexes for unemployment rate and private payroll employment are standardized deviations from estimated trend.
* 3-month moving average.

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)

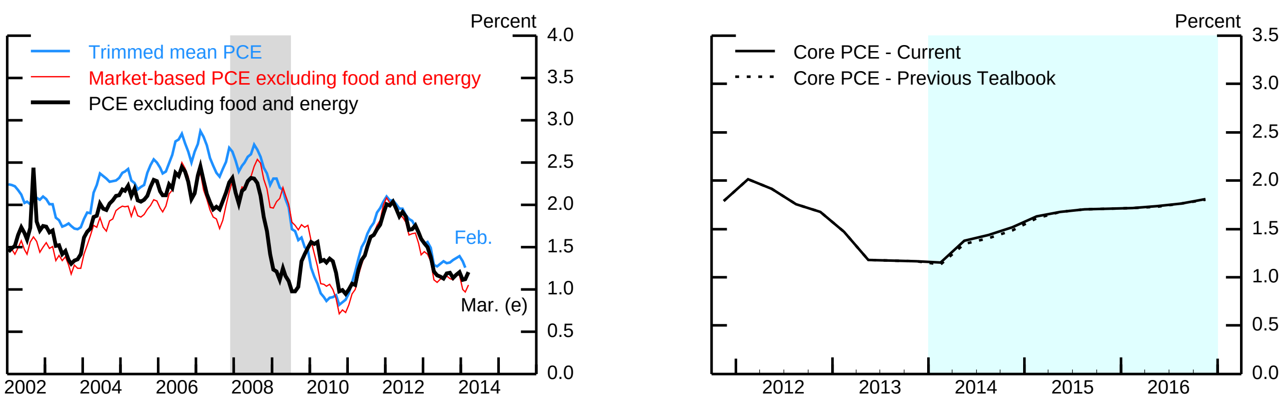
(Percent change from year-earlier period)

Headline Consumer Price Inflation



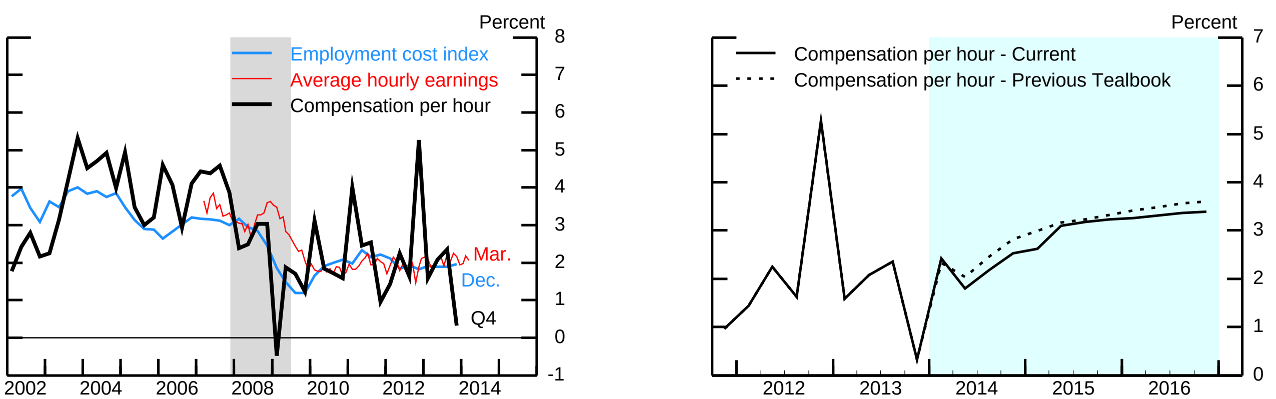
Note: PCE prices from January to March 2014 are staff estimates (e).
Source: For CPI, U.S. Department of Labor, Bureau of Labor Statistics; for PCE, U.S. Department of Commerce, Bureau of Economic Analysis.

Measures of Underlying PCE Price Inflation



Note: Core PCE prices from January to March 2014 are staff estimates (e).
Source: For trimmed mean PCE, Federal Reserve Bank of Dallas; otherwise, U.S. Department of Commerce, Bureau of Economic Analysis.

Labor Cost Growth (Private Industry)



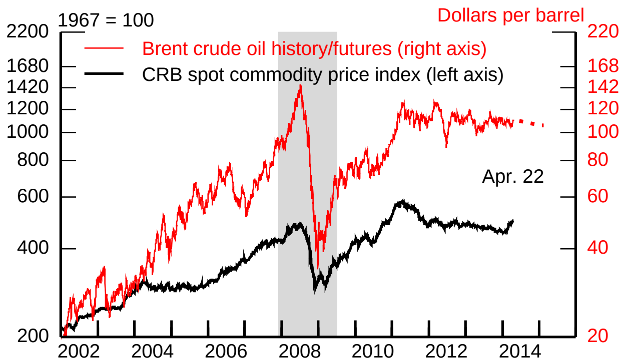
Source: U.S. Department of Labor, Bureau of Labor Statistics.

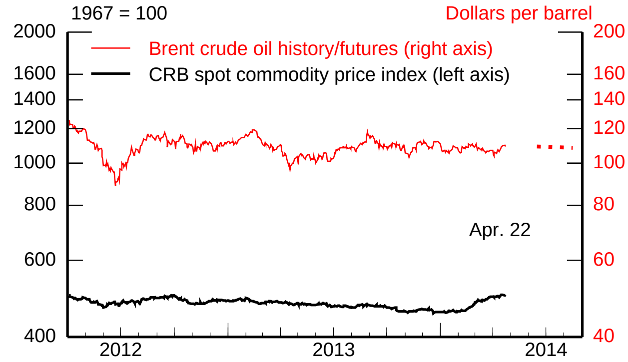
Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

Inflation Developments and Outlook (2)

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

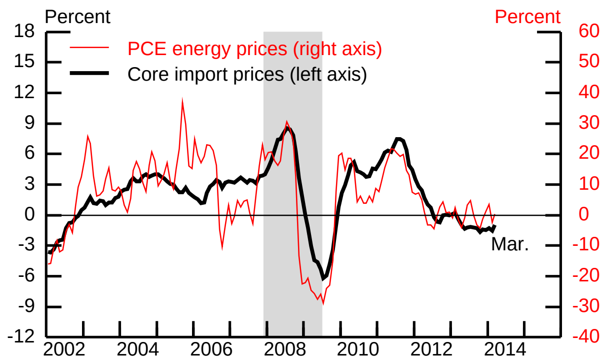
Commodity and Oil Price Levels

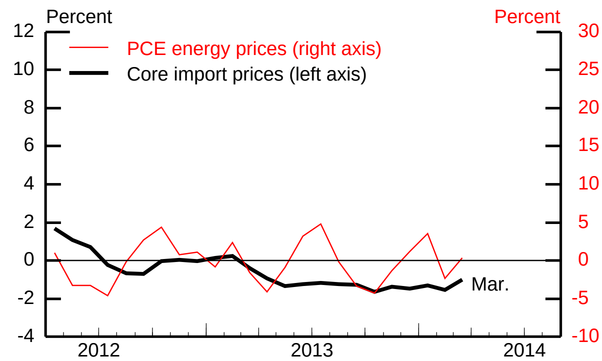




Note: Futures prices (dotted lines) are the latest observations on monthly futures contracts.
Source: For oil prices, U.S. Department of Energy, Energy Information Agency; for commodity prices, Commodity Research Bureau (CRB).

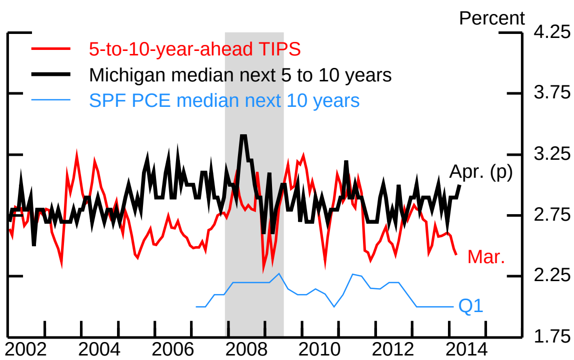
Energy and Import Price Inflation

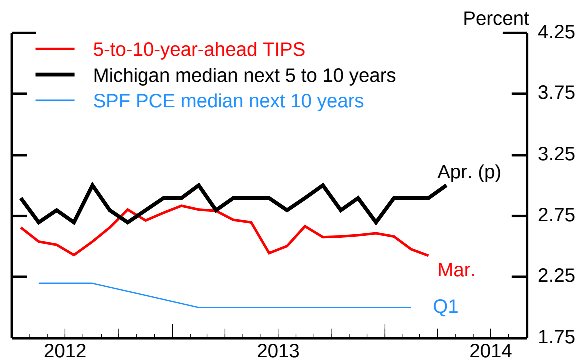




Source: For core import prices, U.S. Dept. of Labor, Bureau of Labor Statistics; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.

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.
p Preliminary.
SPF Survey of Professional Forecasters.
Source: For Michigan, Thomson Reuters/University of Michigan Surveys of Consumers; for SPF, 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.

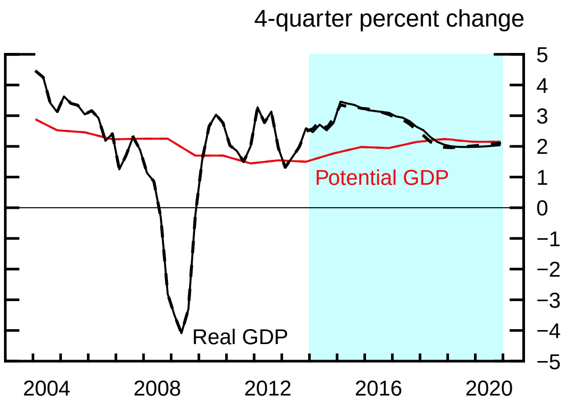
The Long-Term Outlook

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

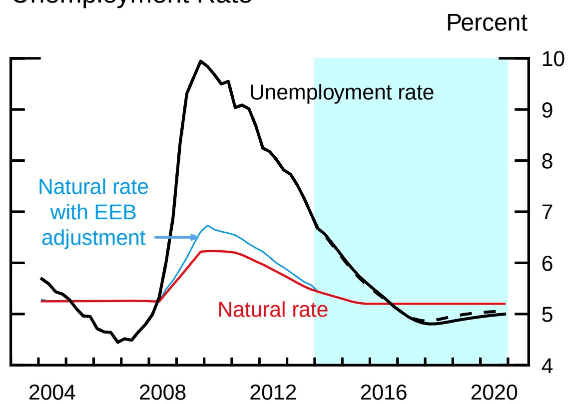
Measure	2014	2015	2016	2017	2018	Longer run
Real GDP	2.8	3.2	3.1	2.6	2.1	2.3
Previous Tealbook	2.9	3.2	3.0	2.5	2.0	2.3
Civilian unemployment rate[1]	6.2	5.6	5.1	4.8	4.8	5.2
Previous Tealbook	6.2	5.6	5.1	4.9	4.9	5.2
PCE prices, total	1.6	1.5	1.6	1.8	2.0	2.0
Previous Tealbook	1.5	1.5	1.7	1.8	2.0	2.0
Core PCE prices	1.5	1.7	1.8	1.9	2.0	2.0
Previous Tealbook	1.5	1.7	1.8	1.9	2.0	2.0
Federal funds rate[1]	.1	1.1	2.3	3.4	4.0	4.0
Previous Tealbook	.1	1.1	2.4	3.3	3.9	4.0
10-year Treasury yield[1]	3.3	4.1	4.4	4.7	4.9	4.8
Previous Tealbook	3.5	4.1	4.4	4.7	4.8	4.8

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

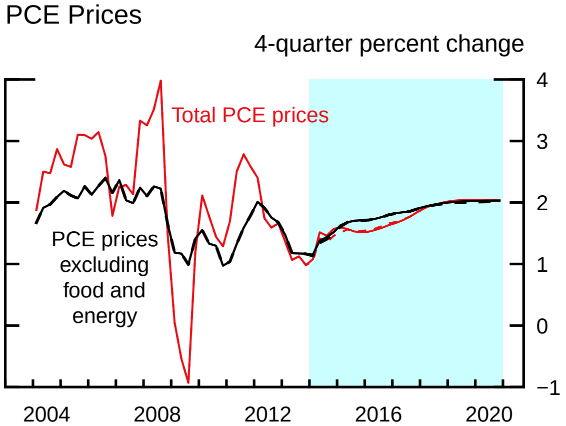
Real GDP



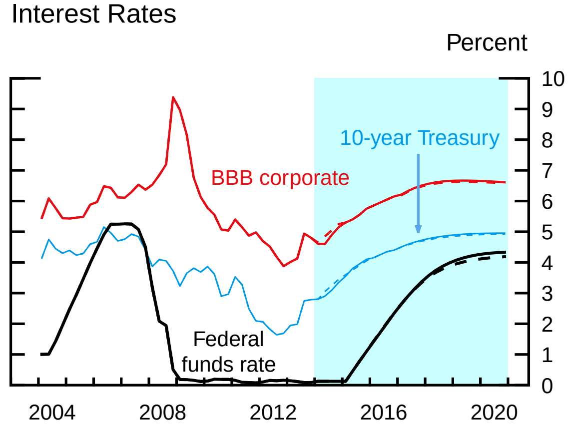
Unemployment Rate



PCE Prices



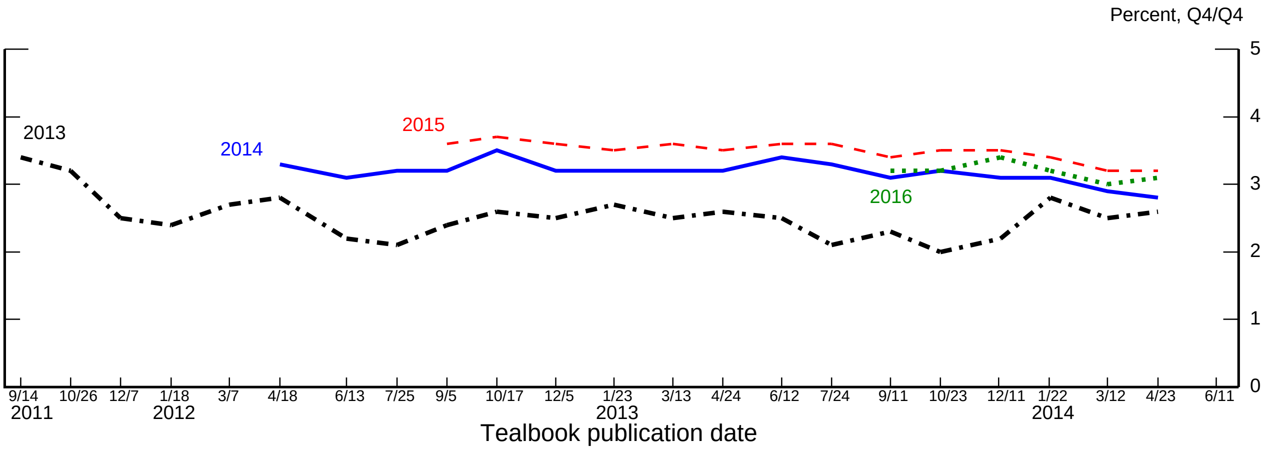
Interest Rates



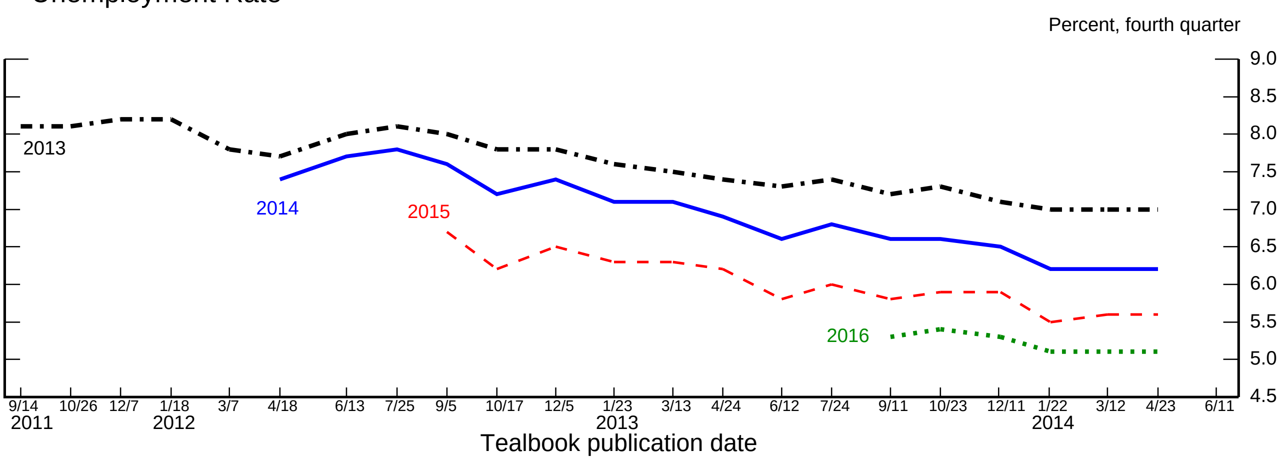
Note: In each panel, shading represents the projection period, and dashed lines are the previous Tealbook.

Evolution of the Staff Forecast

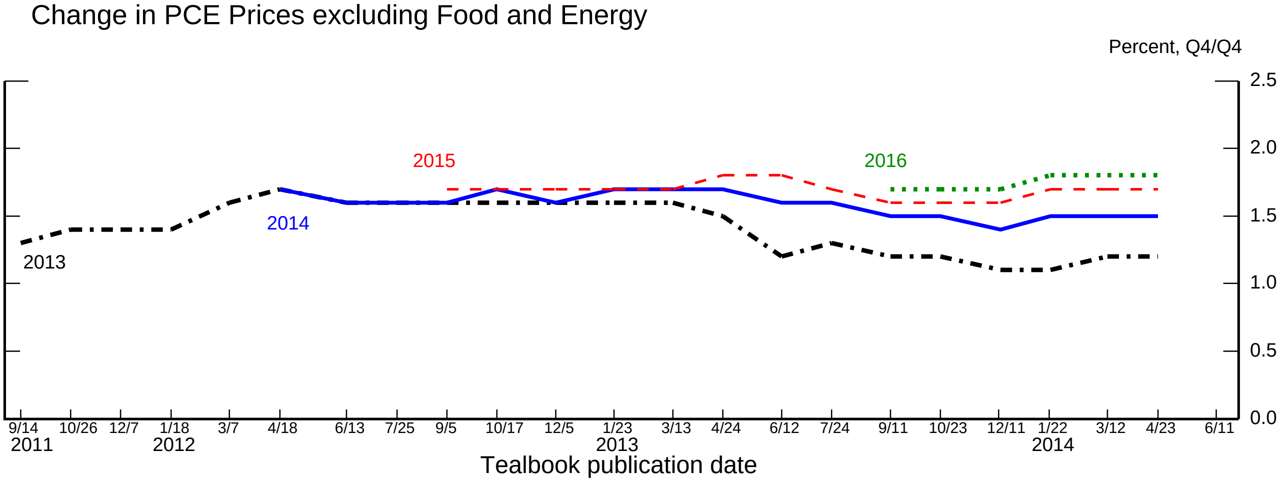
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy



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International Economic Developments and Outlook

We estimate that real GDP growth in the foreign economies slowed from a nearly 3 percent pace in the second half of 2013 to 2¼ percent in the first quarter of 2014, ½ percentage point below our March Tealbook forecast. The deceleration was concentrated in the emerging market economies (EMEs). Growth declined markedly in China, reflecting falling exports as well as domestic policies to curb excessive credit and investment growth. Weak demand in China, along with sluggish U.S. imports, appears to have weighed on growth in other foreign economies, especially in emerging Asia. Meanwhile, recent indicators suggest that growth remained subdued in Latin America.

We do not expect the first-quarter slump to persist. We project growth to step up in the United States, and forward-looking indicators for several EMEs have strengthened. In addition, domestic demand should gradually pick up in the euro area, thanks to waning financial and fiscal headwinds. Thus, we have foreign growth rising to 2¾ percent this quarter and to 3¼ percent in the second half of this year, about where it remains through 2016. In the advanced foreign economies (AFEs), still-substantial output gaps are expected to close gradually as growth remains slightly above potential. In the EMEs, growth is projected to settle at near-potential rates, supported by stronger exports to the advanced economies. This outlook is little changed from the March Tealbook.

During the intermeeting period, financial market sentiment toward EMEs improved noticeably. However, we see some risk that the first-quarter slump may not be temporary but instead may reflect deeper underlying weakness in EMEs. Additionally, in China the pronounced slowdown in growth could exacerbate vulnerabilities and lead to severe financial disruptions. Finally, despite the recent Geneva agreement to reduce tensions in Ukraine, the situation remains volatile. Although the dispute has had limited financial and economic spillovers thus far, an escalation could trigger a significant shock to world energy and financial markets. We explore this scenario in the Risks and Uncertainty section.

We estimate that EME inflation fell in the first quarter, largely because of lower food prices in China and India. We expect EME inflation to rebound in the current quarter and then settle just above 3¼ percent in 2015 and 2016. In the AFEs, where low inflation has been a concern, developments were mixed. Inflation rebounded in Canada but remained very low in the euro area, fueling fears about a prolonged period of low inflation. Nevertheless, we continue to see AFE deflation risks as contained and project that inflation will pick up over the forecast period to 1¾ percent by late 2016.

Below-target inflation and substantial resource slack will keep monetary policy in the AFEs highly accommodative for some time. We also expect monetary policy to be accommodative in most EMEs. In the most vulnerable EMEs, where monetary policy has been tightening significantly to contain inflation and financial pressures, such tightening is projected to end by the second half of this year.

ADVANCED FOREIGN ECONOMIES

- ***Euro area.*** The recovery in the euro area appears to be gaining momentum. Industrial production and consumption indicators through February were above their fourth-quarter averages, and PMIs through April pointed to further expansion. We expect GDP growth to increase from 1½ percent this year to 2 percent in 2016, as fiscal drag diminishes, financial and credit conditions ease, and monetary policy remains accommodative.

- Inflation registered a lower-than-expected 0.2 percent (quarterly change at an annual rate) in the first quarter, just a hair above the fourth quarter's 0.1 percent pace, as a surprisingly sharp decline in retail energy prices partly offset an increase in core inflation. Amid stable inflation expectations, a projected leveling-off of energy prices, and a narrowing output gap, inflation should rise to 1½ percent by late 2016. Nevertheless, concerns over a prolonged period of very low inflation prompted the European Central Bank to more openly discuss contingency plans for additional stimulus in the event of shortfalls in growth or inflation, including rate cuts or, in extremis, asset purchases (possibly asset-backed securities).

- ***United Kingdom.*** Firming industrial production and retail sales in February and robust PMI readings through March point to strong growth momentum. Accordingly, we project that GDP will grow 3 percent this year before normalizing to a still-solid 2½ percent pace thereafter. Amid decelerating energy prices and falling transport prices, headline inflation dipped to just 1 percent in the first quarter, but we expect it to rebound to 1½ percent in the current quarter. As the output gap closes, inflation should rise further to nearly 2 percent by 2015. The unemployment rate fell to 6.9 percent in the three months through February—just below the 7 percent threshold from the Bank of England's (BOE) original forward guidance. This movement ushered in the new phase of forward guidance (announced in February), which focuses on broader measures of economic slack. We still expect the BOE's first rate hike to occur in early 2015.

- ***Japan.*** As households pulled forward spending ahead of a consumption tax hike on April 1, GDP grew an estimated 3 percent in the first quarter. This figure is roughly 1 percentage point lower than previously projected due to disappointing data on international trade. As household spending falls back, GDP is likely to contract 3½ percent this quarter. GDP is then expected to rise at a 1¾ percent pace in the second half of the year, as consumption normalizes, the Bank of Japan's (BOJ) asset purchases continue, and the fiscal stimulus plan announced last December is implemented. That said, a more hawkish tone in the communications of BOJ officials leads us to anticipate less monetary accommodation than in the March Tealbook. Accordingly, we now expect growth to average only 1 percent over the remainder of the forecast period.

- After running at a 2½ percent pace in the second half of last year, consumer price inflation appears to have fallen to ¾ percent in the first quarter as retail energy prices stabilized. We see inflation (excluding the direct effect of the tax hike) remaining slightly below 1 percent through late 2014 and rising to only 1½ percent by late 2016, ½ percentage point less than previously forecast.

- ***Canada.*** Growth appears to have stepped down from 3 percent in the fourth quarter to 1½ percent in the first quarter, partly owing to the effect of slower U.S. growth on exports, which were weak through February. However, other data point to underlying resilience. Employment continued to grow at a moderate rate, and the manufacturing PMI remained squarely in expansionary territory. Thus, we project that GDP growth will rebound to 3¼ percent in the current quarter and then average just over 2½ percent for the remainder of the forecast period. Consumer price inflation stepped up to 2¾ percent in the first quarter, as core inflation firmed and the falling Canadian dollar pushed up energy prices. We project inflation will slow later in the year, given expected currency appreciation and a decline in oil prices, before increasing gradually to 2 percent in 2016 as the output gap closes. We continue to expect the Bank of Canada to raise its policy rate starting in the second half of 2015.

EMERGING MARKET ECONOMIES

- ***China.*** We estimate that China's GDP grew at an annual rate of only 5½ percent in the first quarter, down from 8 percent in the previous quarter and 2 percentage points below our March projection. The step-down was broad based and reflected a sharp fall in exports, as well as tighter financial conditions and government efforts to rein in investment. Looking ahead, we expect GDP to grow 6¼ percent this quarter and then 7½ percent in the second half of 2014, as we project export growth to recover and the authorities to implement policies to support growth if needed. Thus far, the government has announced only some modest stimulus measures and has indicated that no major stimulus program is planned. However, we believe that if growth were to continue to underperform the authorities' 7½ percent target, the stimulus would be ramped up. The decline in the renminbi engineered by the government this year should also provide some economic support. Further out, we see growth edging down to just above 7 percent by 2016, as potential growth declines and the economy gradually rebalances.

- Inflation slowed from 3 percent in the previous quarter to only ¾ percent in the first quarter, primarily reflecting a drop in food prices. We expect inflation to return to 3 percent by the second half of the year and remain at that level over the forecast period.

- ***Other Emerging Asia.*** We estimate that growth slowed from a rapid 5¼ percent pace in the fourth quarter to 3 percent in the first quarter, a somewhat sharper slowdown than anticipated in the March Tealbook. Growth was held down by falling exports to China and the United States, in part reflecting payback from an earlier surge in electronics shipments. Indicators for new export orders moved up recently, suggesting an incipient pickup in the region's exports. By year-end, stronger demand in China and the United States should help boost growth close to our estimate of trend growth of 4½ percent.

- ***Latin America.*** We estimate that GDP growth in **Mexico** rose from ¾ percent in the fourth quarter to a still-subdued 2 percent last quarter. We expect GDP growth to rise to 3½ percent by late 2014, supported by expansionary fiscal policy, a rebound in U.S. manufacturing output, and fading drag from the ailing housing sector. Thereafter, we have growth edging up to 3¾ percent by 2016, as previously announced structural reforms take effect.

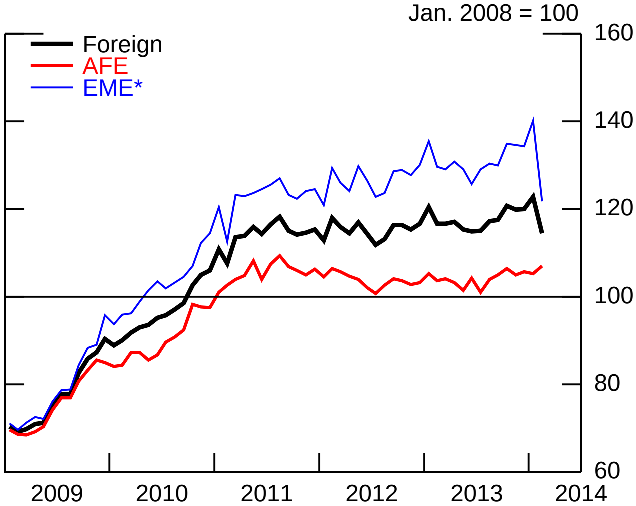
- **Brazil**'s economy faces significant headwinds, including a reduction in fiscal stimulus, tighter monetary policies, more restrictive financial conditions, and structural bottlenecks. Recent indicators suggest that GDP grew a mere ½ percent in the first quarter. As external demand strengthens, growth should rise to 2¾ percent by the end of 2015. Despite the recent weakness in growth, 12-month headline inflation remained above 6 percent in March, reflecting tight labor market conditions, earlier depreciation of the *real*, and persistently high inflation expectations. In April, the central bank raised its policy rate 25 basis points to 11 percent, bringing the total increase since last April to 375 basis points. The cumulative effects of this tightening should gradually bring inflation down to 5¼ percent by 2016.

- ***Other Emerging Economies.*** Following Russia's annexation of Crimea last month, tensions among Russia, Ukraine, and Western nations remain elevated, notwithstanding the April 17 announcement of a plan to deescalate the crisis. To date, the crisis has not noticeably affected the global economy. However, Russia and Ukraine have experienced large capital outflows, which prompted their central banks to raise policy rates by 150 basis points and 300 basis points, respectively, since March. As a result of higher interest rates and falling confidence, output likely contracted in both countries during the first quarter and will remain weak throughout 2014.

  Facing capital flight, critically low foreign exchange reserves, and significant pressure on domestic banks, Ukraine requested financial assistance from the International Monetary Fund (IMF). In response, in late March, the IMF announced preliminary agreement on a $14 billion to $18 billion two-year program, which should unlock additional official assistance. The resulting total official sector support, which could come to about $27 billion over the next two years, should substantially mitigate Ukraine's balance of payments difficulties. Nevertheless, the country faces dire challenges. The IMF's Executive Board is expected to approve the package in the coming weeks.

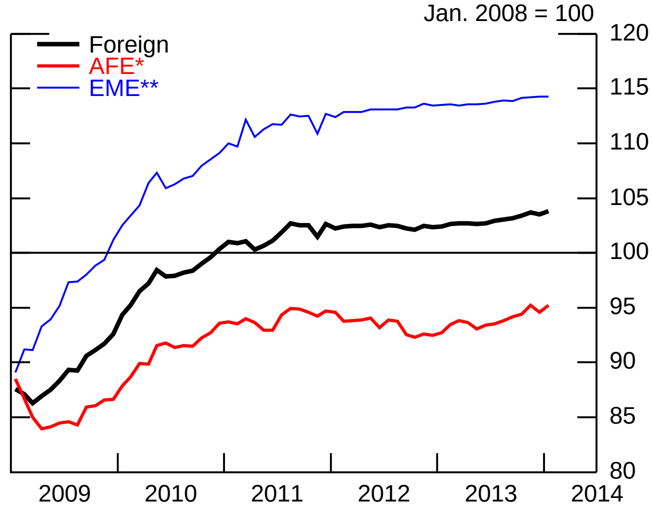
Recent Foreign Indicators

Nominal Exports



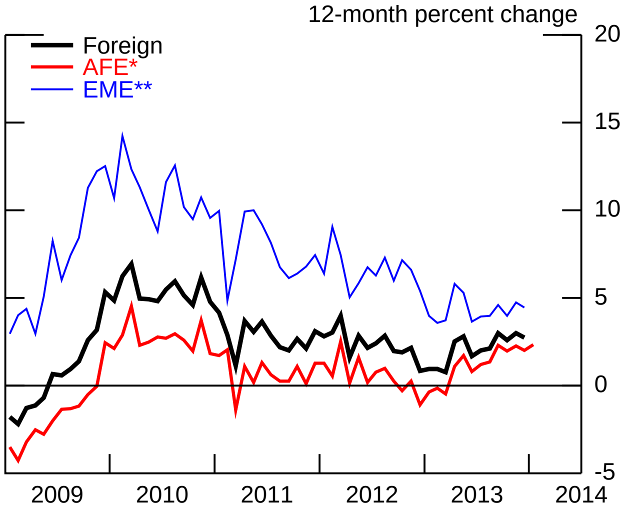
* Excludes Venezuela.

Industrial Production



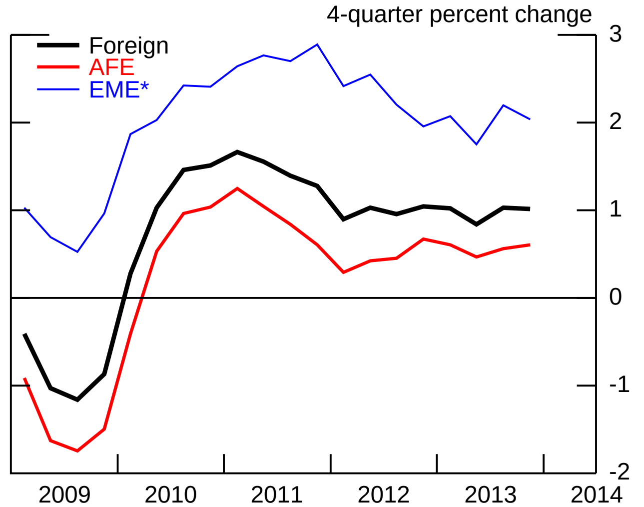
* Excludes Australia and Switzerland.
** Excludes Colombia, Hong Kong, the Philippines, and Venezuela.

Retail Sales



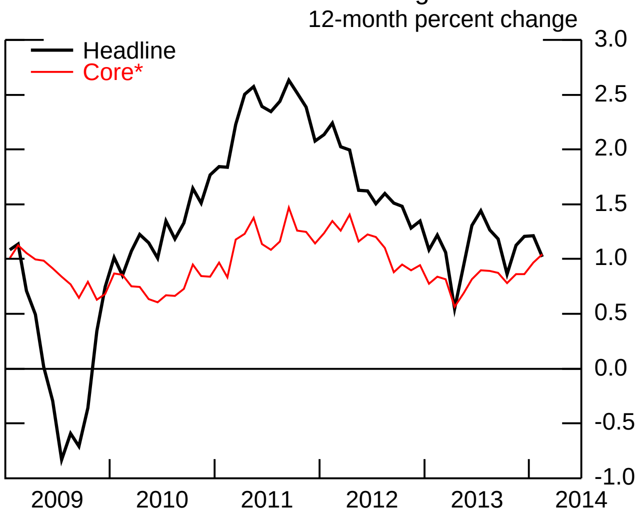
* Excludes Australia and Switzerland.
** Includes Brazil, China, Indonesia, Korea, Singapore, and Taiwan.

Employment

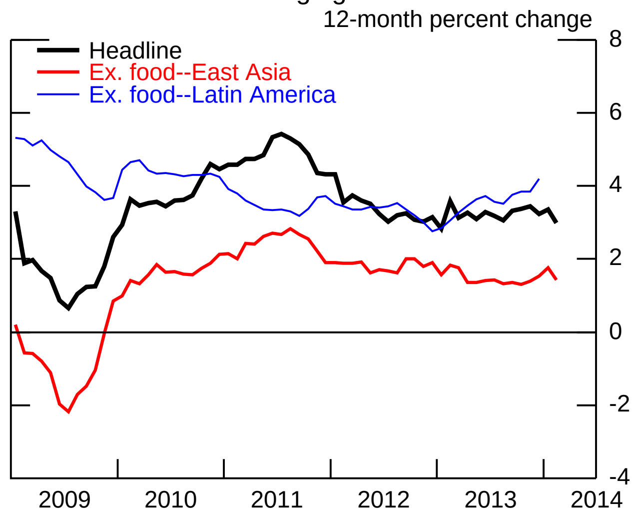


* Excludes Argentina and Mexico.

Consumer Prices: Advanced Foreign Economies



Consumer Prices: Emerging Market Economies



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

Int'l Econ Devel & Outlook

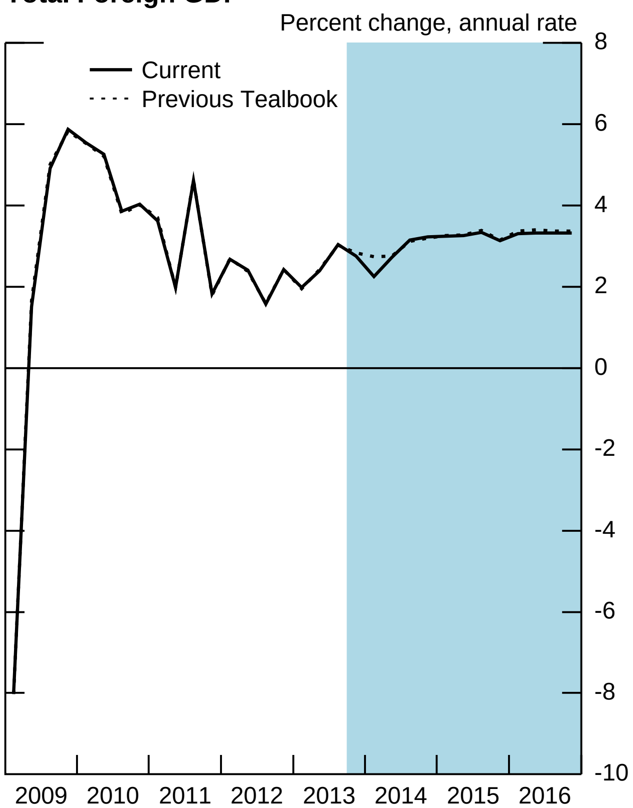
The Foreign GDP Outlook

Real GDP* Percent change, annual rate

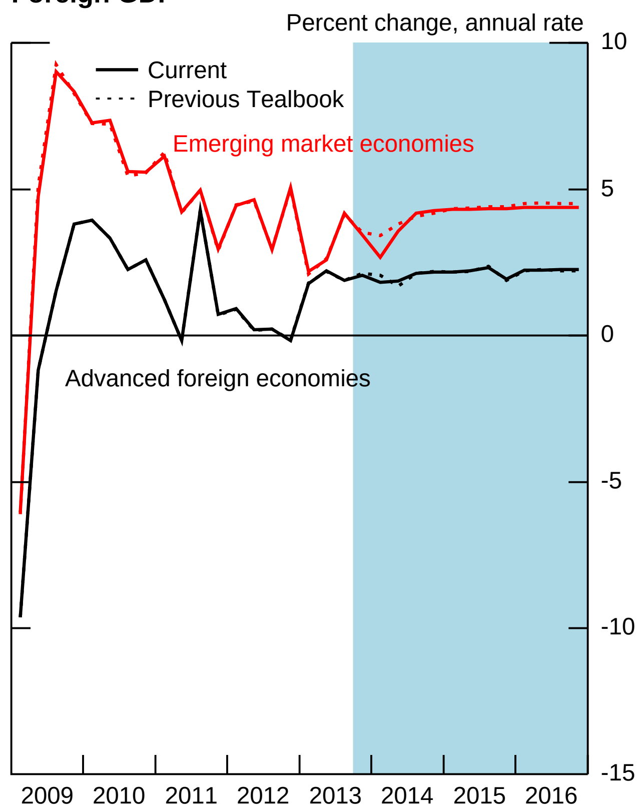
	2013 H1	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 H2	2015	2016
1. Total Foreign	**2.2**	**3.0**	**2.8**	**2.3**	**2.7**	**3.2**	**3.2**	**3.3**
Previous Tealbook	*2.2*	*3.0*	*2.8*	*2.7*	*2.8*	*3.2*	*3.3*	*3.4*
2. Advanced Foreign Economies	**2.0**	**1.9**	**2.1**	**1.8**	**1.9**	**2.2**	**2.2**	**2.2**
Previous Tealbook	*2.0*	*1.9*	*2.1*	*2.1*	*1.7*	*2.2*	*2.2*	*2.2*
3. Canada	2.5	2.7	2.9	1.5	3.3	2.6	2.7	2.6
4. Euro Area	0.2	0.6	0.9	1.4	1.4	1.4	1.7	1.9
5. Japan	4.3	0.9	0.7	3.1	-3.4	1.8	0.8	1.1
6. United Kingdom	2.3	3.4	2.7	3.0	2.9	2.9	2.6	2.5
7. Emerging Market Economies	**2.4**	**4.2**	**3.4**	**2.7**	**3.6**	**4.2**	**4.3**	**4.4**
Previous Tealbook	*2.4*	*4.2*	*3.5*	*3.4*	*3.8*	*4.1*	*4.4*	*4.5*
8. China	6.9	8.8	8.0	5.6	6.2	7.5	7.2	7.1
9. Emerging Asia ex. China	2.8	4.4	5.2	3.0	3.6	4.3	4.4	4.4
10. Mexico	-1.0	3.9	0.7	2.0	3.2	3.4	3.6	3.7
11. Brazil	3.7	-2.1	2.8	0.4	2.2	2.5	2.6	2.7

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

Total Foreign GDP



Foreign GDP



The Foreign Inflation Outlook

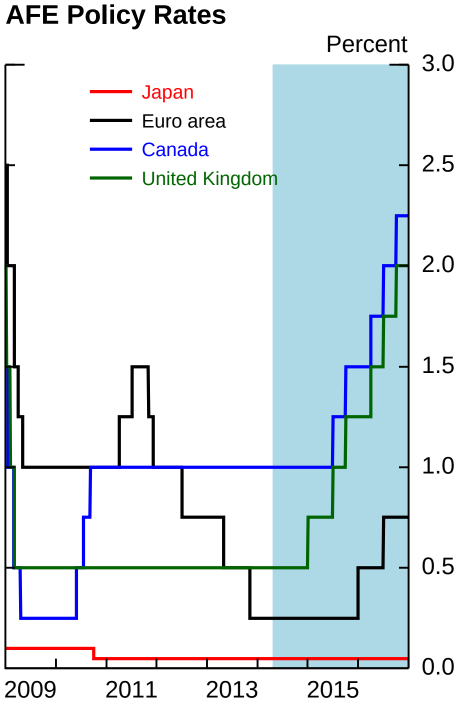
Consumer Prices* Percent change, annual rate

	2013 H1	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 H2	2015	2016
1. Total Foreign	**2.1**	**2.7**	**2.4**	**2.0**	**3.0**	**2.5**	**2.6**	**2.6**
Previous Tealbook	*2.1*	*2.8*	*2.4*	*2.1*	*3.2*	*2.5*	*2.6*	*2.6*
2. Advanced Foreign Economies	**0.7**	**2.0**	**0.7**	**1.1**	**2.7**	**1.4**	**1.7**	**1.6**
Previous Tealbook	*0.7*	*2.1*	*0.7*	*1.2*	*2.9*	*1.3*	*1.7*	*1.7*
3. Canada	0.8	1.9	0.5	2.7	1.8	1.6	1.7	1.9
4. Euro Area	0.7	1.6	0.1	0.2	0.9	1.3	1.4	1.5
5. Japan	0.4	3.0	1.9	0.7	8.8	0.9	2.4	1.3
6. United Kingdom	2.0	2.8	1.5	0.9	1.5	2.0	1.9	1.8
7. Emerging Market Economies	**3.2**	**3.3**	**3.7**	**2.6**	**3.2**	**3.4**	**3.4**	**3.3**
Previous Tealbook	*3.2*	*3.3*	*3.7*	*2.7*	*3.4*	*3.4*	*3.3*	*3.3*
8. China	2.6	3.4	3.0	0.8	2.8	3.0	3.0	3.0
9. Emerging Asia ex. China	2.8	3.9	4.2	2.6	3.1	3.5	3.5	3.4
10. Mexico	4.2	2.0	4.2	5.2	3.0	3.3	3.3	3.3
11. Brazil	6.4	4.6	6.0	6.9	7.6	5.8	5.4	5.3

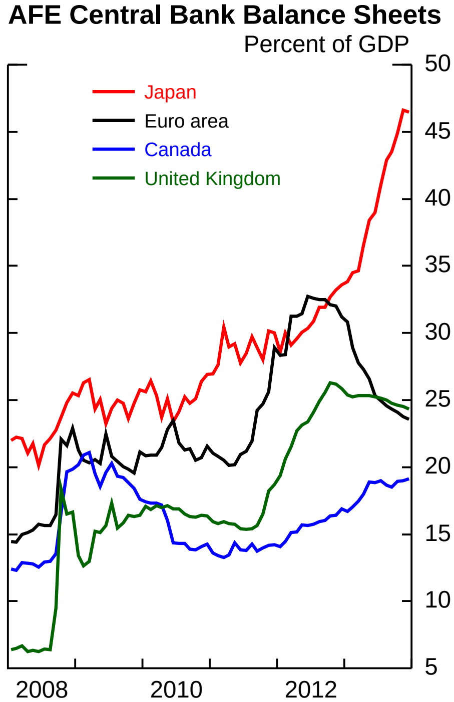
* CPI aggregates weighted by shares of U.S. non-oil imports.

Foreign Monetary Policy

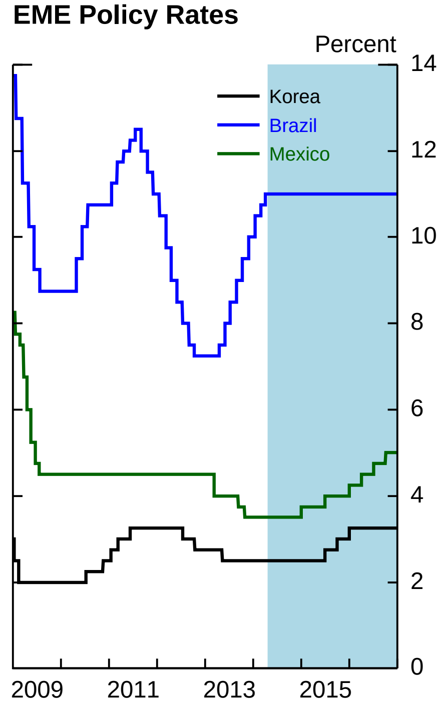
AFE Policy Rates



AFE Central Bank Balance Sheets



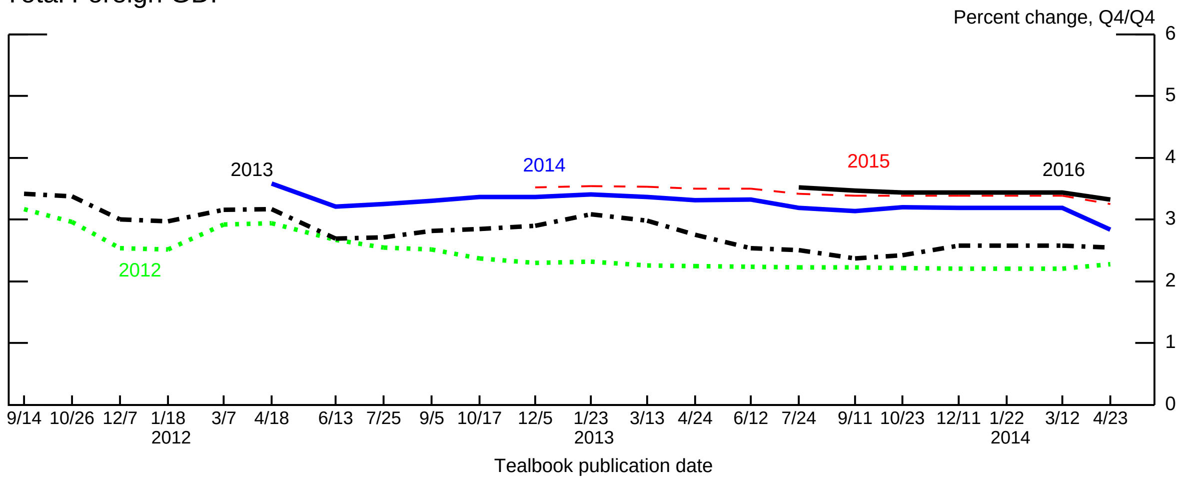
EME Policy Rates



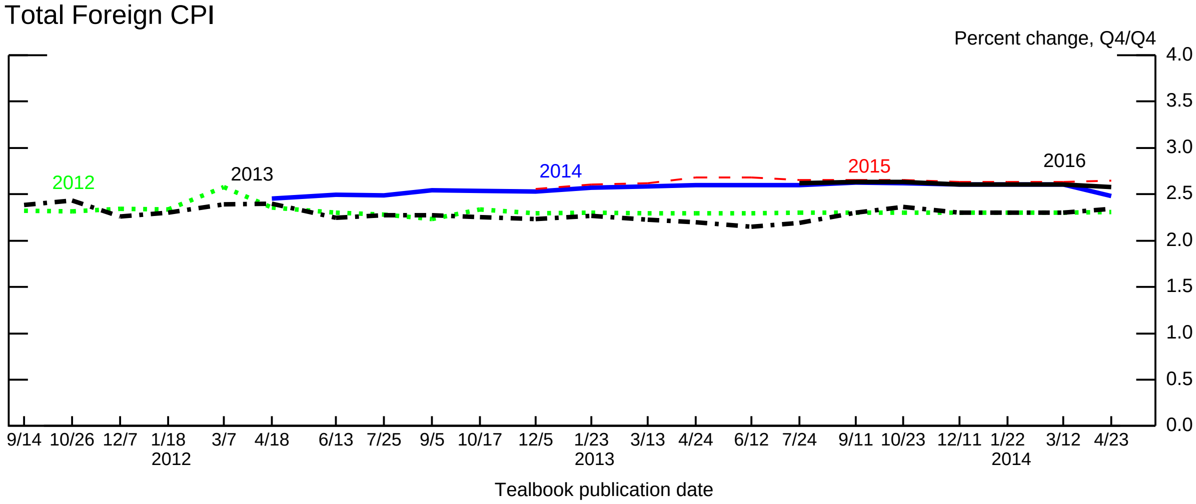
Int'l Econ Devel & Outlook

Evolution of Staff's International Forecast

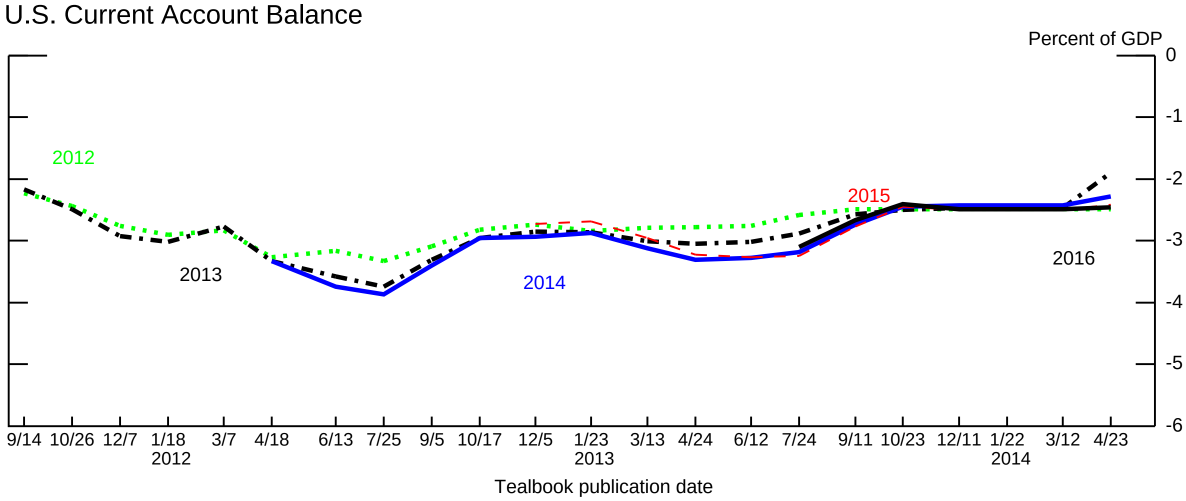
Total Foreign GDP



Total Foreign CPI



U.S. Current Account Balance



Financial Developments

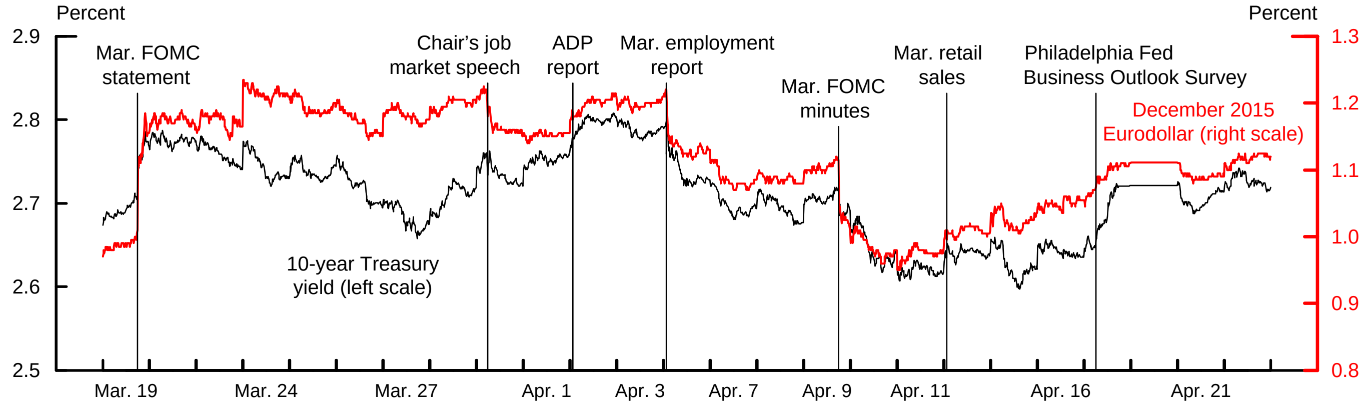
Financial market developments over the intermeeting period were driven in part by incoming economic data releases that were, on balance, somewhat stronger than expected. Federal Reserve communications also garnered significant attention from market participants; those communications, however, appeared to result only in a modest tightening, on net, in the outlook for monetary policy.

- On balance, the anticipated path of the federal funds rate steepened, and intermediate-dated Treasury yields rose notably over the intermeeting period.
- The Open Market Desk's April Survey of Primary Dealers indicated that dealers' expectations about the most likely timing of the first rate increase moved in somewhat relative to the survey conducted prior to the March FOMC meeting. However, the median dealer's expectations for the path of the federal funds rate after liftoff and for SOMA holdings changed little.
- The S&P 500 index was little changed, on net, despite a sharp selloff in social media and biotechnology stocks. Corporate bond spreads narrowed some.
- Financial flows to large nonfinancial businesses remained generally strong. Corporate debt issuance continued to be robust, and equity issuance was strong overall even though some IPOs were reportedly put on hold amid declines in the prices of small-capitalization stocks.
- Banks generally eased standards on most major categories of loans again in the first quarter.[1]
- The foreign exchange value of the dollar was about unchanged. Investor sentiment toward emerging market economies (EMEs) improved further despite incoming economic data that were somewhat weaker than expected. Spreads on peripheral sovereign bonds in the euro area continued to narrow.

[1] See the memo "The April 2014 Senior Loan Officer Opinion Survey on Bank Lending Practices," which will be distributed to FOMC participants on April 24, 2014.

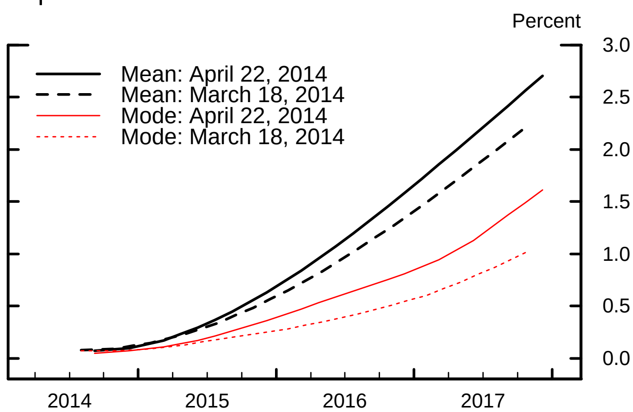
Policy Expectations and Treasury Yields

Selected Interest Rates



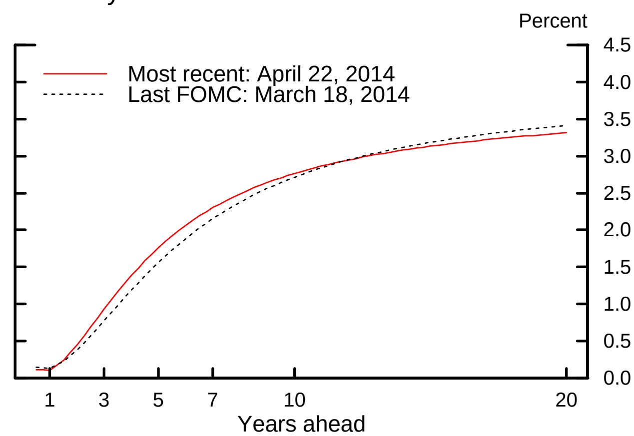
Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m.
Source: Bloomberg.

Implied Federal Funds Rate



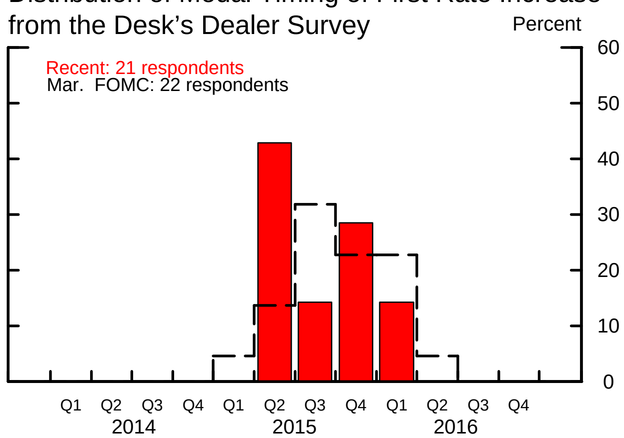
Note: Mean is estimated using overnight index swap quotes. Mode is estimated from the distribution of federal funds rate implied by interest rate caps. Both include a term premium of zero basis points per month.
Source: Bloomberg; CME Group.

Treasury Yield Curve



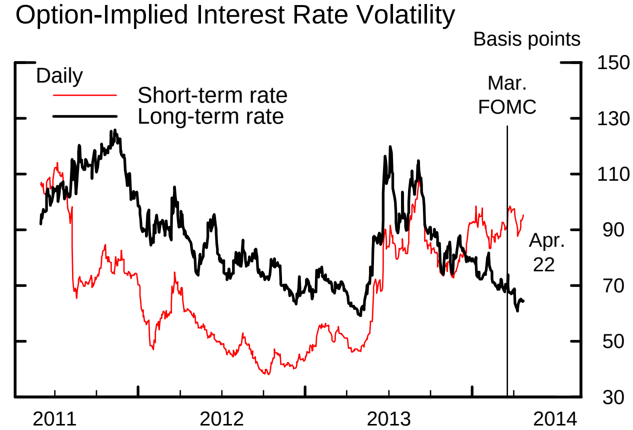
Note: Smoothed yield curve estimated from off-the-run Treasury coupon securities. Yields shown are those on notional par Treasury securities with semiannual coupons.
Source: Federal Reserve Board.

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



Source: Desk's dealer survey from April 22, 2014.

Option-Implied Interest Rate Volatility



Note: Implied volatility of the long-term rate is based on options on the 10-year swap rate that expire in 3 months, while implied volatility of the short-term rate is based on options on the 1-year swap rate that expire in 2 years.
Source: Staff calculations from Barclays data.

Financial Developments

To date, the events in Ukraine generally have left little imprint on global financial markets.

Policy Expectations and Treasury Yields

Policy expectations and interest rates responded noticeably to Federal Reserve communications over the intermeeting period. On balance, the communications surrounding the conclusion of the March FOMC meeting were interpreted as somewhat less accommodative than expected. Money market futures rates and near- and intermediate-term yields rose significantly in response; option-implied volatility on short-term rates also increased. However, subsequent Federal Reserve communications—including the Chair's speech on March 31 and the minutes of the March FOMC meeting—appeared to mostly reverse the earlier change in expectations for the stance of policy.

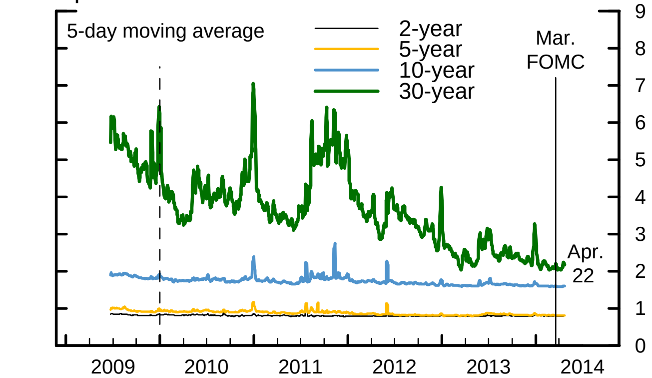
Economic data releases during the intermeeting period were, on balance, somewhat better than market participants had expected. Interest rates increased following several data releases—most notably, the ADP March employment report, the March retail sales release, and the Federal Reserve Bank of Philadelphia's April Business Outlook Survey. By contrast, although the March payroll employment report was about in line with reported market expectations, interest rates declined markedly following its release, as some investors apparently had placed substantial odds on there being a larger rebound in employment after weather-related disruptions earlier in the year.

All told, the path of the federal funds rate implied by financial market quotes steepened, on net, over the intermeeting period. Yields on short- and medium-term nominal Treasury securities rose, while yields at the very long end of the curve declined. The 5-year yield rose 20 basis points, while the 10-year yield was little changed. The 30-year yield moved down 12 basis points over the period, continuing a trend that has been evident for a few months. Market participants have pointed to several factors that might explain this trend, including a decline in uncertainty about long-term rates, perhaps related to reduced uncertainty regarding the Federal Reserve's purchases; a reallocation by pension funds from equities to bonds following last year's stock market rally; and a reassessment of the economy's long-run potential growth rate. During the intermeeting period, option-implied volatility on long-term interest rates declined further on net. In a response to a special question in the Desk's April Survey of Primary Dealers, the notable decline this year in the 5-year forward rate 5 years ahead was attributed by dealers to

Treasury and Agency Finance and Short-Term Funding Markets

Average Nominal On-the-Run Daily Bid-Asked Spread

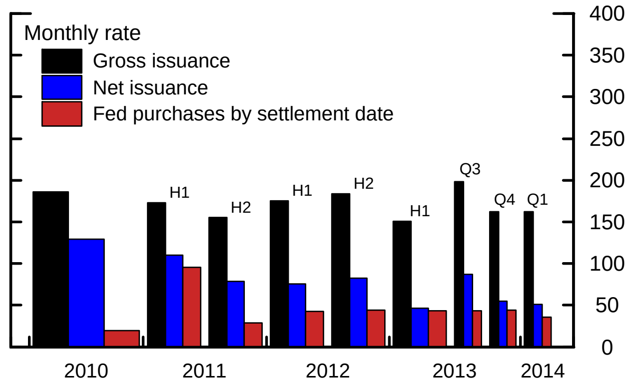
Cents per 100 dollars



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

Nominal Treasury Issuance and Fed Purchases

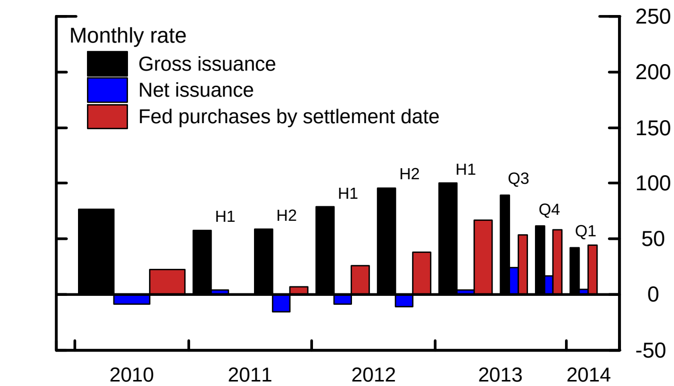
Billions of dollars



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

Agency MBS Issuance and Fed Purchases

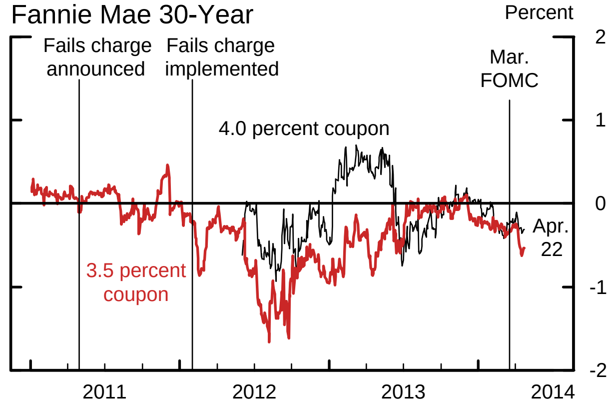
Billions of dollars



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

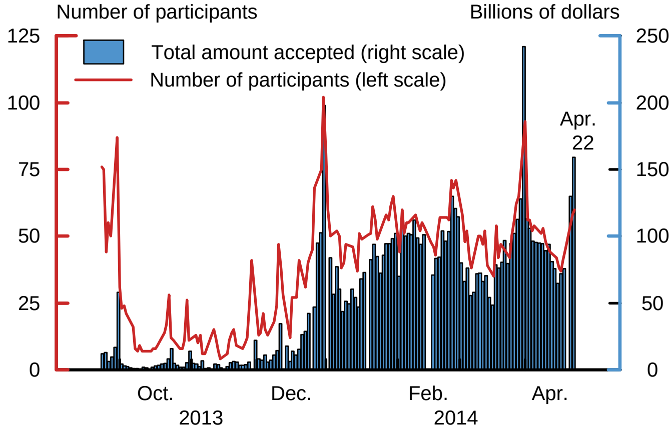
Percent



Source: J.P. Morgan.

Fixed-Rate Overnight RRP Operations Volume

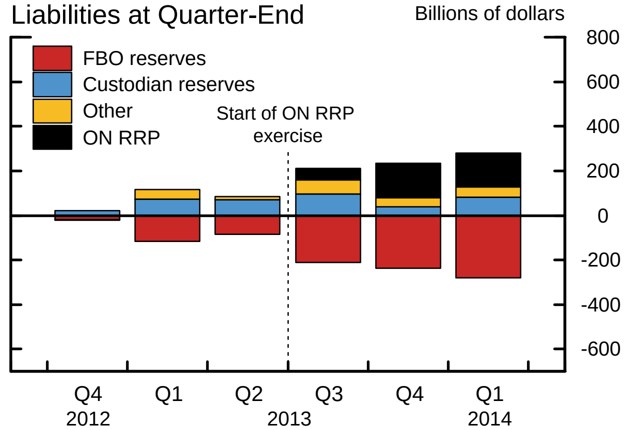
Number of participants Billions of dollars



Source: Federal Reserve Bank of New York.

Changes in Selected Federal Reserve Liabilities at Quarter-End

Billions of dollars



Note: Changes calculated as the value for the last business day of the quarter less the average value for the 10 preceding business days. FBO is foreign banking organization.
Source: Federal Reserve Board.

changes in term premiums and, to a lesser extent, in the expected average real policy rate.[2]

Agency MBS yields were little changed, roughly in line with those on comparable-duration Treasury securities, while option-adjusted spreads on production-coupon MBS ticked up. TIPS-based measures of five-year inflation compensation and the five-year measure five years ahead were about unchanged.

According to the Desk's April Survey of Primary Dealers, the distribution across respondents of the modal timing of the first rate increase narrowed somewhat, with nearly half of the dealers now anticipating the liftoff to occur in the second quarter of 2015. The median dealer's projected federal funds rate at the end of 2016 was unchanged at 2 percent. Regarding asset purchases, dealers anticipated another $10 billon cut at the upcoming meeting and continued to expect the purchase program to end in October. In addition, for both Treasury securities and agency MBS, dealers were about evenly split regarding whether reinvestment would end prior to liftoff, as opposed to at or after liftoff.[3]

Treasury and Agency Finance and Short-Term Funding Markets

The Treasury Department auctioned $192 billion of nominal fixed-coupon securities and $31 billion of TIPS over the intermeeting period, with bid-to-cover ratios roughly in line with recent averages. The Treasury's $13 billion reopening of the two-year Floating Rate Note on March 26 was broadly characterized as well received (see the box "Treasury Floating Rate Notes").

The further reduction in the pace of Federal Reserve purchases did not appear to have adverse effects on the functioning of Treasury or agency MBS markets.[4] As has

[2] Dealers highlighted market-related factors (such as portfolio reallocation, trading dynamics, and safe-haven flows) as the most important factor behind the decline in the term premium component. With respect to the decline in the expected average real policy rate, dealers pointed to changes in the outlook for economic growth and in the perception of the future FOMC reaction function.

[3] In the survey of market participants, a small majority of respondents anticipated reinvestment of both Treasury securities and agency MBS to end prior to liftoff.

[4] Over the intermeeting period, the Desk purchased $36 billion of Treasury securities under the flow-based Treasury purchase program and $50 billion of agency MBS under the flow-based MBS purchase program and the reinvestment program. The Desk conducted $2.5 billion of dollar rolls. On April 9, the Desk conducted its first agency MBS purchase operation over FedTrade, the Desk's proprietary trading system, with the Desk purchasing $312 million of 30-year Fannie Mae 4 percent coupon securities

Treasury Floating Rate Notes

On January 29, the U.S. Treasury conducted its inaugural two-year Floating Rate Note (FRN) auction. This auction marked the introduction of the first new security by the Treasury since Treasury Inflation-Protected Securities, or TIPS, in 1997. By introducing FRNs, the Treasury intends to further diversify its current offerings, lower the government's borrowing costs, and support its debt management goal of extending the average maturity of Treasury debt.[1]

Under the current program, new FRN issues will be offered quarterly with two subsequent monthly reopenings. The FRN has a two-year maturity with interest paid at the end of the final month of each quarter.[2] Daily interest accrual is based on the *index rate,* which is the 13-week Treasury bill rate from the most recent auction, plus a constant *spread* determined at the time of the FRN auction. The index rate effectively resets weekly and the amount of daily interest accrued has a floor at zero to prevent investors from having to make a reverse interest payment to the Treasury. Prices and auction results are quoted in terms of the *discount margin*, the margin over the index rate at which the present value of future cash flows (at the current level of the index rate) is equated to the price of the FRN, a convention similar to those used in other floating-rate securities. At issuance, the FRN's discount margin is equal to its spread. FRNs have a short duration relative to their maturity because of the weekly index rate reset, a feature which potentially makes them particularly attractive to short-term investors such as money market funds.[3]

The first FRN auction was broadly characterized as very well received with a bid-to-cover ratio of 5.7, which was at the high end of bid-to-cover ratios seen in recent comparable Treasury bill auctions. The auction reportedly attracted a relatively wide variety of participants despite initial expectations that demand would mainly come from primary dealers and Treasury-only money market funds. The two reopenings (conducted on February 26 and March 26) were characterized as well received.

The FRN market is still small compared with those for other short-dated Treasury securities, with total FRN issuance equal to about 2 percent of total bills outstanding. Thus far, there have been no discernable shifts in investors' portfolio allocations away from Treasury bills or short-term notes as a result of the issuance of FRNs, and it is hard to forecast how different investor types will rebalance their portfolios over time.

[1] The average maturity of Treasury debt was 67 months as of March 2014, up from 49 months in late 2008. The Treasury intends to replace some bill issuance with FRNs, which would further increase the average maturity.

[2] The Treasury has stated that it anticipates eventually issuing longer-maturity floating-rate securities. Under current rules, it has the option to issue FRNs with maturities between 1 and 10 years.

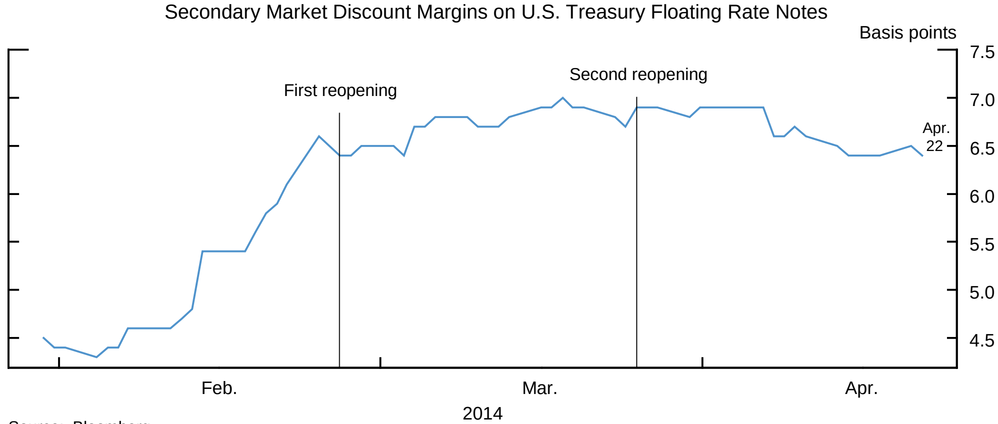
[3] Despite their short duration, FRNs will be reported in the "Notes and bonds, nominal" section of the H.4.1 statistical release.

Daily trading volume and price action in the secondary FRN market reportedly remain limited compared with other short-dated Treasury securities. The majority of current FRN investors are believed to be "buy and hold" investors, which may limit trading activity in FRNs relative to bills and nominal coupon securities of similar maturity. That said, market participants generally expect trading activity in FRNs to increase gradually as the overall amount outstanding in the asset type increases and market participants gain further experience in trading the security.[4]

The figure below plots daily quotes of secondary market FRN discount margins since the first auction. To help gauge whether the margins are consistent with prices of financial claims that have similar cash flow characteristics, we can compare the discount margins to theoretical margins of synthetic constant-maturity securities that approximately replicate the cash flows of FRNs.[5] The FRN discount margin in the secondary market started out relatively low compared with these synthetics, but the gap has gradually narrowed to a few basis points (not shown). One takeaway from this comparison is that the pricing of FRNs does not seem to be affected by substantial liquidity premiums.[6]

Market participants note that a consensus fair-value pricing model for FRNs has not yet emerged. However, given the opportunity cost of holding FRNs versus bills, many money market funds reportedly consider FRNs attractive at a discount margin of around 7 to 8 basis points.

Secondary Market Discount Margins on U.S. Treasury Floating Rate Notes



Source: Bloomberg.

[4] Because money market funds are subject to a limit on the weighted average life, or WAL, of their portfolio under SEC rule 2a-7, a wider range of remaining times to maturity of FRNs may also broaden the investor base over time.

[5] The synthetic securities are constructed by combining a fixed-coupon two-year Treasury note with a "plain vanilla" two-year interest rate swap and a three-month LIBOR–Treasury bill basis swap with a two-year tenor. Note that the synthetic FRN may be affected by liquidity and counterparty risk premiums.

[6] Several dealers reportedly expressed some reluctance to build up FRN positions, however, because of a lack of liquidity compared with the incremental profit.

The FRN discount margin is also likely subject to a duration effect; although the FRN is indexed to the three-month Treasury bill rate, it resets weekly, further reducing its risk exposure to changes in the level of interest rates. We estimate the average magnitude of this effect to be small.

Financial Developments

been true for some time, despite recent reductions in the pace of purchases, the Federal Reserve's MBS settlements nearly equaled gross MBS issuance in March, reflecting the continued decline in gross issuance of these securities amid tepid mortgage originations. Liquidity conditions in agency MBS markets were generally stable over the intermeeting period, though there were some signs of scarcity of certain production-coupon TBA securities. In particular, the dollar-roll-implied financing rates for 30-year Fannie Mae 3.5 percent coupon securities declined somewhat.

Conditions in short-term funding markets generally remained stable over the intermeeting period.[5] Take-up at the Federal Reserve's fixed-rate overnight reverse repurchase agreement (ON RRP) exercise continued to be sensitive to the spread between market rates and the rate offered in the exercise (see the box "Assessing the Effects of the Overnight Reverse Repurchase Exercise on Short-Term Interest Rates"). At quarter-end, take-up reached a record level of about $240 billion. As has been the case since the ON RRP exercise was established, money market funds increased their usage of the ON RPPs at quarter-end, as foreign banking organizations shrank their balance sheets by pulling back significantly from borrowing in dollar funding markets. Part of the increase in ON RRP usage on this quarter-end relative to the previous one likely reflected higher counterparty allotment limits, which were raised from $3 billion to $7 billion during the first quarter.

Equity Valuations and Bond Spreads

During the intermeeting period, the S&P 500 index changed little on net. However, investors pulled back sharply from social media and biotechnology stocks amid concern about valuations of these shares, which had risen substantially over the past year. The Russell 2000, an index of small-capitalization stocks, declined 4 percent, the Nasdaq biotechnology index dropped 11 percent, and the Nasdaq Internet index declined 9 percent. By contrast, income-oriented stocks, such as those of utility and

out of $4.2 billion in offers. No significant price action was associated with the operation. Subsequently, the Desk conducted five additional purchase operations using FedTrade; all went smoothly.

[5] The effective federal funds rate averaged 9 basis points over the intermeeting period, with the intraday standard deviation averaging about 5 basis points. Over the period, the Federal Reserve began using form FR 2420 (Report of Selected Money Market Rates) to collect transactions data on federal funds, Eurodollar time deposit, and CD rates from about 150 large institutions. The weighted average federal funds rate calculated from this data collection is in line with the rate derived from the brokered federal funds data.

telecommunications companies, rallied. Meanwhile, the VIX, an index of option-implied volatility for one-month returns on the S&P 500 index, ticked down.

The spreads of yields on investment- and speculative-grade corporate bonds to those on Treasury securities of comparable maturity narrowed some, broadly consistent with the strength in income-oriented stocks and the modestly better-than-expected economic data. The narrowing of credit spreads appeared to be driven largely by a decrease in near-term spreads, perhaps reflecting a bit more confidence on the part of investors that credit conditions would remain benign.

Business and Municipal Finance

The pace of financing by nonfinancial businesses was generally strong in both credit and equity markets during the intermeeting period. In credit markets, bond issuance by and commercial paper outstandings of domestic nonfinancial corporations increased in March; however, bond issuance in April has been subdued due to seasonal weakness attributed to the earnings-season blackout on issuance. Growth in C&I loans on banks' books was robust in the first quarter, consistent with the increase in loan demand by large and middle-market firms reported in the April Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS). Issuance of leveraged loans, particularly institutional loans, remained brisk in March amid a continued gradual deterioration of credit terms and deal structures. A significant share of issuance has continued to be attributed to refinancings of existing debt.[6] CLO issuance has picked up in the past few months, as new CLO deals reportedly have been structured to address certain restrictions in the Volcker rule.[7] Gross equity issuance by nonfinancial companies remained robust in March and April and was roughly in line with last year's average, even though some IPOs were reportedly put on hold amid declines in the prices of small-capitalization stocks.

Financing conditions in commercial real estate (CRE) markets have improved further. Commercial mortgage loans held on banks' books continued to grow solidly in

[6] See the memo "Effects of Supervisory Guidance on the Leveraged Loan Market," distributed in the April QS report, for additional discussion of conditions in the leveraged loan market.

[7] Of note, during the intermeeting period, the Federal Reserve Board announced that bank holding companies have until July 21, 2017, to disinvest from non-Volcker-compliant CLOs originated prior to the end of 2013. The extension for complying with the requirement reportedly alleviated the risk of forced liquidations of such instruments in the near term.

Financial Developments

Assessing the Effects of the Overnight Reverse Repurchase Exercise on Short-Term Interest Rates

Since the start of the Federal Reserve's overnight reverse repurchase (ON RRP) exercise on September 23, 2013, the fixed rate offered in this exercise has moved between 1 and 5 basis points and the maximum institution-level allotment cap has been gradually increased to its current, generally nonbinding, level of $10 billion. This box explores the ability of the ON RRP exercise to influence short-term market interest rates.

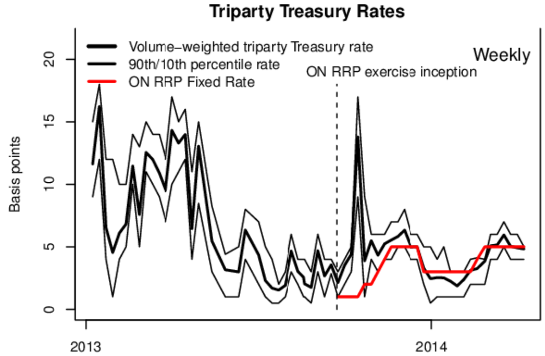
Overnight Treasury repo rates have generally been close to the ON RRP rate. In addition, some indicators suggest that the volatility of Treasury repo rates may have diminished, particularly since December 23, 2013, when the maximum allotment cap was first raised above $1 billion. As shown in the top-left figure on the next page, the volume-weighted mean rate on overnight triparty general collateral Treasury repo transactions has generally moved in a narrow range around the ON RRP rate.[1] Of course, the ON RRP rate was moved at times to align more closely with market rates, so caution with regard to causality is warranted. Furthermore, the spread between the 90th and 10th percentile of rates narrowed from an average level of 4 basis points over the nine months leading up to the initiation of the exercise to the current average of 2 basis points. Consistent with this observation, the top-right figure shows that after the exercise began the distribution of triparty repo rates narrowed to some degree and most private-sector trades have been executed at or above the daily mean rate on transactions.

Beyond the overnight secured market, the bottom-left figure shows that the 1-month Treasury bill rate has generally been below the ON RRP rate (except during the federal budget impasse in October 2013) while the federal funds rate has consistently been above it. Both rates have generally varied broadly in line with the posted exercise rate; however, the two rates also moved together before the inception of the exercise.

The bottom-right figure shows the relationship between Treasury bill supply and the DTCC Treasury GCF Repo Index after the inception of the ON RRP exercise. Usually, repo rates rise when bill supply increases and fall when supply declines. The GCF rate has fallen only moderately in recent days despite significantly declining bill supply. The staff will monitor this relationship to see the extent to which the ON RRP exercise is providing a floor for repo rates.

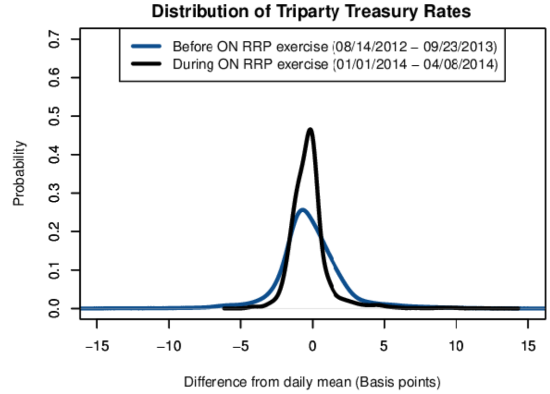
[1] Because of data limitations, transaction data are reported each week on Tuesday.

Triparty Treasury Rates

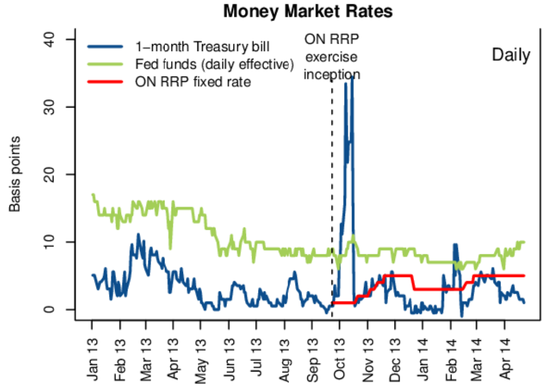


Note: Weekly data, some observations missing May 2013 and June 2013.

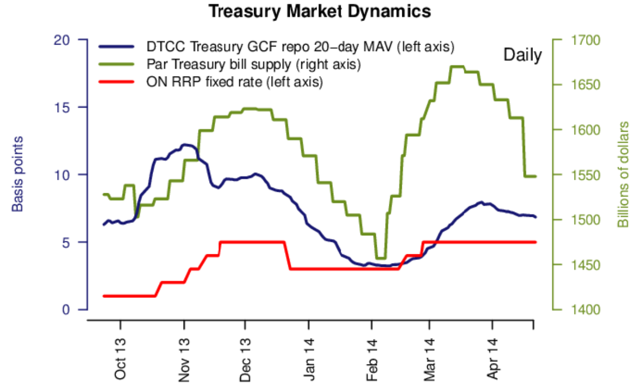
Distribution of Triparty Treasury Rates



Money Market Rates



Treasury Market Dynamics

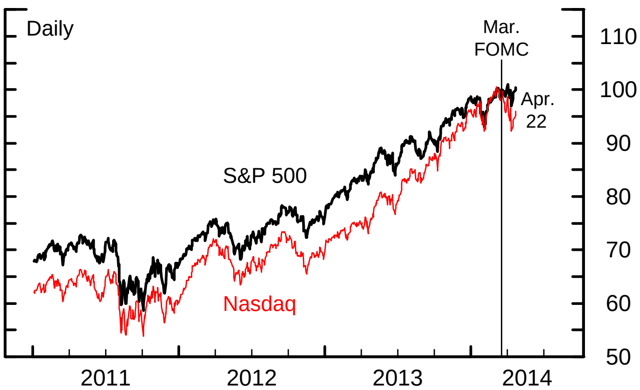


Financial Developments

Other Asset Prices and Business Finance

Equity Price Indexes

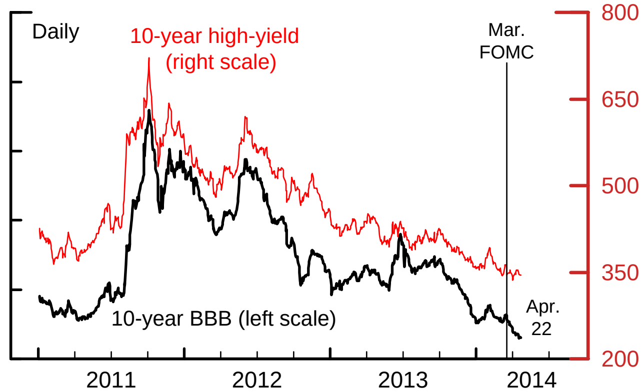
Ratio scale; Mar. 18, 2014 = 100



Source: Bloomberg.

Corporate Bond Spreads

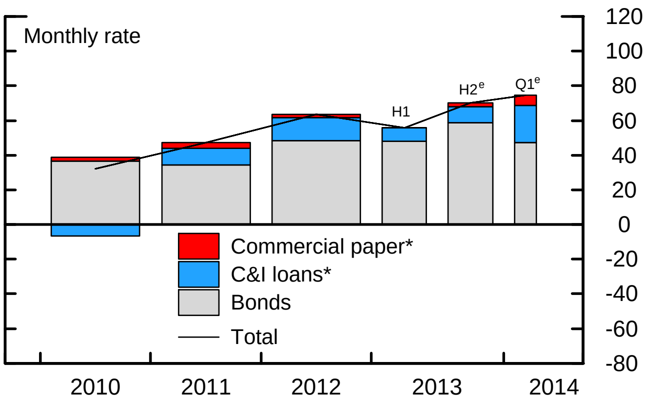
Basis points Basis points



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.

Selected Components of Net Debt Financing, Nonfinancial Firms

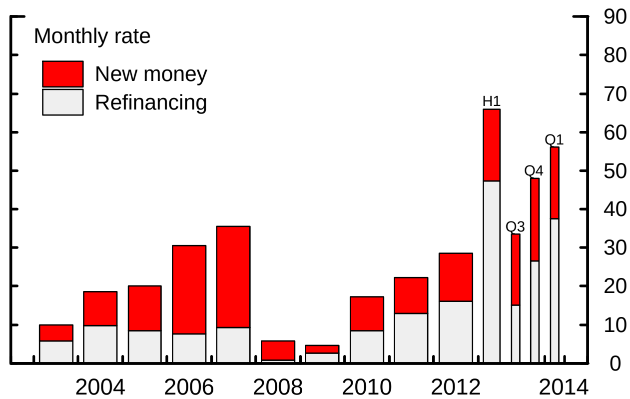
Billions of dollars



e Staff estimate of net corporate bond issuance.
* Period-end basis, seasonally adjusted.
Source: Depository Trust & Clearing Corporation; Thomson Reuters Financial; Federal Reserve Board.

Institutional Leveraged Loan Issuance

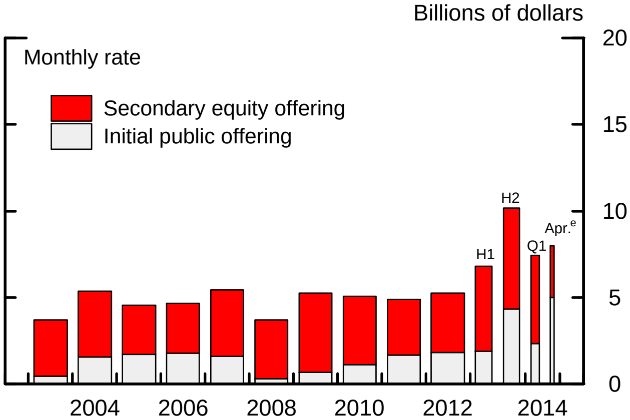
Billions of dollars



Source: Thomson Reuters LPC LoanConnector.

Gross Proceeds from Nonfinancial Equity Issuance

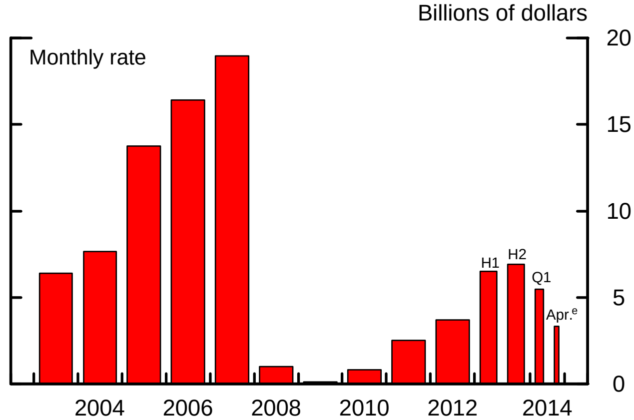
Billions of dollars



e Estimate.
Source: Securities Data Company.

CMBS Issuance

Billions of dollars



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

the first quarter of 2014. According to the April SLOOS, banks again eased standards on CRE loans during the first quarter, and they reportedly experienced an increase in loan demand, especially for construction and land development loans. CRE prices increased further in February across different geographic markets and property types. In contrast, CMBS issuance in 2014 has been a bit slower than last year's pace, although market participants reportedly anticipate that issuance will ramp up in coming months.

HOUSEHOLD FINANCE

Mortgage credit conditions generally remained tight over the intermeeting period, though signs of easing continued to emerge amid further gains in house prices. In particular, the April SLOOS indicated a net easing of banks' credit standards for home-purchase loans to prime customers in the first quarter. However, there was a significant increase in banks' reports of tightened standards on nontraditional mortgage loans, which several respondents attributed to the new qualified mortgage rules.[8] Mortgage rates were about unchanged, on net, and applications for refinancing and purchase mortgages remained tepid. Since last summer, the application indexes have decreased 50 percent for refinancings and 10 percent for purchase mortgages, in part because of the rise in mortgage rates over that period.

Conditions in consumer credit markets remained mixed, as student and auto loans continued to expand at a robust pace in February but credit card debt outstanding was again roughly unchanged. Data on loan balances at commercial banks suggest that these trends continued through March. According to the April SLOOS, banks experienced an increase in demand for auto loans during the first quarter and eased their spreads on such loans on net. In the same survey, bank issuers of credit cards pointed to consumers' preference for lower debt levels and the restrictions of the Credit Card Accountability Responsibility and Disclosure Act of 2009 (or Credit Card Act) as the two most important factors that held back credit card loan growth in 2013.[9] Nonetheless, many

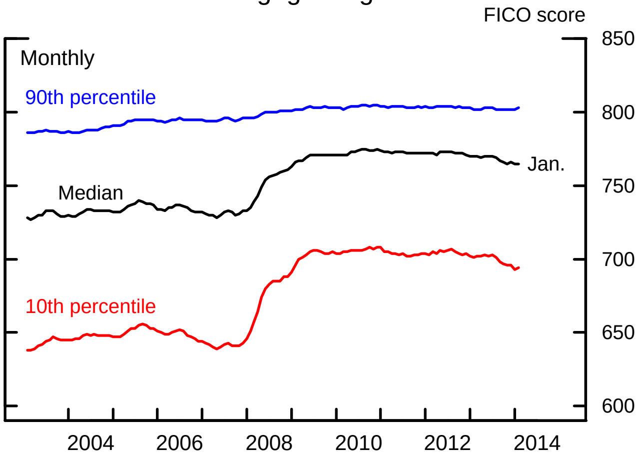
Financial Developments

[8] The qualified mortgage rules include, among several other provisions, limits on risky features such as negative amortization, interest-only payments, long durations, and high fees. The limits on risky features are more likely to put constraints on the types of nontraditional residential mortgage loans included in the SLOOS.

[9] Banks cited a number of provisions of the Credit Card Act, which mostly went into effect in August 2010, as having constrained loan growth: the prohibition on raising interest rates on existing balances; restrictions on credit card fees; and requirements that card payments be applied first to the debt with the highest interest rate, that borrowers under the age of 21 have adult cosigners, and that a consumer's ability to make the required payments on the account be considered.

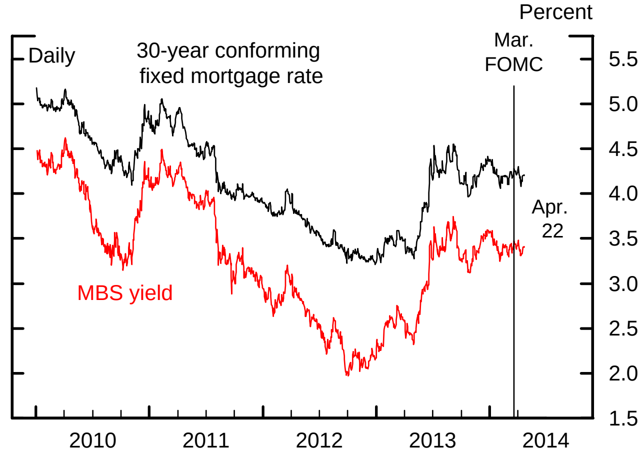
Household Finance

Credit Scores at Mortgage Origination



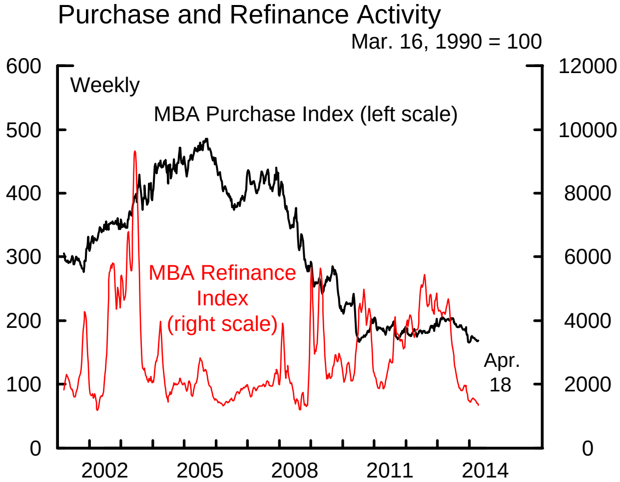
Note: Concerns 30-year GSE-backed purchase mortgages originated in month shown.
Source: LPS Applied Analytics.

Mortgage Rate and MBS Yield



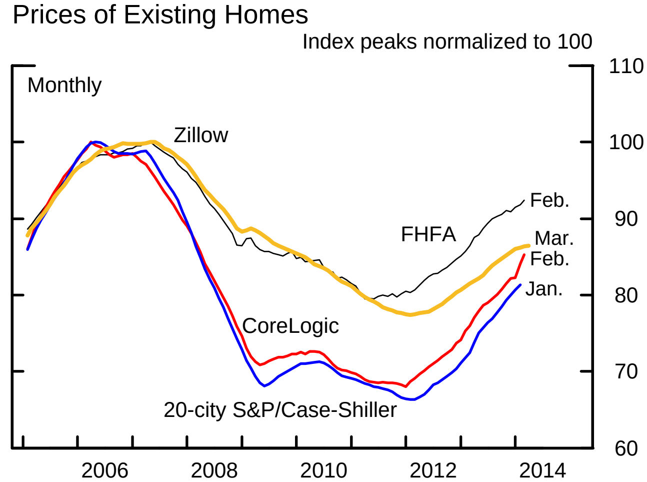
Note: The MBS yield is the Fannie Mae 30-year current-coupon rate.
Source: For MBS yield, Barclays; for mortgage rate, Loansifter.

Purchase and Refinance Activity



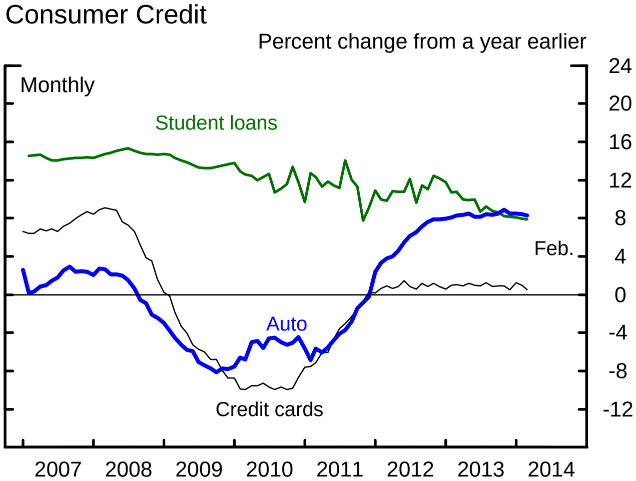
Note: The data are weekly and seasonally adjusted by FRB staff.
Source: Mortgage Bankers Association.

Prices of Existing Homes



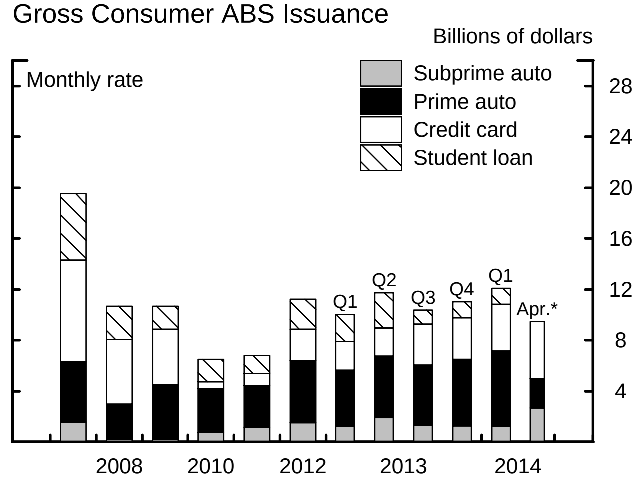
Source: For FHFA, Federal Housing Finance Agency; for CoreLogic, CoreLogic; for S&P/Case-Shiller, Standard & Poor's; for Zillow, Zillow.

Consumer Credit



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

Gross Consumer ABS Issuance



* Month to date as of April 18.
Source: Inside MBS & ABS; Merrill Lynch; Federal Reserve Board.

respondents anticipate a pickup in growth of their consumer credit card loans this year, particularly to prime borrowers. In addition, although credit conditions overall appear to have remained tight, a few of the very largest credit card issuers in the SLOOS panel reported an easing of standards for approving applications for credit cards, and an increase in credit limits on credit cards, during the first quarter. Financing conditions in the consumer ABS market remained favorable in recent months, and issuance continued to be solid.

BANKING DEVELOPMENTS AND MONEY

Amid mixed first-quarter earnings reports for large banks, stock prices of large domestic banks generally underperformed the broad equity market. Banks reported that mortgage and trading revenues declined, and that net interest margins continued to trend lower. However, a rise in investment banking revenues, as well as ongoing cost-reduction efforts and declines in loan loss provisions, supported profitability. Banks generally reported that their risk-based capital ratios continued to increase. A majority of the eight domestic systemically important banking institutions reported Basel III leverage ratios above the 5 percent minimum that will be required under the enhanced supplementary leverage ratio rule announced during the intermeeting period.[10] CDS spreads for the largest bank holding companies remained low.

M2 growth slowed in March from its robust February pace, driven by a deceleration in the growth of liquid deposits. In contrast, currency rose rapidly. Commercial bank shipments of currency to Russia were notable in March, and anecdotal reports suggested that Russian financial institutions increased their demand for dollars as a precaution against possible financial sanctions. The pace of growth of the monetary base declined in March, as the increase in currency was partially offset by a decline in the Treasury's balances held at the Federal Reserve.[11]

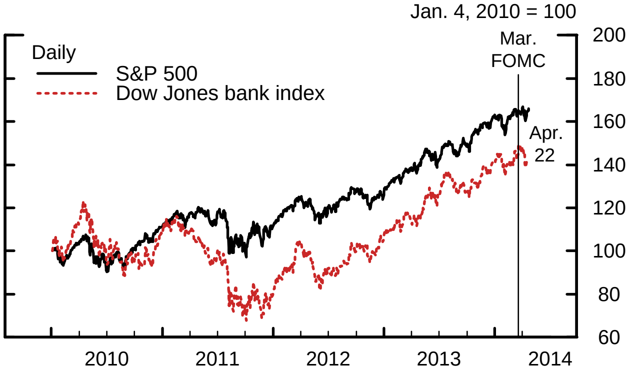
Financial Developments

[10] On April 8, U.S. regulators proposed changes to the supplementary leverage ratio (SLR) to more closely match the final Basel III leverage ratio framework approved by the Basel Committee on Banking Supervision early last year. Regulators also finalized an "enhanced SLR" rule establishing stricter requirements for the eight U.S. systemically important bank holding companies (BHCs). Specifically, those BHCs must maintain a leverage ratio above 5 percent to avoid restrictions on capital distributions and discretionary bonus payments.

[11] In addition, Term Deposit Facility operations also slightly damped growth in the base over this period. The Federal Reserve conducted a series of four seven-day operations in March, including one that

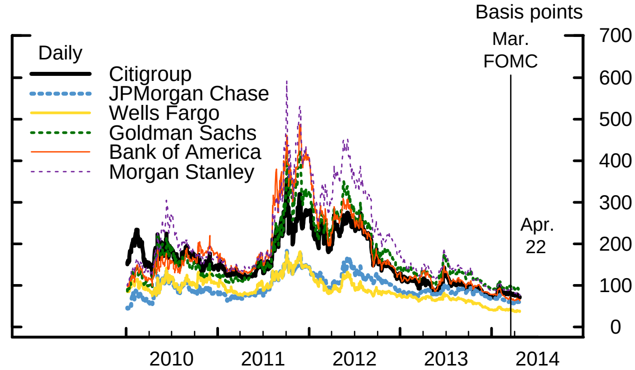
Banking Developments and Money

Equity Price Indexes



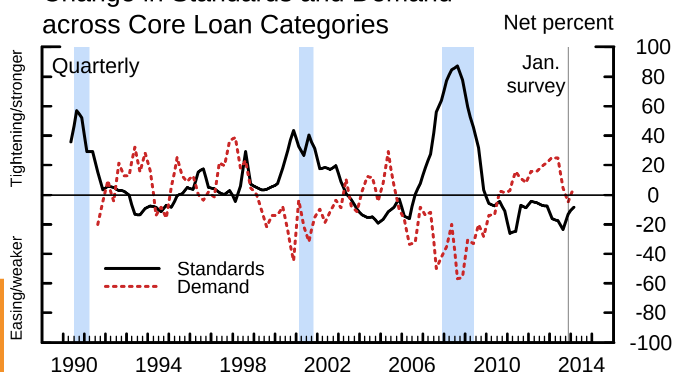
Source: Bloomberg.

CDS Spreads of Large Bank Holding Companies



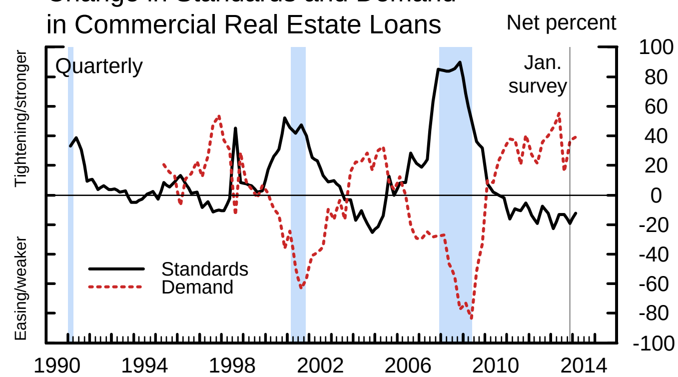
Source: Markit.

Change in Standards and Demand across Core Loan Categories



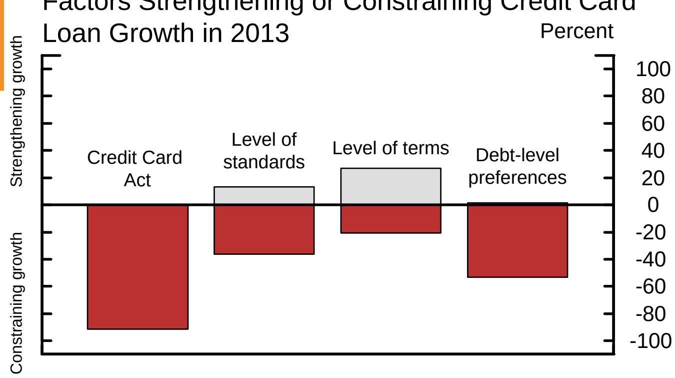
Note: A composite index that represents the net percentage of loans on respondents' balance sheets that were in categories for which banks reported tighter lending standards or stronger loan demand over the past 3 months, with results weighted by survey respondents' holdings of loans in each category.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

Change in Standards and Demand in Commercial Real Estate Loans



Note: Responses are weighted by survey respondents' holdings of relevant loan types as reported on Call Reports.
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Factors Strengthening or Constraining Credit Card Loan Growth in 2013



Note: The results are weighted by survey respondents' holdings of credit card loans.
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Growth of M2 and Its Components

Percent, s.a.a.r.	M2	Liquid deposits	Small time deposits	Retail MMFs	Curr.
2013	6.1	8.0	-13.8	2.0	6.6
2013:H2	6.3	8.0	-13.2	1.5	6.6
2014:Q1	6.3	8.1	-11.1	-4.5	7.3
Mar.	3.4	3.2	-16.6	-6.4	19.4

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.

FOREIGN DEVELOPMENTS

Intermeeting data releases for the advanced foreign economies pointed to further expansion in economic activity, largely as expected, and asset prices in those economies were generally little changed on net. By contrast, incoming data for EMEs, particularly China, were somewhat weaker than had been expected. Even so, investor sentiment toward the EMEs continued to improve. Moreover, financial markets outside of those in Ukraine and Russia appeared to remain largely unfazed by the continuing tensions in that region.

Stock prices were slightly higher in most foreign economies despite the global selloff of technology-related stocks. In Japan, stock prices moved lower following comments from Governor Kuroda that were viewed as less accommodative than had been expected, but the market subsequently recovered to end the intermeeting period about unchanged. In Brazil and Turkey, share prices rallied substantially from their lows earlier this year, finishing up about 12 percent over the period.

Benchmark 10-year sovereign bond yields in most of the advanced foreign economies were little changed, on net, despite a modest rise in market-based measures of policy expectations in Canada and the United Kingdom. Policy expectations for the euro area were stable over the period, with the European Central Bank continuing to hint that additional accommodation is possible, perhaps through purchases of asset-backed securities.

Yield spreads on peripheral sovereign bonds in the euro area continued to narrow, with spreads of Italian and Spanish sovereign debt to German bunds ending the period at about 150 basis points. Although these spreads are at their lowest levels since 2010, they nevertheless imply a cumulative 10-year default probability of more than 20 percent. Taking advantage of the continued improvement in sentiment toward periphery countries, Greece reentered the sovereign debt market after an absence of four years, selling €3 billion in five-year bonds at a spread of nearly 450 basis points above the yield on five-year German bunds. The issue was well received, with more than €20 billion in bids, mostly from foreign investors. Sovereign yields also fell in most EMEs, and, in early April, there were inflows into both equity and bond EME-dedicated funds.

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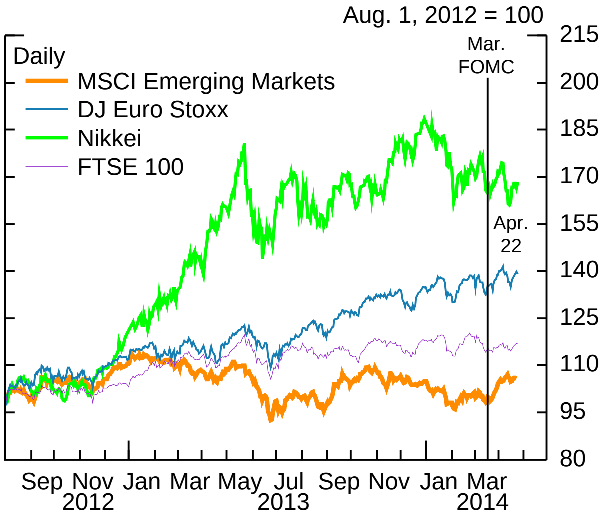
employed a floating-rate format. The operations attracted, on average, roughly $15 billion, a modest increase from the average level over the past year.

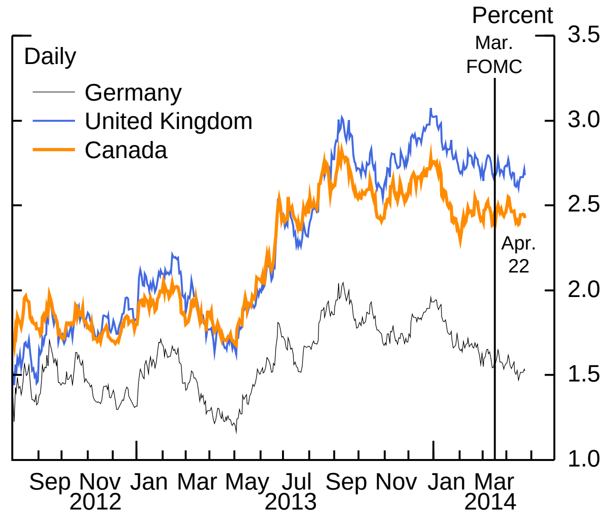
Foreign Developments

Stock Price Indexes



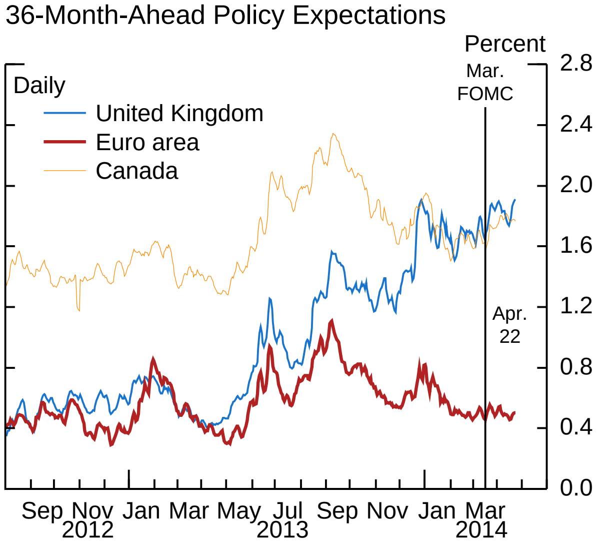
Source: Bloomberg.

AFE 10-Year Nominal Benchmark Yields



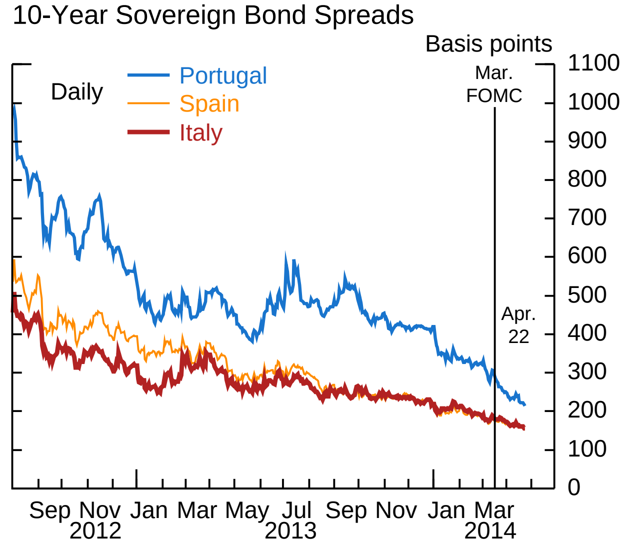
Source: Bloomberg.

36-Month-Ahead Policy Expectations



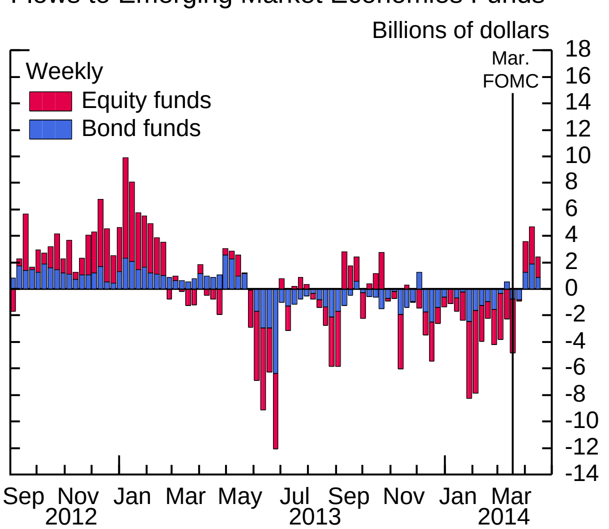
Note: 1-month forward rates from OIS quotes, 3-day moving average.
Source: Bloomberg.

10-Year Sovereign Bond Spreads



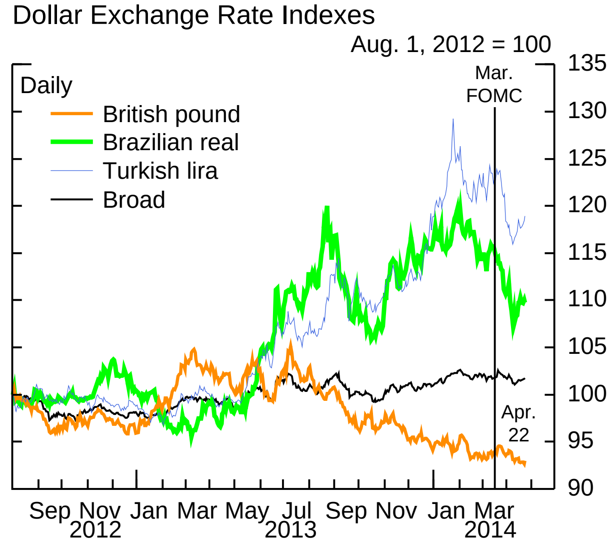
Note: Spreads are relative to Germany.
Source: Bloomberg.

Flows to Emerging Market Economies Funds



Source: Emerging Portfolio Fund Research.

Dollar Exchange Rate Indexes



Source: Federal Reserve Board; Bloomberg.

The staff's broad nominal index for the dollar was about unchanged, on net, over the intermeeting period. The improvement in sentiment toward EMEs contributed to a notable appreciation of the Brazilian *real* and the Turkish lira against the dollar. By contrast, the renminbi depreciated against the dollar. That depreciation, which the PBOC has been engineering over the past few months, has reportedly spurred an unwinding of trades predicated on expectations of steady appreciation of the renminbi. It remains uncertain whether the PBOC was motivated solely by a desire to introduce two-way currency risk into its foreign exchange market or whether it was also seeking to provide macroeconomic stimulus at a time of flagging growth. Despite the continuing tensions involving Ukraine and Russia, the ruble appreciated against the dollar during the period and the value of the Ukranian hryvnia rose late in the period, boosted by central bank action in both countries.

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Risks and Uncertainty

ALTERNATIVE SCENARIOS

To illustrate some of the risks to the outlook, we construct a number of alternatives to the baseline projection using simulations of staff models. Motivated by the favorable tone of some recent data, the first scenario presents a more robust recovery than envisioned by the staff. By contrast, the second scenario considers the possibility that the projected step-up in housing demand and consumer spending fails to materialize, implying persistently weaker aggregate demand conditions than in the baseline. In the third scenario, term and risk premiums in fixed-income markets jump early next year in anticipation of the federal funds rate rising above its effective lower bound. The fourth scenario features a deeper and more persistent reduction in potential output growth than assumed in the baseline. The fifth scenario contemplates the risk that the softness in consumer price inflation seen over the past year could prove to be more persistent than anticipated. The final scenario displays possible consequences of a major escalation of tensions in Ukraine.

We generate the first five scenarios using the FRB/US model and the final one 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 takes into account the guidance provided in the Committee's March statement indicating that the liftoff date will depend on labor market conditions, indicators of inflation pressures, and readings on financial conditions, as well as the date the asset purchase program ends.[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, we assume that the inertial Taylor (1999) rule takes over in the quarter following the observation of an unemployment rate of 6 percent, the level of unemployment prevailing in the baseline one quarter prior to liftoff. In the "Low Inflation" scenario, where the path of inflation is significantly different from the baseline, the choice of liftoff date is meant to capture the Committee's intention to maintain the current target for the federal funds rate for a considerable time after the asset purchase program ends, "especially if projected inflation continues to run below the Committee's 2 percent longer-run goal." For the final scenario, "Escalating Geopolitical Tensions," we assume a broadly 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.

Alternative Scenarios

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

Measure and scenario	2014 H1	2014 H2	2015	2016	2017-18
Real GDP					
Extended Tealbook baseline	2.0	3.5	3.2	3.1	2.3
Faster recovery	2.5	4.6	4.1	3.6	2.3
Weaker household demand	1.4	2.1	2.0	2.6	2.5
Liftoff tantrum	2.0	3.5	2.6	2.8	2.4
Supply-side damage	2.0	3.3	2.8	2.2	1.2
Low inflation	2.0	3.5	3.2	3.1	2.7
Escalating geopolitical tensions	1.6	2.0	1.7	3.5	2.8
Unemployment rate[1]					
Extended Tealbook baseline	6.6	6.2	5.6	5.1	4.8
Faster recovery	6.5	6.0	5.1	4.4	4.2
Weaker household demand	6.7	6.5	6.3	5.9	5.5
Liftoff tantrum	6.6	6.2	5.8	5.4	5.0
Supply-side damage	6.6	6.1	5.3	4.8	4.5
Low inflation	6.6	6.2	5.6	5.0	4.3
Escalating geopolitical tensions	6.6	6.5	6.5	6.0	5.3
Total PCE prices					
Extended Tealbook baseline	1.5	1.6	1.5	1.6	1.9
Faster recovery	1.5	1.6	1.5	1.7	2.0
Weaker household demand	1.5	1.6	1.4	1.5	1.8
Liftoff tantrum	1.5	1.6	1.4	1.5	1.8
Supply-side damage	1.5	1.7	1.7	1.9	2.3
Low inflation	1.2	1.1	.8	.7	1.0
Escalating geopolitical tensions	4.1	2.3	.8	.6	2.0
Core PCE prices					
Extended Tealbook baseline	1.4	1.6	1.7	1.8	1.9
Faster recovery	1.4	1.6	1.7	1.9	2.0
Weaker household demand	1.4	1.6	1.6	1.7	1.8
Liftoff tantrum	1.4	1.6	1.6	1.7	1.8
Supply-side damage	1.4	1.7	1.9	2.1	2.3
Low inflation	1.1	1.1	1.0	.9	1.0
Escalating geopolitical tensions	1.4	1.4	1.6	1.9	1.9
Federal funds rate[1]					
Extended Tealbook baseline	.1	.1	1.1	2.3	4.0
Faster recovery	.1	.1	1.7	3.4	5.4
Weaker household demand	.1	.1	.1	.1	2.0
Liftoff tantrum	.1	.1	.5	1.7	3.3
Supply-side damage	.1	.1	1.6	3.3	5.3
Low inflation	.1	.1	.1	.1	.6
Escalating geopolitical tensions	.1	.1	.1	.1	2.9

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

Risks & Uncertainty

Faster Recovery

Some recent data—such as those for retail sales, industrial production, and motor vehicle sales—have been upbeat, even after our accounting for the rebound from the effects of poor weather earlier in the year. Moreover, labor market conditions have continued to improve. In this scenario, activity accelerates sharply, as the headwinds restraining the recovery diminish more quickly than in the baseline projection and business and consumer confidence picks up substantially. Real GDP growth reaches an annual rate of 4½ percent in second half of this year and averages 4 percent over 2015; the unemployment rate falls below 4½ percent by the end of 2016. Inflation moves up to its 2 percent target level by early 2018, three quarters earlier than in the baseline. The federal funds rate lifts off one quarter earlier than in the baseline and rises more steeply thereafter, reaching 5½ percent by the end of 2018.

Weaker Household Demand

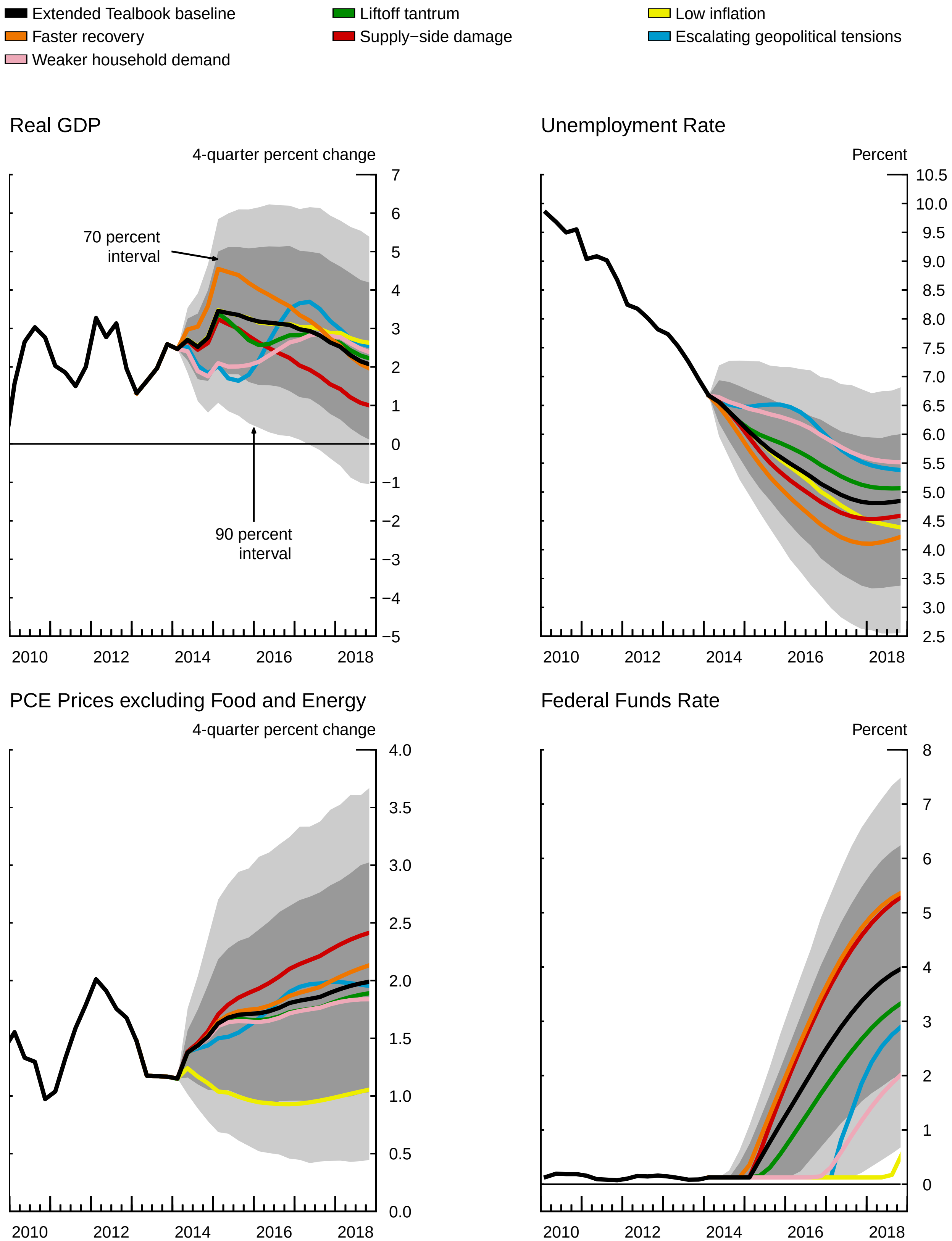
In the baseline projection, consumer spending accelerates noticeably over the next several quarters, supported by continued improvements in labor market prospects, households' net worth, and consumer sentiment; the projected resumption of the housing market recovery is expected to reinforce this acceleration. By contrast, in this scenario, the softness of household spending during the winter is assumed to persist as household confidence in the recovery falters, while the rebound in the housing market proves lackluster. These conditions, in turn, lead to a slower pace of business investment and hiring. All told, real GDP rises at an average annual rate of 2 percent over the next two years, 1 percentage point lower than in the baseline, and the unemployment rate declines more gradually, edging down to 6 percent in late 2016. With a wider margin of resource slack than in the baseline, inflation rises somewhat more slowly. The federal funds rate lifts off in the first quarter of 2017, almost two years later than in the baseline, and rises more gradually thereafter, reaching 2 percent by the end of 2018.

Liftoff Tantrum

In the baseline projection, term premiums rise gradually, contributing to the sizable increase in long-term interest rates. However, the surprisingly large movements in yields in the summer of 2013 highlight the possibility that term and risk premiums may be more sensitive to the withdrawal of monetary policy accommodation than we have assumed. In particular, these premiums may rise sharply if the anticipation of conventional policy tightening triggers large outflows from fixed-income funds. In this scenario, the approach of the federal funds rate's departure from its effective lower bound

Forecast Confidence Intervals and Alternative Scenarios

Confidence Intervals Based on FRB/US Stochastic Simulations



triggers just such a surge, with term premiums rising 120 basis points above the baseline by mid-2015, roughly double the increase in the 10-year term premium that we estimate occurred last summer. The premium on corporate debt over comparable Treasury securities also rises, peaking in 2015:Q2 at around 70 basis points above the baseline. The resulting volatility drives the stock market down more than 10 percent relative to the baseline over the first half of 2015. Even though the market turmoil proves transient, premiums remain elevated for some time and converge from above to their long-run values. Nonetheless, the real economy suffers only modest damage, as households anticipate that a short, albeit intense, period of market turbulence will have only small effects on permanent income. The endogenous decline in the expected federal funds rate path also offsets a small part of the rise in premiums.[2] All told, GDP growth is around ½ percentage point lower in 2015, while unemployment is about ¼ percentage point higher in 2016 relative to the baseline.[3]

Supply-Side Damage

Over the past three years, the unemployment rate has fallen nearly 1 percentage point per year despite only moderate increases in real GDP, which led the staff to mark down its estimate of the pace of potential output growth in past Tealbooks. However, some of the models we consult suggest that the damage to aggregate supply during the past several years may have been even greater than is assumed in the baseline projection. In this scenario, structural productivity gains are assumed to have been slower than in the baseline projection such that potential output has expanded at an annual rate of only 1¼ percent since 2011, ¼ percentage point per year lower than in the baseline. As a result, the level of potential output in the second quarter of 2014 is almost 1 percent lower. Going forward, potential GDP continues to grow at a 1¼ percent pace through 2018, leaving the level of potential output 4½ percent lower at the end of 2018 than in the baseline.

Under these assumptions, real GDP rises at a rate of 2¾ percent this year and next. Thereafter, the pace of economic growth gradually slows, and real GDP rises at an

[2] Most alternative scenarios using FRB/US assume that households, firms, and investors form expectations on the basis of reduced-form statistical relations typical of the last few decades of data. In this scenario, given the central role of forward-looking financial variables, we assume instead that, once the first movements in premiums are realized in the first quarter of 2015, all agents perfectly anticipate the aggregate effects of these and all future movements in premiums.

[3] The abrupt increase in premiums shown in this scenario could result in a more severe drag on the real economy if the resulting deep capital losses lead to concerns about the solvency of leveraged financial institutions, amplifying the initial shock.

Risks & Uncertainty

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

Measure	2014	2015	2016	2017	2018
Real GDP					
(percent change, Q4 to Q4)					
Projection	2.8	3.2	3.1	2.6	2.1
Confidence interval					
Tealbook forecast errors	1.5–4.0	1.4–5.1	. . .	. . .	. . .
FRB/US stochastic simulations	1.6–4.0	1.6–5.1	1.4–5.1	.8–4.8	.1–4.2
Civilian unemployment rate					
(percent, Q4)					
Projection	6.2	5.6	5.1	4.8	4.8
Confidence interval					
Tealbook forecast errors	5.7–6.7	4.8–6.4	. . .	. . .	. . .
FRB/US stochastic simulations	5.6–6.8	4.6–6.5	3.9–6.3	3.4–6.0	3.4–6.0
PCE prices, total					
(percent change, Q4 to Q4)					
Projection	1.6	1.5	1.6	1.8	2.0
Confidence interval					
Tealbook forecast errors	.9–2.3	.3–2.7	. . .	. . .	. . .
FRB/US stochastic simulations	.9–2.3	.5–2.5	.6–2.7	.7–2.9	.9–3.2
PCE prices excluding food and energy					
(percent change, Q4 to Q4)					
Projection	1.5	1.7	1.8	1.9	2.0
Confidence interval					
Tealbook forecast errors	1.1–1.9	1.0–2.4	. . .	. . .	. . .
FRB/US stochastic simulations	1.1–2.0	1.0–2.4	1.0–2.6	1.0–2.8	1.0–3.0
Federal funds rate					
(percent, Q4)					
Projection	.1	1.1	2.3	3.4	4.0
Confidence interval					
FRB/US stochastic simulations	.1–.4	.1–2.1	.7–4.0	1.5–5.5	2.0–6.3

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.

Risks & Uncertainty

annual rate of only 1¼ percent in 2017 and 2018. Nonetheless, the unemployment rate continues to decline rapidly, reaching 5 percent in the middle of 2016. With resource slack substantially narrower and productivity gains smaller, inflation rises to 2 percent in 2016 and to nearly 2½ percent in 2018. Initially, policymakers continue to perceive supply-side conditions as consistent with the staff's baseline view. However, as evidence of the weaker supply-side conditions mounts, their perceptions gradually come into line with reality and are assumed to be fully adjusted by 2016. Given the initial misperception of slack and the gradual response of inflation to higher resource utilization, the federal funds rate begins to rise from its effective lower bound in the second quarter of 2015, the same quarter as in the baseline, but it thereafter rises more steeply as policymakers recognize the weaker supply-side conditions.

Low Inflation

In the baseline projection, the recent low readings on inflation prove to be largely transitory, and over the next few years, inflation gradually moves up toward 2 percent as the recovery continues. This forecast is based on the staff's assumption that long-run inflation expectations are firmly anchored at the Committee's longer-run target of 2 percent. In this scenario, we assume that the extended experience of below-target inflation has resulted in a reduction of current long-run inflation expectations to about 1½ percent and that continued low inflation in the coming years leads to further erosion of these expectations. As a consequence, inflation is close to 1 percent through 2018. Persistently low inflation in this scenario causes liftoff to occur in late 2018, more than three years later than in the baseline. At that time, the unemployment rate has declined to 4½ percent, ¾ percentage point below its natural rate. However, despite this degree of labor market tightness, inflation projected one to two years ahead is still well below the Committee's target as a result of the decline in long-horizon inflation expectations.

Escalating Geopolitical Tensions

In the staff's baseline projection, tensions between Russia and Ukraine remain sufficiently contained so that they do not exert substantial effects on global markets. In this scenario, we consider a major and sustained escalation in tensions, involving rising stresses between Russia and Ukraine and the West, the imposition of additional sanctions on Russia, and Russian counter actions, all of which severely affect global energy and financial markets and weaken confidence. We assume that these geopolitical tensions remain highly elevated for about a year before gradually easing.

These geopolitical developments affect the global economy through a number of channels. First, our 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, we have Russia cutting off natural gas exports to Europe. Finally, in this unsettled environment, consumer and investor confidence falls and financial market stresses intensify, with corporate and household borrowing spreads rising and flight-to-safety flows boosting the dollar.

The combination of higher energy prices, falling confidence, and financial market stresses causes sharp contractions in real activity globally. Real GDP in the AFEs falls about 3½ percent relative to the baseline by the end of next year, with Europe suffering disproportionately because of its dependence on Russian natural gas and its closer financial and economic ties to Russia. Real GDP in the EMEs falls about 4 percent relative to the baseline by the end of next year—notwithstanding a sizable depreciation of EME currencies driven by flight-to-safety flows—as corporate and household borrowing costs rise substantially.

U.S. real activity is depressed as higher oil prices lower real disposable income and reduce the return to investment. Real net exports decline markedly in response to weaker foreign activity and a 5 percent appreciation of the broad real dollar. These adverse effects are reinforced by a modest rise in corporate borrowing costs and a decline in confidence. All told, U.S. real GDP growth is less than 2 percent in both 2014 and 2015, and the unemployment rate hovers around 6½ percent through the end of next year. Core PCE inflation is nearly unchanged from the baseline through the end of next year, 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 early 2017.

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

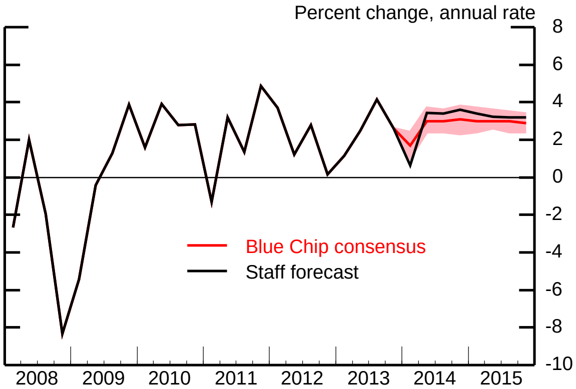
Measure and projection	2014 Previous Tealbook	2014 Current Tealbook	2015 Previous Tealbook	2015 Current Tealbook	2016 Previous Tealbook	2016 Current Tealbook
Real GDP						
Staff	2.9	2.8	3.2	3.2	3.0	3.1
FRB/US	1.9	1.9	2.4	2.7	2.7	2.9
EDO	2.6	2.3	2.9	2.8	2.8	2.8
Blue Chip	2.7	2.7	3.0	3.0	...	...
Unemployment rate[1]						
Staff	6.2	6.2	5.6	5.6	5.1	5.1
FRB/US	6.4	6.5	6.1	6.1	5.8	5.7
EDO	6.9	6.8	6.7	6.8	6.6	6.7
Blue Chip	6.2	6.2	5.8	5.8	...	...
Total PCE prices						
Staff	1.5	1.6	1.5	1.5	1.7	1.6
FRB/US	1.3	1.4	1.2	1.2	1.4	1.4
EDO	1.4	1.4	1.5	1.5	1.7	1.7
Blue Chip[2]	2.0	1.9	2.1	2.0	...	...
Core PCE prices						
Staff	1.5	1.5	1.7	1.7	1.8	1.8
FRB/US	1.3	1.3	1.4	1.4	1.5	1.5
EDO	1.3	1.4	1.5	1.5	1.7	1.7
Blue Chip	...	...	...	...	...	...
Federal funds rate[1]						
Staff	.1	.1	1.1	1.1	2.4	2.3
FRB/US	.1	.1	.1	.1	.6	.7
EDO	.9	1.1	1.8	1.9	2.4	2.5
Blue Chip[3]	.1	.1	.9	.9	...	...

Note: Blue Chip forecast completed on April 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

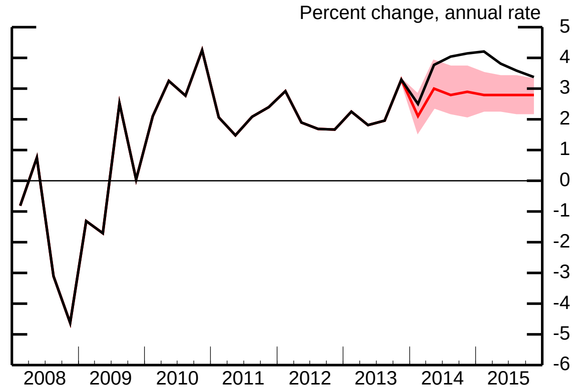
Tealbook Forecast Compared with Blue Chip
(Blue Chip survey released April 10, 2014)

Real GDP

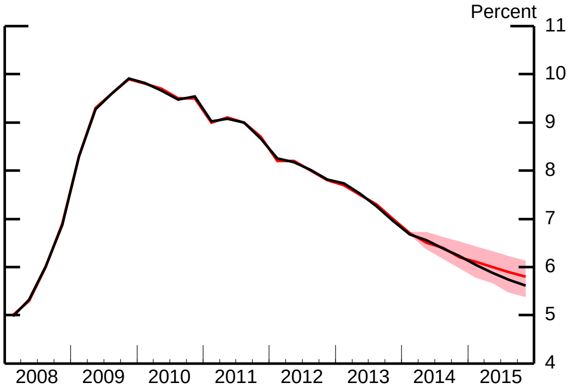


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

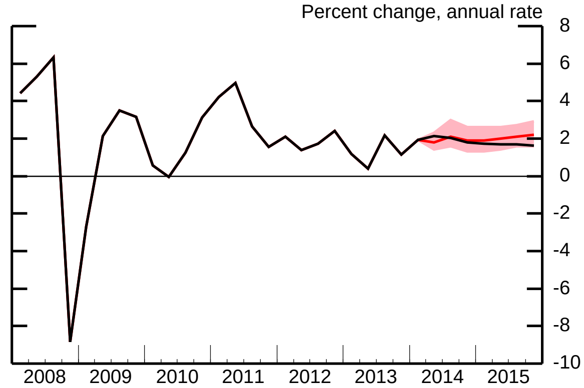
Real PCE



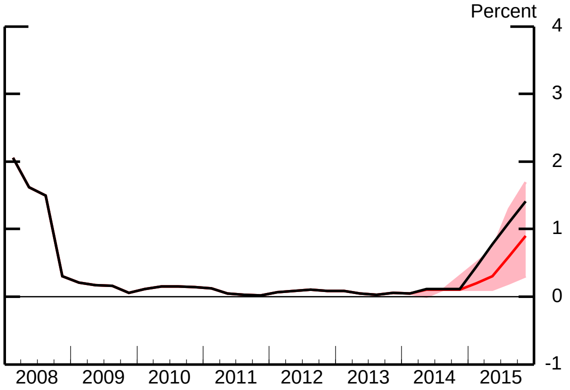
Unemployment Rate



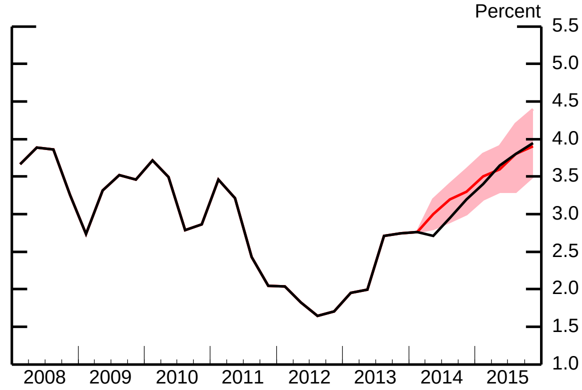
Consumer Price Index



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.

Risks & Uncertainty

Assessment of Key Macroeconomic Risks (1)

Probability of Inflation Events
(4 quarters ahead—2015:Q1)

Probability that the 4-quarter change in total PCE prices will be ...	Staff	FRB/US	EDO	BVAR
Greater than 3 percent				
Current Tealbook	.05	.03	.09	.07
Previous Tealbook	.04	.02	.10	.07
Less than 1 percent				
Current Tealbook	.22	.34	.34	.15
Previous Tealbook	.26	.38	.32	.15

Probability of Unemployment Events
(4 quarters ahead—2015:Q1)

Probability that the unemployment rate will ...	Staff	FRB/US	EDO	BVAR
Increase by 1 percentage point				
Current Tealbook	.02	.04	.21	.01
Previous Tealbook	.01	.03	.21	.01
Decrease by 1 percentage point				
Current Tealbook	.33	.17	.15	.29
Previous Tealbook	.31	.16	.14	.36

Probability of Near-Term Recession

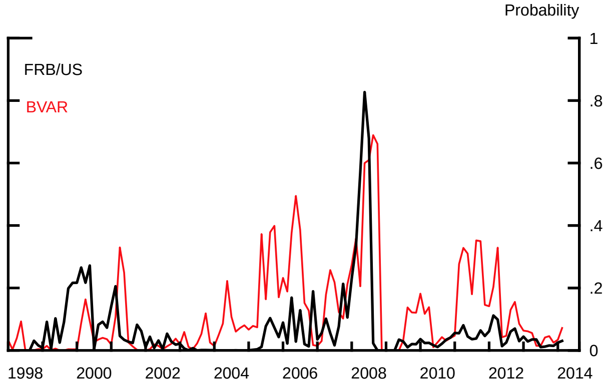
Probability that real GDP declines in each of 2014:Q2 and 2014:Q3	Staff	FRB/US	EDO	BVAR	Factor Model
Current Tealbook	.01	.03	.03	.07	.09
Previous Tealbook	.02	.05	.03	.04	.11

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)

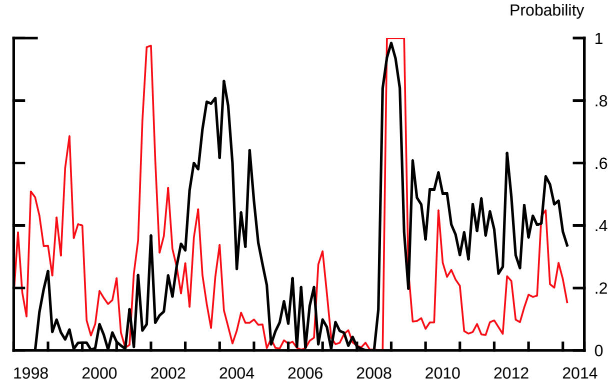
Probability that Total PCE Inflation Is above 3 Percent

(4 quarters ahead)



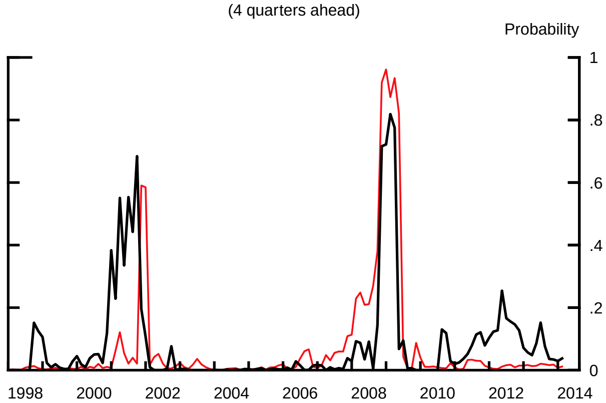
Probability that Total PCE Inflation Is below 1 Percent

(4 quarters ahead)



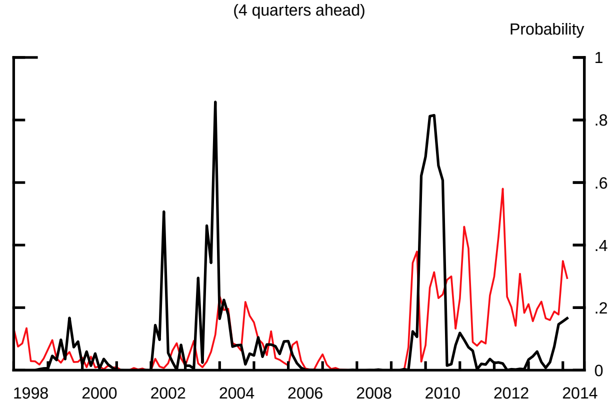
Probability that the Unemployment Rate Increases 1 ppt

(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.

Risks & Uncertainty

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

Interval	Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate[1]	
	03/12/14	04/23/14	03/12/14	04/23/14	03/12/14	04/23/14	03/12/14	04/23/14	03/12/14	04/23/14
Quarterly										
2013:Q1	2.8	2.8	1.1	1.1	1.1	1.1	1.4	1.4	7.7	7.7
Q2	3.1	3.1	2.5	2.5	-.1	-.1	.6	.6	7.5	7.5
Q3	6.2	6.2	4.1	4.1	1.9	1.9	1.4	1.4	7.3	7.3
Q4	3.9	4.2	2.2	2.6	1.0	1.1	1.3	1.3	7.0	7.0
2014:Q1	3.0	2.3	1.5	.7	1.4	1.5	1.2	1.3	6.6	6.7
Q2	5.0	5.1	3.5	3.5	1.3	1.6	1.5	1.5	6.5	6.6
Q3	5.0	5.2	3.2	3.4	1.6	1.7	1.6	1.6	6.4	6.4
Q4	5.3	5.5	3.5	3.6	1.5	1.5	1.6	1.6	6.2	6.2
2015:Q1	5.2	5.4	3.2	3.4	1.6	1.5	1.7	1.7	6.0	6.0
Q2	5.1	5.1	3.2	3.2	1.6	1.5	1.8	1.7	5.9	5.9
Q3	5.0	5.0	3.2	3.2	1.6	1.5	1.7	1.7	5.7	5.7
Q4	5.0	4.9	3.3	3.2	1.5	1.5	1.6	1.6	5.6	5.6
Two-quarter[2]										
2013:Q2	3.0	3.0	1.8	1.8	.5	.5	1.0	1.0	-.3	-.3
Q4	5.1	5.2	3.2	3.4	1.5	1.5	1.3	1.3	-.5	-.5
2014:Q2	4.0	3.7	2.5	2.0	1.4	1.5	1.4	1.4	-.5	-.4
Q4	5.1	5.3	3.4	3.5	1.6	1.6	1.6	1.6	-.3	-.4
2015:Q2	5.2	5.2	3.2	3.3	1.6	1.5	1.7	1.7	-.3	-.3
Q4	5.0	5.0	3.2	3.2	1.5	1.5	1.7	1.7	-.3	-.3
Four-quarter[3]										
2012:Q4	3.8	3.8	2.0	2.0	1.7	1.7	1.7	1.7	-.9	-.9
2013:Q4	4.0	4.1	2.5	2.6	1.0	1.0	1.2	1.2	-.8	-.8
2014:Q4	4.6	4.5	2.9	2.8	1.5	1.6	1.5	1.5	-.8	-.8
2015:Q4	5.1	5.1	3.2	3.2	1.5	1.5	1.7	1.7	-.6	-.6
2016:Q4	4.9	5.0	3.0	3.1	1.7	1.6	1.8	1.8	-.5	-.5
Annual										
2012	4.6	4.6	2.8	2.8	1.8	1.8	1.8	1.8	8.1	8.1
2013	3.4	3.4	1.9	1.9	1.1	1.1	1.2	1.2	7.4	7.4
2014	4.3	4.3	2.7	2.6	1.3	1.4	1.3	1.4	6.4	6.5
2015	5.1	5.2	3.3	3.4	1.5	1.6	1.7	1.7	5.8	5.8
2016	5.0	5.0	3.1	3.1	1.6	1.6	1.8	1.8	5.3	5.3

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	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2013[1]	2014[1]	2015[1]	2016[1]
Real GDP	2.5	4.1	2.6	.7	3.5	3.4	3.6	3.4	3.2	3.2	3.2	2.6	2.8	3.2	3.1
Previous Tealbook	2.5	4.1	2.2	1.5	3.5	3.2	3.5	3.2	3.2	3.2	3.3	2.5	2.9	3.2	3.0
Final sales	2.1	2.5	2.7	.9	3.7	3.7	3.5	3.8	3.5	3.4	3.2	1.8	2.9	3.5	3.2
Previous Tealbook	2.1	2.5	2.1	1.9	3.7	3.2	3.4	3.6	3.5	3.4	3.3	1.7	3.0	3.4	3.1
Priv. dom. final purch.	2.6	2.7	3.2	2.3	4.0	4.7	4.7	4.8	4.5	4.2	4.0	2.5	3.9	4.4	3.6
Previous Tealbook	2.6	2.7	2.5	2.5	4.2	4.2	4.5	4.5	4.5	4.3	4.1	2.4	3.9	4.4	3.5
Personal cons. expend.	1.8	2.0	3.3	2.5	3.8	4.0	4.1	4.2	3.8	3.6	3.4	2.3	3.6	3.7	2.9
Previous Tealbook	1.8	2.0	2.6	2.6	3.7	3.8	3.9	3.9	3.8	3.6	3.5	2.1	3.5	3.7	2.9
Durables	6.2	7.9	2.8	-1.1	8.4	10.8	10.2	9.6	9.7	8.8	8.6	5.6	7.0	9.2	6.5
Nondurables	1.6	2.9	2.9	.1	4.9	3.3	3.3	3.5	3.0	2.9	2.6	2.6	2.9	3.0	2.4
Services	1.2	.7	3.5	4.0	2.7	3.2	3.5	3.6	3.2	3.0	2.8	1.7	3.3	3.1	2.6
Residential investment	14.2	10.3	-7.9	-2.1	6.3	16.9	14.7	16.5	15.6	14.1	12.0	6.9	8.7	14.5	12.0
Previous Tealbook	14.2	10.3	-8.6	2.9	10.4	11.7	14.6	16.6	16.3	14.8	12.9	6.7	9.8	15.1	11.0
Nonres. priv. fixed invest.	4.7	4.8	5.7	2.2	4.7	5.2	5.3	5.0	5.0	5.0	4.9	2.6	4.3	5.0	4.7
Previous Tealbook	4.7	4.8	5.5	1.6	5.7	4.6	5.2	5.0	5.0	5.0	5.1	2.5	4.3	5.0	4.3
Equipment & intangibles	1.3	2.4	8.0	1.5	3.5	5.1	5.2	5.6	5.8	5.7	5.6	3.5	3.8	5.7	5.6
Previous Tealbook	1.3	2.4	7.6	1.6	5.2	4.6	5.3	5.8	5.8	5.8	5.9	3.4	4.2	5.8	5.0
Nonres. structures	17.6	13.4	-1.8	4.5	8.5	5.4	5.4	2.9	2.6	2.5	2.5	-.7	6.0	2.6	2.0
Previous Tealbook	17.6	13.4	-1.4	1.9	7.3	4.7	4.6	2.4	2.4	2.4	2.5	-.6	4.6	2.4	1.9
Net exports[2]	-424	-420	-383	-421	-408	-414	-427	-433	-437	-441	-445	-412	-418	-439	-446
Previous Tealbook[2]	-424	-420	-383	-392	-384	-389	-401	-404	-410	-414	-420	-412	-392	-412	-419
Exports	8.0	3.9	9.5	-5.5	3.4	4.4	4.8	4.9	5.1	5.2	4.9	4.9	1.7	5.0	5.6
Imports	6.9	2.4	1.5	1.5	.7	4.6	6.2	5.0	4.9	4.9	4.7	2.8	3.2	4.9	4.6
Gov't. cons. & invest.	-.4	.4	-5.2	.2	-.3	-.7	-.5	-.9	-.8	-.8	-.2	-2.4	-.3	-.7	.5
Previous Tealbook	-.4	.4	-5.2	.3	-.5	-.9	-.6	-1.1	-.8	-.8	-.2	-2.4	-.4	-.7	.5
Federal	-1.6	-1.5	-12.8	3.3	-2.5	-3.1	-2.6	-3.9	-3.8	-3.9	-2.5	-6.2	-1.3	-3.5	-1.1
Defense	-.6	-.5	-14.4	2.4	-5.2	-5.1	-3.1	-4.5	-4.2	-4.1	-2.5	-6.9	-2.8	-3.8	-1.9
Nondefense	-3.1	-3.1	-10.0	4.7	2.1	.3	-2.0	-3.0	-3.0	-3.5	-2.5	-5.0	1.2	-3.0	.0
State & local	.4	1.7	.0	-1.7	1.2	.8	.9	1.0	1.1	1.1	1.1	.2	.3	1.1	1.5
Change in priv. inventories[2]	57	116	112	105	102	92	96	84	72	67	66	82	99	72	57
Previous Tealbook[2]	57	116	117	109	106	105	111	100	90	85	83	83	108	90	80
Nonfarm[2]	33	89	89	93	95	87	91	82	70	64	63	58	92	70	55
Farm[2]	19	23	20	12	7	5	5	2	2	2	2	20	7	2	2

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	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Real GDP	1.9	-2.8	-.2	2.8	2.0	2.0	2.6	2.8	3.2	3.1
Previous Tealbook	1.9	-2.8	-.2	2.8	2.0	2.0	2.5	2.9	3.2	3.0
Final sales	2.0	-2.2	-.4	2.0	1.8	2.5	1.8	2.9	3.5	3.2
Previous Tealbook	2.0	-2.2	-.4	2.0	1.8	2.5	1.7	3.0	3.4	3.1
Priv. dom. final purch.	.8	-4.1	-2.3	3.5	3.0	2.9	2.5	3.9	4.4	3.6
Previous Tealbook	.8	-4.1	-2.3	3.5	3.0	2.9	2.4	3.9	4.4	3.5
Personal cons. expend.	1.5	-2.0	-.1	3.1	2.0	2.0	2.3	3.6	3.7	2.9
Previous Tealbook	1.5	-2.0	-.1	3.1	2.0	2.0	2.1	3.5	3.7	2.9
Durables	4.1	-12.9	2.5	9.3	5.7	7.8	5.6	7.0	9.2	6.5
Nondurables	.1	-2.7	.2	3.3	.7	1.6	2.6	2.9	3.0	2.4
Services	1.5	.2	-.6	2.1	1.9	1.3	1.7	3.3	3.1	2.6
Residential investment	-21.3	-24.3	-10.8	-5.2	5.6	15.5	6.9	8.7	14.5	12.0
Previous Tealbook	-21.3	-24.3	-10.8	-5.2	5.6	15.5	6.7	9.8	15.1	11.0
Nonres. priv. fixed invest.	7.1	-8.9	-12.2	8.1	8.6	5.0	2.6	4.3	5.0	4.7
Previous Tealbook	7.1	-8.9	-12.2	8.1	8.6	5.0	2.5	4.3	5.0	4.3
Equipment & intangibles	3.9	-11.8	-6.0	12.0	8.7	3.9	3.5	3.8	5.7	5.6
Previous Tealbook	3.9	-11.8	-6.0	12.0	8.7	3.9	3.4	4.2	5.8	5.0
Nonres. structures	17.1	-1.2	-27.1	-4.0	8.3	9.3	-.7	6.0	2.6	2.0
Previous Tealbook	17.1	-1.2	-27.1	-4.0	8.3	9.3	-.6	4.6	2.4	1.9
Net exports[1]	-704	-547	-392	-463	-446	-431	-412	-418	-439	-446
Previous Tealbook[1]	-704	-547	-392	-463	-446	-431	-412	-392	-412	-419
Exports	9.8	-2.9	.4	9.8	4.6	2.4	4.9	1.7	5.0	5.6
Imports	.7	-5.9	-6.2	11.7	3.5	.1	2.8	3.2	4.9	4.6
Gov't. cons. & invest.	1.8	3.3	2.3	-1.1	-3.3	-1.1	-2.4	-.3	-.7	.5
Previous Tealbook	1.8	3.3	2.3	-1.1	-3.3	-1.1	-2.4	-.4	-.7	.5
Federal	2.7	8.4	3.9	3.2	-3.9	-2.3	-6.2	-1.3	-3.5	-1.1
Defense	2.5	9.4	3.6	2.0	-4.2	-5.0	-6.9	-2.8	-3.8	-1.9
Nondefense	2.9	6.5	4.6	5.5	-3.3	2.6	-5.0	1.2	-3.0	.0
State & local	1.2	.2	1.3	-4.0	-2.8	-.3	.2	.3	1.1	1.5
Change in priv. inventories[1]	36	-34	-148	58	34	58	82	99	72	57
Previous Tealbook[1]	36	-34	-148	58	34	58	83	108	90	80
Nonfarm[1]	37	-35	-146	66	40	69	58	92	70	55
Farm[1]	-1	1	-2	-7	-4	-7	20	7	2	2

1. Billions of chained (2009) dollars.

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

Item	2013			2014				2015							
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2013[1]	2014[1]	2015[1]	2016[1]
Real GDP	2.5	4.1	2.6	.7	3.5	3.4	3.6	3.4	3.2	3.2	3.2	2.6	2.8	3.2	3.1
Previous Tealbook	2.5	4.1	2.2	1.5	3.5	3.2	3.5	3.2	3.2	3.2	3.3	2.5	2.9	3.2	3.0
Final sales	2.1	2.5	2.6	.9	3.6	3.6	3.5	3.7	3.5	3.3	3.2	1.8	2.9	3.4	3.2
Previous Tealbook	2.1	2.5	2.1	1.9	3.6	3.2	3.4	3.5	3.5	3.4	3.3	1.7	3.0	3.4	3.1
Priv. dom. final purch.	2.2	2.3	2.7	1.9	3.3	3.9	3.9	4.0	3.8	3.6	3.4	2.1	3.3	3.7	3.1
Previous Tealbook	2.2	2.3	2.1	2.1	3.5	3.5	3.7	3.8	3.8	3.6	3.5	2.0	3.2	3.7	3.0
Personal cons. expend.	1.2	1.4	2.2	1.7	2.6	2.8	2.8	2.9	2.6	2.5	2.3	1.6	2.5	2.6	2.0
Previous Tealbook	1.2	1.4	1.7	1.8	2.5	2.6	2.6	2.6	2.6	2.5	2.4	1.5	2.4	2.5	2.0
Durables	.5	.6	.2	-.1	.6	.8	.7	.7	.7	.7	.6	.4	.5	.7	.5
Nondurables	.3	.5	.5	.0	.8	.5	.5	.5	.5	.4	.4	.4	.4	.5	.4
Services	.5	.3	1.6	1.8	1.2	1.5	1.6	1.6	1.4	1.4	1.3	.8	1.5	1.4	1.2
Residential investment	.4	.3	-.3	-.1	.2	.5	.5	.5	.5	.5	.4	.2	.3	.5	.5
Previous Tealbook	.4	.3	-.3	.1	.3	.4	.5	.5	.5	.5	.5	.2	.3	.5	.4
Nonres. priv. fixed invest.	.6	.6	.7	.3	.6	.6	.6	.6	.6	.6	.6	.3	.5	.6	.6
Previous Tealbook	.6	.6	.7	.2	.7	.6	.6	.6	.6	.6	.6	.3	.5	.6	.5
Equipment & intangibles	.1	.2	.7	.1	.3	.5	.5	.5	.5	.5	.5	.3	.4	.5	.5
Previous Tealbook	.1	.2	.7	.1	.5	.4	.5	.5	.5	.5	.6	.3	.4	.6	.5
Nonres. structures	.4	.4	-.1	.1	.2	.2	.2	.1	.1	.1	.1	.0	.2	.1	.1
Previous Tealbook	.4	.4	.0	.1	.2	.1	.1	.1	.1	.1	.1	.0	.1	.1	.1
Net exports	-.1	.1	1.0	-1.0	.3	-.1	-.3	-.1	-.1	-.1	-.1	.2	-.3	-.1	.0
Previous Tealbook	-.1	.1	1.0	-.2	.2	-.1	-.3	-.1	-.2	-.1	-.1	.2	-.1	-.1	.0
Exports	1.0	.5	1.2	-.8	.5	.6	.6	.6	.7	.7	.6	.7	.2	.7	.7
Imports	-1.1	-.4	-.2	-.2	-.1	-.7	-1.0	-.8	-.8	-.8	-.8	-.5	-.5	-.8	-.7
Gov't. cons. & invest.	-.1	.1	-1.0	.0	.0	-.1	-.1	-.2	-.1	-.1	.0	-.5	-.1	-.1	.1
Previous Tealbook	-.1	.1	-1.0	.1	-.1	-.2	-.1	-.2	-.1	-.1	.0	-.5	-.1	-.1	.1
Federal	-.1	-.1	-1.0	.2	-.2	-.2	-.2	-.3	-.3	-.3	-.2	-.5	-.1	-.2	-.1
Defense	.0	.0	-.7	.1	-.2	-.2	-.1	-.2	-.2	-.2	-.1	-.3	-.1	-.2	-.1
Nondefense	-.1	-.1	-.3	.1	.1	.0	-.1	-.1	-.1	-.1	-.1	-.1	.0	-.1	.0
State & local	.1	.2	.0	-.2	.1	.1	.1	.1	.1	.1	.1	.0	.0	.1	.2
Change in priv. inventories	.4	1.7	.0	-.3	-.2	-.2	.1	-.3	-.3	-.1	.0	.7	-.1	-.2	-.1
Previous Tealbook	.4	1.7	.1	-.4	-.2	.0	.2	-.3	-.2	-.1	-.1	.8	-.1	-.2	.0
Nonfarm	.3	1.6	.0	.1	.1	-.2	.1	-.2	-.3	-.1	.0	.5	.0	-.2	-.1
Farm	.1	.1	-.1	-.4	-.2	.0	.0	-.1	.0	.0	.0	.3	-.2	.0	.0

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

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

Item	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2013[1]	2014[1]	2015[1]	2016[1]
GDP chain-wt. price index	.6	2.0	1.6	1.7	1.6	1.8	1.8	2.0	1.8	1.8	1.7	1.4	1.7	1.8	1.8
Previous Tealbook	.6	2.0	1.7	1.5	1.5	1.8	1.7	1.9	1.8	1.8	1.7	1.4	1.6	1.8	1.8
PCE chain-wt. price index	-.1	1.9	1.1	1.5	1.6	1.7	1.5	1.5	1.5	1.5	1.5	1.0	1.6	1.5	1.6
Previous Tealbook	-.1	1.9	1.0	1.4	1.3	1.6	1.5	1.6	1.6	1.6	1.5	1.0	1.5	1.5	1.7
Energy	-11.9	11.8	-1.0	4.1	1.6	2.8	.5	-.9	-1.4	-1.3	-1.3	-1.5	2.3	-1.2	-.9
Previous Tealbook	-11.9	11.8	-1.0	4.3	-.6	2.2	.3	-.6	-1.0	-.9	-.8	-1.5	1.5	-.8	-.3
Food	.5	1.2	.1	1.4	2.6	1.6	1.2	1.1	1.3	1.3	1.4	.8	1.7	1.3	1.4
Previous Tealbook	.5	1.2	.1	.6	1.2	1.4	1.1	1.1	1.3	1.3	1.4	.8	1.1	1.3	1.4
Ex. food & energy	.6	1.4	1.3	1.3	1.5	1.6	1.6	1.7	1.7	1.7	1.6	1.2	1.5	1.7	1.8
Previous Tealbook	.6	1.4	1.3	1.2	1.5	1.6	1.6	1.7	1.8	1.7	1.6	1.2	1.5	1.7	1.8
Ex. food & energy, market based	.5	1.4	1.0	1.1	1.5	1.6	1.5	1.8	1.8	1.7	1.6	1.2	1.4	1.7	1.8
Previous Tealbook	.5	1.4	1.0	1.0	1.5	1.6	1.5	1.8	1.8	1.7	1.6	1.1	1.4	1.7	1.8
CPI	.4	2.2	1.1	1.9	2.1	2.0	1.8	1.7	1.7	1.7	1.6	1.2	2.0	1.7	1.7
Previous Tealbook	.4	2.2	1.1	1.9	1.7	2.0	1.8	1.7	1.7	1.7	1.7	1.2	1.8	1.7	1.8
Ex. food & energy	1.4	1.8	1.6	1.6	2.0	2.0	2.0	2.1	2.1	2.0	1.9	1.7	1.9	2.0	2.0
Previous Tealbook	1.4	1.8	1.6	1.7	2.0	2.0	2.0	2.1	2.1	2.0	1.9	1.7	1.9	2.0	2.0
ECI, hourly compensation[2]	2.4	1.7	2.0	2.4	2.5	2.5	2.6	2.8	2.9	2.9	2.9	2.0	2.5	2.9	3.2
Previous Tealbook[2]	2.4	1.7	2.0	2.4	2.5	2.5	2.6	2.8	2.9	2.9	2.9	2.0	2.5	2.9	3.2
Nonfarm business sector															
Output per hour	1.8	3.5	2.2	-1.0	1.1	2.0	1.7	1.6	1.7	1.6	1.7	1.4	.9	1.6	1.9
Previous Tealbook	1.8	3.5	1.6	1.4	1.2	1.4	1.4	1.4	1.4	1.4	1.4	1.2	1.4	1.4	1.8
Compensation per hour	3.8	1.3	1.7	2.8	1.3	2.9	3.1	3.2	3.2	3.2	3.3	.3	2.5	3.2	3.4
Previous Tealbook	3.8	1.3	1.7	2.5	2.6	3.0	3.1	3.2	3.3	3.3	3.5	.3	2.8	3.3	3.6
Unit labor costs	2.0	-2.1	-.5	3.9	.2	.9	1.4	1.6	1.5	1.5	1.6	-1.0	1.6	1.6	1.5
Previous Tealbook	2.0	-2.1	.1	1.0	1.4	1.6	1.7	1.8	1.9	1.9	2.0	-.9	1.4	1.9	1.7
Core goods imports chain-wt. price index[3]	-2.4	-3.2	.6	1.3	.9	1.7	1.3	1.3	1.3	1.3	1.3	-1.1	1.3	1.3	1.3
Previous Tealbook[3]	-2.4	-3.2	.6	1.1	.5	1.6	1.2	1.3	1.3	1.3	1.3	-1.1	1.1	1.3	1.4

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	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GDP chain-wt. price index	2.5	1.9	.4	1.8	1.8	1.8	1.4	1.7	1.8	1.8
Previous Tealbook	2.5	1.9	.4	1.8	1.8	1.8	1.4	1.6	1.8	1.8
PCE chain-wt. price index	3.3	1.5	1.2	1.3	2.6	1.7	1.0	1.6	1.5	1.6
Previous Tealbook	3.3	1.5	1.2	1.3	2.6	1.7	1.0	1.5	1.5	1.7
Energy	19.1	-8.2	2.3	6.4	11.7	2.1	-1.5	2.3	-1.2	-.9
Previous Tealbook	19.1	-8.2	2.3	6.4	11.7	2.1	-1.5	1.5	-.8	-.3
Food	4.9	6.9	-1.8	1.3	5.1	1.2	.8	1.7	1.3	1.4
Previous Tealbook	4.9	6.9	-1.8	1.3	5.1	1.2	.8	1.1	1.3	1.4
Ex. food & energy	2.2	1.6	1.4	1.0	1.8	1.7	1.2	1.5	1.7	1.8
Previous Tealbook	2.2	1.6	1.4	1.0	1.8	1.7	1.2	1.5	1.7	1.8
Ex. food & energy, market based	2.1	2.2	1.8	.7	1.9	1.5	1.2	1.4	1.7	1.8
Previous Tealbook	2.1	2.2	1.8	.7	1.9	1.5	1.1	1.4	1.7	1.8
CPI	4.0	1.6	1.5	1.2	3.3	1.9	1.2	2.0	1.7	1.7
Previous Tealbook	4.0	1.6	1.5	1.2	3.3	1.9	1.2	1.8	1.7	1.8
Ex. food & energy	2.3	2.0	1.8	.6	2.2	1.9	1.7	1.9	2.0	2.0
Previous Tealbook	2.3	2.0	1.8	.6	2.2	1.9	1.7	1.9	2.0	2.0
ECI, hourly compensation[1]	3.0	2.4	1.2	2.1	2.2	1.8	2.0	2.5	2.9	3.2
Previous Tealbook[1]	3.0	2.4	1.2	2.1	2.2	1.8	2.0	2.5	2.9	3.2
Nonfarm business sector										
Output per hour	2.4	-.5	5.5	1.9	.4	.8	1.4	.9	1.6	1.9
Previous Tealbook	2.4	-.5	5.5	1.9	.4	.8	1.2	1.4	1.4	1.8
Compensation per hour	3.9	3.0	1.2	1.6	1.0	5.3	.3	2.5	3.2	3.4
Previous Tealbook	3.9	3.0	1.2	1.6	1.0	5.3	.3	2.8	3.3	3.6
Unit labor costs	1.5	3.5	-4.0	-.3	.5	4.4	-1.0	1.6	1.6	1.5
Previous Tealbook	1.5	3.5	-4.0	-.3	.5	4.4	-.9	1.4	1.9	1.7
Core goods imports chain-wt. price index[2]	3.0	3.9	-1.9	2.3	4.2	.1	-1.1	1.3	1.3	1.3
Previous Tealbook[2]	3.0	3.9	-1.9	2.3	4.2	.1	-1.1	1.1	1.3	1.4

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

Other Macroeconomic Indicators

Item	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2013[1]	2014[1]	2015[1]	2016[1]
Employment and production															
Nonfarm payroll employment[2]	.6	.5	.6	.5	.6	.6	.7	.7	.7	.7	.7	2.4	2.4	2.7	2.6
Unemployment rate[3]	7.5	7.3	7.0	6.7	6.6	6.4	6.2	6.0	5.9	5.7	5.6	7.0	6.2	5.6	5.1
Previous Tealbook[3]	7.5	7.3	7.0	6.6	6.5	6.4	6.2	6.0	5.9	5.7	5.6	7.0	6.2	5.6	5.1
Natural rate of unemployment[3]	5.6	5.5	5.5	5.4	5.4	5.4	5.3	5.3	5.2	5.2	5.2	5.5	5.3	5.2	5.2
Previous Tealbook[3]	5.6	5.5	5.5	5.4	5.4	5.4	5.3	5.3	5.2	5.2	5.2	5.5	5.3	5.2	5.2
GDP gap[4]	-3.8	-3.2	-2.9	-3.2	-2.8	-2.4	-2.0	-1.6	-1.3	-1.0	-.7	-2.9	-2.0	-.7	.4
Previous Tealbook[4]	-3.8	-3.2	-3.0	-3.1	-2.7	-2.3	-1.9	-1.6	-1.3	-1.0	-.7	-3.0	-1.9	-.7	.4
Industrial production[5]	1.9	2.5	4.8	4.4	4.4	4.4	3.5	4.9	4.4	3.5	2.6	3.3	4.2	3.8	3.5
Previous Tealbook[5]	1.2	2.5	5.4	2.3	4.7	4.3	3.5	4.4	4.5	3.9	3.2	3.3	3.7	4.0	3.5
Manufacturing industr. prod.[5]	1.3	1.9	4.2	1.7	5.1	3.3	3.5	3.8	3.7	3.5	3.5	2.9	3.4	3.6	3.6
Previous Tealbook[5]	.1	1.6	4.6	-.1	4.1	3.3	3.6	3.9	4.1	3.9	3.9	2.8	2.7	4.0	3.6
Capacity utilization rate - mfg.[3]	75.9	76.0	76.4	76.2	76.7	76.8	76.9	77.1	77.3	77.4	77.6	76.4	76.9	77.6	78.1
Previous Tealbook[3]	76.1	76.1	76.6	76.3	76.7	76.9	77.2	77.5	77.8	78.0	78.3	76.6	77.2	78.3	79.1
Housing starts[6]	.9	.9	1.0	.9	1.0	1.1	1.2	1.2	1.3	1.3	1.4	.9	1.1	1.3	1.5
Light motor vehicle sales[6]	15.5	15.7	15.6	15.6	15.9	16.0	16.1	16.2	16.4	16.5	16.6	15.5	15.9	16.5	16.7
Income and saving															
Nominal GDP[5]	3.1	6.2	4.2	2.3	5.1	5.2	5.5	5.4	5.1	5.0	4.9	4.1	4.5	5.1	5.0
Real disposable pers. income[5]	4.1	3.0	.8	2.7	4.0	2.7	2.9	4.0	2.8	3.2	3.3	-.1	3.0	3.3	3.2
Previous Tealbook[5]	4.1	3.0	.6	2.4	3.7	2.9	2.9	3.9	2.8	3.1	3.3	-.2	3.0	3.2	3.1
Personal saving rate[3]	4.7	4.9	4.3	4.4	4.4	4.1	3.8	3.8	3.5	3.5	3.4	4.3	3.8	3.4	3.7
Previous Tealbook[3]	4.7	4.9	4.5	4.5	4.5	4.3	4.0	4.0	3.8	3.6	3.6	4.5	4.0	3.6	3.8
Corporate profits[7]	13.9	7.7	9.2	-7.6	6.0	10.7	8.3	1.8	5.4	3.4	2.7	6.2	4.1	3.3	4.7
Profit share of GNP[3]	12.3	12.4	12.5	12.2	12.2	12.4	12.5	12.4	12.4	12.4	12.3	12.5	12.5	12.3	12.3
Net federal saving[8]	-653	-850	-652	-616	-610	-606	-584	-585	-561	-548	-538	-752	-604	-558	-582
Net state & local saving[8]	-198	-226	-230	-226	-201	-199	-189	-185	-164	-160	-151	-221	-204	-165	-134
Gross national saving rate[3]	17.7	17.8	18.1	18.0	18.3	18.3	18.3	18.2	18.3	18.4	18.5	18.1	18.3	18.5	18.8
Net national saving rate[3]	2.5	2.7	3.1	3.6	3.9	3.9	4.0	3.8	4.0	4.0	4.1	3.1	4.0	4.1	4.5

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

Other Macroeconomic Indicators

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

Item	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Employment and production										
Nonfarm payroll employment[1]	1.2	-2.8	-5.6	.8	2.0	2.2	2.4	2.4	2.7	2.6
Unemployment rate[2]	4.8	6.9	9.9	9.5	8.7	7.8	7.0	6.2	5.6	5.1
Previous Tealbook[2]	4.8	6.9	9.9	9.5	8.7	7.8	7.0	6.2	5.6	5.1
Natural rate of unemployment[2]	5.3	5.6	6.2	6.2	6.0	5.8	5.5	5.3	5.2	5.2
Previous Tealbook[2]	5.3	5.6	6.2	6.2	6.0	5.8	5.5	5.3	5.2	5.2
GDP gap[3]	1.0	-4.0	-5.8	-4.8	-4.3	-3.9	-2.9	-2.0	-.7	.4
Previous Tealbook[3]	1.0	-4.0	-5.8	-4.8	-4.3	-3.9	-3.0	-1.9	-.7	.4
Industrial production[4]	2.6	-8.9	-5.5	6.2	3.2	3.2	3.3	4.2	3.8	3.5
Previous Tealbook[4]	2.7	-8.9	-5.5	6.2	3.3	2.8	3.3	3.7	4.0	3.5
Manufacturing industr. prod.[4]	2.8	-11.6	-6.1	6.4	3.1	3.5	2.9	3.4	3.6	3.6
Previous Tealbook[4]	2.9	-11.6	-6.1	6.4	3.3	2.8	2.8	2.7	4.0	3.6
Capacity utilization rate - mfg.[2]	78.5	70.0	67.1	72.7	74.6	75.5	76.4	76.9	77.6	78.1
Previous Tealbook[2]	78.4	69.9	67.2	72.9	74.8	75.7	76.6	77.2	78.3	79.1
Housing starts[5]	1.4	.9	.6	.6	.6	.8	.9	1.1	1.3	1.5
Light motor vehicle sales[5]	16.1	13.1	10.4	11.5	12.7	14.4	15.5	15.9	16.5	16.7
Income and saving										
Nominal GDP[4]	4.4	-1.0	.1	4.6	3.9	3.8	4.1	4.5	5.1	5.0
Real disposable pers. income[4]	1.2	1.1	-.6	2.5	1.4	3.6	-.1	3.0	3.3	3.2
Previous Tealbook[4]	1.2	1.1	-.6	2.5	1.4	3.6	-.2	3.0	3.2	3.1
Personal saving rate[2]	2.9	6.1	5.7	5.5	5.0	6.6	4.3	3.8	3.4	3.7
Previous Tealbook[2]	2.9	6.1	5.7	5.5	5.0	6.6	4.5	4.0	3.6	3.8
Corporate profits[6]	-9.0	-30.8	54.5	17.0	8.4	2.7	6.2	4.1	3.3	4.7
Profit share of GNP[2]	9.9	6.9	10.7	11.9	12.4	12.3	12.5	12.5	12.3	12.3
Net federal saving[7]	-267	-635	-1,250	-1,330	-1,248	-1,110	-752	-604	-558	-582
Net state & local saving[7]	-73	-165	-272	-237	-213	-253	-221	-204	-165	-134
Gross national saving rate[2]	16.3	15.0	14.7	15.2	15.8	16.9	18.1	18.3	18.5	18.8
Net national saving rate[2]	1.0	-1.6	-1.6	-.4	.5	1.7	3.1	4.0	4.1	4.5

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				2013				2014				2015			
	2013[a]	2014	2015	2016	Q1[a]	Q2[a]	Q3[a]	Q4[a]	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unified budget					Not seasonally adjusted											
Receipts[1]	2,775	3,051	3,278	3,482	581	891	687	665	656	964	766	737	674	1,038	829	771
Outlays[1]	3,455	3,502	3,700	3,933	888	800	857	837	897	894	874	935	947	925	893	963
Surplus/deficit[1]	-680	-451	-422	-451	-307	91	-170	-173	-241	70	-108	-198	-273	113	-65	-192
Previous Tealbook	*-680*	*-484*	*-419*	*-448*	*-307*	*91*	*-170*	*-174*	*-301*	*90*	*-99*	*-196*	*-272*	*114*	*-65*	*-192*
On-budget	-719	-482	-451	-471	-303	36	-143	-183	-238	17	-78	-223	-256	62	-33	-214
Off-budget	39	31	28	20	-4	55	-28	10	-3	53	-29	25	-17	51	-32	22
Means of financing:																
Borrowing	702	653	542	571	336	-17	69	371	262	-38	58	228	303	-83	95	222
Cash decrease	-3	18	0	0	14	-56	46	-74	20	-8	80	0	0	0	0	0
Other[2]	-20	-221	-120	-120	-43	-18	55	-124	-42	-25	-30	-30	-30	-30	-30	-30
Cash operating balance, end of period	88	70	70	70	79	135	88	162	142	150	70	70	70	70	70	70
NIPA federal sector					Seasonally adjusted annual rates											
Receipts	2,938	3,230	3,448	3,644	2,900	3,167	2,976	3,120	3,222	3,266	3,311	3,361	3,430	3,476	3,524	3,570
Expenditures	3,797	3,851	4,017	4,215	3,753	3,820	3,826	3,772	3,838	3,877	3,916	3,944	4,014	4,037	4,072	4,108
Consumption expenditures	981	951	944	944	982	976	972	953	951	951	949	946	949	944	938	936
Defense	620	597	591	590	620	616	615	598	601	597	593	592	593	590	588	587
Nondefense	361	354	354	353	363	360	358	356	350	354	356	355	356	353	351	349
Other spending	2,815	2,900	3,073	3,271	2,771	2,844	2,853	2,819	2,887	2,926	2,968	2,998	3,066	3,093	3,134	3,172
Current account surplus	-859	-621	-569	-571	-853	-653	-850	-652	-616	-610	-606	-584	-585	-561	-548	-538
Gross investment	277	270	261	255	273	277	279	271	273	270	267	265	262	259	257	256
Gross saving less gross investment[3]	-870	-619	-552	-540	-860	-663	-861	-653	-618	-608	-598	-573	-569	-541	-524	-511
Fiscal indicators[4]																
High-employment (HEB) surplus/deficit	-653.5	-443.3	-450.0	-519.0	-629.4	-440.7	-659.9	-472.0	-425.1	-433.3	-443.0	-438.5	-456.2	-450.0	-455.2	-462.7
Change in HEB, percent of potential GDP	-1.9	-1.3	-.1	.3	-1.5	-1.1	1.2	-1.1	-.3	.0	.0	.0	.1	-.1	.0	.0
Fiscal impetus (FI), percent of GDP	-1.2	-.5	-.3	-.1	-1.9	-.8	-.5	-1.6	-.5	-.7	-.4	-.4	-.7	-.2	-.2	-.2
Previous Tealbook	*-1.2*	*-.6*	*-.4*	*-.1*	*-2.0*	*-.7*	*-.7*	*-1.5*	*-.5*	*-.7*	*-.6*	*-.4*	*-.6*	*-.4*	*-.3*	*-.2*

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.

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

	2013				---Projected--- 2014				2015			
Measure and country	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP[1]												
Total foreign	2.0	2.4	3.0	2.8	2.3	2.7	3.2	3.2	3.2	3.3	3.3	3.1
Previous Tealbook	*2.0*	*2.4*	*3.0*	*2.8*	*2.7*	*2.8*	*3.1*	*3.2*	*3.3*	*3.3*	*3.4*	*3.2*
Advanced foreign economies	1.8	2.2	1.9	2.1	1.8	1.9	2.1	2.2	2.2	2.2	2.3	1.9
Canada	2.9	2.2	2.7	2.9	1.5	3.3	2.6	2.6	2.7	2.7	2.7	2.7
Japan	4.5	4.1	.9	.7	3.1	-3.4	1.7	1.8	1.4	1.2	2.2	-1.6
United Kingdom	1.4	3.1	3.4	2.7	3.0	2.9	2.9	2.9	2.7	2.7	2.6	2.4
Euro area	-.9	1.3	.6	.9	1.4	1.4	1.4	1.4	1.5	1.7	1.7	1.8
Germany	.0	2.9	1.3	1.5	1.9	1.9	1.9	1.9	2.0	2.0	2.2	2.2
Emerging market economies	2.2	2.6	4.2	3.4	2.7	3.6	4.2	4.3	4.3	4.3	4.3	4.3
Asia	3.5	5.0	6.0	6.2	4.0	4.5	5.5	5.5	5.5	5.5	5.4	5.4
Korea	2.5	4.1	4.4	3.6	3.2	3.5	4.3	4.3	4.2	4.2	4.2	4.2
China	6.5	7.2	8.8	8.0	5.6	6.2	7.5	7.5	7.3	7.3	7.2	7.2
Latin America	1.0	.2	2.7	1.0	1.5	2.8	3.1	3.2	3.3	3.3	3.4	3.4
Mexico	.8	-2.7	3.9	.7	2.0	3.2	3.3	3.5	3.6	3.6	3.6	3.6
Brazil	.0	7.5	-2.1	2.8	.4	2.2	2.5	2.5	2.6	2.6	2.7	2.7
Consumer prices[2]												
Total foreign	2.3	1.9	2.7	2.4	2.0	3.0	2.5	2.5	2.5	2.5	2.6	3.0
Previous Tealbook	*2.3*	*1.9*	*2.8*	*2.4*	*2.1*	*3.2*	*2.4*	*2.5*	*2.5*	*2.5*	*2.6*	*3.0*
Advanced foreign economies	.9	.5	2.0	.7	1.1	2.7	1.3	1.4	1.4	1.4	1.5	2.6
Canada	1.6	-.1	1.9	.5	2.7	1.8	1.6	1.7	1.7	1.7	1.8	1.8
Japan	.0	.8	3.0	1.9	.8	8.8	.8	.9	1.0	1.1	1.2	6.6
United Kingdom	2.3	1.8	2.8	1.5	.9	1.5	1.8	2.3	1.7	1.7	1.8	2.3
Euro area	.8	.7	1.6	.1	.2	.9	1.4	1.3	1.3	1.3	1.4	1.4
Germany	1.4	.8	2.4	.8	.1	1.1	1.7	1.6	1.6	1.6	1.6	1.6
Emerging market economies	3.4	3.0	3.3	3.7	2.6	3.2	3.4	3.4	3.4	3.4	3.4	3.3
Asia	3.3	2.0	3.6	3.4	1.4	2.9	3.2	3.2	3.2	3.2	3.2	3.2
Korea	1.0	.4	1.7	1.1	1.3	2.4	2.8	3.1	3.2	3.2	3.2	3.1
China	3.2	2.1	3.4	3.0	.8	2.8	3.0	3.0	3.0	3.0	3.0	3.0
Latin America	3.5	5.4	2.6	4.5	5.7	3.8	3.9	3.8	3.8	3.8	3.8	3.8
Mexico	3.2	5.3	2.0	4.2	5.2	3.0	3.3	3.3	3.3	3.3	3.3	3.3
Brazil	7.0	5.8	4.6	6.0	6.9	7.6	6.0	5.6	5.4	5.4	5.4	5.4

[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	2008	2009	2010	2011	2012	2013	2014 (Projected)	2015 (Projected)	2016 (Projected)
Real GDP[1]									
Total foreign	-.6	.9	4.7	3.0	2.3	2.5	2.8	3.2	3.3
Previous Tealbook	*-.7*	*1.0*	*4.6*	*3.0*	*2.3*	*2.6*	*3.0*	*3.3*	*3.4*
Advanced foreign economies	-1.5	-1.5	3.0	1.5	.3	2.0	2.0	2.2	2.2
Canada	.1	-1.4	3.6	2.4	1.0	2.7	2.5	2.7	2.6
Japan	-4.8	-.6	3.5	.3	-.3	2.5	.8	.8	1.1
United Kingdom	-4.3	-2.5	1.8	1.1	.2	2.7	2.9	2.6	2.5
Euro area	-2.1	-2.3	2.3	.7	-1.0	.5	1.4	1.7	1.9
Germany	-1.8	-2.2	4.2	2.2	.3	1.4	1.9	2.1	2.3
Emerging market economies	.5	3.8	6.5	4.6	4.3	3.1	3.7	4.3	4.4
Asia	1.1	7.9	8.0	5.0	5.5	5.2	4.9	5.4	5.4
Korea	-1.6	4.9	6.1	3.0	2.1	3.6	3.8	4.2	4.1
China	7.7	11.3	9.7	8.7	7.8	7.6	6.7	7.2	7.1
Latin America	-.4	-.1	4.7	4.0	3.2	1.2	2.6	3.3	3.5
Mexico	-1.3	-1.2	4.4	4.1	3.3	.6	3.0	3.6	3.7
Brazil	.9	5.3	5.3	1.4	1.8	2.0	1.9	2.6	2.7
Consumer prices[2]									
Total foreign	3.3	1.2	3.2	3.4	2.3	2.3	2.5	2.6	2.6
Previous Tealbook	*3.3*	*1.2*	*3.2*	*3.4*	*2.3*	*2.3*	*2.5*	*2.6*	*2.6*
Advanced foreign economies	2.0	.2	1.7	2.2	1.3	1.0	1.6	1.7	1.6
Canada	1.8	.8	2.2	2.7	.9	1.0	2.0	1.7	1.9
Japan	1.1	-2.0	-.3	-.3	-.2	1.4	2.8	2.4	1.3
United Kingdom	3.9	2.2	3.4	4.6	2.6	2.1	1.6	1.9	1.8
Euro area	2.3	.4	2.0	2.9	2.3	.8	.9	1.4	1.5
Germany	1.7	.3	1.6	2.6	2.0	1.3	1.1	1.6	1.7
Emerging market economies	4.6	2.0	4.3	4.3	3.1	3.3	3.1	3.4	3.3
Asia	3.7	1.2	4.3	4.5	2.6	3.1	2.7	3.2	3.2
Korea	4.5	2.4	3.2	3.9	1.7	1.1	2.4	3.2	3.2
China	2.5	.6	4.7	4.6	2.1	2.9	2.4	3.0	3.0
Latin America	6.6	3.9	4.4	4.0	4.3	4.0	4.3	3.8	3.7
Mexico	6.2	4.0	4.3	3.5	4.1	3.7	3.7	3.3	3.3
Brazil	6.2	4.2	5.6	6.7	5.6	5.8	6.5	5.4	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

	2013 Q1	2013 Q2	2013 Q3	2013 Q4	Projected 2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4
	Billions of dollars, s.a.a.r.											
U.S. current account balance	**-420.2**	**-387.0**	**-385.5**	**-324.5**	**-368.5**	**-350.9**	**-385.7**	**-408.2**	**-438.9**	**-414.7**	**-440.9**	**-454.2**
Previous Tealbook	*-416.9*	*-383.8*	*-382.6*	*-357.6*	*-385.0*	*-354.5*	*-387.9*	*-412.6*	*-441.9*	*-420.9*	*-447.2*	*-465.9*
Current account as percent of GDP	-2.5	-2.3	-2.3	-1.9	-2.1	-2.0	-2.2	-2.3	-2.4	-2.3	-2.4	-2.4
Previous Tealbook	*-2.5*	*-2.3*	*-2.3*	*-2.1*	*-2.2*	*-2.0*	*-2.2*	*-2.3*	*-2.4*	*-2.3*	*-2.4*	*-2.5*
Net goods & services	-487.8	-469.8	-486.2	-455.7	-485.0	-467.3	-486.6	-501.3	-505.4	-487.1	-498.6	-507.0
Investment income, net	208.3	229.5	245.4	266.5	276.8	259.7	247.8	236.6	226.8	215.7	204.6	196.3
Direct, net	273.4	287.4	301.4	321.0	319.9	319.1	315.8	315.2	318.7	321.5	327.8	336.8
Portfolio, net	-65.1	-57.9	-56.0	-54.5	-43.1	-59.4	-68.1	-78.6	-91.9	-105.8	-123.2	-140.5
Other income and transfers, net	-140.7	-146.7	-144.7	-135.3	-160.3	-143.3	-146.9	-143.5	-160.3	-143.3	-146.9	-143.5

Annual Data

	2008	2009	2010	2011	2012	2013	Projected 2014	2015	2016
	Billions of dollars								
U.S. current account balance	**-681.3**	**-381.6**	**-449.5**	**-457.7**	**-440.4**	**-379.3**	**-378.3**	**-437.2**	**-476.0**
Previous Tealbook	*-681.3*	*-381.6*	*-449.5*	*-457.7*	*-440.4*	*-385.2*	*-385.0*	*-444.0*	*-495.7*
Current account as percent of GDP	-4.6	-2.6	-3.0	-2.9	-2.7	-2.3	-2.2	-2.4	-2.5
Previous Tealbook	*-4.6*	*-2.6*	*-3.0*	*-2.9*	*-2.7*	*-2.3*	*-2.2*	*-2.4*	*-2.6*
Net goods & services	-702.3	-383.7	-499.4	-556.8	-534.7	-474.9	-485.0	-499.5	-501.6
Investment income, net	157.8	132.3	185.7	240.7	232.3	237.4	255.2	210.9	174.1
Direct, net	284.3	257.7	288.0	310.6	293.5	295.8	317.5	326.2	354.7
Portfolio, net	-126.5	-125.4	-102.3	-69.8	-61.2	-58.4	-62.3	-115.3	-180.6
Other income and transfers, net	-136.9	-130.2	-135.8	-141.6	-138.0	-141.8	-148.5	-148.5	-148.5

Abbreviations

ABS	asset-backed securities
AFE	advanced foreign economy
BEA	Bureau of Economic Analysis
BOJ	Bank of Japan
CDS	credit default swaps
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
EME	emerging market economy
EUC	emergency unemployment compensation
FOMC	Federal Open Market Committee; also, the Committee
FRN	Floating Rate Note
GDP	gross domestic product
IMF	International Monetary Fund
IPO	initial public offering
LSAP	large-scale asset purchase
MBS	mortgage-backed securities
ON RRP	overnight reverse repurchase agreement
PBOC	People's Bank of China
PCE	personal consumption expenditures
PMI	purchasing managers index
PPI	producer price index (Bureau of Labor Statistics)
repo	repurchase agreement
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices

SOMA	System Open Market Account
TBA	to be announced
TIPS	Treasury Inflation-Protected Securities