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

June 12, 2013

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

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Domestic Economic Developments and Outlook

Taken as a whole, the indicators that we have received since the April Tealbook suggest a slightly weaker-than-anticipated pace of spending and production during the first half of this year. On the spending side, first-quarter real GDP growth now appears to have been softer than the available data suggested at the time of the April Tealbook; similarly, the incoming readings on second-quarter consumer spending and business outlays for equipment and software (E&S) point to somewhat less growth in these components of final demand relative to our previous projection. In addition, factory output has surprised us to the downside in recent months. All told, real GDP is now projected to rise at an annual rate of 2 percent in the first half of this year, ¼ percentage point less than our April forecast.

Despite the slightly weaker first half, we have made a small upward revision to our forecast for real activity over the medium term. Among the factors boosting the outlook for spending this round, the most important were the higher paths for equity and house prices that we have assumed in this forecast, which result in a modestly faster pace of consumer spending. We now expect real GDP growth to come in at just under 3 percent over the second half of 2013, led by an acceleration in consumption and business investment. After that, GDP is expected to rise around 3½ percent per year in 2014 and 2015. All told, the level of real GDP at the end of the medium term is similar to what we wrote down in April.

The incoming data on the labor market were, in total, a little better than expected, and we have carried some of that good news forward. In addition, despite the similar forecast for real GDP, we have significantly marked down the projected path of the unemployment rate over the medium term. In this forecast, we have brought forward the improvement in labor market functioning that we had assumed would occur over the course of the recovery, and have also assumed additional permanent withdrawals of less-employable workers from the labor force. As discussed in the sections on potential GDP and the medium-term outlook for the labor market, these revisions steepen the downward trajectory for both the actual and natural rates of unemployment. We therefore now project that the unemployment rate will decline from 7½ percent in the current quarter to 5¾ percent at the end of 2015 and expect it to cross the FOMC’s 6½ percent threshold in the first quarter of 2015, two quarters earlier than in the April Tealbook. Even so, the

Revisions to the Staff Projection since the Previous SEP

The FOMC last published its Summary of Economic Projections (SEP) following the March FOMC meeting. The table below summarizes revisions to the staff economic projection since the March Tealbook.

The staff projection for real GDP growth is essentially the same as in the March Tealbook. However, the projection for the unemployment rate is revised down significantly, primarily the result of the revisions we made in this Tealbook to our estimates of the natural rate of unemployment. Taking into account those revisions to the natural rate, the projection for the unemployment *gap* is about unrevised over the medium term, with the gap narrowing to about ½ percentage point by the end of 2015.

The staff projection for inflation has revised down this year relative to the March projection, reflecting the surprisingly low incoming data. However, as we view this surprise as mostly reflecting transitory factors, our projection for inflation in 2014 and 2015, at 1½ percent, is also essentially unrevised from March.

With the revised unemployment projection, the unemployment rate now crosses the FOMC's 6½ percent threshold in early 2015, and the policy rule that governs our assumption for the federal funds rate calls for the rate to lift off from the effective lower bound in the second quarter of 2015, two quarters earlier than in the March Tealbook. The federal funds rate therefore ends 2015 about 75 basis points higher than in March.

Staff Economic Projections Compared with the March Tealbook

Variable	2012	2013 H1	2013 H2	2013	2014	2015	Longer run
Real GDP[1]	1.7	2.0	2.9	2.5	3.4	3.6	2.3
March Tealbook	1.7	2.3	2.8	2.5	3.2	3.6	2.3
Unemployment rate[2]	7.8	7.5	7.3	7.3	6.6	5.8	5.2
March Tealbook	7.8	7.7	7.5	7.5	7.1	6.3	5.2
PCE inflation[1]	1.6	.4	1.3	.9	1.4	1.6	2.0
March Tealbook	1.6	1.1	1.5	1.3	1.5	1.6	2.0
Core PCE inflation[1]	1.5	1.0	1.4	1.2	1.6	1.8	n.a.
March Tealbook	1.5	1.5	1.7	1.6	1.7	1.7	n.a.
Federal funds rate[2]	.16	.12	.13	.13	.13	1.04	4.00
March Tealbook	.16	.13	.13	.13	.13	.30	4.00
Memo:							
Federal funds rate, end of period	.13	.13	.13	.13	.13	1.25	4.00
March Tealbook	.13	.13	.13	.13	.13	.50	4.00

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

lower natural rate and associated higher level of potential GDP in this projection imply that the unemployment gap and GDP gap are each a little *wider* than in April.

The recent data on core consumer prices once again came in lower than expected. Although a portion of the downward surprise to the core appears to be transitory, we took some signal from our latest miss and reduced our near-term inflation projection. Thereafter, the core inflation forecast is very similar to the April Tealbook, with core PCE prices expected to rise 1.6 percent in 2014 and 1.8 percent in 2015. Headline inflation runs a little under core inflation over the medium term, as consumer energy prices are expected to decline in line with our assumed path for crude oil prices.

As we discuss more fully in the Risks and Uncertainty section, we view the degree of uncertainty associated with our projection of real activity as being about normal. Nevertheless, we continue to view the risks to the projection for real activity as skewed to the downside, in part because of the constraints on monetary policy imposed by the effective lower bound. We also regard the uncertainty around our inflation forecast as being about normal, but we see these risks as roughly balanced. This assessment of risks is unchanged from April.

KEY BACKGROUND FACTORS

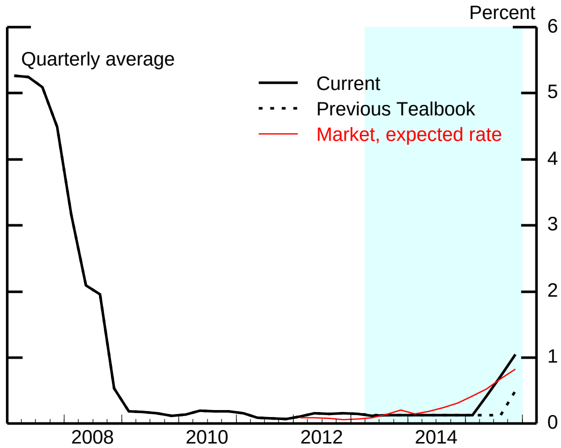
Monetary Policy

We left our assumption for the cumulative purchase of long-term securities under the LSAP program unrevised. Specifically, we assume that the pace of purchases will be gradually reduced from $85 billion per month to zero over the course of the second half of this year, resulting in cumulative purchases of $750 billion in 2013.[1] Market expectations for the total size of the asset purchase program, which were assessed in April to be about $1.25 trillion, appear to have declined and are now assumed to be around $1 trillion. As in earlier editions of the Tealbook, we assume that, over the next few months, market participants will bring their expectations for the ultimate size of the program into line with the intentions of the Committee, and that this learning process will result in some additional modest upward pressure on long-term interest rates.

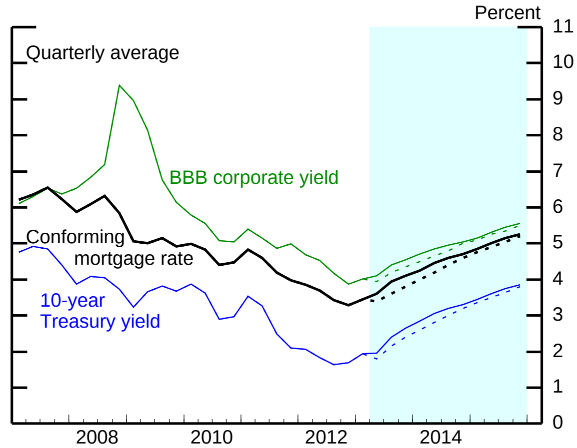
[1] A more gradual slowing in the pace of purchases over the second half of this year might result in cumulative purchases of about $900 billion, or $150 billion more than our baseline assumption. Staff analysis suggests that an additional $150 billion in asset purchases would lower the unemployment rate by 4 to 8 basis points by the end of 2015, and raise the PCE inflation rate by 0 to 6 basis points.

Key Background Factors underlying the Baseline Staff Projection

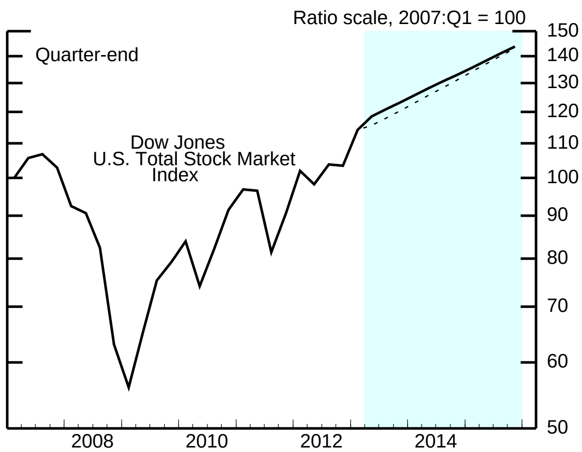
Federal Funds Rate



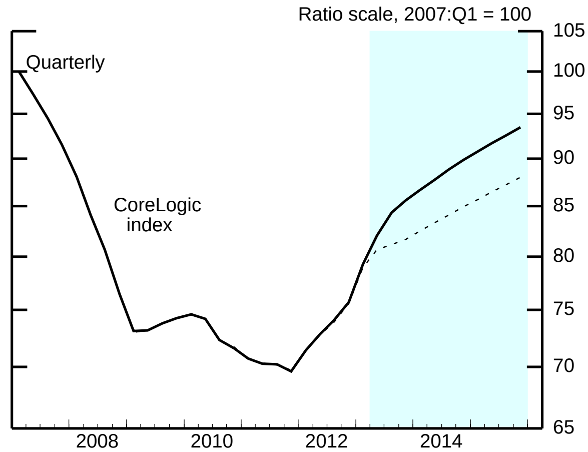
Long-Term Interest Rates



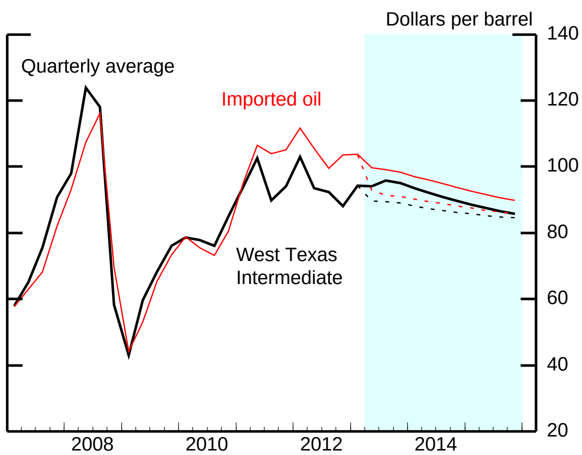
Equity Prices



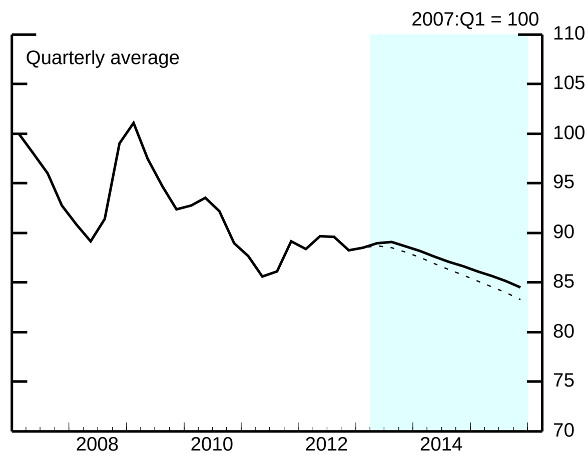
House Prices



Crude Oil Prices



Broad Real Dollar



In terms of conventional monetary policy, we now assume that the federal funds rate will lift off from its effective lower bound in the second quarter of 2015, two quarters earlier than in the April Tealbook. The earlier increase in the policy path reflects downward revisions to our projection for the unemployment rate, which result in the Committee's threshold for the federal funds rate being crossed at an earlier date than before.[2]

Other Interest Rates

The 10-year Treasury yield has increased about 50 basis points since the April Tealbook, likely owing, in part, to a combination of more upbeat sentiment among market participants about the domestic economic outlook and greater uncertainty about the size and duration of the Federal Reserve's asset purchase program. We continue to expect yields to rise substantially over the medium term; this path primarily reflects the movement of the 10-year valuation window through the period of extremely low short-term interest rates and a gradual waning of the effects of the FOMC's balance sheet policies. The level of the 10-year Treasury yield that we anticipate at the end of 2015 is only a bit higher than in the April Tealbook, as we interpret recent increases in yields as mostly pulling forward increases in term premiums that we had previously assumed would be spread out over the medium term.

Yields on investment-grade corporate bonds have increased about 60 basis points, leaving their implied risk spreads somewhat higher. We continue to expect this spread to narrow gradually over the forecast horizon and to end 2015 about ½ percentage point lower, at which time the yield on BBB-rated bonds is projected to be 5½ percent. Conventional 30-year mortgage rates have increased about 55 basis points to nearly 4 percent since the time of the April Tealbook and are expected to rise further with benchmark yields to around 5¼ percent by the end of the projection period.

Equity Prices and Home Prices

The Dow Jones U.S. total stock market index has risen about 3 percent since the April Tealbook was finalized; we interpret these gains as reflecting a more rapid decline

[2] As in the April Tealbook, we assume that the federal funds rate will remain within the current target range of 0 to ¼ percent at least as long as inflation between one to two years ahead is expected to be below 2½ percent and the quarterly average of the unemployment rate is above 6.5 percent. (Given the staff's projections for inflation and unemployment, it is the latter condition that determines the date of liftoff in our forecast.) Once either threshold is crossed, the federal funds rate follows the prescriptions of an inertial version of the Taylor (1999) policy rule starting in the following quarter.

in equity risk premiums than we had previously anticipated. Equity prices are now expected to rise at an average annual rate of about 8 percent through the end of 2015; the pace of these anticipated gains is a little slower than we had assumed in April, as less of the predicted normalization in the equity premium now remains to be accomplished. As a result, the projected level of equity prices at the end of 2015 is little changed from the April Tealbook.

The CoreLogic house price index increased 6½ percent over the first four months of this year. In the past, we have been skeptical of the pace of house price growth implied by the CoreLogic index because of concerns related to its seasonal adjustment and because other major house price indexes were rising less rapidly. We continue to harbor concerns about the reliability of this index as an indicator of household wealth. However, in light of the sustained large increases posted by this and other house price series, we have taken a stronger signal from the incoming data and have revised our forecast significantly: We now project that house prices will rise 13 percent for 2013 as a whole before decelerating to a 5 percent pace in 2014 and a 4 percent pace in 2015. With this new path, the level of house prices at the end of 2015 is 6 percent higher than in the April Tealbook.

Fiscal Policy

Our fiscal policy assumptions are essentially unchanged in this forecast. In particular, we have maintained our assumption that policy is exerting considerable restraint on the growth of aggregate spending as a result of the expiration of the payroll tax cut and implementation of other tax increases at the beginning of the year, the sequestration, and declines in purchases related to overseas defense operations. Accordingly, fiscal policy at all levels of government is projected to reduce the rate of real GDP growth by 1¼ percentage points (excluding multiplier effects) in 2013, by ¾ percentage point in 2014, and by ¼ percentage point in 2015.[3]

The near-term federal deficit outlook has brightened somewhat owing to surprisingly strong April tax collections as well as to recent announcements of large one-time payments to the Treasury by Fannie Mae and Freddie Mac. Accordingly, we now anticipate that the federal unified budget deficit will narrow to 4 percent in fiscal year 2013, down from 7 percent of GDP in fiscal 2012. The deficit is projected to decline to

[3] Including multiplier effects, fiscal policy is projected to exert a drag on the growth rate of real GDP of 1½ percentage points in 2013, 1¼ percentage points in 2014, and ¾ percentage point in 2015.

2¼ percent of GDP by fiscal 2015 as a result of further improvements in the economy and ongoing policy actions to reduce the deficit.

Foreign Activity and the Dollar

Foreign real GDP growth slowed in the first quarter to 2 percent at an annual rate, ¼ percentage point lower than expected in the April Tealbook, as a pickup in activity in the advanced foreign economies was more than offset by subpar growth in the emerging market economies (EMEs). The slowing in the EMEs partly reflected a greater-than-expected step-down from the strong growth at the end of last year. For the second and third quarters, we expect aggregate foreign growth to pick up to an average annual pace of about 2½ percent. This path is a bit lower than we had projected in the April Tealbook, reflecting continued softness in China and other EMEs. As the euro area starts to recover and the ongoing U.S. economic expansion boosts global trade, we project that foreign growth will rise to 3½ percent by the end of 2014 and will stay at about that rate in 2015, little changed from the previous Tealbook.

The broad nominal dollar has appreciated about ½ percent since the previous Tealbook, as increases against the currencies of many EMEs have more than offset declines against most of the major foreign currencies. Going forward, the broad real dollar is projected to depreciate at an annual rate of about 2 percent over the remainder of this year and at a roughly 2¼ percent pace thereafter. This rate of depreciation is a touch slower than we had assumed in the previous Tealbook. While we still project that the gradual abatement of European financial stress will lessen safe-haven demand for the dollar, we have scaled back the amount of dollar depreciation that we anticipate from this source. The flatter path of the dollar also reflects our assumptions regarding the earlier onset of monetary tightening in the United States. On net, the broad real dollar ends the forecast period about 1½ percent higher than we had projected at the time of the April Tealbook.

Oil and Other Commodity Prices

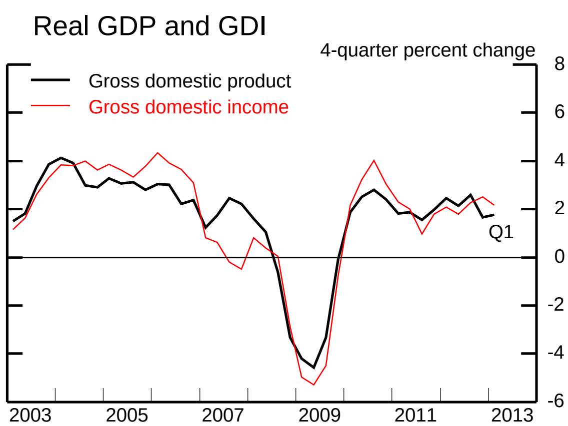
Oil prices have moved up some since the time of the April Tealbook, reversing a dip that took place before that forecast. The spot price of Brent crude oil closed at $103 per barrel on June 11, up $3 from the previous Tealbook, while the price of West Texas Intermediate increased a little more. In response to the unexpected strength of imported oil prices in the recent trade data, we revised up our forecast for the price of imported oil by a bit more than the observed increase in market prices. Consequently,

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

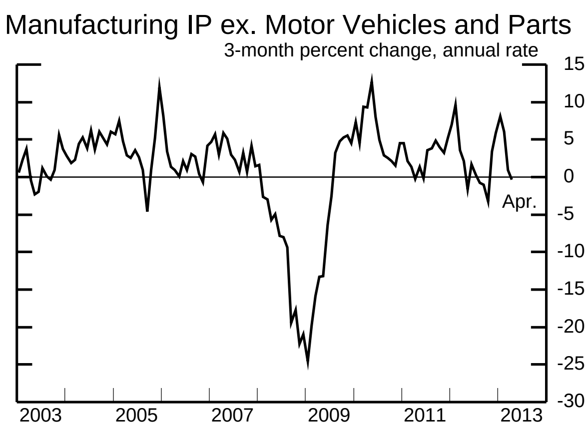
Measure	2013:Q1		2013:Q2		2013:Q3	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
Real GDP	**3.1**	**2.2**	**1.5**	**1.8**	**2.4**	**2.5**
Private domestic final purchases	2.8	3.1	3.1	2.6	3.7	3.7
Personal consumption expenditures	2.8	3.1	2.3	2.1	2.6	3.1
Residential investment	16.4	13.3	22.0	18.6	15.8	13.9
Business fixed investment	-.3	.9	4.1	2.4	8.2	5.7
Government purchases	-2.3	-4.8	-4.5	-3.4	-4.9	-3.8
Contributions to change in real GDP						
Inventory investment[1]	1.4	.7	-.5	.0	.5	.1
Net exports[1]	-.1	-.2	.3	.2	-.2	.0
Unemployment Rate[2]	**7.7**	**7.7**	**7.6**	**7.5**	**7.5**	**7.4**
PCE Chain Price Index	**.9**	**1.0**	**-.2**	**-.1**	**1.6**	**1.2**
Ex. food and energy	1.2	1.3	1.4	.8	1.7	1.3

1. Percentage points.
2. Percent.

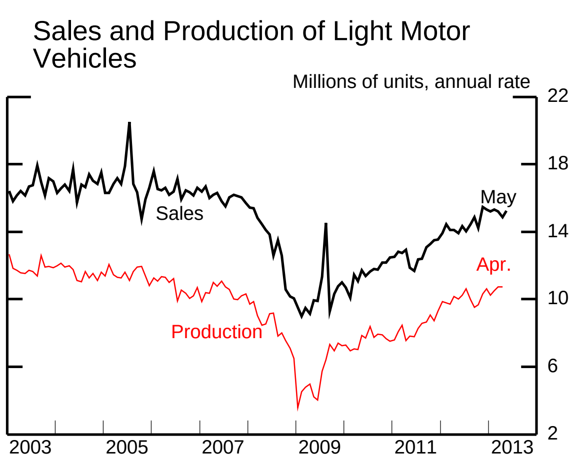
Recent Nonfinancial Developments (1)



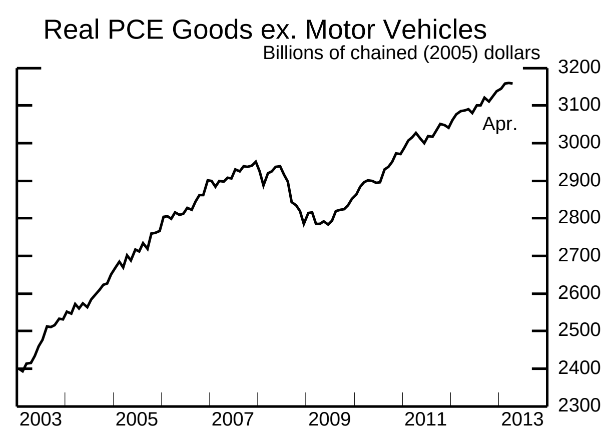
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.



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



Source: Ward's Auto Infobank.



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

our forecast for the price of imported oil for the remainder of this year is $7 per barrel higher than in the April Tealbook; this upward revision tapers to about $5 per barrel in 2015. Overall, the price of imported oil is projected to decline slowly over the remainder of the forecast period, reaching $90 per barrel at the end of 2015.

Nonfuel commodity prices are little changed on net since the April Tealbook, as slightly higher food prices balanced a small decline in metals prices. Notwithstanding the modest movement seen in aggregate prices, some individual metals exhibited large price swings; in particular, iron-ore prices fell sharply in response to incoming data that pointed to weaker Chinese demand. Overall, nonfuel commodity prices are expected to remain relatively flat through 2015; this forecast is in line with quotes from futures markets and down slightly from the previous Tealbook.

Recent Developments and the Near-Term Outlook for Real GDP

The incoming spending data led us to trim our projection for real GDP growth in the first half of the year to an average annual rate of 2 percent, ¼ percentage point lower than what we wrote down in the April Tealbook. In the third quarter, we have marked down our forecast for investment spending; however, the stronger-than-expected recent news about household wealth and consumer confidence led us to revise up our forecast for consumer spending. As a result, we anticipate GDP growth of 2½ percent in the third quarter—a pace that is about unchanged from our April projection.

Household Spending

Available indicators of consumer spending suggest that real PCE edged lower in April.[4] We have interpreted this unexpectedly weak consumer spending reading as a temporary pause and expect a second-quarter pace of real PCE growth that is only a little below our April Tealbook forecast. In the third quarter, we raised projected real PCE growth by ½ percentage point, to 3 percent at an annual rate; this upward revision reflects the higher path for household net worth suggested by recent gains in equity and house prices, as well as our reaction to May's noticeable improvement in consumer sentiment.[5]

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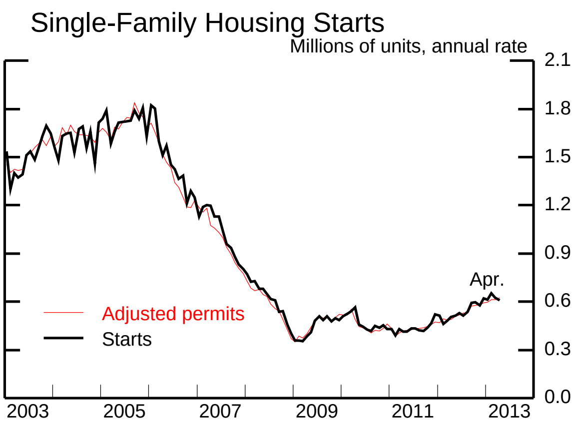
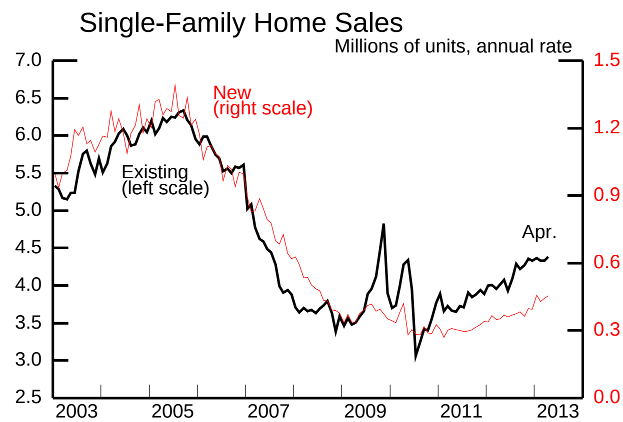
[4] Although real PCE was estimated to have risen 0.1 percent in April in the BEA's most recent Personal Income and Outlays release, the annual revisions to retail sales that were released at the end of May implied slower growth in retail sales than was incorporated into the preliminary estimate of April PCE. We will receive May retail sales data on Thursday, the day after Tealbook is closed.

[5] Our current estimate of real disposable personal income (DPI) growth now implies an even larger swing in real DPI between the fourth and first quarters. Real DPI spiked in the fourth quarter of last

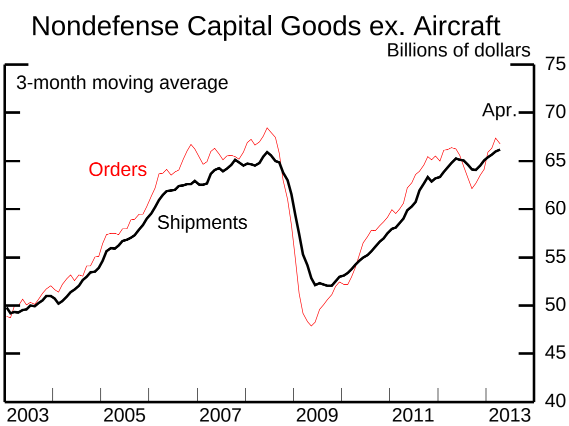
Recent Nonfinancial Developments (2)



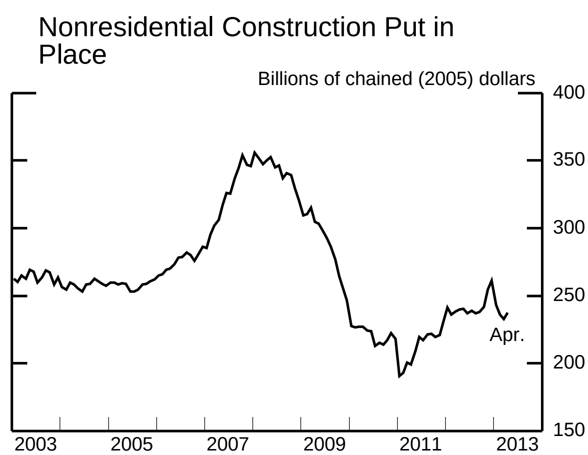
Note: Adjusted permits equal permits plus starts outside of permit-issuing areas.
Source: U.S. Census Bureau.



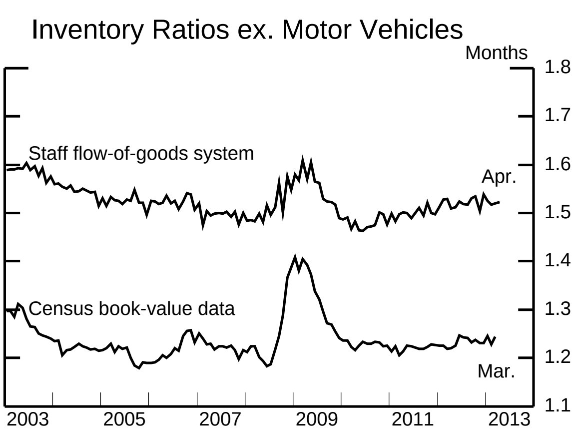
Source: For existing, National Association of Realtors; for new, U.S. Census Bureau.



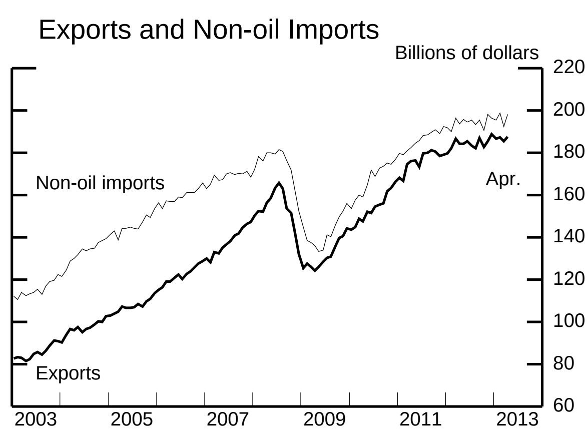
Source: U.S. Census Bureau.



Note: Nominal CPIP deflated by BEA prices through 2012:Q4 and by staff's estimated deflator thereafter.
Source: U.S. Census Bureau.



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



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

We expect residential investment to rise at an average annual rate of around 15 percent in the second and third quarters; this change is a little weaker than in our April projection, reflecting an unexpected drop in starts of multifamily housing units and the anticipated effect of the recent jump in mortgage rates. Other incoming data suggest that activity in the housing sector has continued to trend up. Both new and existing home sales have continued to move higher, on net, in recent months. And while single-family starts declined in April, permits—which provide a better signal of underlying activity—rose at about the same average pace that we have seen over the past year. The low cost of housing, sustained job gains, and growing optimism about the trajectory of house prices appear to be providing important support for the housing recovery. Nevertheless, we think that housing demand is still being held back by limited access to mortgage credit for many individuals, along with some wariness about the durability of the broader economic recovery. In addition, it is possible that new construction is being restrained by tight supplies of developed land and other inputs as builders ramp up activity from the abnormally low levels of recent years.

Business Investment

Although the latest data led us to revise up our estimate of real spending on E&S in the first quarter, this category of demand appears on track to post only a small increase in the current quarter. New orders for capital goods excluding aircraft, which had bounced back late last year from an earlier soft patch, have flattened out more recently at a level that is only slightly above the level of shipments. In addition, other forward-looking indicators of business investment, such as readings on business sentiment and capital spending plans, have been lackluster of late. All told, real E&S purchases are expected to rise at a modest annual rate of 3 percent in the first half of this year; thereafter, as business output accelerates, we expect equipment investment growth to pick

year, in part because firms apparently made special one-time payments of dividends and bonuses in advance of the January tax increases. While a large portion of this fourth-quarter income surge was apparent in the data that we had in hand for the April Tealbook, the BEA's subsequent incorporation of data from the Quarterly Census of Employment and Wages caused them to revise up their estimate of fourth-quarter wages and salaries by $100 billion. (The BEA again attributed a large portion of the wage and salary jump to bonus payments and other forms of irregular pay, although at this point they have little hard evidence on the precise nature of the increase.) As in our April forecast, we believe that consumers will smooth through this income volatility and so do not expect it to have much of an effect on near-term real PCE growth.

up in the second half to 6½ percent.[6] For the year as a whole, these projected growth rates are a little weaker than in the April Tealbook.

Investment in nonresidential structures fell in the first quarter, led by a sharp tax-related drop-off in expenditures on power-generation structures. More broadly, the level of nonresidential building investment has remained relatively low as high vacancy rates, tight financing conditions for new construction, and low commercial property prices continue to restrain demand for new buildings. By contrast, the level of investment in drilling and mining structures has stayed elevated, supported by high oil prices and the continued deployment of new drilling technologies. In total, nonresidential structures investment is expected to rise modestly in the second and third quarters at an average pace that is similar to what we wrote down in the April Tealbook.

Estimates from the staff's flow-of-goods system point to a moderate pace of stockbuilding in the current quarter, while gauges of inventory sentiment from the ISM survey and book-value inventory-to-sales ratios do not indicate any emerging inventory imbalances. Consequently, we expect nonfarm inventory investment to be roughly neutral for GDP growth in the first half of this year—similar to our April forecast—before adding a small amount to GDP growth in the second half as businesses build stocks in response to accelerating sales. In line with our April Tealbook estimate, farm inventory investment is scored by the BEA as having boosted GDP growth by nearly 1 percentage point in the first quarter as farm output returned to more normal levels following last summer's drought; we expect this contribution to fall back to zero in the second and third quarters.

Government

Total real federal purchases contracted at an annual rate of 9 percent in the first quarter—a faster decline than the 5 percent rate we had estimated in the April Tealbook—and are expected to decline at a similar rate in both the second and third quarters. The first-quarter drop in purchases reflected weaker-than-expected defense spending, which we have interpreted as partly reflecting an earlier-than-anticipated onset of the effects of the sequestration. We expect that the effects of the sequestration on real federal purchases will intensify over the second and third quarters. That said,

[6] The near-term trajectory of E&S spending is affected by delivery delays for the Boeing 787 Dreamliner, which shift some final sales of aircraft from the first quarter to the second and third quarters. These shifts should have no measurable effect on overall GDP, as they are offset by corresponding swings in Boeing's inventories.

considerable uncertainty surrounds the timing of these effects: Agencies have announced (and in some cased initiated) temporary furloughs, but we have little information about what will happen to their other outlays.

Real purchases by state and local governments moved lower in the first quarter of this year, led by a steep drop in construction spending; data from April suggest that real construction outlays will decline further in the current quarter. However, consistent with the improving outlook for this sector's finances, employment in this sector moved up slightly over the first five months of the year. Combining these cross-currents, we have overall real state and local government purchases inching down in the second and third quarters after declining at a 2 percent annual rate in the first quarter.

Foreign Trade

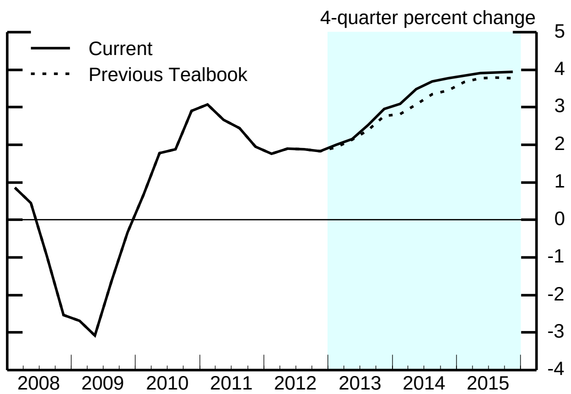
After declining in each of the preceding two quarters, real exports of goods and services are expected to rise at an average pace of 5¼ percent in the second and third quarters of this year as Boeing resumes exports of its 787 Dreamliner and as foreign growth steps up. Real imports are projected to rise 3½ percent on average in the second and third quarters, reflecting modest increases in U.S. demand as well as a continued decline in real oil imports that is a bit more pronounced than in the April Tealbook. Altogether, the external sector is expected to add ¼ percentage point to the growth of real GDP in the second quarter and to be about neutral in the third quarter.

The Industrial Sector

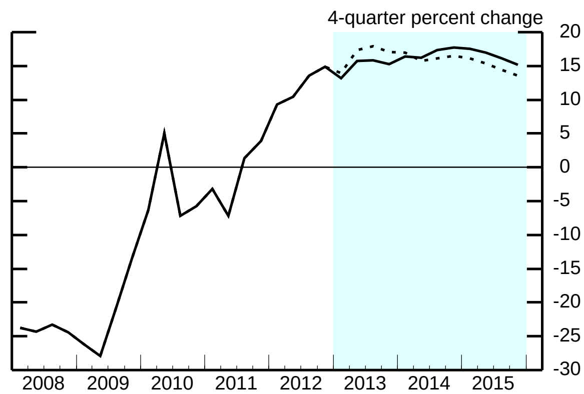
Manufacturing output declined 0.4 percent in April after moving down 0.3 percent in March, a much weaker profile of activity than we had anticipated. Despite these recent declines, we expect manufacturing production to turn up in coming months; indeed, data on production-worker hours and available weekly physical-product data suggest that factory output edged higher in May. Looking further ahead, while surveys of manufacturing activity remain subdued, sustained consumer and business demand for motor vehicles should provide continued support for automobile production and increases in homebuilding should lift the production of construction supplies and related materials. We now expect factory output to decline ½ percent in the current quarter but then to increase 2¾ percent next quarter; the average annualized gain in the second and third quarters of this year is more than 2 percentage points lower than our April Tealbook forecast.

Components of Final Demand

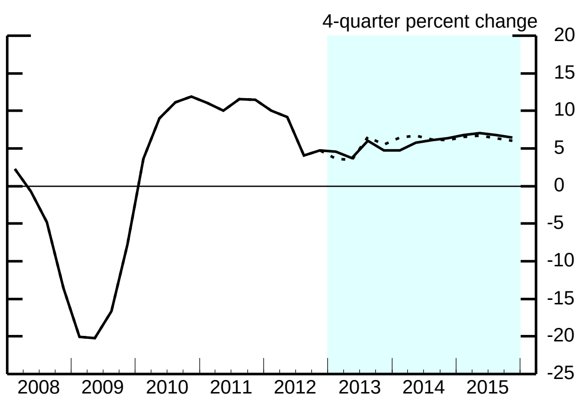
Personal Consumption Expenditures



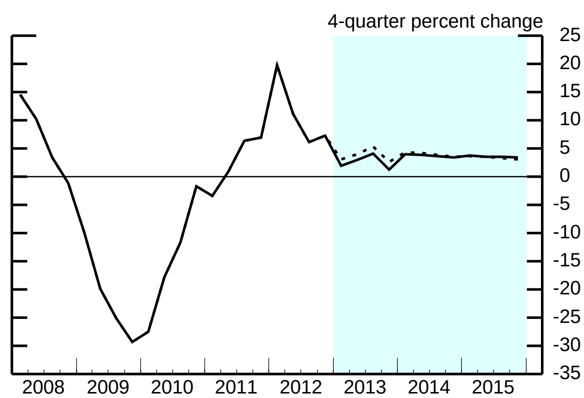
Residential Investment



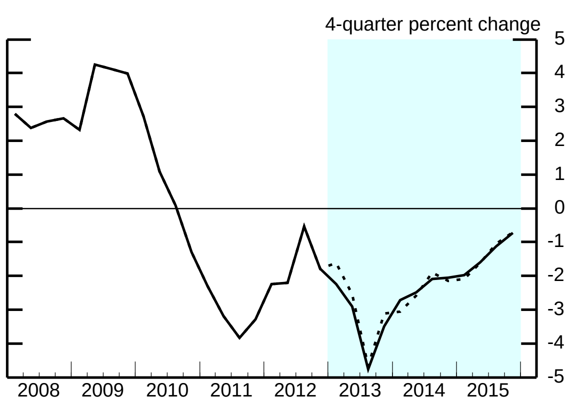
Equipment and Software



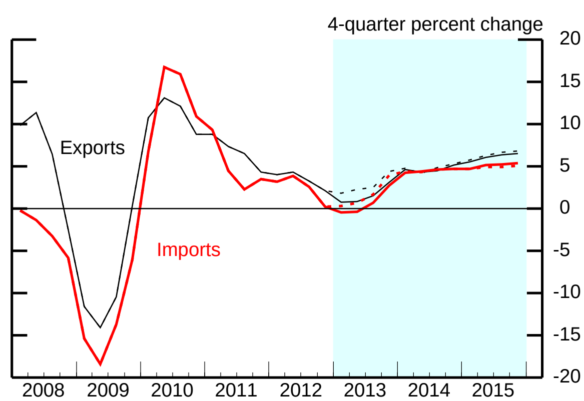
Nonresidential Structures



Government Consumption & Investment



Exports and Imports



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

The Medium-Term Outlook for Real GDP

Notwithstanding its slightly weaker performance over the first half of this year, real GDP growth is projected to be a little stronger over the medium term than in the April Tealbook, reflecting some changes to our conditioning assumptions that are slightly positive on balance. Specifically, we raised our forecasts for equity and house prices, which pushes up expected consumer spending growth over the medium term. We also boosted our outlook for domestic oil production to reflect the newest projections from the Department of Energy, which reduces projected oil imports. These positive factors are mostly offset, however, by higher long-term interest rates and a stronger assumed path for the exchange value of the dollar. (Our changes to potential output, discussed below, had relatively modest effects on projected spending.)

In total, real GDP is expected to expand 2½ percent this year, up from 2012's 1¾ percent pace; thereafter, our forecast calls for real GDP growth to step up to 3½ percent in 2014 and 2015. As in previous forecasts, the projected acceleration in economic activity reflects our view that fiscal policy will be less of a drag on aggregate demand growth after this year and that some of the factors that have weighed on the recovery over the past several years will continue to subside; in particular, we expect that European financial and economic conditions will gradually improve and that the housing market will heal further. As households and firms become more confident that the main threats to the recovery have diminished—and against a backdrop of still highly accommodative monetary policy—asset risk premiums should decline and household and business confidence should improve, resulting in a pickup in household spending, business investment, and hiring.

The emergence of this sort of dynamic is most clearly apparent in our forecast for personal consumption. Despite the higher payroll and income taxes that took effect in January, real PCE is projected to rise 3 percent this year before accelerating to 3¾ percent in 2014 and to just under 4 percent in 2015—a path that is a touch higher than in our April forecast. The expected upturn in PCE growth is supported by gains in disposable personal income and consumer confidence that in turn reflect improvements in the labor market that result from higher consumer spending—a self-reinforcing cycle of rising spending, hiring, and confidence. In addition, the anticipated further increases in house and equity prices lead to gains in household wealth that further support consumption growth.

We anticipate that solid gains in residential construction will also support the recovery. Demand for housing is expected to benefit from the same sorts of factors that contribute to a pickup in consumer spending, including rising income, wealth, and confidence, though the effects of these factors will likely be counteracted by the significant increase in mortgage interest rates that we expect to occur in coming years. As a result, the projected trajectory of residential investment over the medium term is relatively steady at a solid growth rate of just above 15 percent per year, about the same as in the April Tealbook.

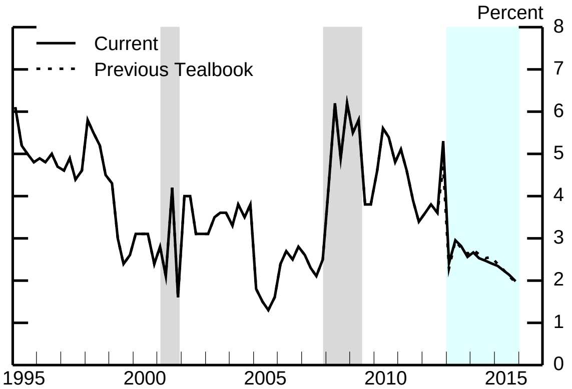
Business fixed investment is expected to accelerate only a little over the medium term, as an increase in long-term corporate borrowing rates partly offsets the effects of rising business output growth. As a result, our forecast calls for E&S growth to step up from 4¾ percent in 2013 to just under 6½ percent in both 2014 and 2015—an average rate of growth that is very close to our April Tealbook projection. In addition, we expect only modest gains in nonresidential structures investment over the medium term.

After growing only 2 percent last year, real exports of goods and services are expected to rise at a still-subdued 3 percent pace this year; this projection is down from 4¼ percent in the April Tealbook because of weaker-than-expected first-quarter export data, the stronger dollar in this projection, and somewhat weaker foreign growth. We then look for exports to expand 5 percent in 2014 and 6½ percent in 2015, similar to our April projection. We also have a smaller rise in real imports in 2013—only 2¾ percent—as the effects of the stronger dollar are outweighed by lower oil imports (which in turn reflect our even brighter outlook for domestic oil production). Over the remainder of the forecast period, import growth picks up to average about 5 percent. Overall, the contribution of net trade to real GDP growth is expected to be slightly negative over the medium term, a touch weaker than in the April Tealbook.

As discussed earlier, declines in real government purchases act as a significant drag on economic growth this year. On the federal side, this drag is expected to diminish after this year as the pace of fiscal consolidation slows and as reductions in spending on overseas military operations moderate. Similarly, state and local government purchases are projected to bottom out next year and then begin to slowly increase as budget conditions continue to improve. In all, our outlook for total government purchases is little changed from April.

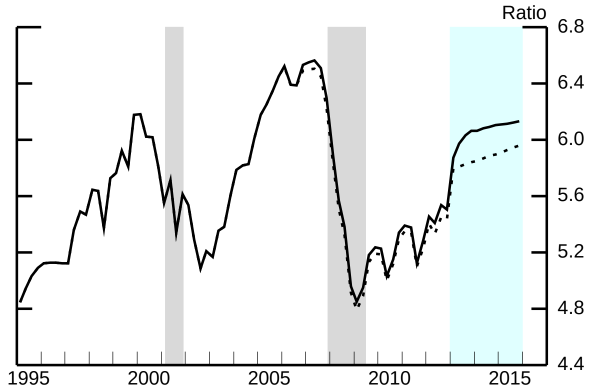
Aspects of the Medium-Term Projection

Personal Saving Rate



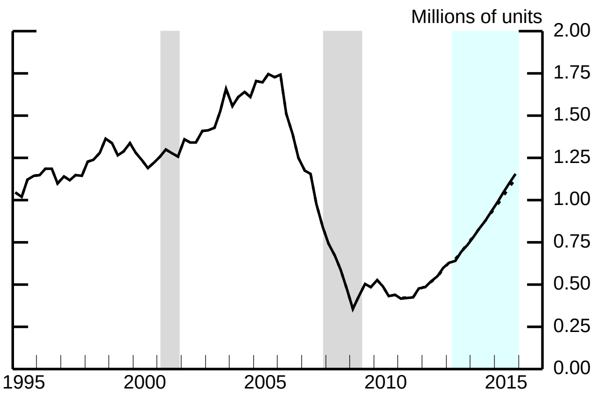
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Wealth-to-Income Ratio



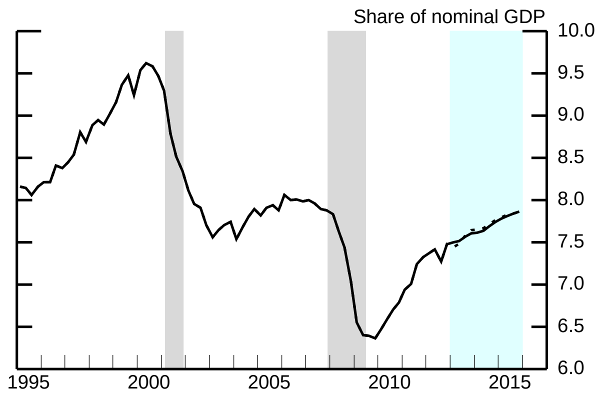
Note: Household net worth as a ratio to disposable personal income.
Source: For net worth, Federal Reserve Board, flow of funds data; for income, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



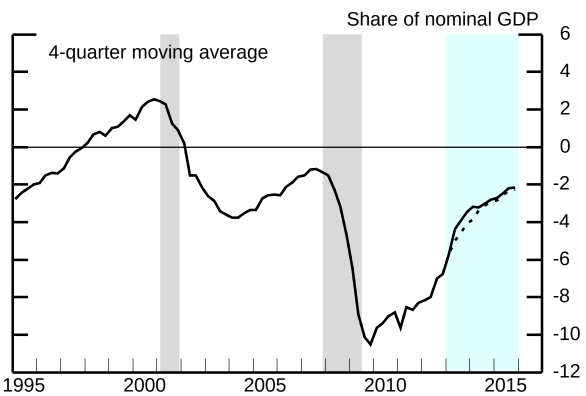
Source: U.S. Census Bureau.

Equipment and Software Spending



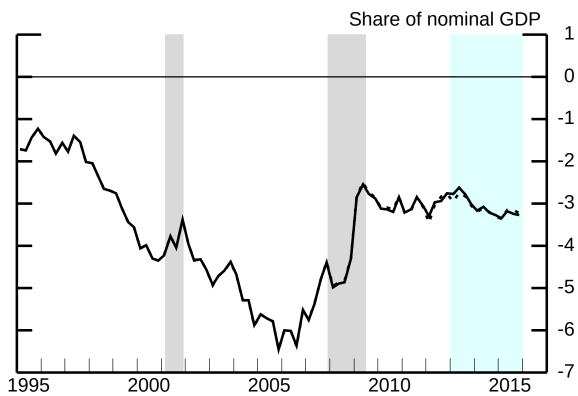
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Federal Surplus/Deficit



Source: *Monthly Treasury Statement.*

Current Account Surplus/Deficit



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

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

The Outlook for the Labor Market and Inflation

Recent Developments and Near-Term Outlook for the Labor Market

Taken together, the two monthly employment reports that we have received since the April Tealbook were a touch stronger than we had expected and imply that labor market conditions have continued to improve. In the establishment survey, average monthly nonfarm employment growth was revised up 40,000 in the first quarter, to 210,000 jobs per month. More recently, payroll employment growth in April and May averaged around 160,000 jobs per month, about 10,000 above our April Tealbook projection. In the household survey, the unemployment rate rounded back up to 7.6 percent in May, but the April–May average was nonetheless 0.1 percentage point lower than our previous forecast.

Forward-looking indicators of labor market activity have been mixed but generally point to some improvement in the labor market outlook since the April Tealbook. Households' expectations for future labor market conditions have brightened appreciably from their March readings, and, while initial claims are little changed on net since late April, they remain near their post-recession lows. Firms' hiring plans edged up recently and quits measured in the JOLTS continued to trend upward on balance. However, measures of job openings from the JOLTS and the Conference Board's help-wanted index have slipped a bit of late, and now appear roughly flat, on net, since early 2012. Finally, according to a preliminary version of a factor model maintained by the staff that includes a range of labor market indicators, conditions in the labor market continued to improve in May. In total, we now expect average nonfarm payroll gains of 160,000 per month in the second and third quarters, about the same as in our April forecast.[7] We project an average unemployment rate of 7.5 percent in the current quarter and 7.4 percent next quarter; both figures are 0.1 percentage point lower than in the April Tealbook.

Potential GDP and the Natural Rate of Unemployment

We have revised our supply-side assumptions this round and now judge that the natural rate of unemployment is on a more pronounced downward trajectory than we had previously thought. In particular, we now believe that the natural rate declined about

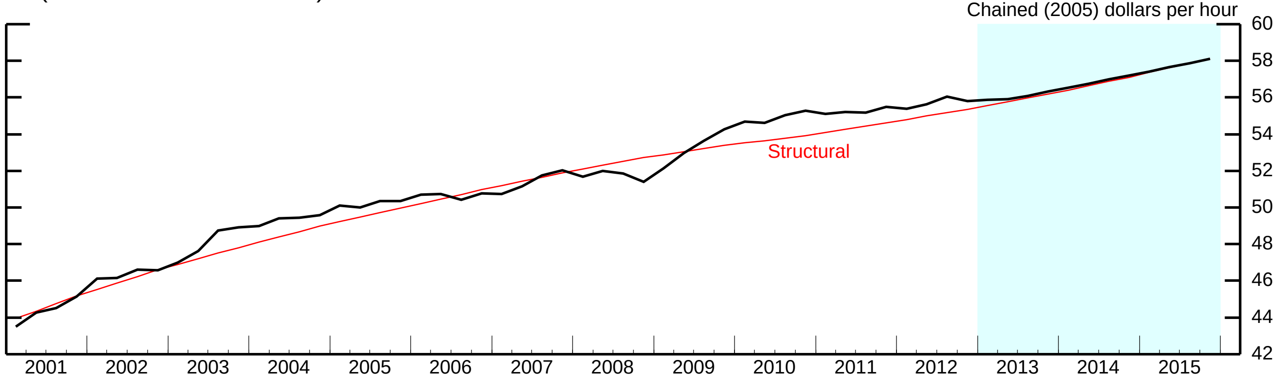
[7] As in the April Tealbook, we expect the federal sequestration to subtract 30,000 jobs per month from private payroll growth in the second and third quarters. We still expect that the effect on federal payroll employment will be small in the current quarter as government agencies use furloughs, rather than layoffs, to reduce spending.

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

Measure	1974-1995	1996-2000	2001-2010	2011	2012	2013	2014	2015
Potential real GDP	3.0	3.4	2.1	1.6	1.9	2.0	2.1	2.1
Previous Tealbook	3.0	3.4	2.1	1.5	1.8	1.9	2.1	2.1
Selected contributions[1]								
Structural labor productivity	1.4	2.6	2.1	1.3	1.4	1.5	1.7	1.7
Previous Tealbook	1.4	2.6	2.1	1.3	1.4	1.5	1.7	1.8
Capital deepening	.7	1.5	.7	.2	.4	.5	.6	.7
Previous Tealbook	.7	1.5	.7	.3	.4	.5	.6	.8
Multifactor productivity	.5	.8	1.2	.9	.9	.9	.9	.9
Previous Tealbook	.5	.8	1.2	.9	.9	.9	.9	.9
Structural hours	1.5	1.0	.6	.6	.7	.7	.6	.6
Previous Tealbook	1.5	1.0	.6	.5	.6	.6	.6	.6
Labor force participation	.4	.0	-.3	-.4	-.3	-.4	-.3	-.3
Previous Tealbook	.4	.0	-.3	-.4	-.3	-.3	-.3	-.3
Memo:								
GDP gap[2]	-2.4	1.9	-4.0	-3.6	-3.9	-3.4	-2.2	-.8
Previous Tealbook	-2.4	1.9	-4.0	-3.5	-3.7	-3.1	-1.9	-.6

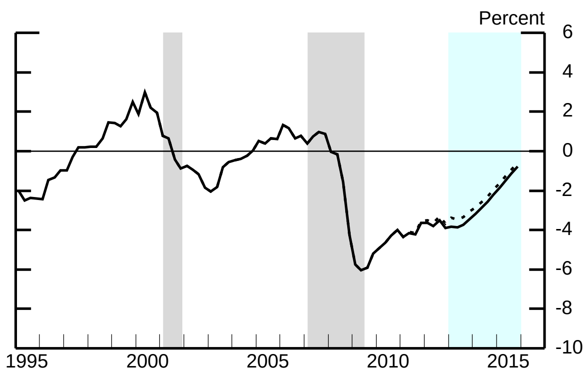
Note: For multiyear periods, the percent change is the annual average from Q4 of the year preceding the first year shown to Q4 of the last year shown.
1. Percentage points.
2. Percent difference between actual and potential GDP in the final quarter of the period indicated. A negative number indicates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

Structural and Actual Labor Productivity
(Nonfarm business sector)



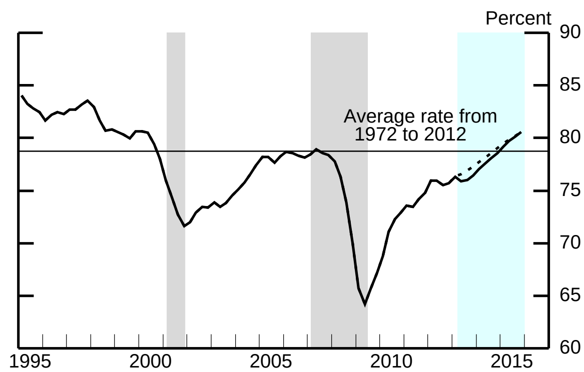
Source: U.S. Department of Labor, Bureau of Labor Statistics; Bureau of Economic Analysis; staff assumptions.

GDP Gap



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

Manufacturing Capacity Utilization Rate



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

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

¼ percentage point more through the end of 2012 than we had previously estimated, and that it will also fall more quickly over the medium term, reaching our estimate of its long-run level (which is unrevised at 5¼ percent) by the end of 2015—two years earlier than in the April projection. In our assessment, the revision to the natural rate can be attributed both to a greater improvement in labor market functioning and to a slightly steeper rate of decline in trend labor force participation (on the grounds that we will see a larger amount of permanent withdrawal from the workforce in coming years).[8]

These revisions also result in a small net upward revision to the level of potential GDP at the end of 2015, since the reduction in trend participation only partly offsets the lower natural rate. At 2 percent per year, the average rate of growth of potential output over the medium term is not materially different from our April forecast; because our estimate of the natural rate is unrevised in the long run, the revision to the level of potential output after 2015 is even smaller.

The Medium-Term Outlook for the Labor Market

Beyond the near term, we look for the labor market to gradually improve in line with the overall pace of economic recovery. We expect total payroll gains to step up from an average pace of 160,000 per month in the second and third quarters to an average monthly pace of 210,000 in 2014 and 265,000 in 2015. The unemployment rate is 0.1 percentage point lower at the start of the forecast period as a result of incoming data; going forward, the improvement in labor market functioning and withdrawal of less-employable workers that drive the steeper decline in the natural rate that we have assumed in this projection also imply a correspondingly steeper decline in the *actual* unemployment rate. In particular, by allowing employers to fill positions more easily, improved labor market functioning results in workers moving into employment more quickly, thereby bringing productivity and the workweek more quickly into line with desired levels. Hence, by the end of the projection period, the unemployment rate reaches 5¾ percent, nearly ½ percentage point lower than in our April forecast. With this projected path, the unemployment rate crosses the FOMC's 6½ percent threshold in the first quarter of 2015, two quarters earlier than in the April Tealbook.

[8] A more complete description of our supply-side revisions and their motivation is contained in the June 7, 2013, memorandum to the FOMC, "Assessing the Recent Decline in the Unemployment Rate and Its Implications for Monetary Policy," by Stephanie Aaronson, Bruce Fallick, Charles Fleischman, and Robert Tetlow.

Domestic Econ Devel & Outlook

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

Measure	2012	2013	2013 H1	2013 H2	2014	2015
Output per hour, nonfarm business	.6	.9	.3	1.5	1.6	1.6
Previous Tealbook	.7	.9	.7	1.2	1.6	1.6
Nonfarm private employment[1]	189	183	190	175	218	265
Previous Tealbook	189	170	166	175	220	265
Labor force participation rate[2]	63.7	63.4	63.4	63.4	63.3	63.3
Previous Tealbook	63.7	63.5	63.5	63.5	63.4	63.4
Civilian unemployment rate[2]	7.8	7.3	7.5	7.3	6.6	5.8
Previous Tealbook	7.8	7.4	7.6	7.4	6.9	6.2

1. Thousands, average monthly changes.
2. 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	2012	2013	2013 H1	2013 H2	2014	2015
PCE chain-weighted price index	1.6	.9	.4	1.3	1.4	1.6
Previous Tealbook	1.6	1.0	.3	1.6	1.5	1.6
Food and beverages	1.1	1.2	1.2	1.1	.9	1.4
Previous Tealbook	1.1	1.1	1.1	1.1	1.0	1.5
Energy	3.2	-5.0	-9.1	-.8	-.9	-.9
Previous Tealbook	3.2	-6.6	-14.2	1.6	-.3	-.7
Excluding food and energy	1.5	1.2	1.0	1.4	1.6	1.8
Previous Tealbook	1.5	1.5	1.3	1.6	1.7	1.8
Prices of core goods imports[1]	.1	-.1	-.4	.2	1.4	1.5
Previous Tealbook	.1	.5	.3	.6	1.6	1.6

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

The top-right figure of the "Labor Market Developments and Outlook" exhibit compares our current unemployment projection with our projection from September 2012, when the Committee first tied its asset purchase decisions to an improvement in the outlook for labor market conditions. By the end of 2013, the unemployment rate is projected to be 7.3 percent, ¾ percentage point lower than August's 8.1 percent rate (the last observation that the Committee had in hand for the September FOMC meeting); over the medium term as a whole, our forecast for the unemployment rate averages about 1 percentage point lower than the September Tealbook's projection. The outlook for total payroll employment *growth* past the first half of 2013 is little changed, on average, since September; that said, our current projection for the *level* of total payroll employment at the end of this year is ¾ percent, or 1.1 million jobs, higher than our corresponding September forecast, reflecting both the faster-than-expected payroll gains registered this past fall and winter and the effects of the annual benchmark revision to payrolls that was published in February.[9]

Resource Utilization

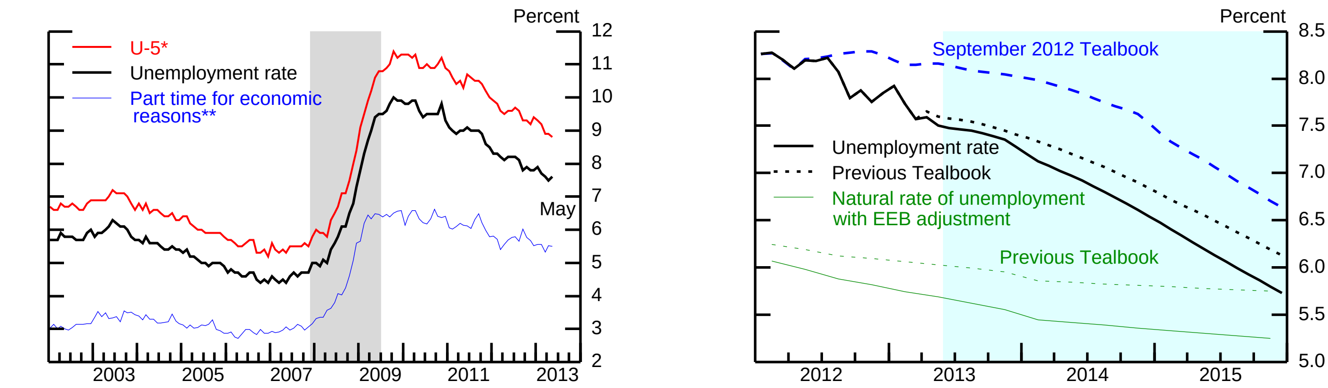
The revisions that we have made to the natural rate and potential GDP imply that the unemployment rate gap and the GDP gap were both a little wider at the end of 2012 than we had previously assumed. In the current quarter, the projected unemployment rate is almost 2 percentage points above our estimate of the natural rate (nearly ¼ percentage point more than our April forecast), while the level of actual output is almost 4 percent below potential (implying a GDP gap that is nearly ½ percentage point wider relative to April). These gaps are projected to diminish gradually over the medium term, with the unemployment gap projected to be ½ percentage point by the end of 2015 and GDP projected to be ¾ percent below potential (hence, these gaps are just a little wider than in the April Tealbook). In the manufacturing sector, capacity utilization is currently almost 3 percentage points below its long-run average but rises to about its long-run average by the end of 2014.[10]

[9] Our supply-side revisions this round have only a small effect on our assessment of the *change* in the unemployment gap since September 2012 because the estimated shifts in the paths of the natural rate and the trend rate of labor force participation began in 2011. In particular, we currently estimate that the unemployment gap narrowed 0.35 percentage point between 2012:Q2 and 2013:Q2; without this round's revisions to the natural rate, the gap would have narrowed 0.48 percentage point.

[10] The degree of slack in the manufacturing sector appears to be smaller than that for the broader economy, in part because of unprecedented declines in production capacity from 2007 to 2010 that occurred as manufacturers shuttered plants that had been chronically underutilized. Note that we estimate capacity in the industrial sector based largely on survey data that seek to capture the highest level of output

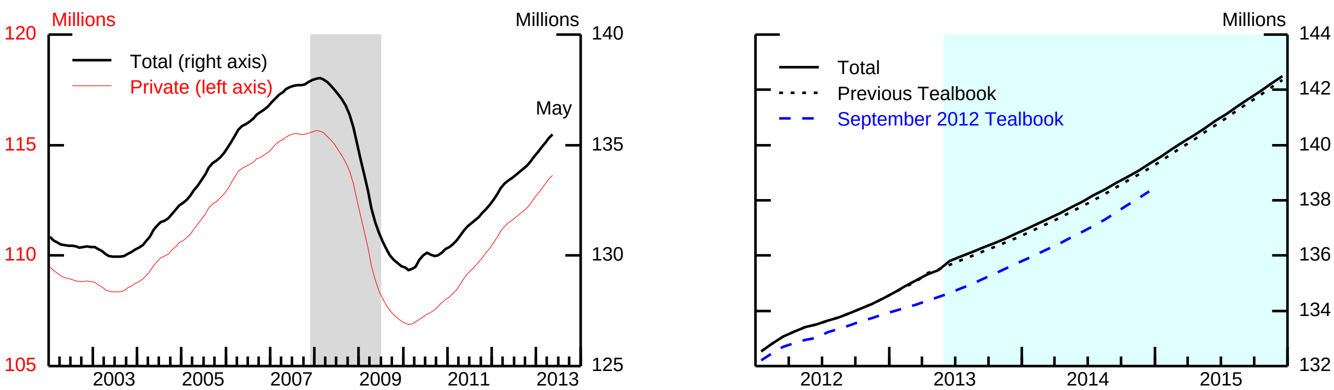
Labor Market Developments and Outlook

Measures of Labor Underutilization



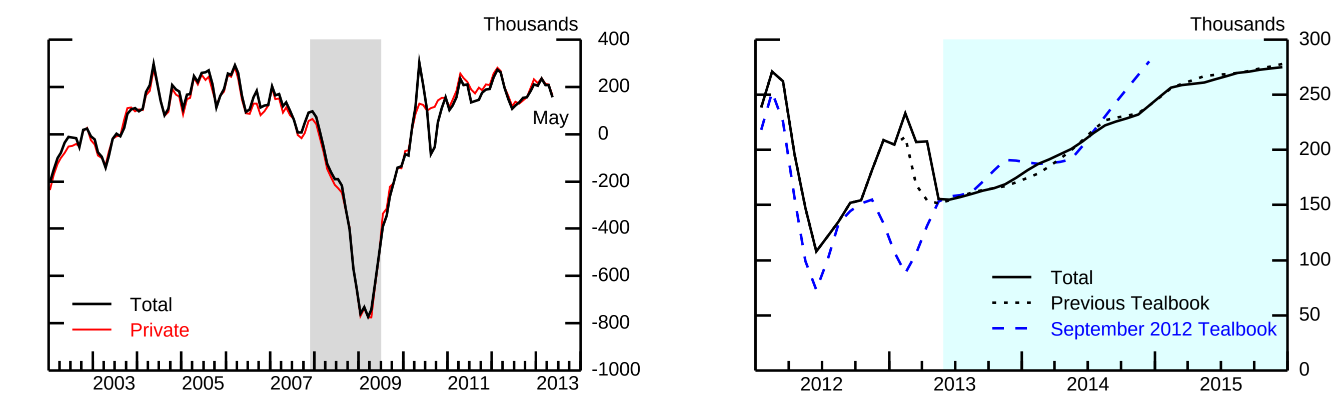
* U-5 measures total unemployed plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force.
** Percent of Current Population Survey employment.
EEB Extended and emergency unemployment benefits.
Source: U.S. Department of Labor,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



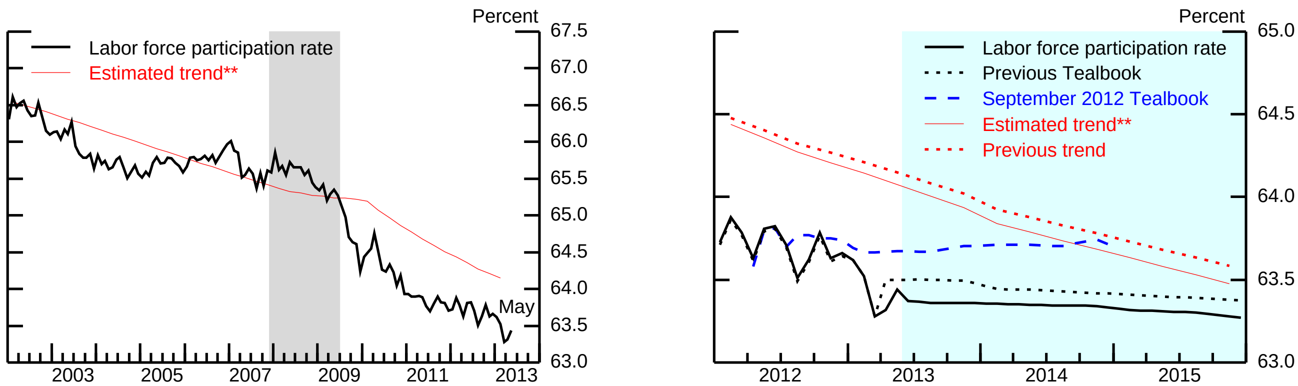
* 3-month moving averages in history; average monthly changes in each quarter during the forecast period.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

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.

Domestic Econ Devel & Outlook

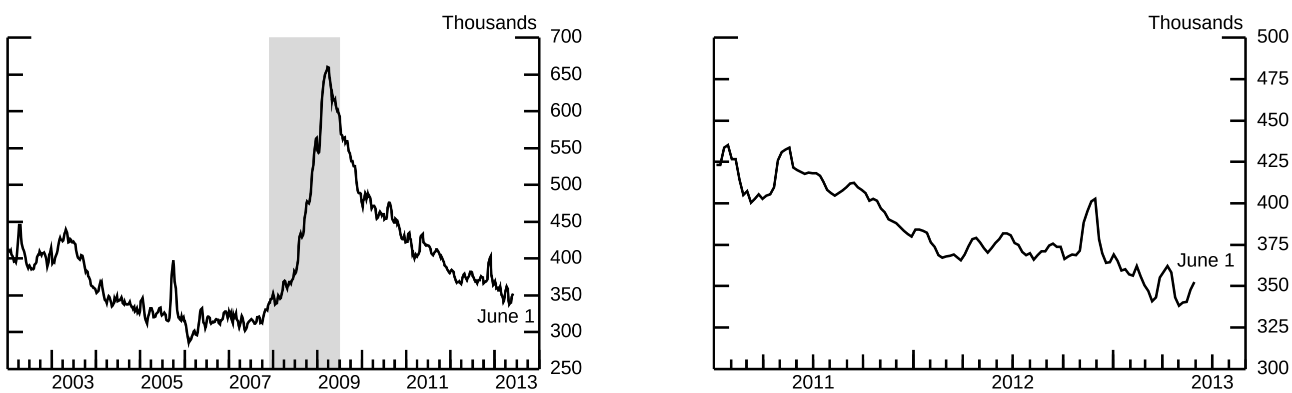
Labor Market Developments and Outlook (2)

Labor Force Participation Rate*



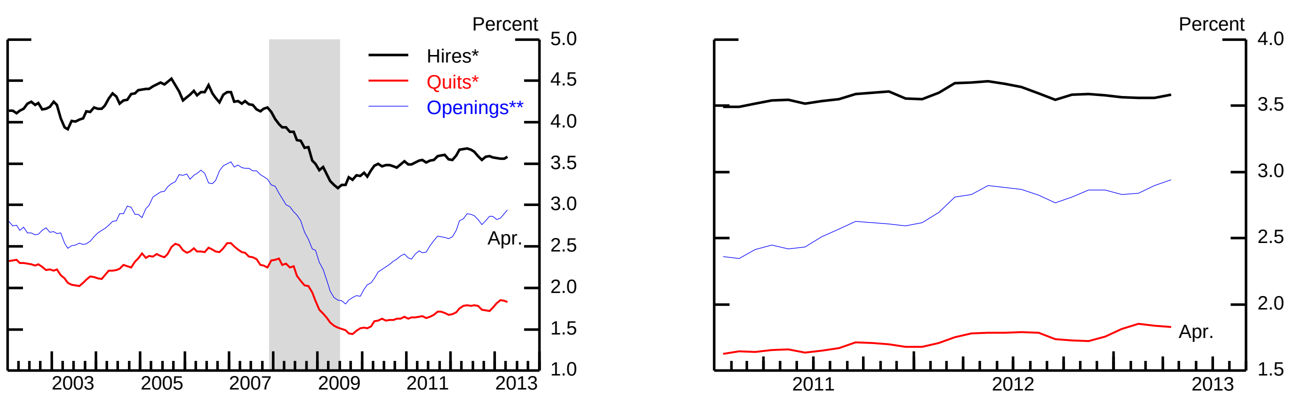
* Published data adjusted by staff to account for changes in population weights.
** Includes staff estimate of the effect of extended and emergency unemployment benefits.
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

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.

Labor Market Data and Projections

Indicator	Aug. 2012[1]	Projection for 2013:Q4 in the Tealbook dated:			
		Sept. 2012	Dec. 2012	Mar. 2013[2]	June 2013[2]
Unemployment rate (percent)	8.1	8.0	7.8	7.5	7.3
Labor force participation rate (percent)	63.5	63.7	63.7	63.6	63.4
Monthly change in payroll employment (thousands, three-month averages)					
Total	94	188	168	173	170
Private	109	189	169	179	180
Level of total payroll employment (millions)	133.3	135.5	135.7	136.6	136.6
Total hours worked (percent change)[3]	1.0	2.1	1.8	2.0	2.2
Total hours worked (billions)[3]	184.6	187.8	188.5	190.5	190.3

1. The figures for August 2012 refer to data as originally published in the September employment situation release along with the staff's real-time translation of those data into hours worked. These were the latest available data at the time of the September FOMC meeting.
2. Projections of payrolls and hours worked include the effects of the benchmark revision to the payroll survey.
3. Total hours worked are aggregate hours in the nonfarm business sector. Because that series is available only on a quarterly basis, the August 2012 figures refer to the quarterly percent change and level in 2012:Q3. The percent changes and levels in hours are at annual rates.
Source: U.S. Dept. of Labor, Bureau of Labor Statistics; staff projections.

The Outlook for Prices and Compensation

We expect overall consumer prices as measured by the PCE price index to rise at an annual rate of only 0.4 percent in the first half of this year, held down by large declines in energy prices and surprisingly low core inflation. This forecast is little changed from April: Although consumer energy prices now appear likely to decline somewhat less rapidly than we previously projected, core prices offset this development by surprising us to the downside once again.

In particular, core PCE prices came in much lower than expected in April, with about half of the miss accounted for by a downward surprise to medical services prices.[11] As a result, we now expect core consumer prices to rise at an annual rate of 0.8 percent in the second quarter, down 0.6 percentage point relative to our April Tealbook forecast. We believe that April's decline in medical services prices was mostly attributable to a one-time reduction in Medicare prices associated with the sequestration that has few, if any, implications for future inflation. That said, we did take some signal from our overall miss on core PCE inflation (as well as from softer-than-expected readings on core imported goods prices) and have therefore marked down our third-quarter core inflation forecast by 0.4 percentage point, to 1.3 percent. For 2013 as a whole, these revisions leave the projected change in core PCE prices at 1.2 percent, 0.3 percentage point below our April forecast.

As in the past several forecasts, we project sizable reductions in consumer energy prices through the first half of this year, largely mirroring the downward tilt in spot and futures prices for imported crude oil. However, crude oil prices are higher and gasoline price margins appear to have recovered a little faster than we had expected in April, leading us to trim our projected first-half decline in consumer energy prices by 5 percentage points, to an annual rate of 9 percent. Given our projected oil price path, we expect PCE energy prices to edge lower over the remainder of the medium term.

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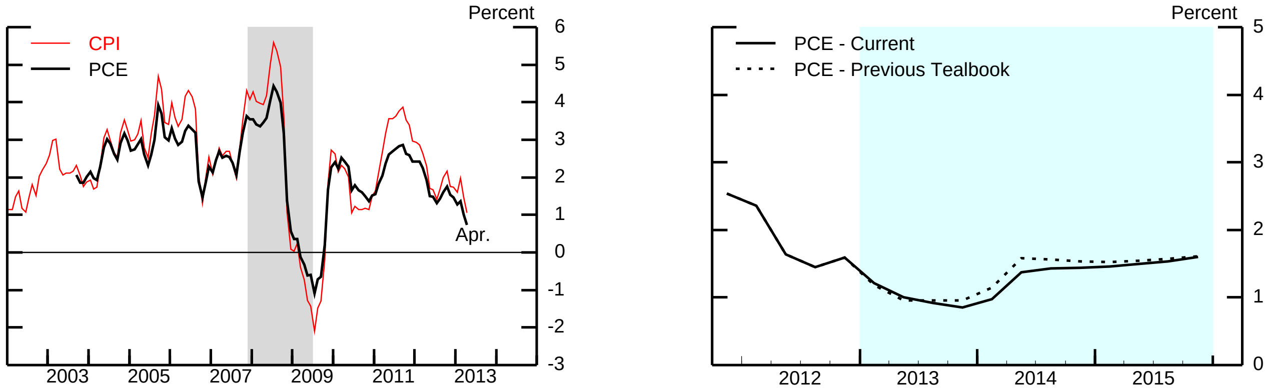
that plants can sustainably maintain given sufficient availability of variable inputs such as labor and materials.

[11] For the 12 months ending in April, the wedge between core CPI inflation and core PCE inflation stood at 0.7 percentage point. Although this wedge is volatile year to year, its current level is much wider than the 0.1 percentage point average seen over the past 10 years. Roughly 0.2 percentage point of this differential can be ascribed to a smaller-than-usual contribution of PCE medical services prices to core PCE inflation. Another 0.3 percentage point of the differential reflects an atypically low rate of change in core nonmarket services prices (excluding medical), which are not included in the CPI. Over the medium term, we expect the CPI–PCE wedge to narrow as both PCE components return to somewhat more typical rates of increase.

Inflation Developments and Outlook

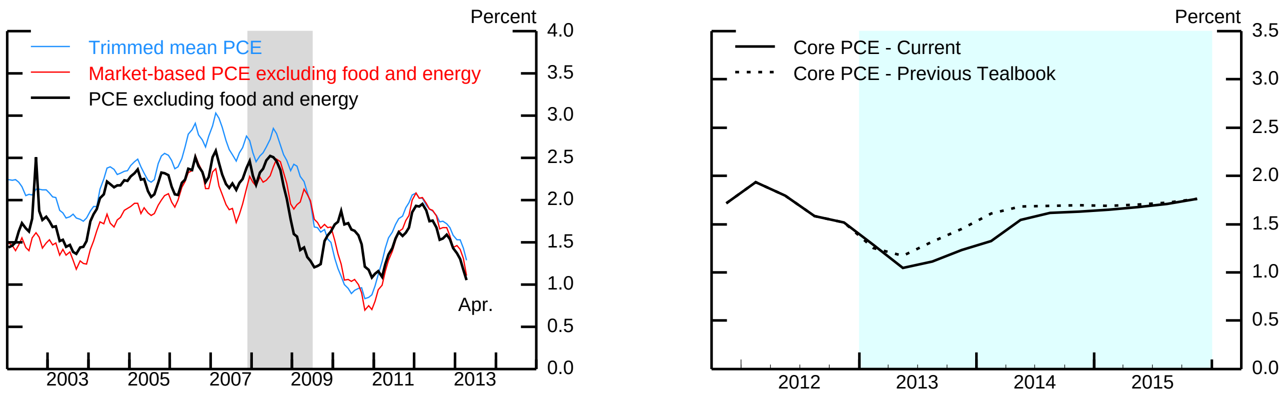
(Percent change from year-earlier period)

Headline Consumer Price Inflation



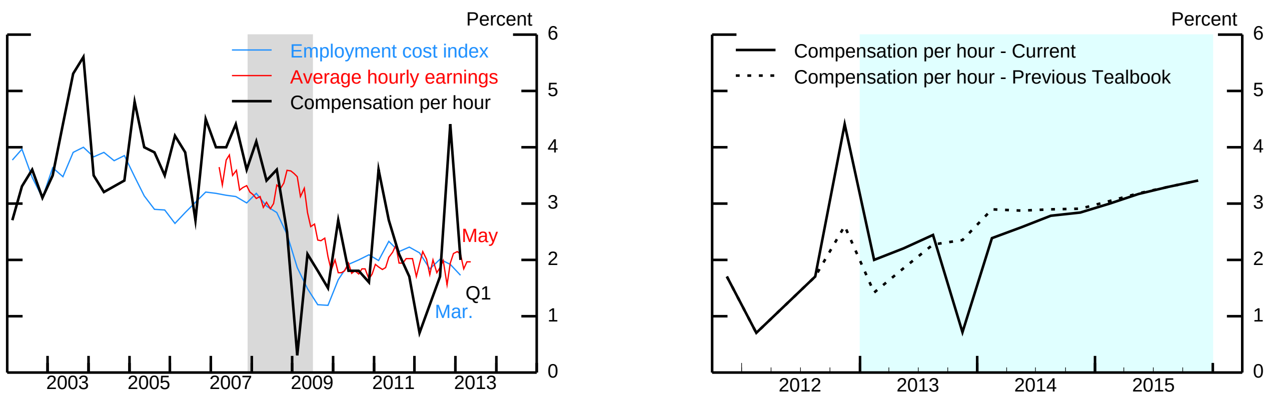
Source: For CPI, U.S. Dept. of Labor, Bureau of Labor Statistics; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Measures of Underlying PCE Price Inflation



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

Labor Cost Growth (Private Industry)



Note: Compensation per hour value for 2013:Q1 is a staff estimate.
Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

Consumer food prices are on track to rise 1¼ percent on average in the first half of this year, in line with our April forecast. Earlier concerns about weather-related planting delays for corn and soybeans have mostly abated, and futures prices point to a decline in crop prices of about 10 percent by the time of the autumn harvest. All told, consumer food price inflation is anticipated to run a little below core inflation over the medium term, at a pace that is unchanged from our April projection.

Core import prices are another factor likely holding down domestic inflation at present. After rising at an annual rate of ¼ percent in the first quarter of 2013, prices of imported core goods are expected to decline 1 percent in the current quarter in response to earlier declines in commodity prices and a stronger dollar. In the second half of 2013, we expect core import prices to increase ¼ percent at an annual rate; for the remainder of the forecast period, core import price inflation is expected to run about 1½ percent per year—little changed from our previous projection and in line with the relatively flat projected trajectory for commodity prices and our assumed pace of dollar depreciation.

Readings on long-term inflation expectations remain generally stable. Median 5-to-10-year-ahead inflation expectations from the final May Michigan survey were unchanged from April and within the relatively narrow range seen in recent years. Median expected PCE price inflation over the next 10 years from the second-quarter Survey of Professional Forecasters stood at 2 percent, unchanged from the first-quarter survey. Finally, measures of inflation compensation derived from TIPS yields have moved down a little more than ¼ percentage point since the time of the April Tealbook.

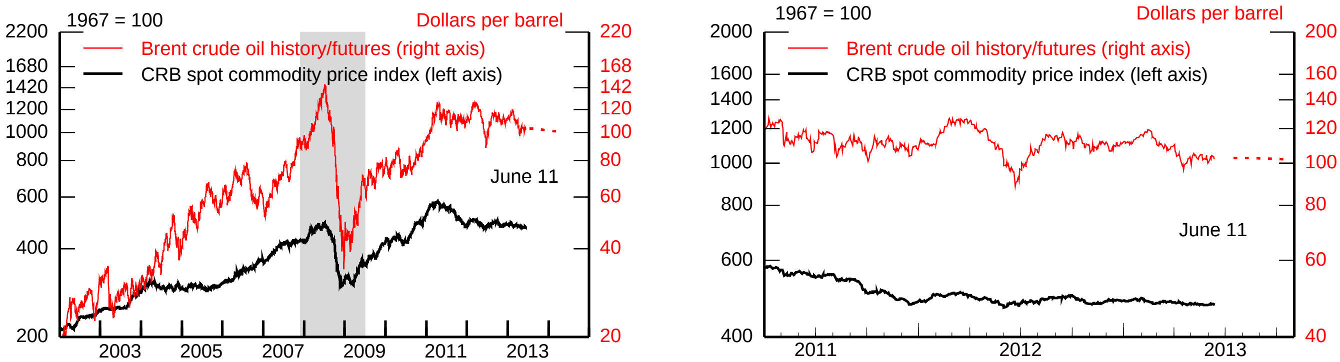
Given our projection of continued stability in long-run inflation expectations, relatively modest movements in commodity and import prices beyond this year, and a gradually diminishing margin of slack—as well as our judgment that much of the recent softness in core inflation reflects transitory factors—we expect core PCE inflation to rise from 1.2 percent this year to 1.6 percent in 2014 and to edge up further to 1.8 percent in 2015. Total PCE inflation is expected to run a bit below the core, rising about 1½ percent per year in 2014 and in 2015. Thus, throughout the medium term, the PCE inflation projection remains below both the Committee's long-run objective of 2 percent and the threshold level of 2½ percent.

The swing in wage and salary disbursements implied by the BEA's incorporation of the data from the Quarterly Census of Employment and Wages resulted in a large upward revision to nonfarm compensation per hour (CPH) in the fourth quarter of last

Inflation Developments and Outlook (2)

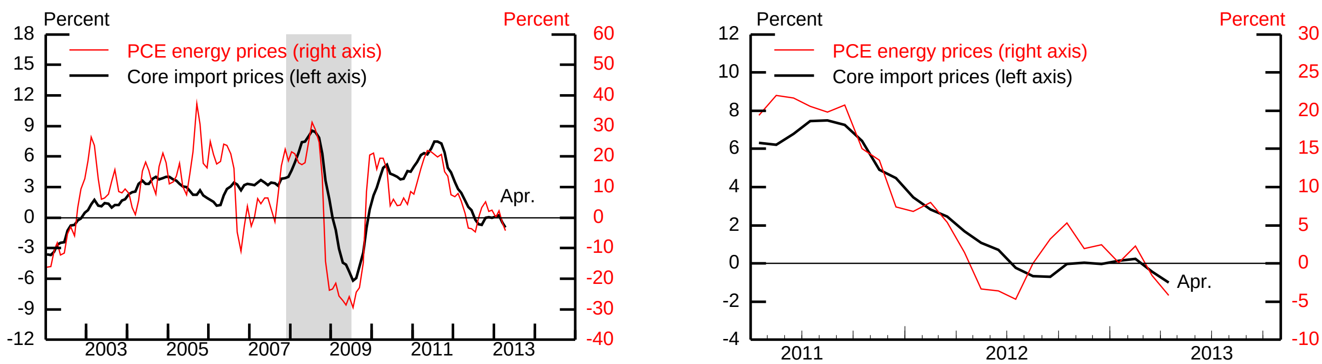
(Percent change from year-earlier period, except as noted)

Commodity and Oil Price Levels



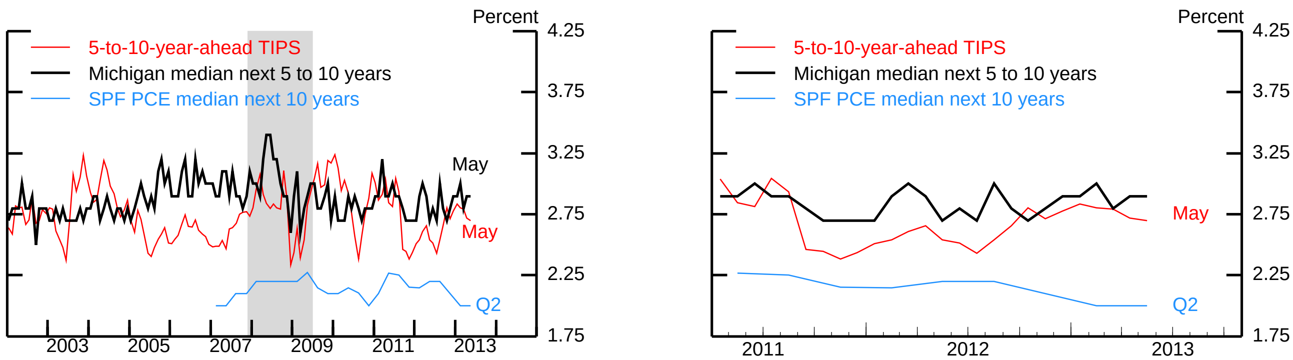
Note: Futures prices are the latest observations on monthly futures contracts.
Source: For oil prices, U.S. Dept. of Energy, Energy Information Agency; for commodity prices, Conference Research Board (CRB).

Energy and Import Price Inflation



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

Long-Term Inflation Expectations



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

year, with a corresponding downward revision to first-quarter CPH growth. We continue to expect hourly compensation growth to rise slowly over the medium term as the labor market gradually tightens.[12]

The Long-Term Outlook

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

- Monetary policy seeks to stabilize PCE inflation at 2 percent over the longer term, consistent with the Committee's strategy statement. As noted earlier, the Committee's threshold for the unemployment rate is crossed in the baseline projection in the first quarter of 2015. Thereafter, the federal funds rate is set according to the inertial Taylor (1999) rule.

- The Federal Reserve's holdings of securities continue to put downward pressure on longer-term interest rates in 2016 and 2017, albeit to a diminishing extent. The process of returning the SOMA portfolio to a normal size is expected to be completed by 2019.

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

- The federal budget deficit begins to widen after 2016, primarily reflecting fast-rising transfer payments for retirement and health-care programs. Federal debt stabilizes temporarily at almost 75 percent of GDP in 2017 and 2018 but then begins to edge up later in the decade.

- The real foreign exchange value of the dollar declines 2 percent per year from 2016 to 2018 and moves down more slowly thereafter. The price of crude oil decreases slightly in 2016 and then holds steady in real terms. Foreign real

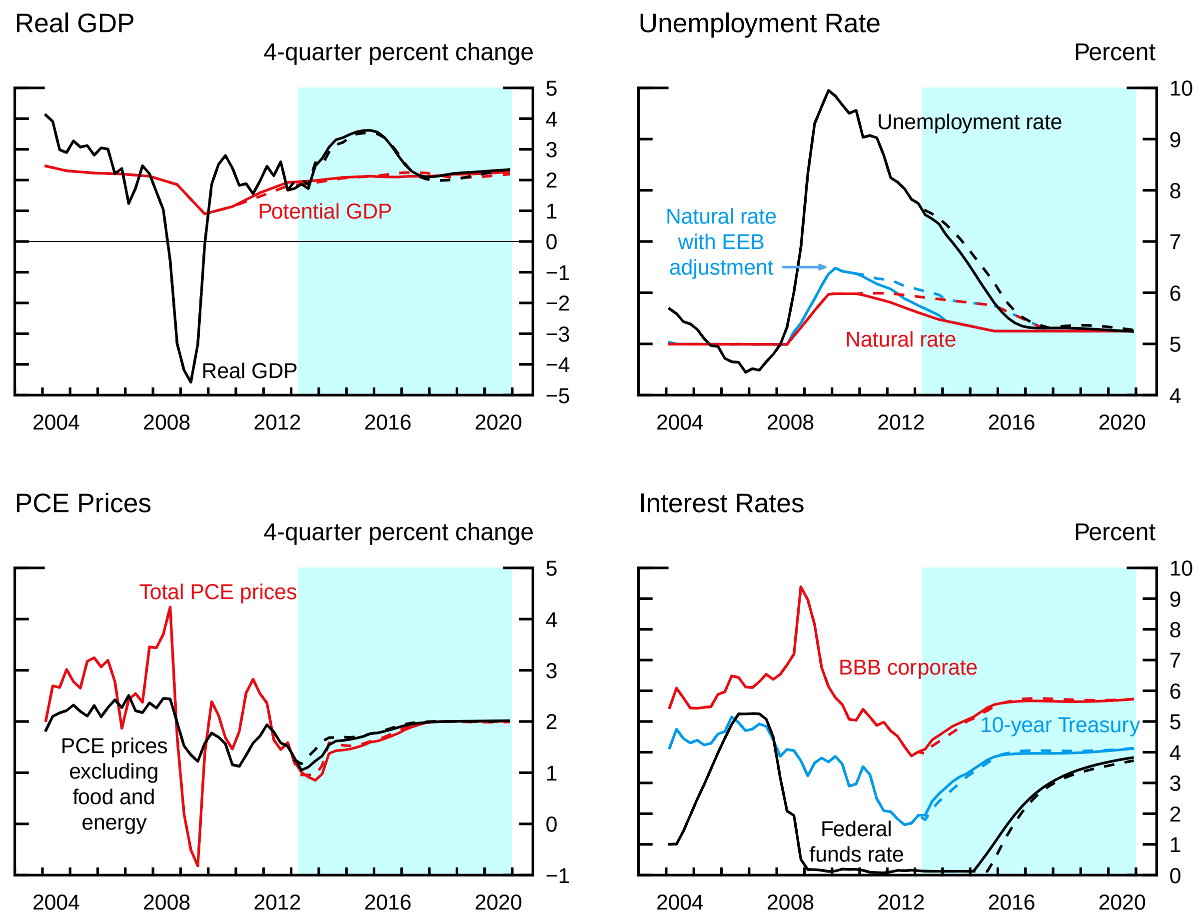
[12] According to the Bureau of Labor Statistics (BLS), the employment cost index (ECI) releases for the first quarter of 2013 and last two quarters of 2012 contained errors. While the BLS did not provide any details about the extent of these errors, we are treating all recent ECI data as suspect until the BLS publishes corrected ECI estimates at the end of July.

The Long-Term Outlook

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

Measure	2012	2013	2014	2015	2016	2017	Longer run
Real GDP	1.7	2.5	3.4	3.6	2.8	2.1	2.3
Previous Tealbook	1.7	2.6	3.2	3.5	2.9	2.0	2.3
Civilian unemployment rate[1]	7.8	7.3	6.6	5.8	5.3	5.3	5.2
Previous Tealbook	7.8	7.4	6.9	6.2	5.5	5.3	5.2
PCE prices, total	1.6	.9	1.4	1.6	1.8	2.0	2.0
Previous Tealbook	1.6	1.0	1.5	1.6	1.8	2.0	2.0
Core PCE prices	1.5	1.2	1.6	1.8	1.9	2.0	2.0
Previous Tealbook	1.5	1.5	1.7	1.8	1.9	2.0	2.0
Federal funds rate[1]	.2	.1	.1	1.0	2.2	3.0	4.0
Previous Tealbook	.2	.1	.1	.5	2.0	2.9	4.0
10-year Treasury yield[1]	1.7	2.7	3.3	3.9	4.0	4.0	4.8
Previous Tealbook	1.7	2.4	3.2	3.8	4.0	4.0	4.8

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



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

GDP growth slows from 3½ percent in 2015 to a 3 percent annual rate late in the decade.

- The natural rate of unemployment is 5¼ percent throughout the longer-term outlook. Potential GDP rises just over 2 percent per year in 2016 and 2017 and around 2¼ percent thereafter. (See the box "Information Technology and Labor Productivity" for a discussion of the effects of high-tech investment on the economy's long-run productive potential.)

The economy is projected to enter 2016 with output a little below its potential level, unemployment correspondingly above its natural rate, and inflation below the long-run objective of the Committee. In the staff's long-term forecast, further improvements in household and business confidence, diminishing uncertainty, and supportive financial conditions enable real GDP to rise 2¾ percent in 2016. Thereafter, the pace of gains in real GDP moves down closer to the rate of growth in potential output, in large part reflecting the progressive withdrawal of monetary accommodation. The unemployment rate falls through 2016 to 5¼ percent and is roughly unchanged thereafter. Long-run inflation expectations are assumed to remain well anchored, and, with the margin of slack in labor and product markets diminishing, consumer price inflation moves up to 2 percent by 2017. The nominal federal funds rate is 3¾ percent at the end of this decade and eventually stabilizes at around 4 percent early in the next decade.

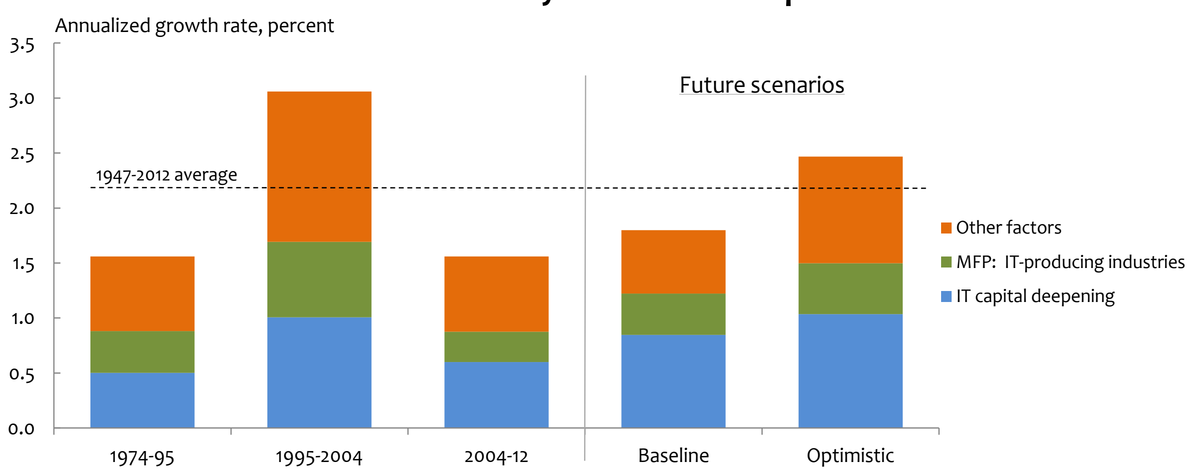
Information Technology and Labor Productivity

Labor productivity—output per hour worked—is a crucial determinant of potential output, long-run real interest rates, and, ultimately, living standards. As shown by the bars in the figure below, output per hour rose 1½ percent per year, on average, from 2004 to 2012 after having risen 3 percent per year from 1995 to 2004. Below we provide an estimate of the share of the recent labor productivity growth that can be attributed to information technology (IT)—including computers, communication equipment, and software—and we consider the prospects for IT to buttress labor productivity growth in the future.

A growth-accounting framework is commonly employed to decompose gains in labor productivity into contributions from capital deepening (namely, net investment in structures, equipment, and software); improvements in labor quality (from education, training, and experience); and rising multifactor productivity (MFP)—the ability of firms to produce more output from a given combination of inputs (from, for example, technological change or improved business practices). With this framework, we can drill down even further and calculate the separate contributions of IT capital deepening—that is, the greater use of IT capital throughout the economy—and non-IT capital deepening. We can also distinguish MFP increases within IT-producing industries from those elsewhere in the economy.

Staff research using this framework has found that the combined contribution from IT capital deepening (the blue portion of the bars in the figure below) and MFP growth for IT-producing industries (the green portion of the bars) accounted for about one-half of the robust labor productivity gains in the 1995–2004 period and for about one-half of the marked deceleration in productivity since 2004.[1]

Labor Productivity Growth Decomposition



Source: Byrne, Oliner, and Sichel (2013).

[1] See David M. Byrne, Steven D. Oliner, and Daniel E. Sichel (2013), "Is the Information Technology Revolution Over?" Finance and Economics Discussion Series 2013–36 (Washington: Board of Governors of the Federal Reserve System, March), www.federalreserve.gov/pubs/feds/2013/201336/201336pap.pdf.

Looking ahead, observers hold a wide range of opinions on the future prospects for IT-fueled labor productivity gains.[2] Some believe that the 1995–2004 period was exceptional and the more recent period is a better guide to the future—that dwindling IT innovation has weakened MFP growth and IT capital deepening and will continue to do so in the future. Others believe that recent and prospective improvements in computing and communications may bring more substantial productivity gains.

To the optimists, the recent surge in the adoption of new computing and communications technologies evokes the IT-driven boom of 1995 to 2004. Among these emerging trends are the widespread use of powerful smartphones and tablets, which free workers from attachment to desktop and even laptop computers, and the rapidly increasing reliance on "cloud computing"—the purchase of highly efficient computer services delivered through the Internet—by businesses seeking to avoid costly IT investments. Exploiting these new types of equipment and services may require time-consuming adjustments to business practices, management structure, and training. Thus the full effect on labor productivity may only become apparent after these "intangible" investments have been made, as appears to have been the case for personal computers.

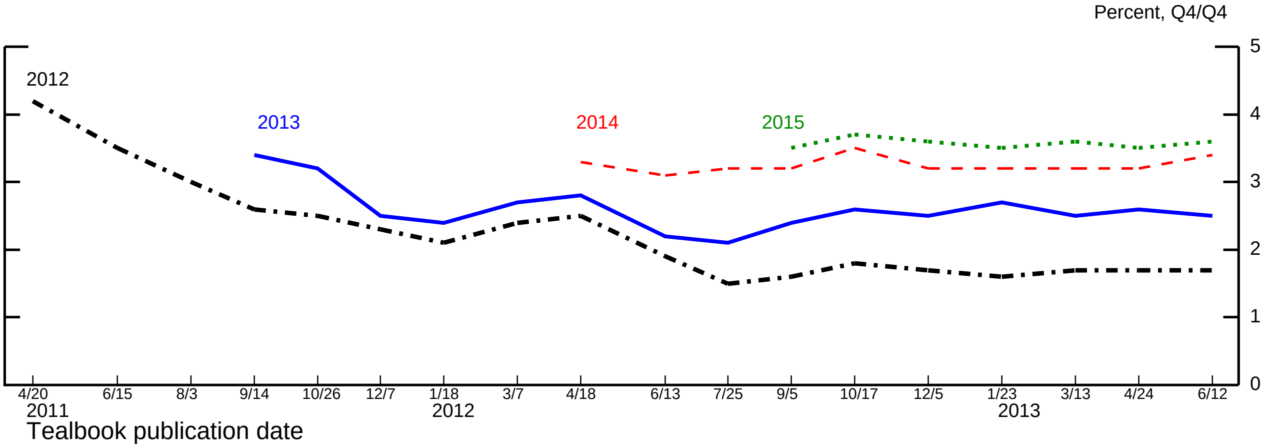
We can use our growth-accounting framework to project the trend rate of labor productivity growth that might result when firms have completed these adjustments to their production processes. The two right-most bars in the figure on the previous page explore two such future scenarios for long-run labor productivity growth. In the baseline scenario (which is broadly consistent with the staff's long-run GDP growth rate of 2¼ percent), we assume that MFP in the IT sector grows at roughly its average rate for the 1974–2012 period, raising productivity directly and inducing capital deepening through lower investment prices. This reasonably balanced scenario suggests that labor productivity growth will move modestly higher in the future, to 1¾ percent. In the optimistic scenario, we assume that new technologies drive up MFP in the IT sector to about two-thirds of the rapid pace seen in the 1995–2004 period, and that the complementary investments mentioned above also raise MFP in the non-IT producing industries (part of the orange portion of the bars). In this scenario, labor productivity growth is noticeably higher, rising to 2½ percent per year.

Neither scenario gives rise to stellar labor productivity growth, but the baseline is a little better than the pace in recent years, and the optimistic scenario results in labor productivity growth slightly above the 1947–2012 average (the dashed line). In each scenario, labor productivity growth is damped by the diminished contribution from labor quality (part of the orange portion of the bars) anticipated because of slower increases in educational attainment. Nevertheless, both of these speculative scenarios include a substantial contribution to labor productivity growth from the production and use of IT.

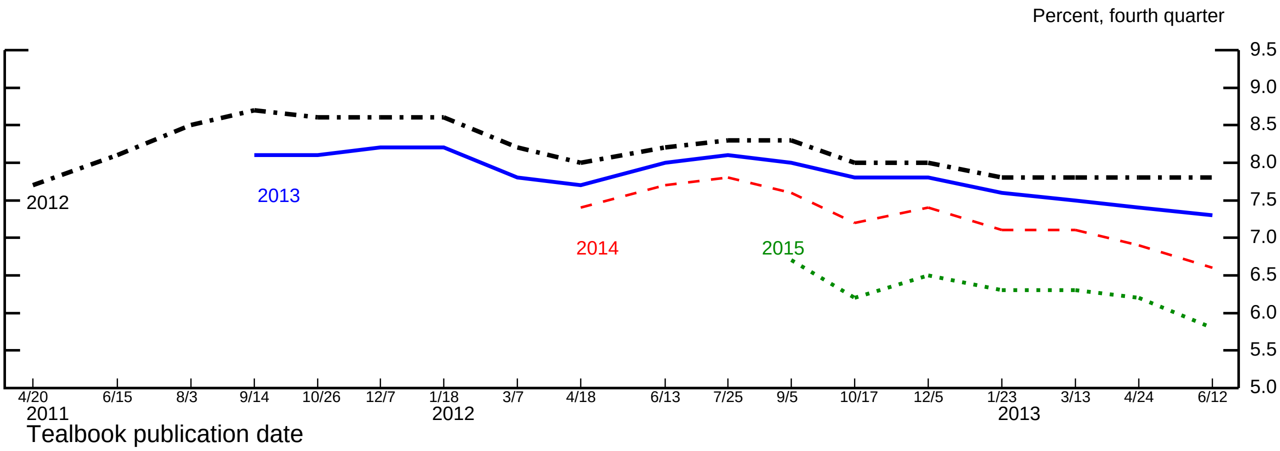
[2] For example, see Robert J. Gordon (2012), "Is U.S. Economic Growth Over? Faltering Innovation Confronts the Six Headwinds," NBER Working Paper Series 18315 (Cambridge, Mass.: National Bureau of Economic Research, August) for a pessimistic view, while Martin Baily, James Manyika, and Shalabh Gupta (2013), "U.S. Productivity Growth: An Optimistic Perspective," *International Productivity Monitor*, vol. 25 (Spring), pp. 3–12, provide a more upbeat assessment.

Evolution of the Staff Forecast

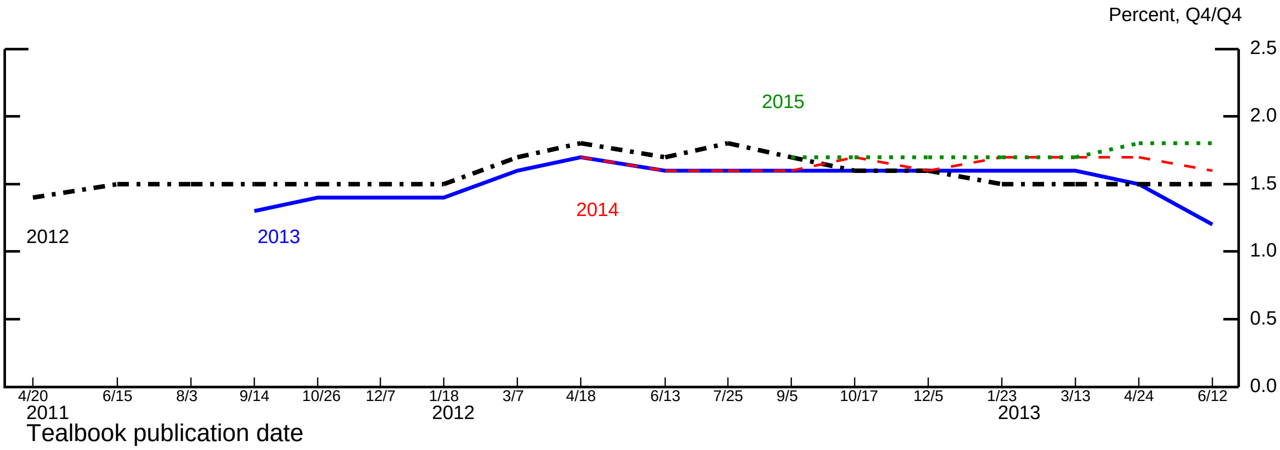
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy



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International Economic Developments and Outlook

Prospects for foreign economic growth remain lackluster, especially for 2013. Foreign real GDP rose only 2 percent in the first quarter of this year, down from 2.3 percent in the last quarter of 2012. Economic growth in the emerging market economies (EMEs) slowed sharply following an outsized fourth-quarter performance, led by a step-down in Chinese growth. In contrast, GDP picked up in the advanced foreign economies (AFEs), albeit at a pace of only 1.5 percent, following a contraction in the fourth quarter. The pace of decline in the euro area moderated, and Japanese growth surged amid Abenomics-inspired improvements in confidence and declines in the yen. However, on net, total foreign growth in the first quarter came in ¼ percentage point below our April Tealbook estimate, as faster-than-expected growth in the AFEs was more than offset by disappointing activity in the EMEs.

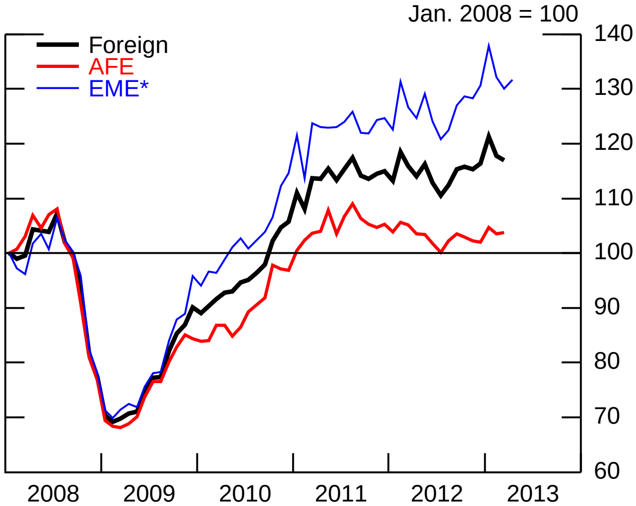
This weaker momentum together with more recent soft data led us to mark down foreign growth nearly ½ percentage point in the second quarter and ¼ percentage point in the third quarter. We now project foreign GDP to rise 2¼ percent in the current quarter before accelerating to nearly a 3¼ percent pace by year-end and to 3½ percent by 2015, sustained by the stronger U.S. expansion, a return to trend growth in China, and supportive policies by most foreign central banks.

In this outlook, the recession in the euro area comes to an end later this year. Indeed, as financial strains in the region have declined substantially since mid-2012, output appears to be contracting less rapidly, and we project a modest recovery will take hold next year amid diminishing fiscal consolidation, accommodative monetary policy, and a stronger global recovery. However, there remains a risk that the euro-area recession may be more severe and more prolonged than we are anticipating, a scenario we explore in the Risks and Uncertainty section. Prospects outside Europe also appear quite uncertain. In particular, we have been surprised by the slowdown this year in China and in the EMEs more generally, and are alert to the possibility that this soft patch might last longer than we are expecting.

Foreign inflation is on track to step down from 2.3 percent in the first quarter to less than 2 percent in the second quarter, owing to persistent resource slack and lower commodity price pressures. Going forward, we expect foreign inflation to average

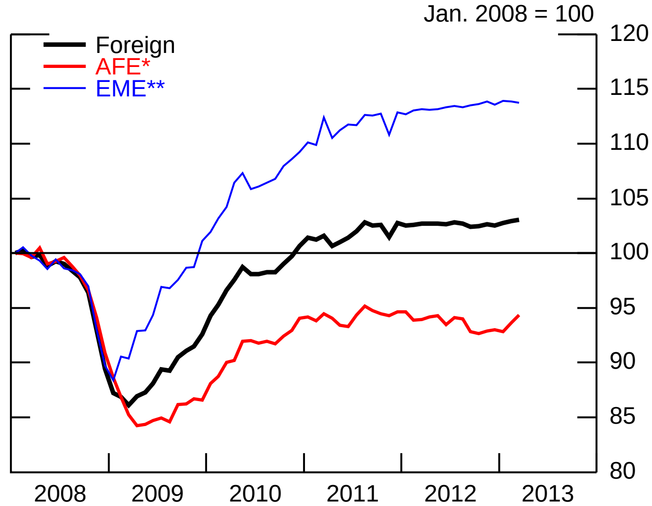
Recent Foreign Indicators

Nominal Exports



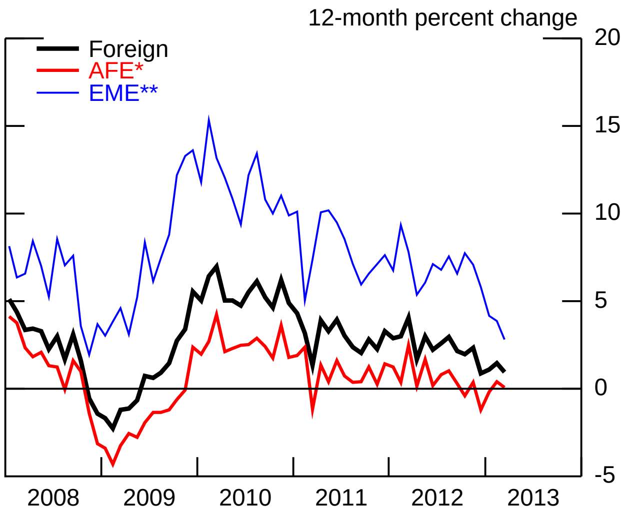
* Excludes Venezuela.

Industrial Production



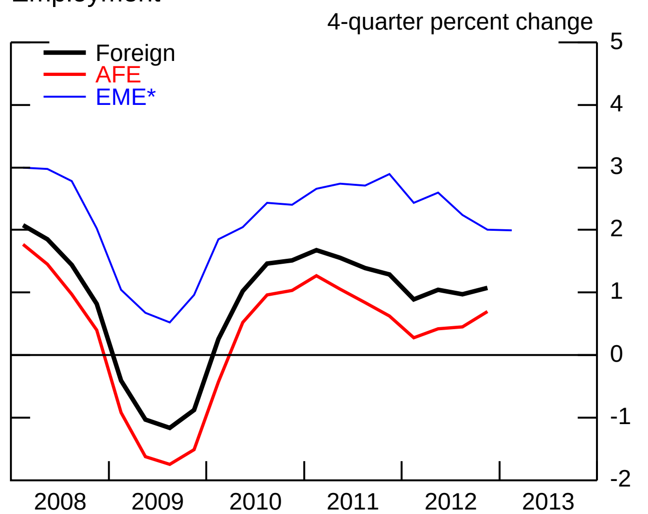
* Excludes Australia and Switzerland.
** Excludes Colombia, Hong Kong, the Philippines, and Venezuela.

Retail Sales



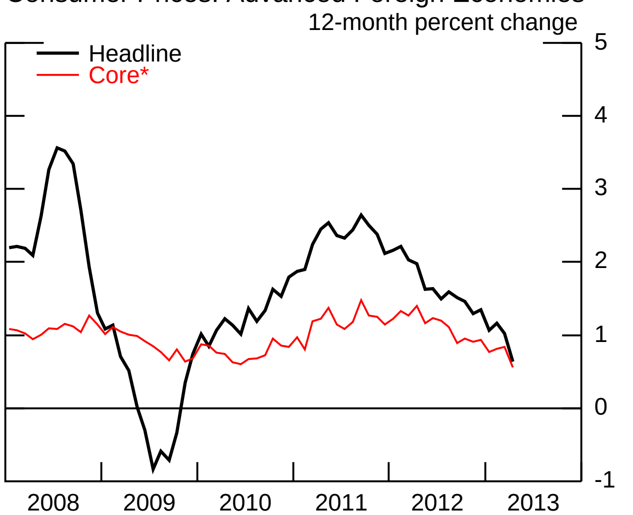
* Excludes Australia and Switzerland.
** Includes Brazil, China, Indonesia, Korea, Singapore, and Taiwan.

Employment



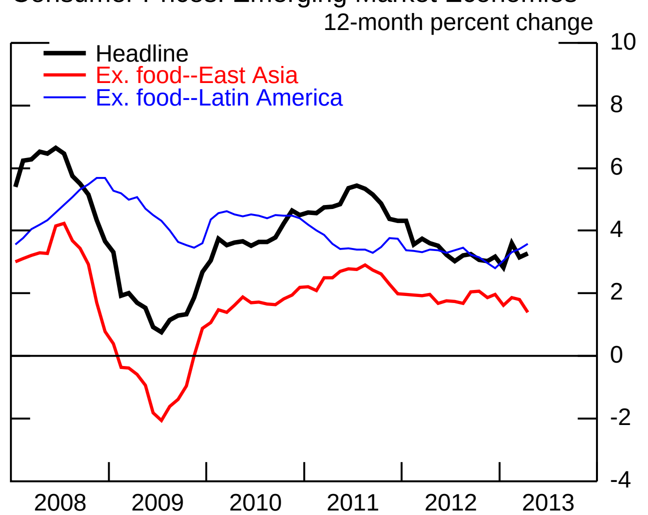
* Excludes Argentina and Mexico.

Consumer Prices: Advanced Foreign Economies



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

Consumer Prices: Emerging Market Economies



Source: Haver Analytics and CEIC.

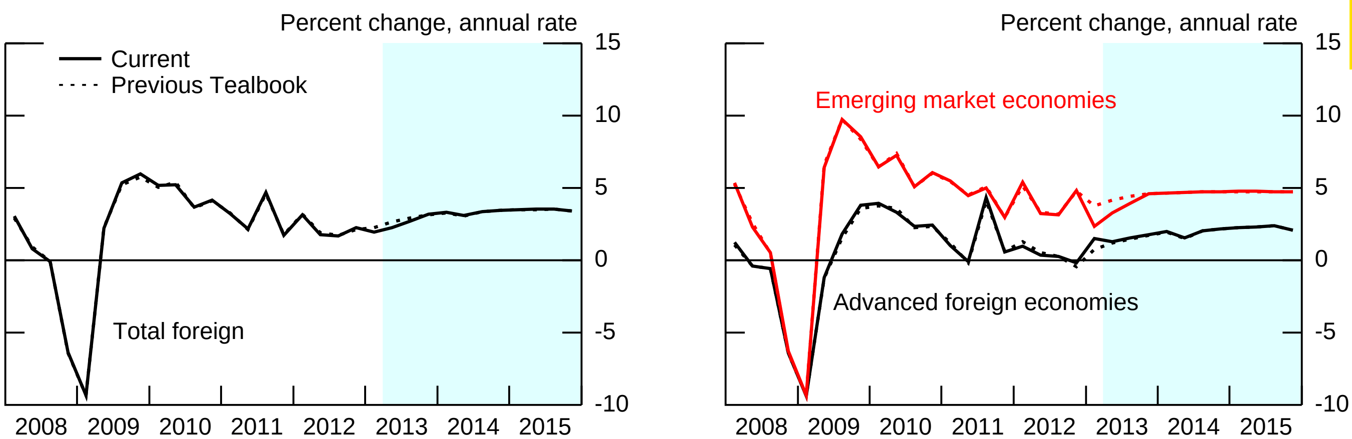
Int'l Econ Devel & Outlook

The Foreign Outlook
(Percent change, annual rate)

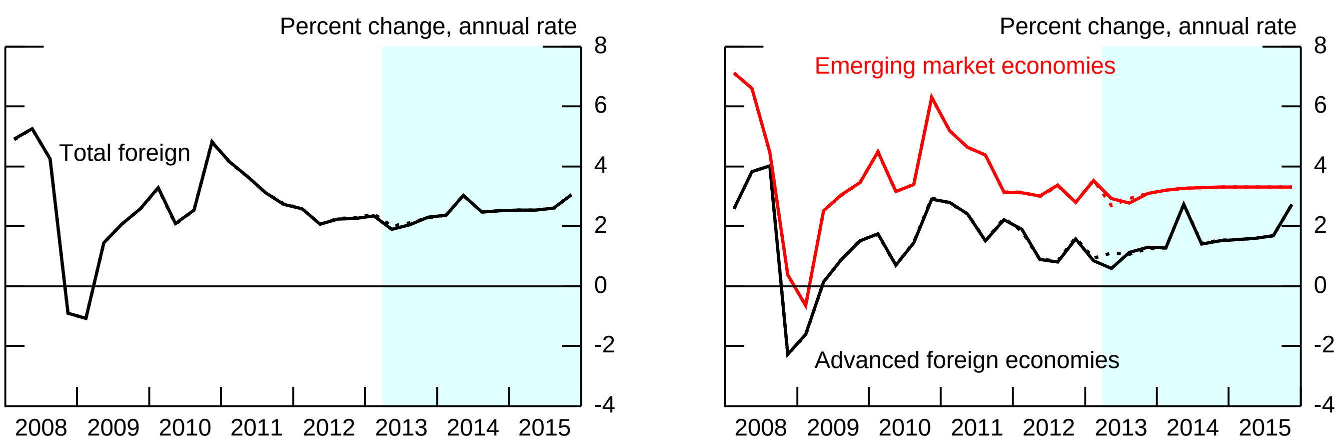
	2012			2013			2014	2015
	H1	Q3	Q4	Q1	Q2	H2		
Real GDP								
Total foreign	2.5	1.7	2.3	2.0	2.3	3.0	3.3	3.5
Previous Tealbook	2.6	1.7	2.1	2.3	2.7	3.0	3.3	3.5
Advanced foreign economies	.7	.3	-.2	1.5	1.3	1.7	2.0	2.3
Previous Tealbook	.9	.3	-.4	.8	1.2	1.6	1.9	2.3
Emerging market economies	4.3	3.2	4.8	2.4	3.3	4.3	4.7	4.8
Previous Tealbook	4.2	3.2	4.8	3.8	4.2	4.5	4.7	4.8
Consumer Prices								
Total foreign	2.3	2.2	2.3	2.3	1.9	2.2	2.6	2.7
Previous Tealbook	2.3	2.3	2.3	2.4	2.0	2.2	2.6	2.7
Advanced foreign economies	1.4	.8	1.6	.8	.6	1.2	1.7	1.9
Previous Tealbook	1.4	.8	1.6	.9	1.1	1.2	1.7	1.9
Emerging market economies	3.1	3.4	2.8	3.5	2.9	2.9	3.3	3.3
Previous Tealbook	3.1	3.4	2.8	3.6	2.7	3.0	3.3	3.3

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

Real GDP



Consumer Prices



2¼ percent in the second half of 2013 and nearly 2¾ percent over the rest of the forecast period. Our outlook for foreign inflation is little changed from the April Tealbook, as the effect of a modest markup of oil prices is roughly offset by the softer near-term outlook for economic activity. Amid subdued inflation and concerns about growth, several foreign central banks, notably the European Central Bank (ECB), have loosened monetary policy since the time of the April Tealbook.

Advanced Foreign Economies

Following a mild contraction in the final quarter of 2012, AFE output rose 1.5 percent at an annual rate in the first quarter, double the pace we had estimated in the April Tealbook. Economic activity was surprisingly strong in Canada and Japan, thanks to vigorous exports. In the United Kingdom, inventory rebuilding helped GDP advance despite stagnating final demand. Euro-area output shrank for the sixth consecutive quarter but the pace of contraction slowed, as private consumption growth turned positive. Growth in the AFEs is expected to average 1½ percent through the rest of 2013, slightly higher than previously forecast, reflecting better-than-expected data in Canada and Japan. Thereafter, we expect diminishing fiscal drag, accommodative monetary policies, and improving private balance sheets to lift AFE growth to 2 percent in 2014 and 2¼ percent in 2015, unchanged from the April Tealbook.

First-quarter AFE inflation came in about as expected at ¾ percent and should remain near that pace in the current quarter. We project inflation to rise to 1¼ percent in the second half of 2013, 1¾ percent in 2014, and nearly 2 percent in 2015, as activity firms and Japan overcomes deflation. Consistent with their medium-term inflation goals, we continue to expect the Bank of England (BOE) and the Bank of Japan (BOJ) to deliver additional stimulus.

Euro Area

Euro-area GDP declined 0.8 percent at an annual rate in the first quarter, a slower pace of contraction than the 1½ percent decrease registered in the second half of 2012, as private consumption stabilized. On balance, data for the second quarter point to a further but smaller contraction of ¼ percent, broadly consistent with our forecast in the April Tealbook. Although retail sales declined in April, industrial production increased further, and the composite PMI rose through May.

Going forward, we see euro-area GDP bottoming out in the second half of this year before expanding an anemic 1¼ percent in 2014 and 2 percent in 2015. While the timing of the economy's exit from recession is necessarily uncertain, a number of factors should support the recovery: Monetary policy will remain quite accommodative, financial stresses have eased considerably since mid-2012, external demand from the United States and elsewhere is projected to firm, and the pace of fiscal consolidation is slated to substantially diminish. Indeed, concern about the economic effects of budget-cutting led the European Commission to extend the deadlines for some euro-area countries, including France and Spain, to reduce fiscal deficits below 3 percent of GDP. This extension supports our forecast of a noticeable reduction in fiscal drag in 2013. (See the box "Recent Changes in European Fiscal Policy.")

Data through May suggest euro-area inflation has remained below 1 percent in the second quarter. With the output gap continuing to widen, we expect inflation to remain subdued for the rest of the year before gradually rising to 1¾ percent by the end of 2015. Our forecast for inflation is little changed from that in the April Tealbook.

As anticipated, the ECB cut its benchmark policy rate 25 basis points to 0.5 percent in May and left it unchanged in June. We expect the ECB to keep its main policy rate steady until late 2015 and possibly introduce measures to reduce funding costs for small- and medium-sized firms.

Japan

Real GDP rose a better-than-expected 4.1 percent in the first quarter, driven by a jump in exports and strong private consumption. The economic recovery appears to have continued at a rapid pace in the current quarter, supported by highly accommodative fiscal and monetary policy. In April, industrial production and exports rose robustly and, in May, the manufacturing PMI moved further into expansionary territory and consumer confidence reached a new multiyear high. Given these encouraging indicators, we revised up our second-quarter growth estimate ½ percentage point to 3¼ percent. Although Japan's stock price index has plunged and the yen has appreciated in recent weeks, both remain at more favorable levels than in the first quarter.

Going forward, we expect GDP growth to be around 3 percent through early 2014 before dropping to an average pace of only ½ percent over the remainder of the forecast period, reflecting fiscal retrenchment—including two planned consumption tax hikes—

Recent Changes in European Fiscal Policy

In recent months, as euro-area output has fallen further and unemployment has continued to rise, the emphasis of European authorities on aggressive near-term fiscal austerity has eased somewhat. As a consequence, we have moderated our estimate of fiscal drag on euro-area growth over the forecast period. Our analysis supports the view that, as long as the commitment to fiscal adjustment remains credible, a more gradual pace of deficit reduction should be beneficial for both near-term growth and the longer-term fiscal health of the euro area.

Throughout most of the euro-area crisis, the European Commission (EC) and core European governments have trumpeted the need for fiscal consolidation. Authorities have insisted that countries conform to the excessive deficit procedure, under which budget deficits must be brought below 3 percent of GDP on a rigid timeline. When countries missed their initial deadlines—in part because the targets were overly ambitious and based on optimistic economic forecasts—European authorities altered adjustment paths only slightly and required additional fiscal consolidation measures; this consolidation weighed further on growth. Consequently, even though euro-area countries have reduced their structural budget deficits, particularly in the periphery, actual deficits have come down by less because of the negative effect of lower growth on tax revenues (see upper-left figure on the next page).[1]

However, amid a deepening recession and increasing evidence that contractionary fiscal policy was weighing on growth in core as well as peripheral countries, European authorities began late last year to signal some flexibility. In particular, the EC indicated that it would tolerate some fiscal slippage if GDP growth turned out weaker than forecast, provided that countries made the required reduction in structural deficits. In addition, France and the Netherlands announced they would not introduce further fiscal consolidation, despite acknowledging that they would miss headline deficit targets this year. Most recently, the EC recommended that the European Council grant some leeway to France, the Netherlands, Portugal, Poland, Slovenia, and Spain in exchange for accelerated structural reforms.[2] For example, the deadline for bringing deficits down to 3 percent of GDP was extended by two years for France and Spain (to 2015 and 2016, respectively) and by one year for the Netherlands (to 2014).

Taking these developments into account, since late last year, we have reduced our projection of the drag on real GDP growth from fiscal consolidation about ¼ percentage point of GDP per year in the 2013–15 period (see upper-right figure on the next page). Moreover, our analysis suggests that there should be scope to further back-load consolidation efforts. To be sure, up-front cuts were regarded by some as essential to establishing fiscal credibility among investors early on in the euro-area crisis. However, several years of deep budget cuts, along with resultant shortfalls in growth, likely have diminished the benefits of such signaling.

[1] The structural deficit is the deficit that would prevail at full employment and absent one-off changes to taxes and spending and thus abstracts from cyclical movements in the economy.

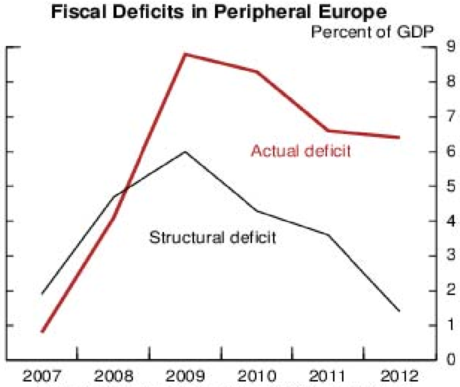
[2] These recommendations will likely be approved by the European Council later in June.

Simulations using the Board staff's open-economy model, SIGMA, suggest that for the same cumulative amount of fiscal restraint, front-loaded consolidation depresses the path of output by more than gradual, back-loaded consolidation (see lower-left figure on this page). This is because, with sticky prices and wages, private demand cannot adjust fast enough to offset the effects of abrupt budget cuts in the front-loaded consolidation, producing a very sharp contraction in the short run. Moreover, in the present situation, the effect of the front-loaded consolidation is aggravated because the ECB is constrained by the zero lower bound; conversely, most of the budget cuts under back-loaded consolidation occur once interest rates have risen off their floor, so that the ECB can partially offset the fiscal drag through monetary easing.

Indeed, the drop in output in the front-loaded consolidation is so severe that the debt-to-GDP ratio does not improve at all in the near term relative to the more gradual consolidation (see lower-right figure). Beyond the near term, the debt-to-GDP ratio in the front-loaded consolidation rises above the back-loaded consolidation because spending cuts taper off at longer horizons in the front-loaded consolidation, whereas they increase in the gradual consolidation.

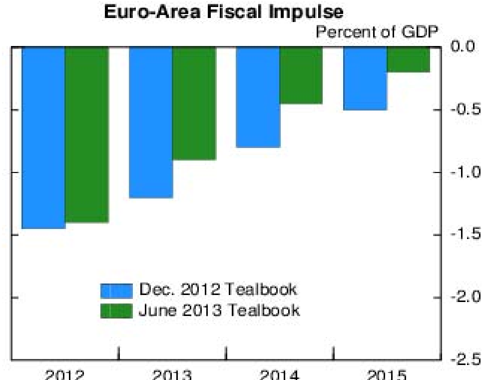
Consequently, these findings support the notion that too much austerity too soon can be counterproductive, especially if the purpose is to put public debt on a more sustainable path.

Fiscal Deficits in Peripheral Europe



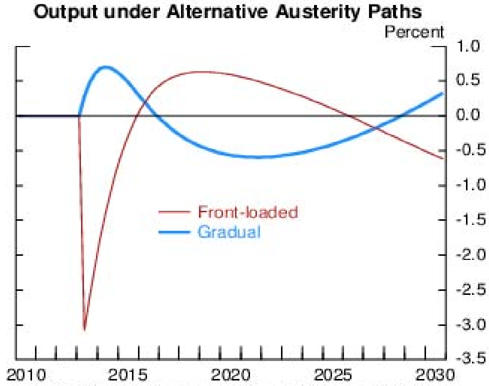
Note: GDP-weighted average of Greece, Ireland, Italy, Portugal, and Spain.
Source: For actual deficit, Eurostat; for structural deficit, staff estimates.

Euro-Area Fiscal Impulse



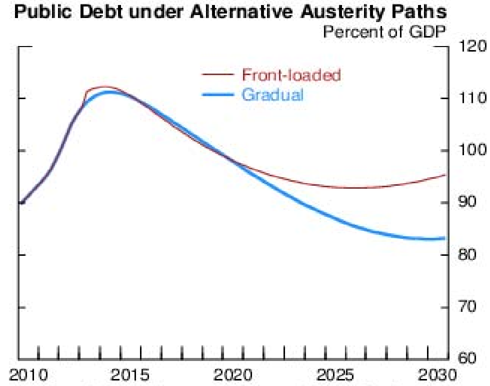
Note: Direct effect on real GDP growth from fiscal consolidation, calculated as (-1) x change in structural balance.
Source: Staff forecasts.

Output under Alternative Austerity Paths



Note: Projected average output of Spain and Italy, expressed as a percent deviation from a baseline calibrated to the staff's forecast.
Source: Staff simulations using SIGMA model.

Public Debt under Alternative Austerity Paths



Note: Projected average debt to GDP of Spain and Italy, weighted by nominal GDP.
Source: Staff simulations using SIGMA model.

and fading impetus from past yen depreciation. Beyond the current quarter, our outlook is unchanged since the April Tealbook, but we are closely monitoring developments in financial markets and the implementation of Abenomics.

Consumer prices declined in the first quarter given persistently negative core inflation and surprisingly moderate import price inflation. In April, however, consumer prices edged up, supporting our forecast for slightly positive inflation in the current quarter. Inflation should creep up further thereafter as the BOJ pursues its aggressive asset purchase program and the sharp depreciation of the yen since late last year passes through into domestic prices. Accordingly, we continue to project that, net of the effect of consumption tax hikes, inflation will rise to 1¼ percent by the end of 2015, still below the BOJ's new 2 percent target but significantly improved from the deflation of previous years.

United Kingdom

First-quarter GDP rose 1.3 percent, 1 percentage point more than we had estimated in the April Tealbook. The upside surprise was concentrated in inventory accumulation, with final domestic demand and net exports making small negative contributions to GDP growth. More recent monthly data were mixed, with retail sales sliding in April but the PMIs firming through May. As a result, we continue to expect GDP growth to remain subdued, averaging about1½ percent through the end of this year before increasing to 2¼ percent in 2014 and 2½ percent in 2015. This gradual improvement is predicated on continued accommodative monetary policy, diminished fiscal drag, and the projected recovery in the euro area.

Core consumer prices in April were weaker than we had anticipated, leading us to mark down our second-quarter estimate of overall inflation to 1 percent. Smoothing through the volatility introduced by the phasing-in of a large university tuition fee hike, we project that inflation will be near 2 percent through 2015, unrevised from the April Tealbook. With inflation in check and ample resource slack, we maintain our call for additional monetary easing—possibly through the provision of forward guidance—following the arrival of Mark Carney as governor of the BOE on July 1.

Canada

Following a 0.9 percent increase in the last quarter of 2012, real GDP growth in Canada stepped up to 2.5 percent in the first quarter of 2013, 1 percentage point higher than we had estimated in the April Tealbook. The first-quarter figure was boosted by surprisingly robust exports. April trade data suggest some weakening of net exports, but domestic indicators show greater strength. In May, the manufacturing PMI jumped to 53.2 after lingering near 50 for several months, and stronger labor market conditions, following some recent softness, led the unemployment rate to tick down to 7.1 percent. All told, we see output growth averaging just above 2 percent through year-end before picking up to 2½ percent in 2014 and 2015. Compared with the April Tealbook, this forecast is a bit higher through mid-2014 and unchanged thereafter.

Canadian consumer price inflation weakened in April because of falling retail energy prices and softness in core components. We expect inflation to moderate to an annual rate of 1 percent in the second quarter, down from 1.6 percent in the first quarter. Thereafter, the projected firming of economic activity should gradually push inflation to near the 2 percent target by the end of the forecast period. Given our outlook for mild inflation along with still-high unemployment, we continue to anticipate the Bank of Canada will maintain its accommodative stance and hold its main policy rate unchanged until the second half of 2014.

Emerging Market Economies

With nearly all of the first-quarter GDP data in hand, we estimate that growth in the EMEs slowed sharply to a meager 2½ percent from its robust pace of 4.8 percent at the end of last year. The robust growth in the fourth quarter was supported by strong demand from China and an apparent revving up of production for export in anticipation of a firming of global activity. With indications that Chinese activity had slowed in the first quarter and that the advanced economies had recovered at only a tepid pace, we were already expecting a step-down in EME growth in the April Tealbook. But growth turned out to be 1½ percentage points weaker than we had anticipated.

The surprising depth and breadth of the first-quarter slowdown suggests weaker underlying momentum in the EMEs. This view has been reinforced by recent indicators that point, on balance, to subpar growth in the current quarter. Although retail sales held up well, readings on industrial production and exports remained weak and PMIs moderated a bit. Accordingly, we revised down EME growth by nearly 1 percentage point in the current quarter to 3¼ percent and by ½ percentage point to just under 4 percent in the third quarter.

We project EME growth to rise to about 4¾ percent over the remainder of the forecast period, in the neighborhood of its trend pace, supported by accommodative policies and the recovery in the advanced economies. An anticipated end to the soft patch in Chinese activity should also provide support for the rest of emerging Asia and for commodity producers. That said, we recognize the possibility of less favorable outcomes, especially if the projected recovery in the advanced economies is slower than expected or if weakness in China persists.

We estimate EME inflation moved down to less than 3 percent in the current quarter from 3.5 percent in the first, largely reflecting a moderation of earlier food price pressures in some countries. Going forward, we see inflation moving back up to 3¼ percent in 2014 and 2015. Amid subdued inflation and weak economic growth, central banks in several countries, including Israel, India, Korea, and Thailand, lowered policy rates recently. In contrast, the central bank of Brazil raised its policy rate again to rein in inflation, notwithstanding continued disappointing economic growth.

China

The official four-quarter GDP growth rate for China, which was available at the time of the April Tealbook, suggests that quarterly GDP growth stepped down sharply in the first quarter, to an annual rate of just 6½ percent, compared with 9½ percent in the fourth quarter of last year. Recent indicators point to continued subdued activity—by historical Chinese standards—in the current quarter. Although retail sales growth improved a touch in April and May relative to the first quarter, investment growth was about flat and industrial production decelerated. Consequently, we now estimate that GDP growth will remain at 6½ percent in the current quarter, about ¾ percentage point lower than forecast in the previous Tealbook. However, with policies remaining accommodative and the advanced economies expected to pick up steam, we see Chinese growth rising to a near-trend pace of about 8 percent by the end of this year and then remaining around that pace through 2015.

Food prices have been volatile in China so far this year. Increases in these prices caused headline inflation to pick up to 3½ percent at an annual rate in the first quarter, and more recent declines in food prices will likely lead inflation to subside to about 2 percent in the current and third quarters. Overall, we expect inflation will average around 2½ percent this year and 3 percent in 2014 and 2015.

Other Emerging Asia

Elsewhere in emerging Asia, first-quarter GDP growth was disappointing, dropping to 1¼ percent, about 2 percentage points below our April Tealbook estimate. Notably, growth turned negative in Malaysia, Taiwan, and Thailand. We had anticipated that the moderation of growth in China would spill over into these economies and that some payback from outsized growth in the fourth quarter would weigh on the region's performance. However, the slowdown was more pronounced than we had anticipated, as exports, particularly to China, and fixed investment (which in these economies tends to be well-correlated with exports) were surprisingly weak. The weakness in the first quarter, along with the soft tone of recent data, prompted us to mark down the near-term outlook for the region. We now see GDP growth picking up to only 3 percent in the current quarter. Thereafter, growth is projected to rise to 4½ percent by next year, supported by accommodative policies, faster Chinese economic growth, and firming of economic activity in the advanced economies.

We estimate that inflation dipped to an annual rate of 1¾ percent in the current quarter, reflecting weak growth and a reversal of earlier increases in food prices. As the economies in the region gather steam, we expect inflation to rise to 3½ percent in 2014 and in 2015.

Latin America

Economic performance across Latin America was also disappointing. In Mexico, GDP growth was just 1¾ percent in the first quarter, down from 2¾ percent in the previous quarter and 1½ percentage points below our previous Tealbook estimate. The manufacturing and agricultural sectors were surprisingly weak, and exports contracted. This weakness, along with a drop in industrial production in April and downward revisions to the projection for U.S. manufacturing output, led us to mark down Mexico's growth by about 1¼ percentage points, on average, in the current and third quarters. We now expect Mexican real GDP to rise only 2¼ percent in the current quarter before accelerating to a pace of almost 4 percent in 2014 and 2015, broadly mirroring the contour of U.S. manufacturing output.

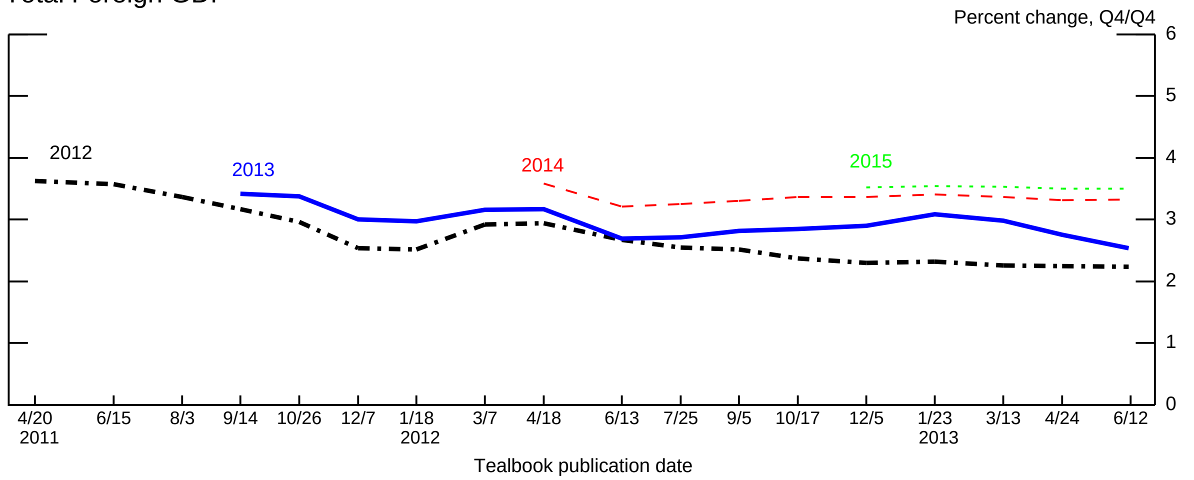
In South America, GDP growth declined to 1½ percent in the first quarter from 4½ percent in the fourth. Economic activity cooled across the region, largely driven by a decline in demand for commodities; in Chile, for example, growth fell from 8 percent in the fourth quarter to 2 percent in the first as copper exports plunged. In Brazil, by contrast, growth fell only slightly, to 2¼ percent, in the first quarter from 2½ percent at the end of last year. However this rate was ½ percentage point lower than we had expected, denting prospects for a vigorous recovery after a lackluster performance over the past two years. In the current quarter, growth is expected to increase to 2¾ percent, consistent with the recent pickup in manufacturing activity. Thereafter, growth should recover further to reach 4 percent in 2015, aided by generally supportive macro policies, the recovery in the advanced economies, and an improvement in Chinese growth that should contribute to increased demand for commodities. The outlook for Brazil is a little weaker than we wrote down in April, reflecting momentum from the subdued first-quarter outcome and tighter monetary policy than previously anticipated.

Mexico's inflation is on track to rise to 5½ percent in the current quarter, partly reflecting a hike in administered public transport prices. Once this effect dissipates next quarter, inflation will likely fall back to about 3½ percent over the remainder of the forecast period, about the same as in the previous Tealbook.

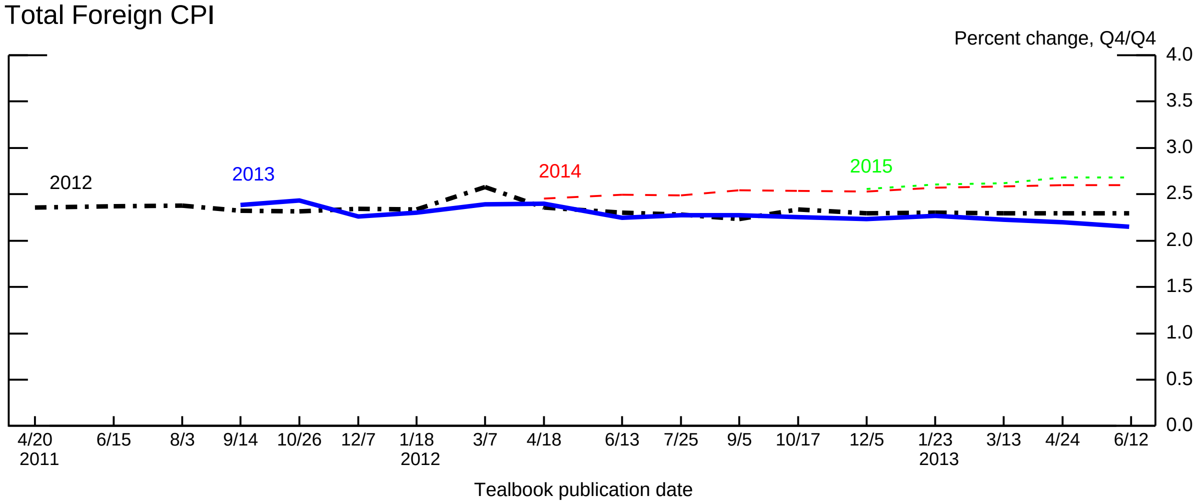
In Brazil, inflation likely moderated further in the current quarter but remained elevated amid persistent food price pressures. Twelve-month inflation came in at about 6½ percent in April and May, the upper end of the central bank's tolerance range, and inflation expectations remained elevated, prompting the central bank to raise the policy rate 50 basis points to 8 percent in late May. Some easing of food price pressures, together with further monetary tightening, should bring inflation to 5½ percent by next year.

Evolution of Staff's International Forecast

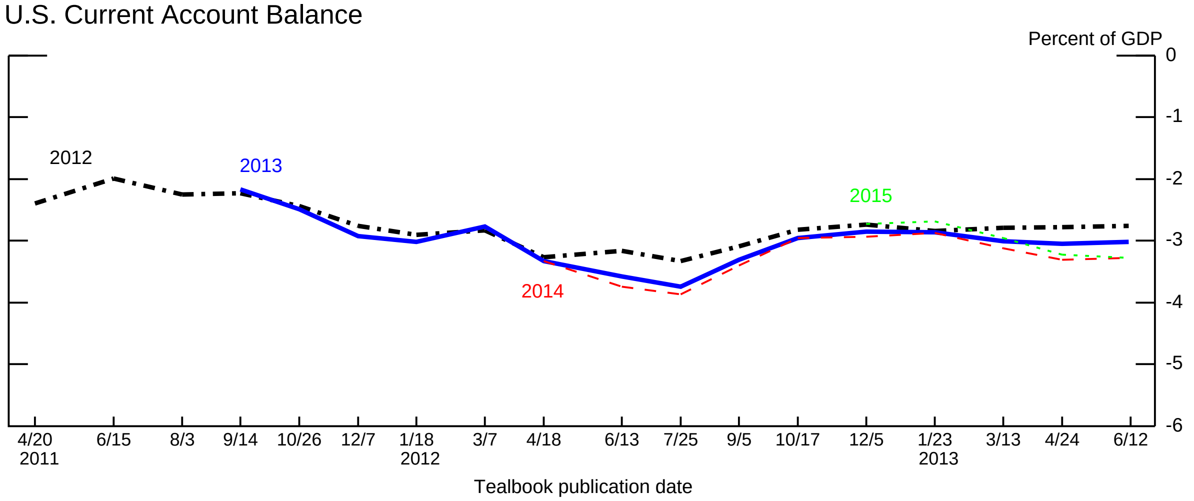
Total Foreign GDP



Total Foreign CPI



U.S. Current Account Balance



Int'l Econ Devel & Outlook

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Financial Developments

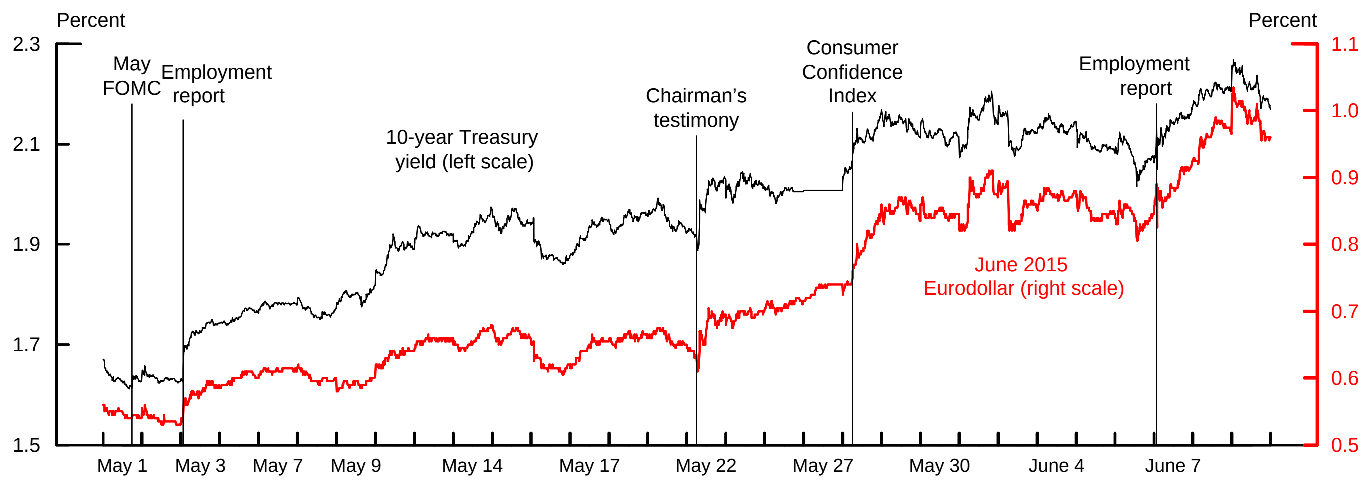
Financial markets were volatile over the intermeeting period as investors digested the implications of incoming economic data and Federal Reserve communications. Equity prices and longer-term interest rates moved higher, on balance, boosted in part by somewhat better-than-expected U.S. economic data and an accompanying improvement in investor sentiment. Federal Reserve communications over the period were reportedly read by market participants as suggesting that downward adjustments to the FOMC's flow-based asset purchase program might occur earlier than anticipated, and may also have contributed to the steepening of the expected path of the federal funds rate. These changes in policy expectations, and an associated increase in uncertainty about the outlook for policy, boosted longer-term interest rates and appeared to damp the gains in equity prices.

All told, yields on intermediate- and longer-term Treasury securities rose substantially, and stock prices increased modestly. Market-based measures of uncertainty about both short- and long-term interest rates rose sharply but remained lower than their averages over the past few years. TIPS-based measures of inflation compensation moved down, perhaps as investors reacted to the somewhat less accommodative tone of Federal Reserve communications. Risk spreads on corporate bonds changed little on balance. Ten-year sovereign yields in most foreign economies rose substantially, with increases in Japan coming despite the Bank of Japan's accelerated asset purchases. The dollar appreciated, particularly against emerging market economy (EME) currencies amid weaker readings on EME activity.

Financing flows were generally solid over the intermeeting period as a whole, but, in some sectors, the pace of borrowing waned in response to the rise in rates and market volatility. Bond issuance by nonfinancial corporations was robust again in May, but high-yield issuance—which had been boosted by refinancing activity—declined late in the period. Issuance of syndicated loans was sizable again in April and May, and issuance of commercial mortgage-backed securities (CMBS) and asset-backed securities (ABS) remained solid. Consumer credit expanded further in April, as the recent pattern of significant increases in auto and student loans and nearly flat balances on credit card accounts continued. Meanwhile, the volume of home mortgage refinancings slowed from elevated levels as mortgage rates backed up. Growth in bank credit moderated in April

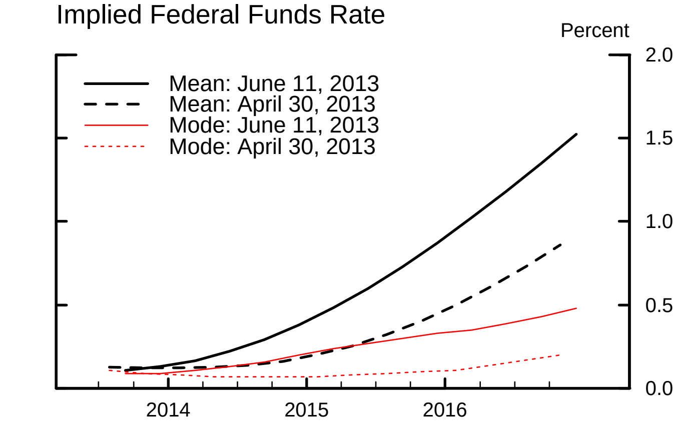
Policy Expectations and Treasury Yields

Selected Interest Rates



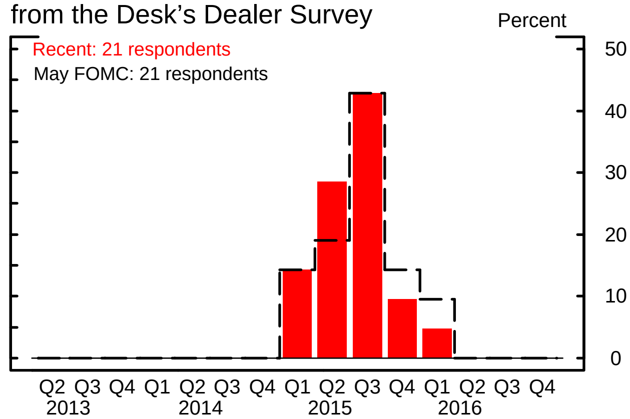
Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m. No adjustments for term premiums.
Source: Bloomberg.

Implied Federal Funds Rate



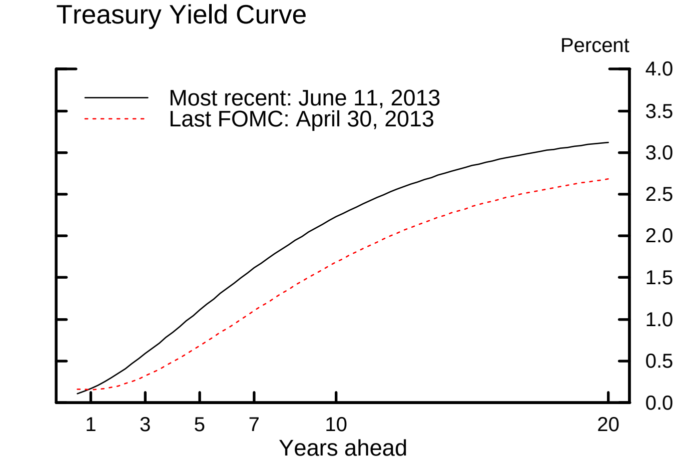
Note: Mean is estimated using overnight index swap quotes. Mode is estimated from the distribution of federal funds rate implied by interest rate caps. Both include a term premium of zero basis points per month.
Source: Bloomberg and CME Group.

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



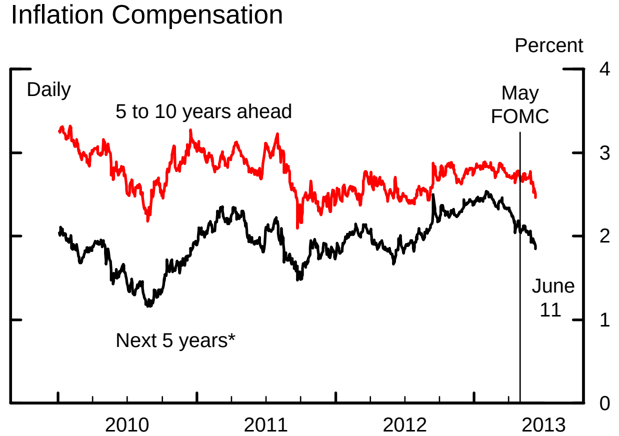
Source: Desk's dealer survey from June 10, 2013.

Treasury Yield Curve



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

Inflation Compensation



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

Financial Developments

and May, as the expansion in commercial and industrial (C&I) loans slowed significantly and banks' securities holdings decreased. M2 expanded at roughly the same moderate pace as in the first quarter of the year.

TREASURY YIELDS, POLICY EXPECTATIONS, AND AGENCY MBS YIELDS

Treasury yields and policy rate expectations rose sharply over the intermeeting period amid some better-than-expected U.S. economic data and Federal Reserve communications that were interpreted by market participants as signaling a possible earlier-than-expected reduction in the asset purchase program. Markets appeared to focus most intently on the April and May employment reports and improved readings on consumer confidence, as well as on the Chairman's Joint Economic Committee (JEC) testimony. Anecdotal reports suggest that actual and expected convexity-hedging flows may have amplified the rise in Treasury yields, at least for a time. All told, the 10-year nominal Treasury yield climbed 54 basis points, while the 5-year and 30-year yields rose 43 basis points and 45 basis points, respectively.

Staff models attribute the bulk of the rise in long-term Treasury yields to an increase in term premiums. The rise in term premiums, in turn, likely reflected a reassessment of the pace and ultimate size of the Federal Reserve's asset purchase program, and perhaps also some increase in investors' willingness to take on risk in light of the more positive U.S. economic outlook. Greater uncertainty about future Federal Reserve policy—with regard to both the purchase program and the path of the federal funds rate—also likely contributed to the rise in term premiums. Indeed, market-based measures of uncertainty about both short- and long-term rates rose sharply after the Chairman's JEC testimony and remained elevated subsequently, although the measures stayed low by historical standards.[1]

Market participants appeared to revise up their expectations about the path of the federal funds rate over the period.[2] Forward rates two to three years ahead derived from overnight index swaps shifted up 30 to 50 basis points, likely reflecting both an increase

[1] Reflecting investors' assessment that rates could rise further, the on-the-run 10-year Treasury note traded deeply special in the repo market in late May and early June. The relatively small supply of the single issue also contributed to the security's scarcity. Term repo rates for this security and market commentary suggested that financing rates were expected to normalize following the settlement of the reopening auction of the 10-year Treasury note on June 17.

[2] The effective federal funds rate averaged 11 basis points over the intermeeting period, with the intraday standard deviation averaging about 5.33 basis points.

in the expected path for the federal funds rate and an increase in money market term premiums. The modal path based on interest rate caps also shifted up over the intermeeting period, suggesting that market participants expect the federal funds rate to lift off sooner than they did at the time of the previous FOMC meeting. However, some of the rise in the estimated modal path of the policy rate likely also reflected higher term premiums.

In contrast to the readings from financial market quotes, the results from the Open Market Desk's latest Survey of Primary Dealers showed little material change, on balance, in the dealers' expectations for the target federal funds rate or in the median expectation for Federal Reserve asset purchases. The difference between the market quotes and the dealer survey results may reflect, in part, a divergence between the views of the economists at dealer firms (the respondents to the Desk's survey) and market participants that are actively trading in fixed-income markets. Indeed, on a special question in the survey, the dealer economists attributed the rise in longer-term interest rates primarily to changes in perceptions regarding the FOMC's view of appropriate policy and heightened uncertainty about the FOMC's view of appropriate policy, suggesting the dealer economists thought that market views had changed.

Both TIPS-based and swaps-based measures of inflation compensation decreased over the intermeeting period, but both the near- and longer-term measures remained close to the middle of their ranges over the past two years. The 5-year measure of inflation compensation moved down 26 basis points and the 5-to-10–year-ahead measure declined 27 basis points, perhaps in part because investors came to anticipate that monetary policy was going to be somewhat less accommodative going forward than they had expected. The softer-than-expected reading of the CPI for April likely also contributed to the decline in near-term inflation compensation.

Yields on agency mortgage-backed securities (MBS) rose more than those on comparable-maturity Treasury securities, likely reflecting investors' reassessment of the outlook for the Federal Reserve's MBS purchases. Indeed, the option-adjusted spread for production-coupon MBS, which often reacts sensitively to changes in market participants' expectations for asset purchases, increased more than 25 basis points over the intermeeting period. Thirty-year conforming mortgage rates rose in line with the rise in MBS yields and ended the period about 60 basis points higher at 3.89 percent.

TREASURY AND AGENCY FINANCE AND MARKET FUNCTIONING

The Treasury Department auctioned $203 billion in nominal securities and $13 billion in 10-year TIPS over the intermeeting period. The auctions were relatively well received, with bid-to-cover ratios in line with recent averages.[3]

The Desk conducted outright purchases of Treasury securities and agency MBS as planned, and the operations did not appear to adversely affect the functioning of either the Treasury or agency MBS markets.[4] Most measures of liquidity conditions in these markets were generally stable, as MBS settlement fails stayed low, and Treasury and MBS trading volumes remained near their historical averages. Dollar-roll-implied financing rates for the 30-year Fannie Mae 3.0 percent and 3.5 percent coupon securities, which had been in fairly negative territory last month, drifted up, indicating fewer settlement pressures in the TBA market for these securities. Over the intermeeting period, the Desk executed dollar rolls on 7 percent of its scheduled agency MBS purchases for May settlement, in line with the recent average.

On May 19, the statutory debt limit was reinstated and set at $16.7 trillion, which was the level of federal debt outstanding on that day, and Treasury Secretary Lew declared a “debt issuance suspension period” the next day. The Treasury has indicated that its available accounting measures will allow federal debt to remain below the debt ceiling until after Labor Day.[5]

SHORT-TERM FUNDING MARKETS AND FINANCIAL INSTITUTIONS

Conditions in short-term dollar funding markets generally stayed fairly benign over the intermeeting period. The spread between three-month LIBOR and comparable-maturity OIS rates increased somewhat, on balance, over the period but

[3] In the refunding statement released on May 1, the Treasury announced plans to issue a floating-rate note, starting either in the fourth quarter of 2013 or in the first quarter of 2014, with the 13-week Treasury bill yield serving as the base rate.

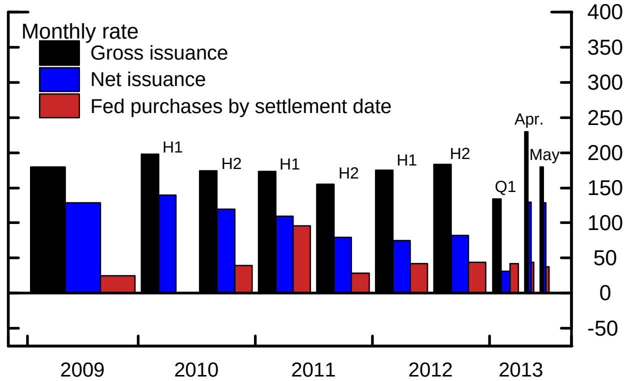
[4] Over the intermeeting period, the Desk purchased $58 billion of Treasury securities under the flow-based program and $90 billion of agency MBS under the flow-based MBS purchase program and the reinvestment program.

[5] The extraordinary measures available to the Treasury include suspending daily reinvestment of the Treasury securities held by the Government Securities Investment Fund, redeeming existing investments and suspending new investments in the Civil Service Retirement and Disability Fund, and suspending the daily reinvestment of dollar balances held by the Exchange Stabilization Fund into Treasury securities. Based on staff projections, these actions should allow the Treasury to continue operating under the current debt limit until October.

Treasury and Agency Finance and Market Functioning

Nominal Treasury Issuance and Fed Purchases

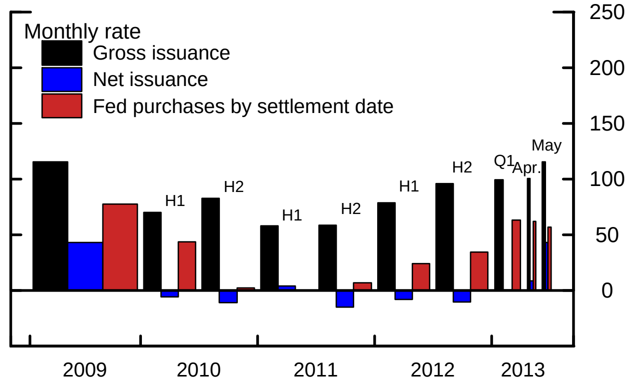
Billions of dollars



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

Agency MBS Issuance and Fed Purchases

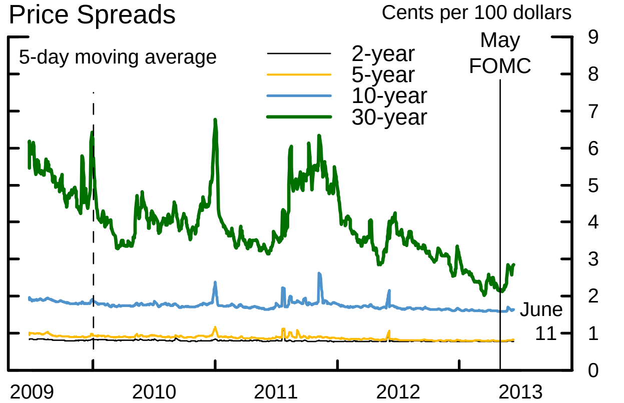
Billions of dollars



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

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

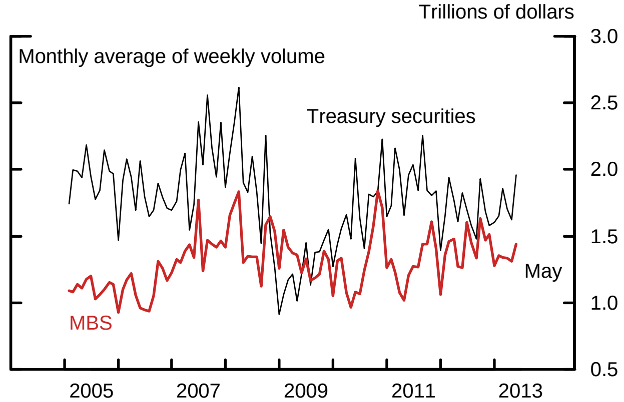
Cents per 100 dollars



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.

Treasury and MBS Trading Volume

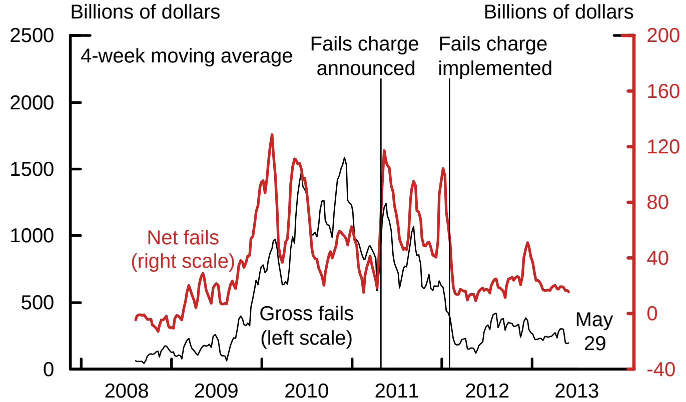
Trillions of dollars



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

Agency MBS Fails

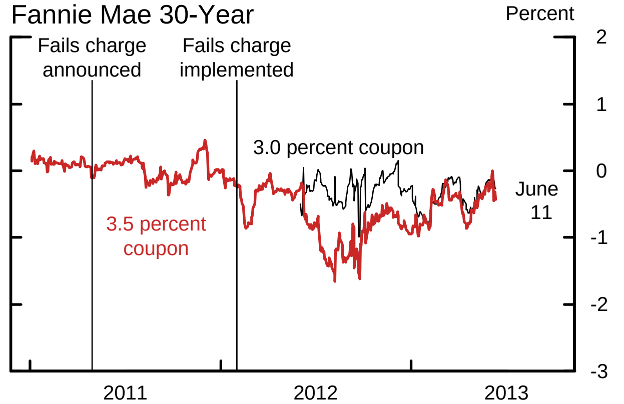
Billions of dollars
Billions of dollars



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

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

Percent



Source: J.P. Morgan.

Financial Developments

remained at the low end of its range over recent years. The spread between the three-month forward rate agreement and the OIS rate three to six months ahead—a forward-looking measure of potential funding pressures—was little changed.

In secured funding markets, Treasury general collateral finance (GCF) repo rates decreased, on net, over the intermeeting period, in large part because of the seasonal decline in the supply of Treasury securities associated with the timing of tax receipts. In line with the decrease in the Treasury GCF repo rates, MBS GCF repo rates as well as other money market rates also declined over the period (see the box "Recent Behavior of Overnight Money Market Rates"). Haircuts in repo contracts for a range of collateral types were reportedly little changed on net.

Conditions in commercial paper (CP) markets remained favorable for issuers, with interest rates on unsecured CP staying at the low end of the range seen over the past several years. The outstanding amounts of unsecured CP issued by both European and U.S. financial institutions were little changed on net. In asset-backed commercial paper markets, amounts outstanding were about unchanged for programs domiciled in the United States but edged down for those with European sponsors.

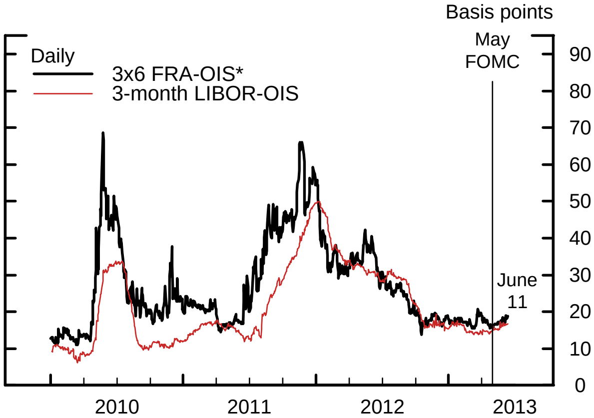
Market sentiment toward large domestic banking organizations appeared to improve somewhat over the intermeeting period, likely related in part to further reductions in nonperforming loans and the generally positive tone of the incoming economic data. Equity prices for large domestic banks outperformed broader equity indexes over the period. CDS spreads for the largest bank holding companies (BHCs) were little changed, on net, and remained near the bottom of their range over the past five years.

Equity prices for other types of financial institutions, such as insurance companies and regional banks, also generally outperformed the market. However, agency mortgage real estate investment trusts were a notable exception, as their equity prices were battered in response to the underperformance of agency MBS, weak earnings reports, and the rise in longer-term interest rates.

Responses to the June 2013 Senior Credit Officer Opinion Survey on Dealer Financing Terms generally suggested little change over the past three months in the credit terms applicable to important classes of counterparties covered by the survey (see appendix). Respondents also noted that the use of financial leverage by most classes of

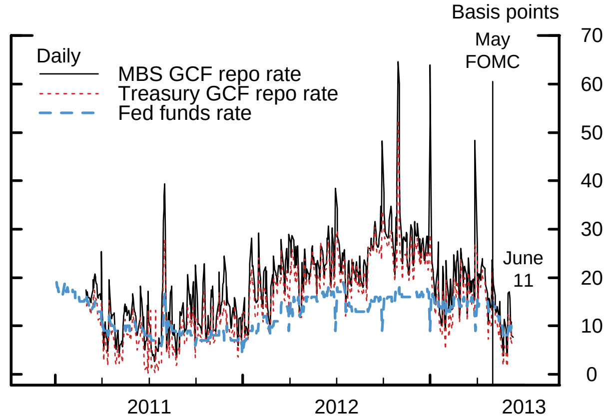
Short-Term Funding Markets and Financial Institutions

Funding Spreads



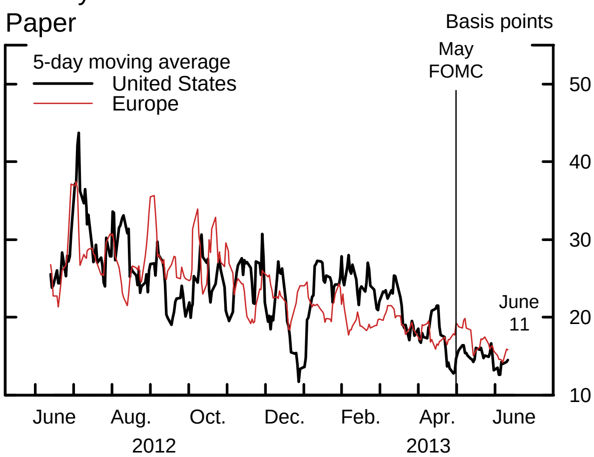
* Spread is calculated from a LIBOR forward rate agreement (FRA) 3 to 6 months in the future and the forward overnight index swap (OIS) rate for the same period.
Source: Bloomberg.

Overnight Funding Rate



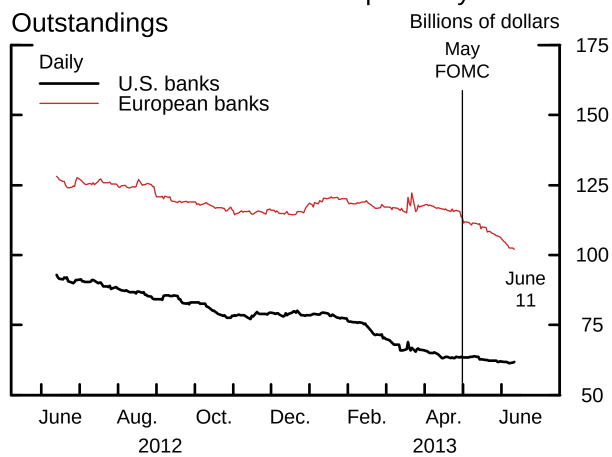
Note: GCF is general collateral finance; repo is repurchase agreement.
Source: Depository Trust & Clearing Corporation; Federal Reserve.

30-Day Rates on Unsecured Financial Commercial Paper



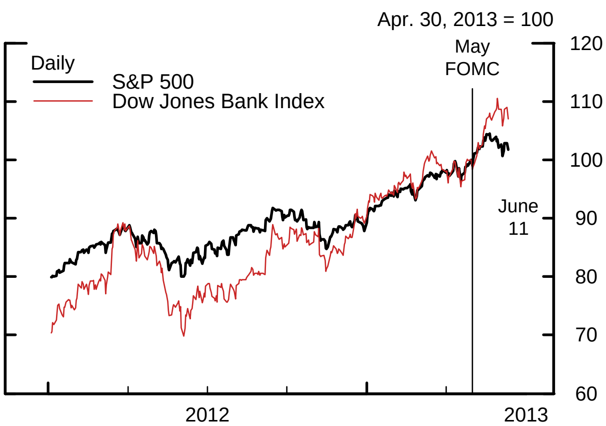
Source: Depository Trust & Clearing Corporation.

Asset-Backed Commercial Paper Daily Outstandings



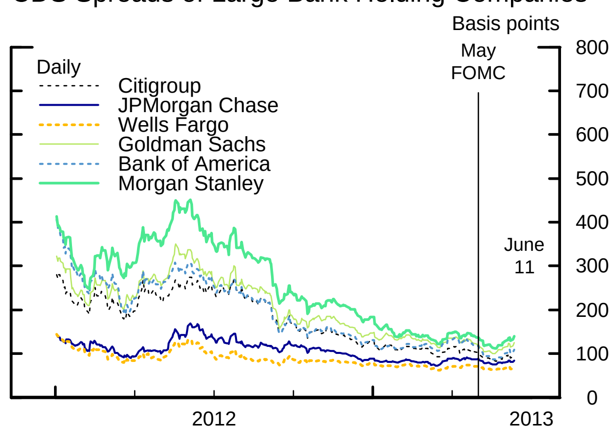
Source: Depository Trust & Clearing Corporation.

Stock Prices



Source: Bloomberg.

CDS Spreads of Large Bank Holding Companies



Source: Markit.

Financial Developments

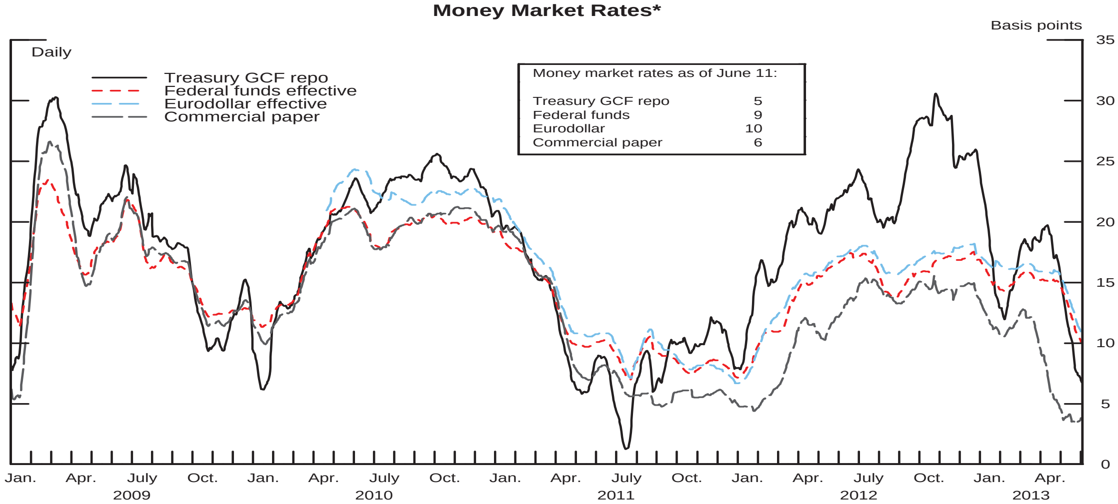
Recent Behavior of Overnight Money Market Rates

As shown in the figure below, overnight money market rates declined over the intermeeting period, continuing a downward trend that began at the start of the year. As of June 11, 2013, the Treasury general collateral finance (GCF) repo, federal funds, and Eurodollar rates are 3 to 16 basis points lower than at the end of April and are near the bottom of their ranges observed since the zero lower bound period began.[1]

The main driver of the recent move in rates appears to be the decline in the Treasury GCF repo rate. This decline is partly attributable to the decrease in the supply of Treasury collateral in the market as April tax receipts allow the Treasury to reduce net debt issuance for a time.[2] The ongoing asset purchases by the Federal Reserve and resulting increase in reserve balances may have also contributed to some of the softening in the overnight federal funds rate. However, at the current level of reserve balances, this effect is likely very modest.[3]

Despite the high level of reserve balances and substantially reduced volume of trading in the federal funds market since 2008, the federal funds rate continues to be strongly correlated with other short-term money market rates, particularly the overnight Eurodollar rate.[4] Moreover, futures quotes and basis swaps suggest that market participants expect the federal funds effective rate to remain tightly linked with a range of money market rates in the future as well.

Money Market Rates*



* 4-week moving average.
Source: Federal Reserve Bank of New York and the Depository Trust & Clearing Corporation.

[1] As the AA rate for nonfinancial commercial paper (CP) reached a near-record low on April 30, the current level is somewhat higher. Still, the CP rate shows a downward trend since the start of the year, in line with the other overnight money market rates.

[2] Although Treasury GCF futures from earlier in the year did price in some softening of the repo rate, larger-than-anticipated Treasury tax receipts allowed for a greater reduction in bill issuance than expected, which further decreased holdings of short-dated securities by the public.

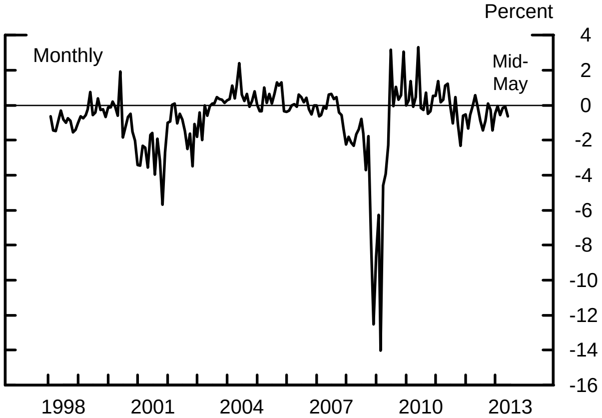
[3] Board staff estimates suggest that the federal funds effective rate responds relatively little to changes in the level of reserve balances once reserve balances reach an elevated level.

[4] The increase in collateral in the market associated with the maturity extention program (MEP) during 2012 may have put some upward pressure on the Treasury GCF repo rate and increased the spread between the federal funds effective rate and the Treasury GCF repo rate at that time. Since the end of the MEP, this spread has narrowed.

Financial Developments

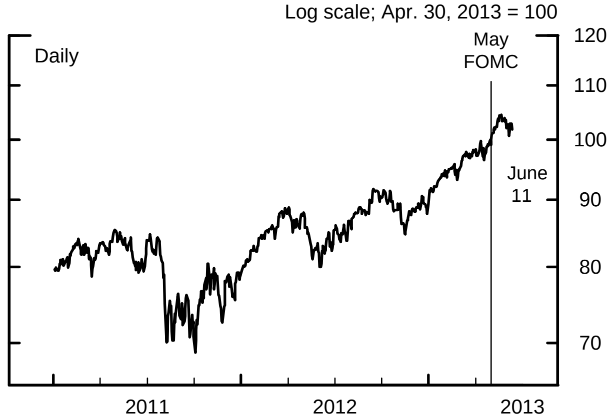
Other Domestic Asset Market Developments

Revisions to S&P 500 Earnings per Share



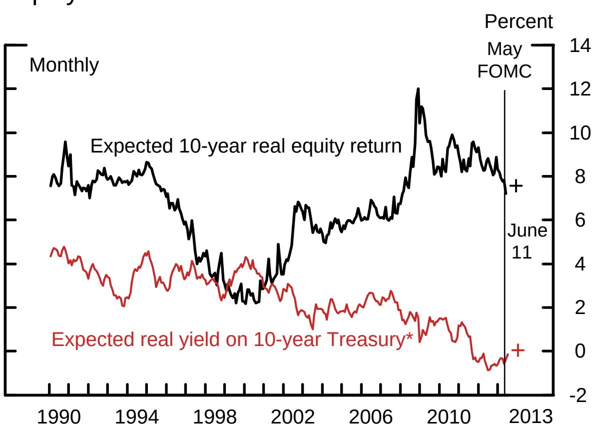
Note: Weighted average of the percent change in the consensus forecasts of current-year and following-year earnings per share.
Source: Thomson Reuters.

S&P 500 Stock Price Index



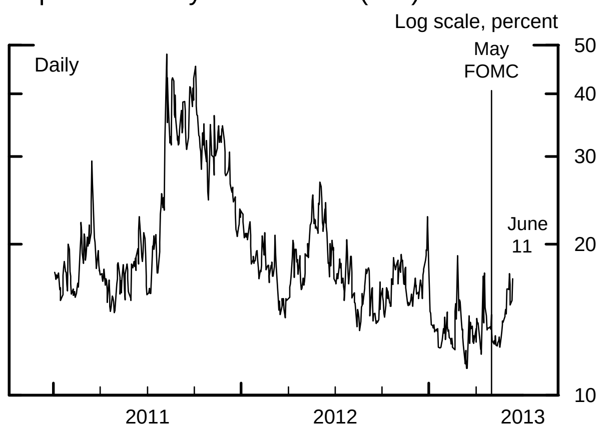
Source: Bloomberg.

Equity Risk Premium



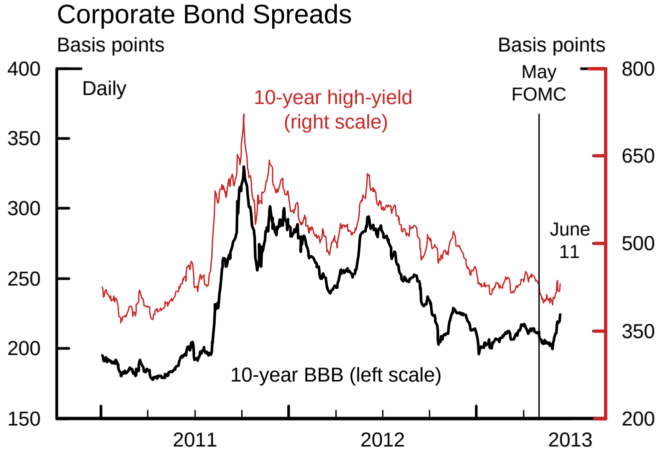
* Off-the-run 10-year Treasury yield less Philadelphia Fed 10-year expected inflation.
\+ Denotes the latest observation using daily interest rates and stock prices and latest earnings data.
Source: Thomson Reuters.

Implied Volatility on S&P 500 (VIX)



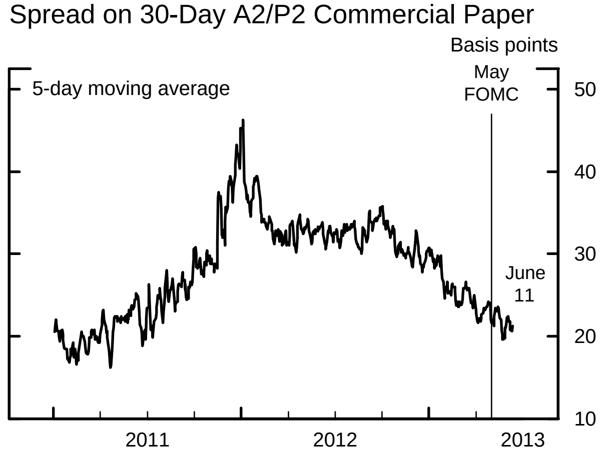
Source: Chicago Board Options Exchange.

Corporate Bond Spreads



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

Spread on 30-Day A2/P2 Commercial Paper



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

counterparties had remained basically unchanged over the same period; however, about one-fourth of dealers reported an increase in the use of leverage by hedge funds, continuing the trend observed in recent surveys. A set of special questions asked how current hedge fund leverage stood in the range defined by the pre-crisis peak and post-crisis trough. The responses indicated some variation in leverage based on hedge fund strategy, with the leverage of equity-oriented and macro-oriented funds more frequently described as having returned closer to their pre-crisis peaks. As has been the case for several months, respondents reported an increase in the demand for funding on a secured basis for a number of types of collateral—notably, non-agency RMBS, high-yield and investment-grade corporate bonds, and CMBS. A second set of special questions focused on secured financing of distressed assets. Dealers reported that demand for such financing had increased since the start of 2013 for real-estate-related loans globally as well as for U.S. corporate assets.

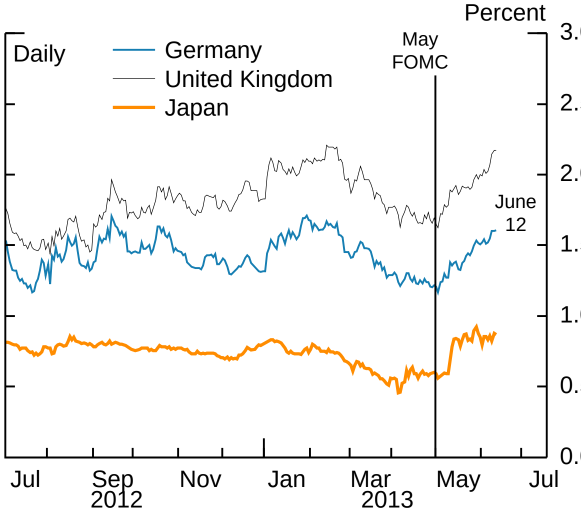
OTHER DOMESTIC ASSET MARKET DEVELOPMENTS

Broad equity price indexes ticked up, on net, over the intermeeting period, as somewhat better-than-expected economic news was partly offset by the rise in interest rates. Corporate bond yields rose sharply in line with the rise in comparable-maturity Treasury yields, leaving spreads little changed on net. Corporate bond markets remained stable over the period, with measures of trading activity suggesting that liquidity continued to be reasonably high by historical standards.

Available indicators suggest that the credit quality of nonfinancial corporations stayed solid. In the first quarter of this year, the aggregate ratio of cash to assets ticked up and remained near its highest level in 20 years, while the aggregate ratio of debt to assets stayed at a level well below its historical average for the same period. In April and May, the volume of nonfinancial corporate bonds that was upgraded by Moody's Investors Service was slightly less than the volume downgraded. However, the six-month trailing bond default rate for nonfinancial firms remained low in April by historical standards, and the expected year-ahead default rate for nonfinancial firms from the KMV model continued to inch down in May and June from already low levels, reflecting an increase in asset valuations. Meanwhile, the C&I loan delinquency rate continued to fall in the first quarter.

Foreign Developments

10-Year Nominal Benchmark Yields

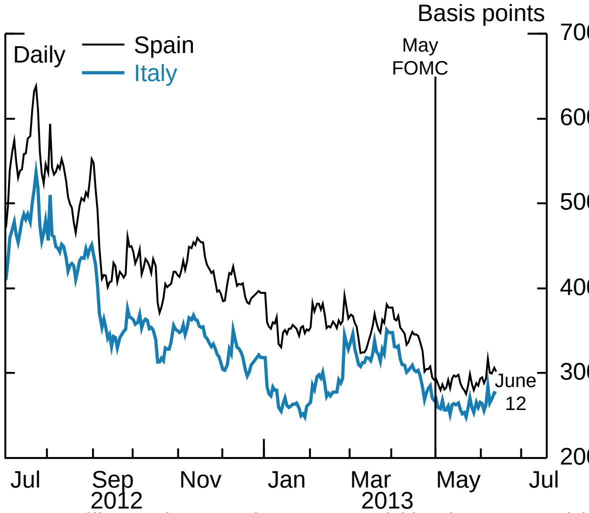


Source: Bloomberg.

Stock Price Indexes

Source: Bloomberg.

European 10-Year Sovereign Spreads

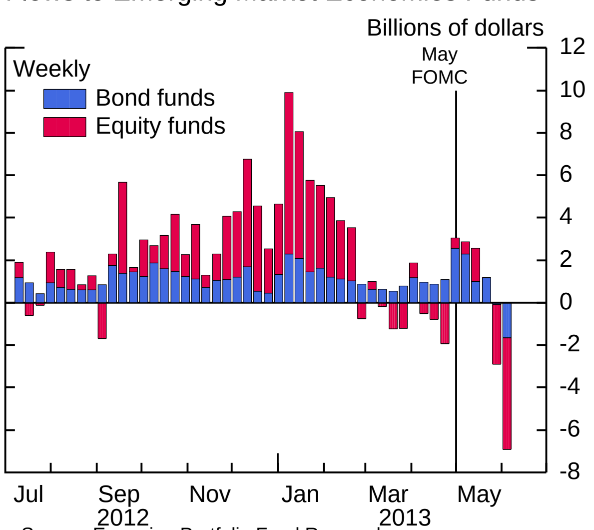


Note: Difference between given country's yield and Germany's yield.
Source: Bloomberg.

Dollar Exchange Rate Indexes

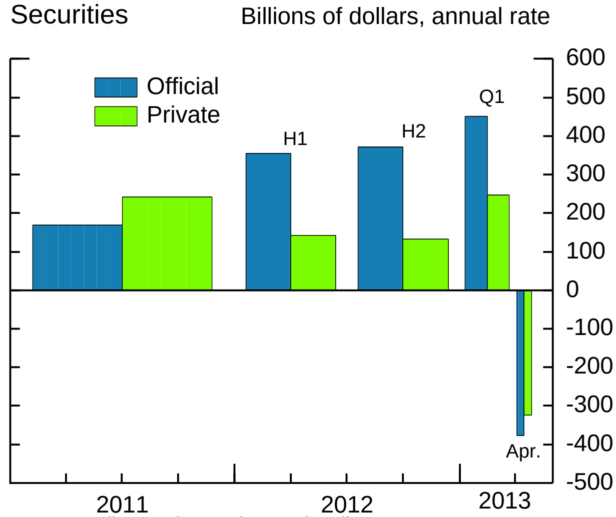
Source: Federal Reserve Board; Bloomberg.

Flows to Emerging Market Economies Funds



Source: Emerging Portfolio Fund Research.

Foreign Net Purchases of U.S. Treasury Securities



Note: April 2013 data embargoed until June 14, 2013.
Source: TIC data adjusted for staff estimates.

Financial Developments

FOREIGN DEVELOPMENTS

Ten-year sovereign yields in the advanced foreign economies rose substantially over the period. Yields in the United Kingdom and Germany followed U.S. yields higher after the April U.S. employment report and were up about 40 to 50 basis points on net, while yields on Japanese government bonds rose nearly 30 basis points. Increased inflation expectations may have led to higher future expected nominal short rates in Japan, although higher U.S. rates and unusual bond market volatility may have also boosted term premiums (see the box "Recent Moves in Government Bond Yields in Japan"). Japanese equity markets also displayed substantial volatility, rising 13 percent early in the period and then plunging 18 percent in late May and early June. The sharp selloff was accompanied by concerns that the positive effects of Japan's recent macro policies were losing momentum, but Japanese equity prices are still up significantly since late last year.

European equity indexes were little changed over the period despite some greater policy accommodation. The ECB lowered its main policy rate 25 basis points at its May meeting, although communication after its June meeting appeared to signal that it was less likely to ease further. In addition, the European Commission proposed that near-term fiscal targets be relaxed for some countries in the hope of stimulating growth. The euro-area financial crisis remained quiescent; spreads of Italian and Spanish government debt over German bunds rose slightly, but spreads on Greek debt declined noticeably, and Portugal issued its first 10-year bond since seeking IMF support in 2011.

The broad dollar appreciated about 1¼ percent. The dollar was little changed, on average, against the currencies of the advanced foreign economies but rose 2½ percent against emerging market currencies amid rising U.S. yields, weak incoming data for the emerging market economies themselves, and monetary policy easing in several EMEs, including India, Korea, and Thailand. The Reserve Bank of Australia, whose economy is closely linked to emerging Asia, also cut its policy rate, and the Australian dollar depreciated significantly against the U.S. dollar. EME equity prices were down about 8 percent on net. Inflows into emerging market equity and bond funds were positive for most of the period but turned to outflows more recently, and EME credit spreads widened appreciably on net. In response to recent outflows, Brazil rescinded its tax on foreign purchases of its domestic bonds. Despite subdued GDP growth, Brazil's central bank

Recent Moves in Government Bond Yields in Japan

On April 4, the Bank of Japan (BOJ) announced that it would double the size of Japan's monetary base by sharply stepping up its asset purchases. Although yields fell after the announcement, since then longer-dated Japanese benchmark yields have increased substantially. This increase contrasts with the estimated responses to asset purchase programs by other central banks, leading some analysts to question the efficacy of Japan's new program.

However, unlike other central banks, which are focused on stimulating economic activity by reducing longer-term interest rates, the BOJ also seeks to raise trend inflation and inflation expectations, in line with its newly adopted 2 percent target. If the BOJ is successful, nominal interest rates in Japan ultimately should increase. At the same time, BOJ asset purchases ought to exert downward pressure on term premiums. Thus, long-term interest rates initially could rise or fall, depending on the relative strength of these two effects.

A rise in inflation expectations should be associated with a rise in future expected short-term nominal interest rates. The upper-left figure on the next page shows the decomposition of Japan's 10-year rate into expected short-term rates and a term premium, estimated using the Board staff's term structure model for Japan. According to this model, an increase in expected short rates can account for about two-thirds of the rise in yields since the BOJ's announcement, consistent with an increase in inflation expectations (and perhaps also better prospects for economic activity).

Broadly consistent with this reading, market-based measures of inflation expectations have increased. The upper-right figure on the next page shows five-year breakeven inflation rates computed from nominal and inflation-linked Japanese government bonds (JGBs), as well as inflation compensation derived from inflation swaps. Although both measures have changed little, on net, since the BOJ's April announcement, they are up about 70 basis points since late last year. Some caution should be used, however, in interpreting these moves, as these measures have been volatile, and the markets underlying them are relatively illiquid.

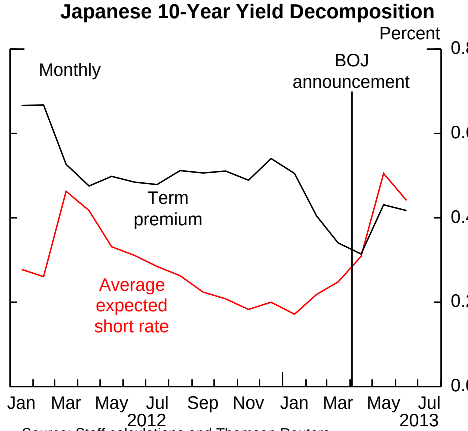
The remaining one-third of the rise in JGB yields since early April is attributable to a higher term premium (upper-left figure). While this rise is puzzling given the experience with asset purchase programs in other countries, it is important to note that term premiums had declined prior to April in anticipation of BOJ action and that they are down, on net, from the start of the year. A number of factors may explain their run-up in recent weeks. First, as shown in the lower-left figure on the next page, a substantial portion of the rise in Japanese yields has occurred since early May and may reflect a global rebalancing of investor portfolios in reaction to increases in yields in other advanced economies.

In addition, the recent increase in volatility may be boosting the term premium. Volatility in JGBs (shown in the lower-right figure on the next page) has spiked to multiyear-high levels. Trading in JGB futures, not shown, has been halted several times over the past two months as large price movements triggered market circuit breakers.

There is some uncertainty over what accounts for the heightened volatility in Japanese bond markets. It may be driven by the same underlying factors that have also pushed up volatility in the bond market in the United States. Another possibility is simply that investors are uncertain about pricing Japanese bonds in the novel environment of massive asset purchases that are intended to shift the economy to a regime of positive inflation after decades of deflation. The implementation of the BOJ's asset purchase program has also been cited. The BOJ's purchases are slated to outstrip the planned net issuance of JGBs for many longer-dated maturities. In addition, an infrequent BOJ purchase schedule and lack of detail regarding the amount and maturity of purchases raised concerns about market functioning. Following several meetings with market participants, the BOJ made modest changes to its purchases, but these changes fall short of some market participants' call for a more detailed purchase schedule.

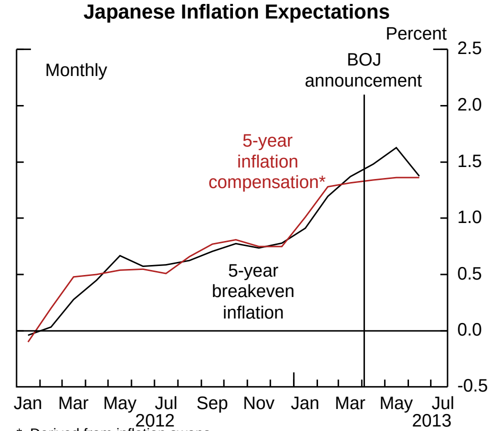
In sum, the BOJ's asset purchase program appears to be boosting inflation expectations. Success in reducing the term premium is less apparent. However, the term premium's recent rise could reflect global factors (in which case the BOJ's purchases may have prevented an even larger rise), problems implementing the new program, or simply a correction to its prior extended decline.

Japanese 10-Year Yield Decomposition



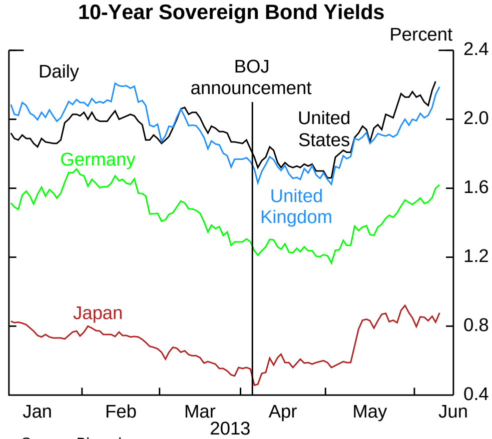
Source: Staff calculations and Thomson Reuters.

Japanese Inflation Expectations



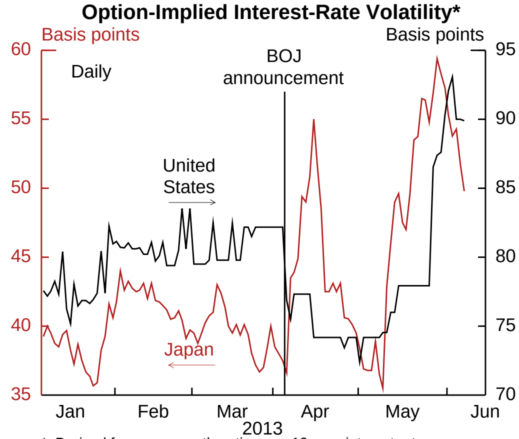
* Derived from inflation swaps.
Source: Staff calculations and Thomson Reuters.

10-Year Sovereign Bond Yields



Source: Bloomberg.

Option-Implied Interest-Rate Volatility*



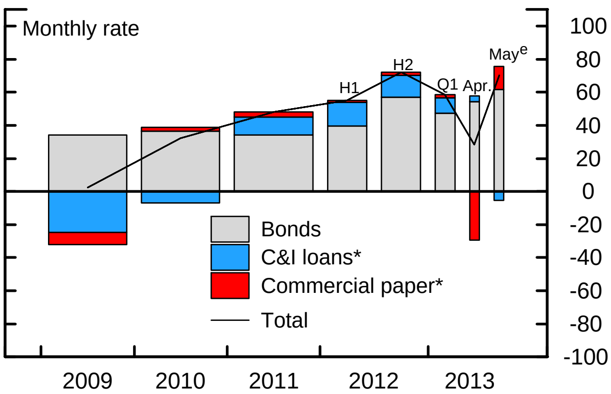
* Derived from one-month options on 10-year interest rate swaps.
Source: Bloomberg.

Financial Developments

Business and Municipal Finance

Selected Components of Net Debt Financing, Nonfinancial Firms

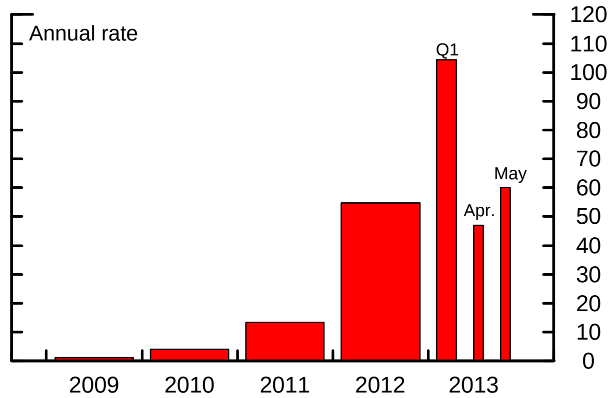
Billions of dollars



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

U.S. CLO Issuance

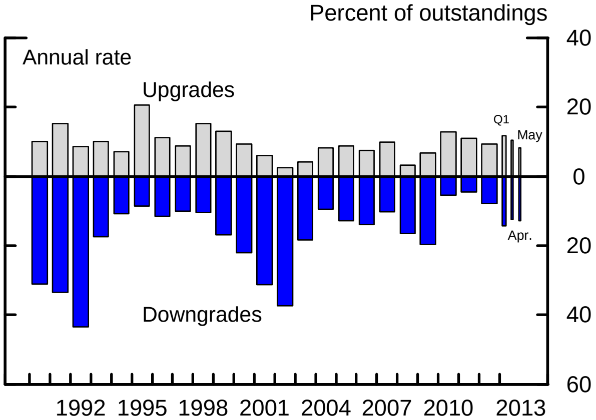
Billions of dollars



Note: CLO is collateralized loan obligation. April and May data are subject to revision at quarter-end.
Source: Thomson Reuters LPC LoanConnector.

Bond Ratings Changes of Nonfinancial Firms

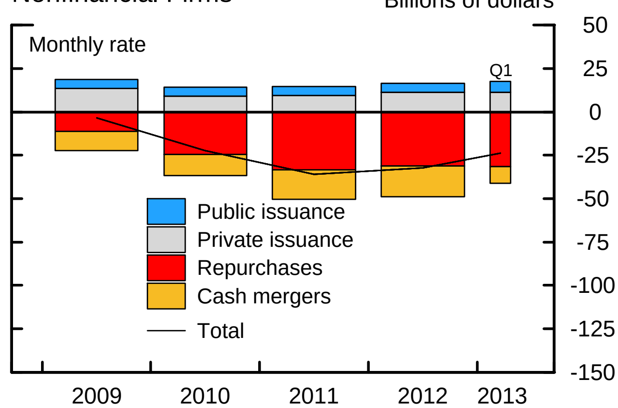
Percent of outstandings



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

Selected Components of Net Equity Issuance, Nonfinancial Firms

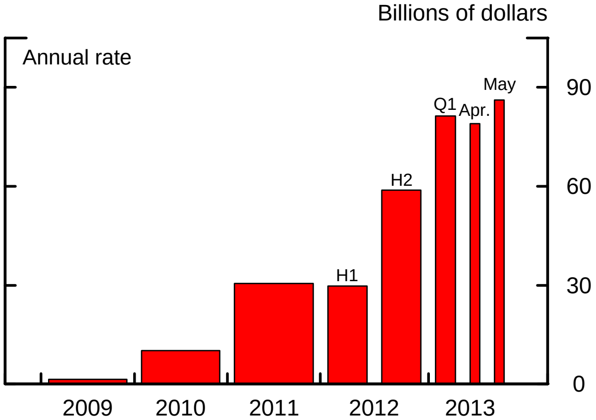
Billions of dollars



Source: Thomson Reuters Financial, Investment Benchmark Report; PricewaterhouseCoopers and National Venture Capital Association, MoneyTree Report.

CMBS Issuance

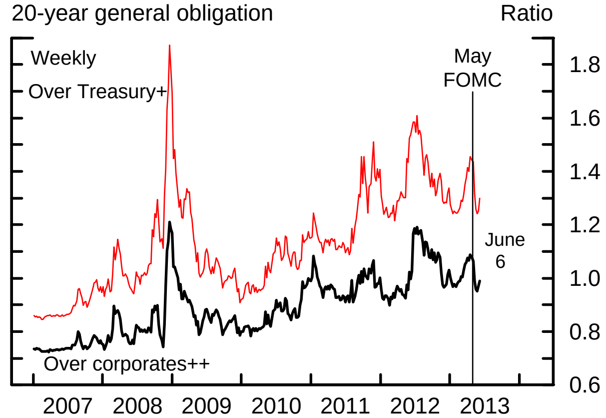
Billions of dollars



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

Municipal Bond Yield Ratio

20-year general obligation Ratio



+ Bond Buyer GO 20-year index over 20-year Treasury.
++ Bond Buyer GO 20-year index over estimated AAA 20-year yield.
Source: Bond Buyer; Merrill Lynch.

Financial Developments

raised its policy rate in response to inflation concerns, in contrast to other EME central banks.

Foreign official purchases of U.S. securities moderated in March and reversed in April, as several emerging market countries sold U.S. Treasury securities to fund intervention efforts to support their currencies. However, data on custody holdings at the Federal Reserve Bank of New York indicate that foreign official demand recovered some in May. Foreign private investors also made moderate net sales of Treasury securities in April, which were partly offset by small purchases of agency bonds and corporate stocks, while U.S. investors continued to make sizeable purchases of foreign assets.

BUSINESS AND MUNICIPAL FINANCE

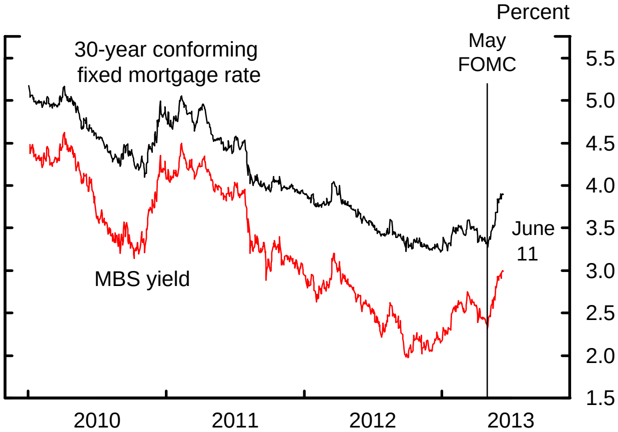
On balance, credit flows to nonfinancial businesses remained strong in May, particularly through corporate bond issuance. Gross high-yield issuance was particularly elevated early in the intermeeting period, although, as has been the case for several months, the bulk of the resulting proceeds were reportedly earmarked for refinancing existing debt. High-yield issuance subsequently decelerated in response to the rise in interest rates and market volatility, and high-yield bond mutual funds experienced significant outflows late in the period. Nonfinancial CP outstanding increased in May, while C&I loans, discussed later, contracted modestly.

Issuance of syndicated leveraged loans remained robust in April and May as issuers continued to take advantage of favorable market conditions to refinance and reprice exisiting loans. Strong investor demand that outsripped new net supply pushed market prices higher. Issuance of collateralized loan obligations (CLOs) slowed some in April, reportedly reflecting in part uncertainty regarding a new FDIC regulation that requires banks that buy such securities to designate them as higher-risk assets. Issuance year to date, however, surpassed $35 billion, and a pickup in the CLO forward calendar suggests that the slowdown might be only temporary. Inflows into loan mutual funds continued to be strong despite outflows from other fixed-income funds late in the intermeeting period.

Turning to equity financing, gross public issuance has stayed strong in the second quarter, as solid stock market returns and generally modest volatility since the turn of the year have continued to support both initial and secondary offerings. Even so, share repurchases by nonfinancial firms maintained their recent strength in the first quarter,

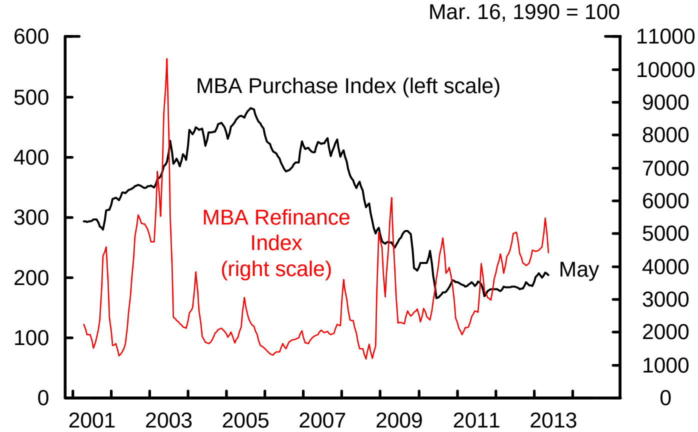
Household Finance

Mortgage Rate and MBS Yield



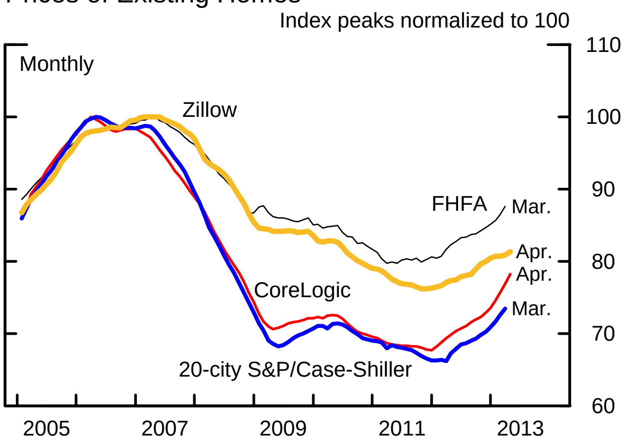
Note: For MBS yield, the data are daily and consist of the Fannie Mae 30-year current-coupon rate; for mortgage rate, the data are weekly before 2010 and daily thereafter.
Source: For MBS yield, Barclays; for mortgage rate, Freddie Mac (before 2010) and Loansifter (from 2010).

Purchase and Refinance Activity



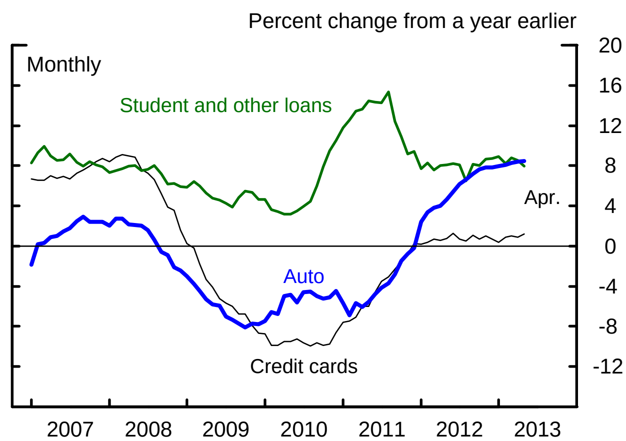
Note: The data are seasonally adjusted by FRB staff.
Source: Mortgage Bankers Association.

Prices of Existing Homes



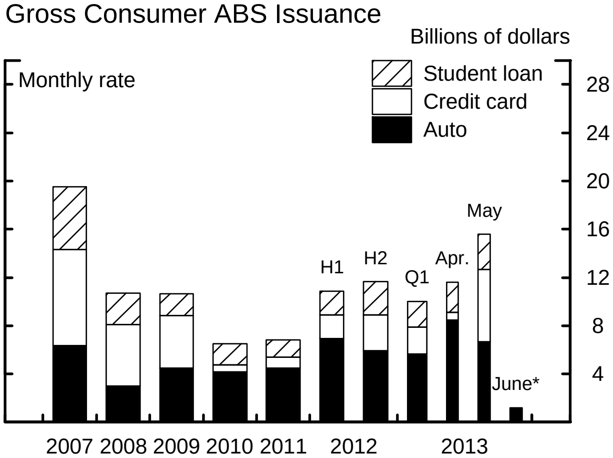
Source: For FHFA, Federal Housing Finance Agency; for CoreLogic, CoreLogic; for S&P/Case-Shiller, Standard & Poor's; for Zillow, Zillow.

Consumer Credit



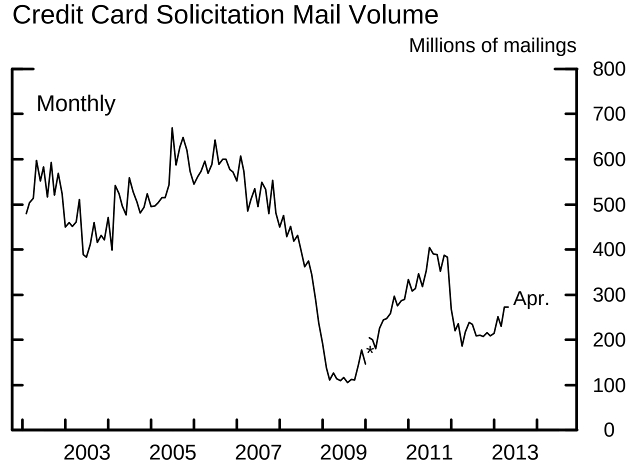
Note: The data are not seasonally adjusted.
Source: Federal Reserve Board.

Gross Consumer ABS Issuance



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

Credit Card Solicitation Mail Volume



* Break in series.
Source: Mintel.

Financial Developments

while cash-financed mergers by such firms continued to slow. Announcements of merger activity and new share repurchase programs in the second quarter indicate that equity retirements are likely to continue to significantly outpace gross issuance going forward, and that the current lull in M&A activity is likely to reverse in the coming months.

Financing conditions for commercial real estate improved a bit over the intermeeting period, as vacancy and delinquency rates declined somewhat from their elevated levels. CMBS issuance was strong, and spreads on commercial mortgages were roughly unchanged. Underwriting standards on CMBS deals reportedly continued to ease, with some market participants beginning to question whether, for certain deals, standards were inappropriately loose.

The pace of gross issuance of long-term municipal bonds slowed a bit in May but remained above the rate seen in the first quarter. New capital issuance was also solid, reflecting continued improvements in sentiment amid strengthening tax receipts and some easing of state and local budget pressures. The ratio of yields on 20-year municipal bonds to those on comparable-maturity Treasury securities—a gauge of the perceived relative riskiness of municipal bonds—decreased notably over the intermeeting period.

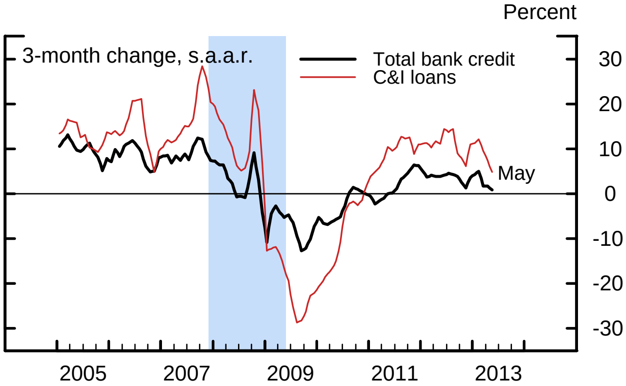
HOUSEHOLD FINANCE

Incoming information over the intermeeting period suggested further improvement in the housing sector but still-tight conditions in mortgage markets. National house price indexes increased between 5 and 12 percent year over year for the period ending in April, with the largest rebounds occurring in previously depressed housing markets or those that have experienced strong job gains. Short sales and sales stemming from foreclosures continued to decrease as a share of all sales, and the rate of new delinquencies hovered near its historical low. However, refinancing activity fell notably in response to the increase in rates, and purchase applications stayed low as tight credit conditions persisted for households with imperfect credit scores. Non-agency mortgages remained a small share of all originations, although the securitization of jumbo mortgages picked up further, albeit from very low volumes.

Consumer credit continued to expand at a solid pace, reflecting ongoing strength in auto and student loans while credit card debt remained about flat. Consumer credit ABS issuance maintained its robust pace and in May reached one of its highest monthly levels since the end of the TALF program in 2010. Many large credit card lenders

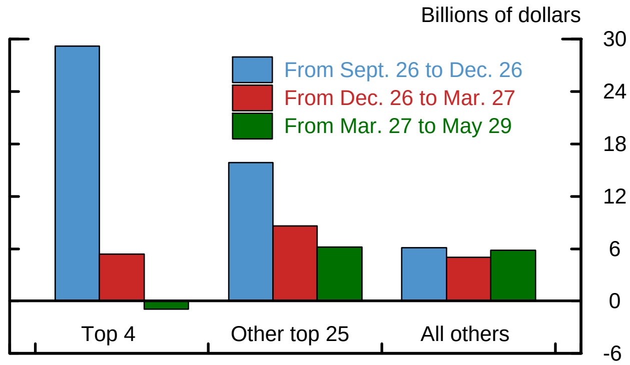
Commercial Banking and Money

Change in Bank Credit



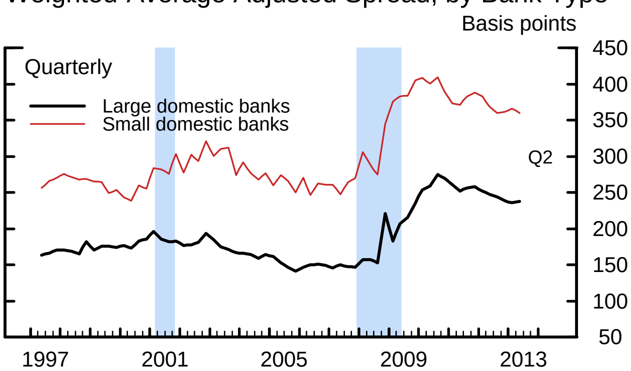
Note: The data have been adjusted to remove the estimated effects of certain changes to accounting standards and nonbank structure activity of $5 billion or more. C&I is commercial and industrial.
Source: Federal Reserve Board.

Growth in C&I Loans



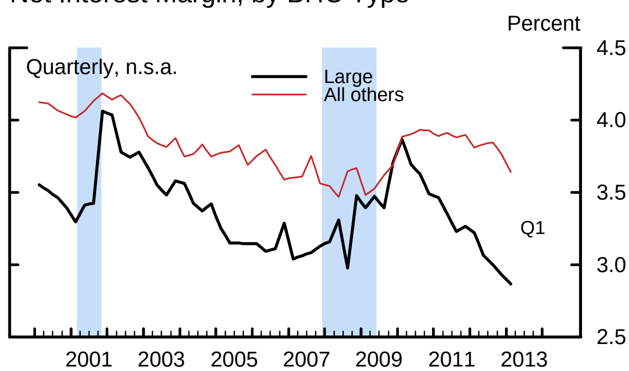
Note: "Top 4" consists of the top 4 contributors to change in commercial and industrial (C&I) loans in 2012:Q4. "Other top 25" consists of the top 25 banks by C&I holdings, excluding the top 4.
Source: Federal Reserve Board, FR 2644, Weekly Report of Selected Assets and Liabilities of Domestically Chartered Commercial Banks and U.S. Branches and Agencies of Foreign Banks.

Weighted-Average Adjusted Spread, by Bank Type



Note: Adjusted for changes in nonprice loan characteristics. C&I loans of amounts less than $25 million. Spreads are computed over market interest rates on instruments with maturities comparable to each loan's repricing interval.
Source: Survey of Terms of Business Lending .

Net Interest Margin, by BHC Type



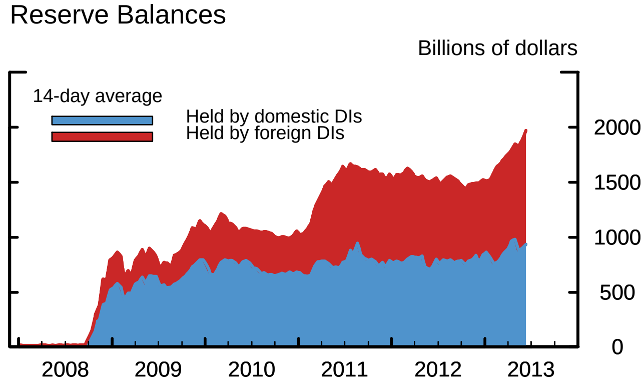
Note: "Large" consists of BAC, BK, C, GS, JPM, MS, NTRS, STT, and WFC.
Source: Call Report.

Growth of M2 and Its Components

Percent, s.a.a.r.	M2	Liquid deposits	Small time deposits	Retail MMFs	Curr.
2012	7.5	11.1	-16.9	-5.3	9.0
2012:H1	5.8	9.2	-16.6	-9.8	9.1
2012:H2	9.0	12.5	-18.8	-.8	8.5
2013:Q1	4.9	6.8	-20.3	5.6	5.8
Apr. & May(p)	5.3	7.3	-19.8	-.1	7.5

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

Reserve Balances



Note: DIs are depository institutions. Domestic depository institutions consist of commercial banks, savings and loan associations, savings banks or mutual savings banks, and credit unions. Foreign depository institutions consist of U.S. branches and agencies of foreign banks and Edge Act and agreement corporations.
Source: Federal Reserve Board.

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

increased the volume of offers sent by mail, although lending standards appeared to remain tight. Most consumer credit delinquency rates continued to decline, partially driven by a compositional shift toward higher-quality borrowers due to a tightening of underwriting standards. Delinquencies on government-backed student loans, however, remained elevated, likely reflecting the lack of underwriting on such loans and the still-sluggish labor market.[6]

COMMERCIAL BANKING AND MONEY

Growth in bank credit moderated in April and May compared with the first quarter, as core loans softened and securities declined slightly. C&I loan growth weakened noticeably at large banks, reportedly because of increased paydowns and reduced originations. C&I loans had ramped up late last year, partly as firms borrowed to make larger-than-usual dividend payments in advance of year-end tax hikes. Elevated loan sales to nonbanks also appeared to be a factor in the weaker C&I loan growth of late. In contrast, commercial real estate loans accelerated, especially at large banks. Overall, closed-end residential mortgages on banks' books dipped slightly over the two-month period, perhaps reflecting the drop in refinancing activity. Home equity loan balances also declined over the two months. Credit card loans on banks' books picked up a bit after having been generally flat earlier in the year, and strong auto loan originations continued to bolster other consumer loans. As has been the case for some time, all other loans and leases grew more rapidly than core loans over the period.[7] Banks reduced their overall holdings of securities slightly, reflecting declines in holdings of Treasury securities, which fell steeply for the fifth consecutive month in May.

According to the May Survey of Terms of Business Lending, spreads of C&I loan rates over interest rates on market instruments of comparable maturity, adjusted for nonprice loan characteristics, were little changed at both large and small domestic banks. In contrast, spreads on loans made under smaller commitments, a proxy for small business loans, declined slightly, but such spreads remain elevated by historical standards. In addition, the overall average risk rating was little changed, but the share of

[6] In the absence of congressional action, interest rates on new originations of subsidized Stafford student loans are scheduled to rise from 3.4 percent to 6.8 percent on July 1.

[7] The weekly bank credit data do not break out the different types of other loans and leases. Call Report data indicate that the share of loans to foreign banks increased substantially in the first quarter of 2013 (the latest available data) and that the shares of loans to nonbank financial firms and state and local governments have risen rapidly in the past year.

secured loan originations rose, consistent with anecdotal evidence that banks are extending credit to riskier borrowers, as these loans have higher spreads.

The profitability of BHCs remained in the upper end of its subdued post-crisis range in the first quarter of 2013. BHC profits were supported by cuts in provisioning for loan losses and noninterest expenses even as noninterest income decreased slightly and net interest margins (NIMs) narrowed further. The decline in NIMs was most substantial for the largest BHCs; NIMs at smaller BHCs also declined in the first quarter but continued to be much higher. Measures of credit quality at banks improved further in every major asset class in the first quarter. Regulatory capital ratios remained high overall, although risk-based capital ratios decreased a little in the first quarter, reflecting the adoption of the market risk capital rule, which increased market-risk-equivalent assets at large banks.[8]

In April and May, M2 expanded at an annual rate of about 5½ percent. Liquid deposits were boosted in April by a stronger-than-usual accumulation of balances in advance of annual tax payments that were high relative to recent years, but the boost unwound in May. Currency growth stepped up some relative to the last intermeeting period, likely reflecting stronger demand from abroad after a weak start to the year.

The monetary base expanded at an annual rate exceeding 37 percent over April and May, driven mainly by the increase in reserve balances that resulted from the Federal Reserve's asset purchases. Over the intermeeting period, the growth in reserve balances has been absorbed primarily by U.S. branches and agencies of foreign banks and a few of the largest domestic banks.[9] The current stock of reserve balances is held about equally by foreign and domestic institutions.

[8] For more information on this change, see Board of Governors of the Federal Reserve System (2012), "Federal Reserve Board Approves Final Rule to Implement Changes to Market Risk Capital Rule," press release, June 7, www.federalreserve.gov/newsevents/press/bcreg/20120607b.htm.

[9] During the intermeeting period, in order to enhance operational readiness, the Federal Reserve offered the first term deposits with a fixed-rate, full-allotment format under the Term Deposit Facility. Tenders totaled $10.5 billion at a rate of 26 basis points, with 32 depository institutions participating, an increase from previous operations. Outreach was conducted with major reserve holders to raise awareness of the operation.

Appendix

Senior Credit Officer Opinion Survey on Dealer Financing Terms

Responses to the June 2013 Senior Credit Officer Opinion Survey on Dealer Financing Terms generally suggested little change over the past three months in the credit terms applicable to important classes of counterparties covered by the survey.[1] As has been true since the introduction of this question in September 2011, a large net fraction of respondents reported an increase in the amount of resources and attention devoted to the management of concentrated exposures to central counterparties and other financial market utilities. Overall, respondents noted that the use of financial leverage by most classes of counterparties had remained basically unchanged over the past three months; however, about one-fourth of all dealers reported an increase in the use of leverage by hedge funds. In response to a set of special questions adopting a longer-term perspective on this issue, asking that they categorize current leverage levels with respect to the range bounded by the pre-crisis peak and the post-crisis trough, responses differed depending on the strategy pursued by the funds. In particular, a net fraction of about one-fifth of dealers noted that leverage for equity-oriented and for macro-oriented funds was in the upper part of the range, with most-favored equity- and macro-oriented funds described as tapping more financing than average clients pursuing those strategies. In contrast, a net share of nearly one-third indicated that leverage for convertible-bond arbitrage funds was only moderately above or near the trough level.

As in previous surveys, respondents indicated that most nonprice terms incorporated in new or renegotiated over-the-counter (OTC) derivatives master agreements were generally unchanged, on balance, during the past three months. However, small net fractions of respondents noted a tightening of terms related to the posting of additional margin and the types of acceptable collateral. Dealers also reported that initial margin requirements, which fall outside the scope of the master agreements, were generally little changed over the same period.

While the credit terms applicable to the funding of the various types of securities covered in the survey were reported to be little changed, on net, over the past three months, a few dealers indicated that they had increased clients' maximum allowable amount of funding for high-yield corporate bonds, agency residential mortgage-backed securities (RMBS), non-agency RMBS, and

Financial Developments

[1] The June survey collected qualitative information on changes over the previous three months in credit terms and conditions in securities financing and over-the-counter (OTC) derivatives markets. In addition to the core set of questions, this survey included a set of special questions about the current use of financial leverage by hedge fund clients of different types adopting the pre-crisis peak and post-crisis trough as reference points, and a second set of special questions about changes in funding of broad classes of distressed assets by client types. The 22 institutions participating in the survey account for almost all of the dealer financing of dollar-denominated securities to nondealers and are the most active intermediaries in OTC derivatives markets. The survey was conducted during the period from May 21, 2013, to June 3, 2013. The core questions ask about changes between March 2013 and May 2013.

commercial mortgage-backed securities (CMBS). Notably, respondents indicated that demand for funding had increased for a number of collateral types. In particular, significant net fractions of dealers reported increased demand for funding of non-agency RMBS, high-yield corporate bonds, CMBS, and investment-grade corporate bonds. Modest net fractions of respondents indicated increased demand for term funding (that is, funding with a maturity of 30 days or more) of CMBS, high-yield corporate bonds, and non-agency RMBS. About one-fifth of respondents noted that the liquidity and functioning of the underlying markets for non-agency RMBS and investment-grade corporate bonds had improved somewhat during the previous three months. However, a few dealers indicated that the liquidity and functioning of the underlying market for agency RMBS had deteriorated. For other collateral types covered in the survey, the liquidity and functioning of the underlying markets were generally characterized as little changed on net.

The June survey also included special questions on funding of broad classes of distressed assets: The first question addressed changes in funding across types of distressed assets in the United States, Europe, and Asia, and the second focused on changes across various types of clients. Notable net fractions of dealers reported that demand for funding had increased for real-estate-related loans originated in all three regions and for U.S. corporate assets. Moreover, respondents pointed to an increase in the demand for funding of such assets by most-favored hedge funds, other hedge funds, private equity firms, and special purpose vehicles.

COUNTERPARTY TYPES

Dealers and Other Financial Intermediaries

In the June survey, all but one respondent indicated that the amount of resources and attention devoted to management of concentrated exposures to dealers and other financial intermediaries remained basically unchanged over the past three months. (See the exhibit "Management of Concentrated Credit Exposures and Indicators of Supply of Credit.") The fraction of dealers reporting an increase in the amount of resources and attention devoted to management of concentrated exposures to dealers and other financial intermediaries has declined gradually from the 90 percent peak reached in the December 2011 survey when concerns about the condition of European financial institutions were particularly acute.

Central Counterparties and Other Financial Utilities

About two-thirds of dealers indicated that they had increased the amount of resources and attention devoted to management of concentrated credit exposures to central counterparties and other financial utilities over the past three months, roughly the same share as in previous surveys. About four-fifths of the broad-scope dealers—dealers with a significant presence in essentially all of the business areas covered by the survey—reported an increase. In light of the approaching implementation of new regulatory requirements mandating increased central clearing of many OTC contracts, continued focus on this issue is perhaps unsurprising. About one-fourth of survey respondents noted that changes in the practices of central counterparties, including changes in margin requirements and haircuts, had some influence on the credit terms they applied to clients on bilateral transactions that are not cleared.

Hedge Funds

As in March, respondents to the June survey generally indicated that both price terms (such as financing rates) and nonprice terms (including haircuts, maximum maturity, covenants, cure periods, cross-default provisions, or other documentation features) offered to hedge funds for securities financing and OTC derivatives transactions had remained basically unchanged over the past three months. About one-fourth of respondents reported an increase in the use of financial leverage by hedge funds over the past three months. (See the exhibit "Use of Financial Leverage.") Of the dealers that reported an increase in leverage, all but one are broad-scope firms. Several broad-scope dealers also indicated that the availability of additional financial leverage (such as undrawn secured funding facilities) under agreements currently in place with hedge funds had increased somewhat. Nearly one-fourth of dealers further noted that there had been an increase in the intensity of efforts by hedge funds to negotiate more-favorable price and nonprice terms over the same period. A few respondents also noted that the provision of differential terms to most-favored hedge funds had increased somewhat over the same period.

Trading Real Estate Investment Trusts

Most respondents to the June survey reported that price and nonprice terms offered to trading real estate investment trusts (REITs) had remained basically unchanged over the past three months.[2] A few dealers indicated that price or nonprice terms had eased, with improvement in general market liquidity and functioning the most cited reason for the change. Respondents generally indicated that the use of financial leverage by trading REITs had remained basically unchanged. Most respondents noted that the intensity of efforts by trading REITs to negotiate more-favorable price and nonprice terms was broadly unchanged, with only a few dealers indicating an increase. Most dealers also found the provision of differential terms to most-favored REIT clients to be broadly unchanged.

Mutual Funds, Exchange-Traded Funds, Pension Plans, and Endowments

Respondents to the June survey indicated that both price and nonprice terms offered to mutual funds, exchange-traded funds (ETFs), pension plans, and endowments had remained basically unchanged over the past three months. A few dealers indicated that either price or nonprice terms had eased somewhat, citing more aggressive competition from other institutions as the most prominent reason. Provision of differential terms to most-favored clients and the intensity of efforts by clients to negotiate more-favorable terms were also reported to be little changed, as was the use of financial leverage.

Insurance Companies

As in the previous survey, respondents to the June survey indicated that both price and nonprice terms offered to insurance companies had changed little over the past three months, as had the provision of differential terms to most-favored clients. The use of financial leverage by

[2] Trading REITs, including agency REITs, invest in assets backed by real estate rather than directly in real estate.

insurance companies also remained unchanged. A few respondents reported an increase in the intensity of efforts by insurance companies to negotiate more-favorable price and nonprice terms.

Separately Managed Accounts Established with Investment Advisers

Similarly, nearly all of the dealers reported in the June survey that price and nonprice terms negotiated by investment advisers on behalf of separately managed accounts were basically unchanged over the past three months. Provision of differential terms to most-favored clients and the use of financial leverage by investment advisers were also reported to be little changed. A few dealers reported an increase in the intensity of efforts by investment advisers to negotiate more-favorable terms.

Nonfinancial Corporations

Respondents to the June survey indicated that nonprice terms offered to nonfinancial corporations had remained basically unchanged over the past three months. About one-fifth of respondents indicated that they had tightened somewhat the price terms offered to nonfinancial corporations over the past three months, while a few dealers pointed to an easing of price terms. More than one-fourth of respondents reported an increase in the intensity of efforts by nonfinancial corporations to negotiate more-favorable price and nonprice terms.

Mark and Collateral Disputes

As in previous surveys, a large majority of respondents in June indicated that the volume, persistence, and duration of mark and collateral disputes with each counterparty type included in the survey were little changed over the past three months. A few respondents, however, reported an increase over the same period in the volume, persistence, and duration of mark and collateral disputes with dealers and other financial intermediaries as well as with mutual funds, ETFs, pension plans, and endowments.

Over-the-Counter Derivatives

As in previous surveys, most nonprice terms incorporated in new or renegotiated OTC derivatives master agreements were reported to be basically unchanged, on net, over the past three months.[3] However, a few dealers—including some broad-scope dealers—reported a tightening in acceptable collateral, and one-fifth of respondents also indicated that requirements, timelines, and thresholds for posting additional margin had tightened somewhat over the past three months.

For all of the contract types included in the survey, nearly all of the dealers indicated that initial margins (which fall outside the scope of master agreements) were little changed over the past three months, for both average and most-favored clients. Posting of nonstandard collateral

[3] The survey asks specifically about requirements, timelines, and thresholds for posting additional margin, acceptable collateral, recognition of portfolio or diversification benefits, triggers and covenants, and other documentation features, including cure periods and cross-default provisions.

(that is, collateral other than cash and U.S. Treasury securities) also remained basically unchanged. For most contract types included in the survey, dealers generally indicated that the volume, duration, and persistence of mark and collateral disputes had remained basically unchanged over the past three months. However, a few dealers reported that the volume of mark and collateral disputes had increased for credit contracts referencing corporates and for credit contracts referencing securitized products including MBS and asset-backed securities. Finally, a few respondents indicated that the duration and persistence of mark and collateral disputes had increased somewhat for foreign exchange contracts over the same period.

SECURITIES FINANCING

As in previous surveys, dealers reported that the credit terms under which most types of securities included in the survey are financed were little changed, on balance, over the past three months. The exceptions were high-yield corporate bonds, agency RMBS, non-agency RMBS, and CMBS, for which a few survey respondents indicated that they had increased the maximum amount of funding for both most-favored and average clients. Finally, a few survey respondents indicated that the maximum maturity had increased somewhat for funding of agency RMBS and for funding of high-yield corporate bonds and CMBS provided to most-favored clients.

In the June survey, dealers reported that demand for funding had increased for a number of collateral types. (See the exhibit "Measures of Demand for Funding and Market Functioning.") Two-fifths of dealers reported increased demand for funding of non-agency RMBS, while about one-third of respondents pointed to increased demand for funding of high-yield corporate bonds and CMBS. In addition, about one-fifth of dealers reported increased demand for funding of investment-grade corporate bonds. Finally, net fractions of dealers ranging between one-fifth and about one-fourth reported increased demand for term funding—that is, funding with a maturity of 30 days or more—for CMBS, high-yield corporate bonds, and non-agency RMBS.

About one-fifth of respondents indicated that the liquidity and functioning of the underlying markets for non-agency RMBS and investment-grade corporate bonds had improved somewhat during the previous three months.[4] Notably, a few dealers indicated that the liquidity and functioning of the underlying market for agency RMBS had deteriorated. For other collateral types covered in the survey, the liquidity and functioning of the underlying markets were generally characterized as little changed on net.

Finally, as in previous surveys, all of the respondents indicated that the volume, duration, and persistence of mark and collateral disputes were basically unchanged for all of the collateral types.

[4] Note that survey respondents are instructed to report changes in liquidity and functioning in the market for the underlying collateral to be funded through repurchase agreements and similar secured financing transactions, not changes in the funding market itself. This question is not asked with respect to equity markets in the core questions.

Special Questions on the Current Use of Financial Leverage by Hedge Fund Clients

The first set of special questions in the June survey asked dealers to characterize the current use of financial leverage by hedge fund clients using the pre-crisis peak and post-crisis trough as reference points. Respondents were asked to distinguish between most-favored clients (as a consequence of breadth, duration, and/or extent of relationship) and other clients, and among equity-oriented funds, macro-oriented funds, credit-oriented funds, convertible-bond arbitrage funds, and other fixed-income-oriented relative-value funds. Notable fractions of dealers, ranging between about one-third and about one-half, indicated that current levels of leverage fall roughly in the middle between the peak and trough across specified strategies for both most-favored and other clients. Responses exhibited some dispersion around this middle point. Equity-oriented and macro-oriented funds were most frequently characterized as operating with higher leverage: A net fraction of about one-fifth of dealers reported that such clients were currently utilizing levels of leverage near to or at the pre-crisis peak, with most-favored equity- and macro-oriented funds described as tapping more financing than average clients pursuing those strategies. In contrast, a net share of nearly one-third characterized the leverage currently employed by convertible-bond funds as only moderately above or near the trough level.[5]

Special Questions on Changes in Funding of Broad Classes of Distressed Assets

The second set of special questions in the June survey asked dealers about changes in funding of distressed assets since the start of 2013, distinguishing by type (real estate loans and corporate assets such as loans or trade receivables) and by region of origin (United States, Europe, or Asia), as well as by various client types.

The first question from this set addressed changes in funding of various types of distressed assets. About one-fifth of dealers, on net, reported that demand for funding of distressed real estate loans without regard for the region of origination had increased since the beginning of the year. With respect to distressed corporate assets, about one-quarter of respondents, on balance, indicated that the demand for funding for such assets from the United States had risen, while little to no change was reported in the demand for funding for such assets from Europe and Asia.

Dealers noted that demand for funding of distressed assets had increased on the part of several types of clients. About one-third of respondents reported an increase in demand by most-favored hedge funds, while nearly one-fifth, on net, pointed to a rise in demand on the part of other hedge funds. In addition, one-fourth of dealers, on balance, reported increased demand for funding by private equity firms and special purpose vehicles, which are often established by

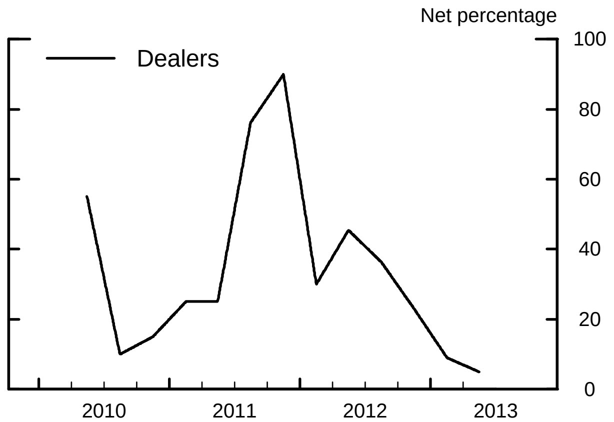
[5] Funds focused on equity-oriented strategies, macro-oriented strategies, and convertible-bond arbitrage are generally regarded as those most likely to employ substantive amounts of leverage. In addition, equity-oriented and macro-oriented funds are considered to be comparatively agile in adjusting the amounts of leverage employed, given that most of their trading occurs in highly liquid markets.

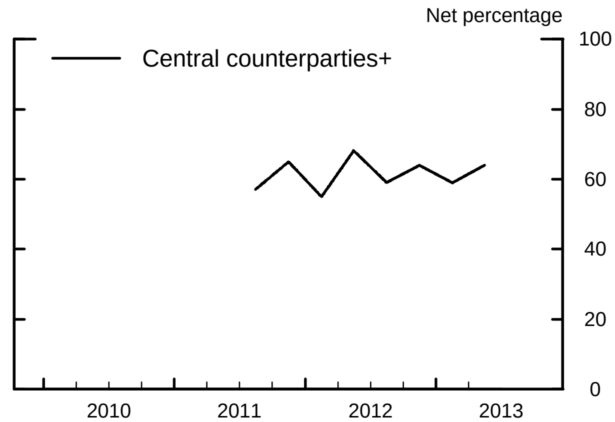
Financial Developments

institutional managers and financial institutions to take leveraged exposure to portfolios of distressed assets.

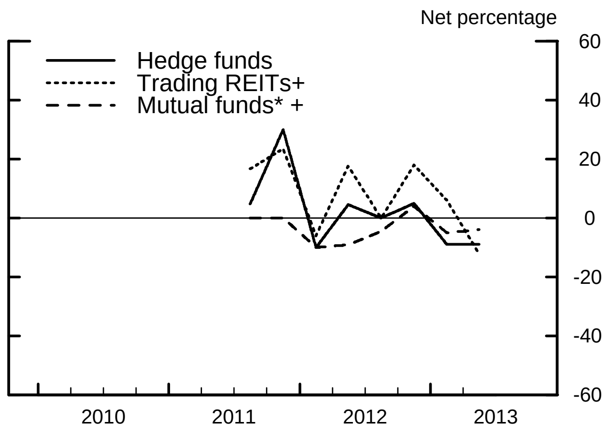
Management of Concentrated Credit Exposures and Indicators of Supply of Credit

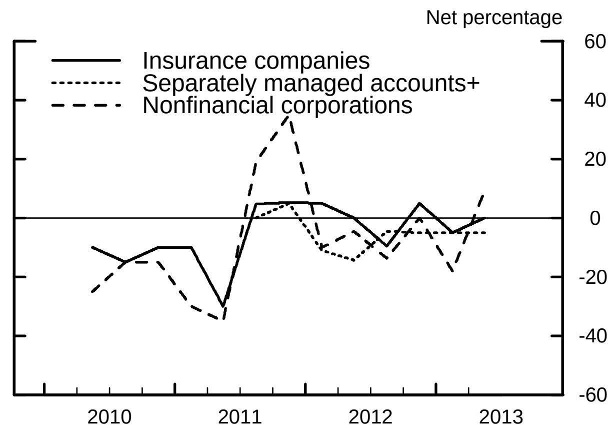
Respondents increasing resources and attention to management of concentrated exposures to:



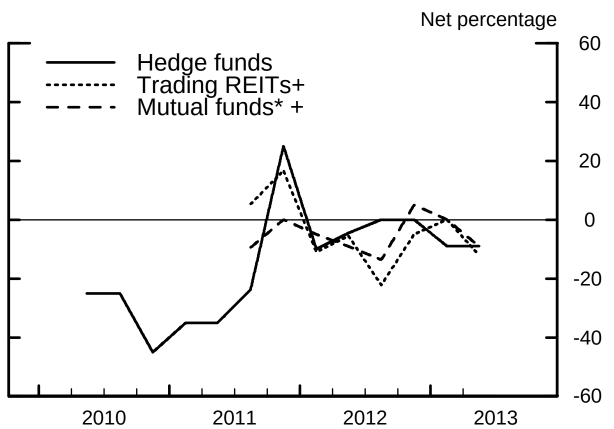


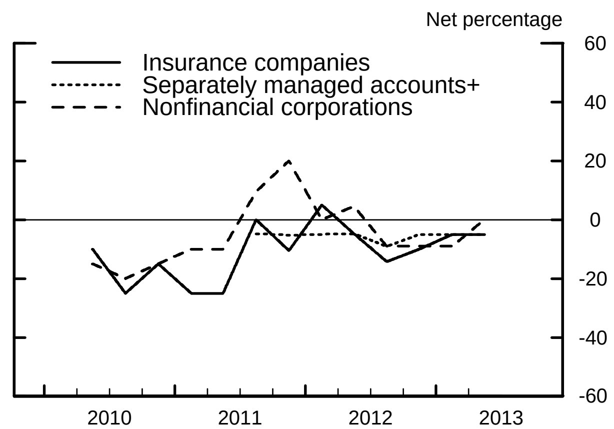
Respondents tightening price terms to:





Respondents tightening nonprice terms to:

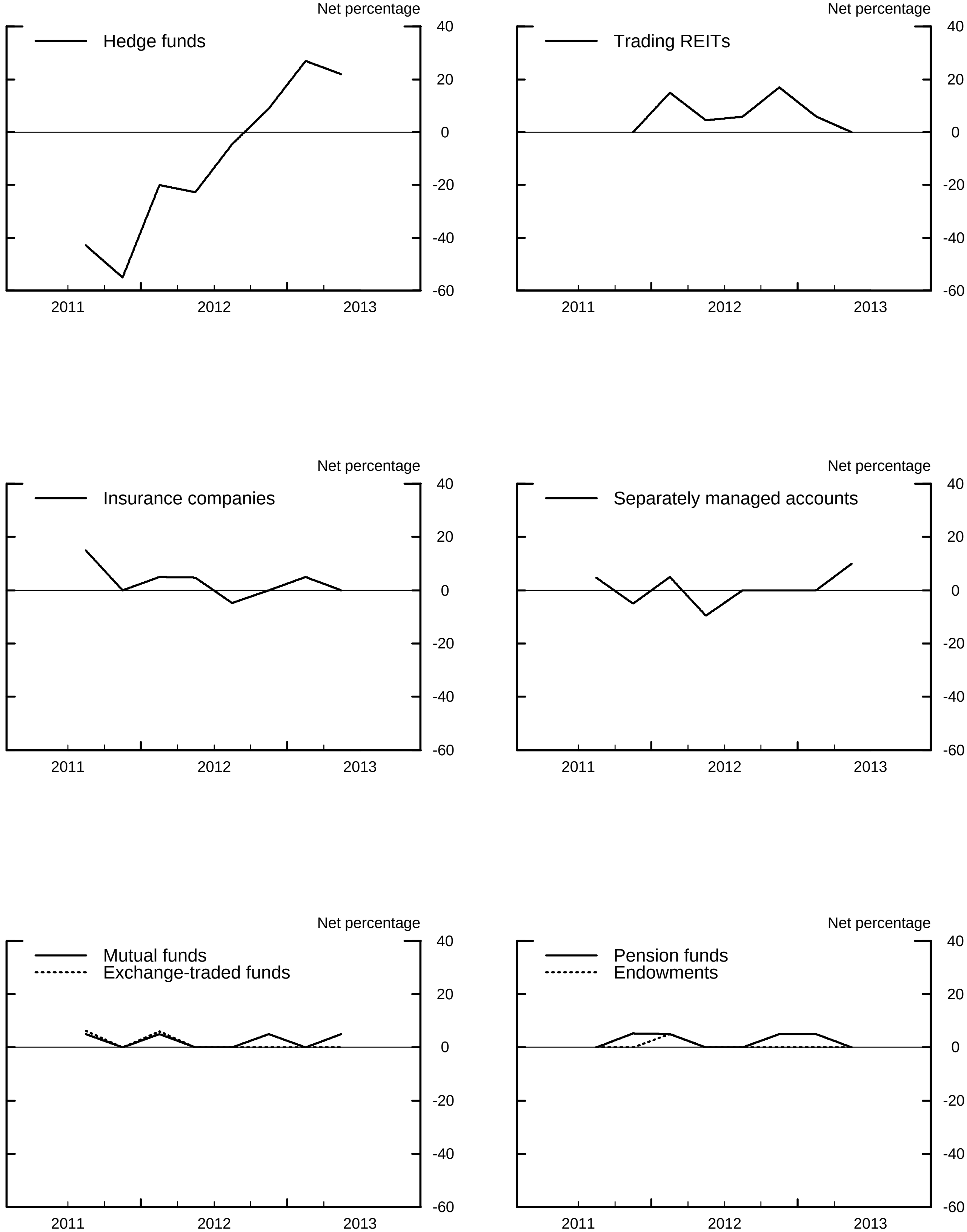




+ This question was added in the September 2011 survey.
* Includes mutual funds, exchange-traded funds, pension plans, and endowments.

Use of Financial Leverage

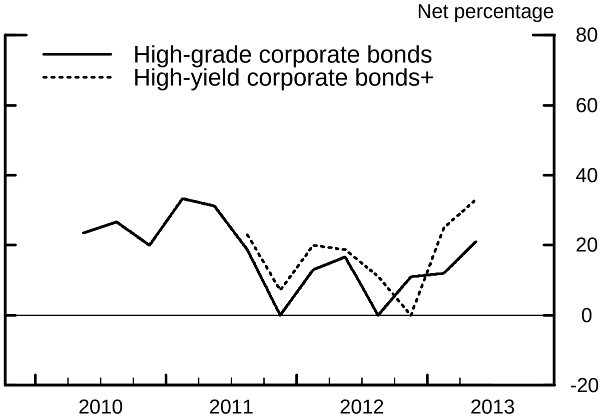
Respondents reporting increased use of leverage by:

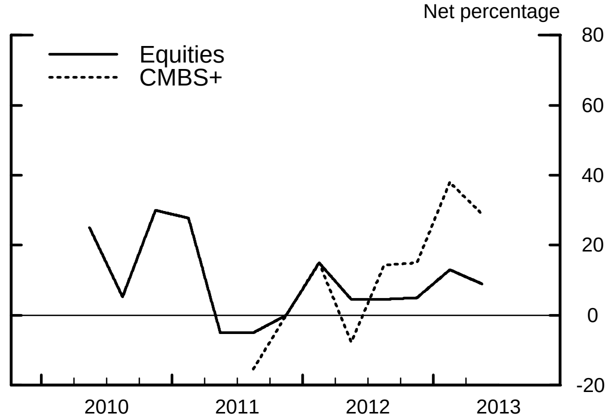


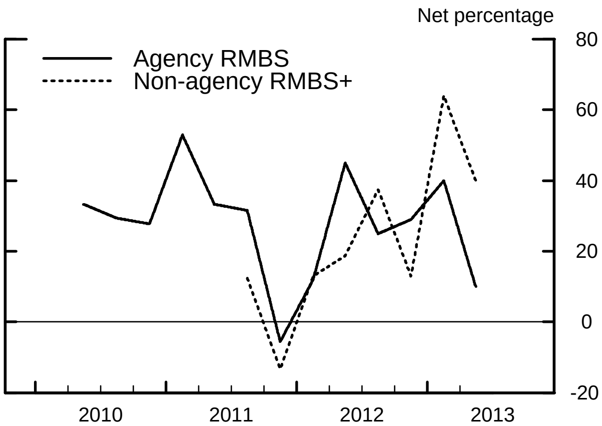
Note: This question was added in the September 2011 survey.

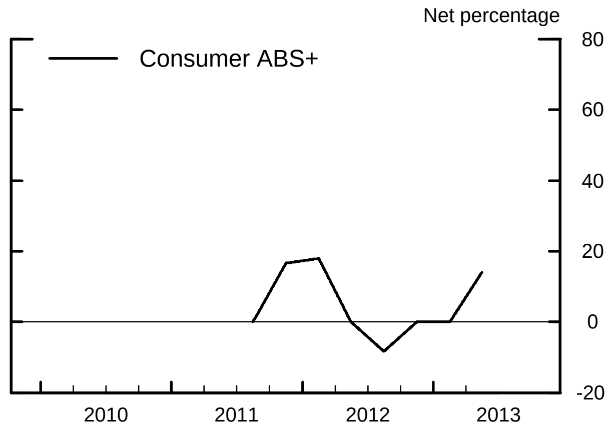
Measures of Demand for Funding and Market Functioning

Respondents reporting increased demand for funding of:

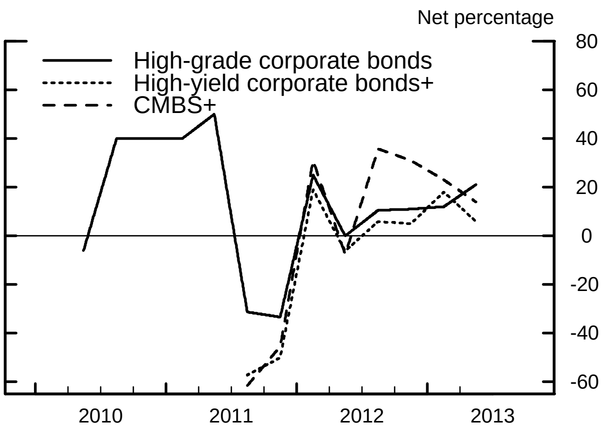


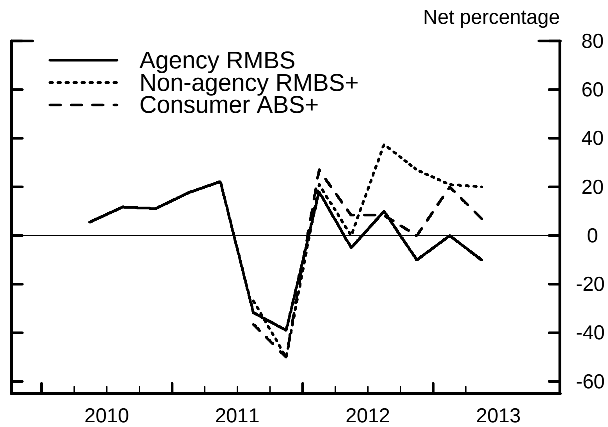






Respondents reporting an improvement in liquidity and functioning in the underlying markets for:





+ This question was added in the September 2011 survey.

Risks and Uncertainty

ASSESSMENT OF FORECAST UNCERTAINTY

We continue to view the uncertainty around our projection for economic activity as roughly normal relative to the experience of the past 20 years (the benchmark used by the FOMC), a period that now includes considerable volatility.[1] Sources of this uncertainty include the difficulty of determining the likely implications for future economic growth of the financial crisis, the deep recession, and the surprisingly slow pace of recovery to date; risks still posed by the euro area to domestic economic growth; and the unclear likelihood that recent positive news in some sectors—notably, housing—will filter through to the broader economy. That said, on the whole, our concerns about these factors have diminished over the past several quarters. A related concern is the ability of the economy to weather potential future shocks. In particular, the resilience of the financial system remains uncertain, despite ongoing regulatory reform. In addition, monetary policy still has a limited capacity to counteract the effects of any new adverse developments, such as a slower-than-anticipated improvement in domestic credit conditions and confidence, or a more severe downturn in Europe. Given these considerations, we continue to believe that the risks to domestic economic activity are skewed to the downside.

Our assessment of the risks to the economic outlook has been informed by the quantitative surveillance (QS) report completed in late May, which noted both positive and negative developments about financial risks since the previous report a few months ago. On the positive side, the financial strength of systemically important U.S. banking organizations has continued to improve, as have the financial conditions of many businesses and households. In addition, the prices of many widely held assets, including corporate equity, nonfinancial debt, and real estate, do not, in general, appear to be

[1] The benchmark estimates of uncertainty about real activity have increased sharply over the past several years. In particular, as the fixed 20-year window used to assess the size of typical forecast errors has moved forward to include the experience of the past 5 years, the estimated standard errors for out-year projections of the unemployment rate almost doubled between 2008 and 2011 and have remained at this higher level with the current 20-year sample. As a result, the benchmark estimates of uncertainty about economic activity are no longer dominated by the experience of the Great Moderation period. In contrast, benchmark estimates of uncertainty about inflation are essentially unchanged relative to earlier sample periods.

Alternative Scenarios

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

Measure and scenario	2013 H1	2013 H2	2014	2015	2016-17
Real GDP					
Extended Tealbook baseline	2.0	2.9	3.4	3.6	2.4
Housing-led recovery	2.2	3.4	4.3	4.3	2.0
Boom-bust	3.2	4.8	4.8	-1.2	1.8
Headwinds	2.0	2.0	2.2	2.3	2.6
Low inflation	2.0	3.0	2.7	2.6	3.0
Prolonged European recession	2.0	2.4	2.6	3.5	2.4
Stronger dollar	2.0	2.5	2.6	3.6	2.6
Unemployment rate[1]					
Extended Tealbook baseline	7.5	7.3	6.6	5.8	5.3
Housing-led recovery	7.5	7.2	6.1	4.9	4.8
Boom-bust	7.4	6.8	5.4	6.1	7.4
Headwinds	7.5	7.4	7.3	7.1	6.4
Low inflation	7.5	7.3	6.8	6.5	5.6
Prolonged European recession	7.5	7.4	7.0	6.3	5.8
Stronger dollar	7.5	7.3	7.0	6.3	5.6
Total PCE prices					
Extended Tealbook baseline	.4	1.3	1.4	1.6	1.9
Housing-led recovery	.4	1.3	1.5	1.7	2.2
Boom-bust	.4	1.4	1.6	1.9	1.6
Headwinds	.4	1.3	1.3	1.3	1.3
Low inflation	.6	1.0	.7	.5	.6
Prolonged European recession	.4	.8	1.0	1.3	1.8
Stronger dollar	.2	.3	.9	1.4	1.8
Core PCE prices					
Extended Tealbook baseline	1.0	1.4	1.6	1.8	1.9
Housing-led recovery	1.0	1.4	1.7	1.9	2.2
Boom-bust	1.0	1.5	1.8	2.1	1.6
Headwinds	1.0	1.4	1.5	1.5	1.3
Low inflation	1.2	1.1	.9	.7	.6
Prolonged European recession	1.0	1.2	1.3	1.6	1.7
Stronger dollar	1.0	1.0	1.1	1.6	1.8
Federal funds rate[1]					
Extended Tealbook baseline	.1	.1	.1	1.0	3.0
Housing-led recovery	.1	.1	.4	2.3	4.3
Boom-bust	.1	.1	1.4	2.0	.5
Headwinds	.1	.1	.1	.1	.2
Low inflation	.1	.1	.1	.1	.9
Prolonged European recession	.1	.1	.1	.4	2.4
Stronger dollar	.1	.1	.1	.6	2.5

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

Risks & Uncertainty

detached from fundamentals and thus likely to reverse in a destabilizing way. On the negative side, the evidence continues to point to some slowly building financial vulnerabilities as a result of increasing exposures to credit and maturity risk and expanding leverage in the system. Moreover, structural vulnerabilities such as fragile wholesale funding and tight connections among complex global financial firms remain and make the economy susceptible to adverse shocks. In some areas, risks of such shocks persist: The possibility of a much more substantial spike in Treasury yields is still notable, and concerns related to the economic and financial situation in Europe or about U.S. policymakers' actions regarding the debt ceiling continue, although their immediacy is less than several months ago. On balance, although the QS assessment suggests that financial vulnerabilities have increased somewhat since the previous report, neither these vulnerabilities nor the combined potential for adverse shocks appear unusually pronounced at the current time.

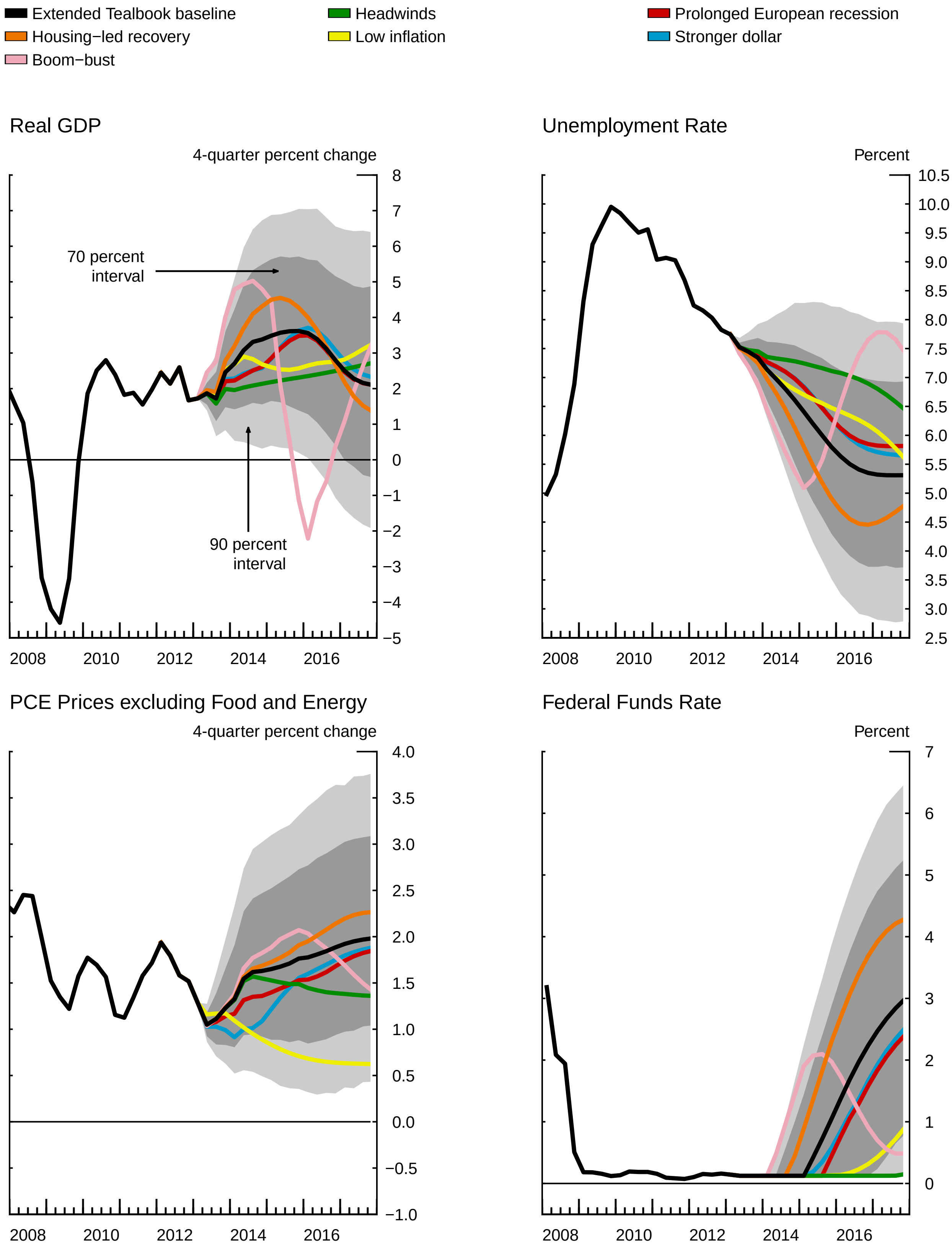
With regard to inflation, we see significant uncertainty around our projection but do not view the current level of uncertainty as unusually high. Longer-run inflation expectations appear to have remained stable in recent years despite large fluctuations in the prices of crude oil and other commodities and persistently wide margins of slack in labor and product markets. Furthermore, we still view the risks to our inflation forecast as balanced. On the downside, there is the possibility that the slowing in recent readings on inflation, weaker-than-anticipated economic conditions, further subdued increases in unit labor costs, and low levels of resource utilization could cause inflation to decrease over time. On the upside, an increase in inflation expectations, potentially related to concerns about the size of the Federal Reserve's balance sheet and the ability to execute a timely exit from the current stance of policy, could cause inflation to rise, as could a stronger-than-expected recovery or a larger amount of damage to the supply side of the economy than assumed in the baseline.

ALTERNATIVE SCENARIOS

To illustrate some of the risks to the outlook, we construct a number of alternatives to the baseline projection using simulations of staff models. The first scenario contemplates a stronger recovery in residential construction and house prices that sparks faster, sustainable improvements in the overall economy. In contrast, in the second scenario, a stronger recovery is accompanied by an unsustainable buildup in financial risk-taking and leverage that, ultimately, leads to another recession. The third

Forecast Confidence Intervals and Alternative Scenarios

Confidence Intervals Based on FRB/US Stochastic Simulations



scenario explores the possibility that we have underestimated the persistence of the headwinds that have been restraining the recovery. The fourth scenario considers the risk that recent low readings on prices are not the result of transitory forces, but instead reflect a persistent decline in inflation. The final two scenarios explore risks to the U.S. economy from foreign economic developments—first, that the recession in Europe could be more prolonged and somewhat deeper than we currently anticipate, and, second, that investor reaction to rising U.S. interest rates leads to an unanticipated strengthening of the dollar.

We generate the first four scenarios using the FRB/US model and the last two using the multicountry SIGMA model. In the FRB/US simulations, as in the baseline forecast, the federal funds rate follows an inertial version of the Taylor (1999) rule, subject to the FOMC's thresholds for the unemployment rate and inflation. For the SIGMA simulations, we use a broadly similar policy rule, subject to the same thresholds but employing an alternative concept of resource utilization.[2] In all cases, we assume that the size and composition of the SOMA portfolio follow their baseline paths.

Housing-Led Recovery

The increases in house prices, housing starts, and home sales over the past year or so could fuel a more robust economic recovery than assumed in the baseline. In this scenario, a stronger housing recovery, along with reduced uncertainty about the durability of the expansion more broadly, sparks a vigorous boom that is well supported by fundamentals. Real GDP rises at an annual rate of 3½ percent in the second half of this year and above 4¼ percent in 2014 and 2015; the unemployment rate falls below 6½ percent by mid-2014 and below 5 percent in late 2015—a little more than ¼ percentage point below our projection of the natural rate at that time. With resource slack decreasing more rapidly, wages and unit labor costs begin to accelerate gradually relative to the baseline; however, with long-term inflation expectations assumed to remain well anchored, consumer price inflation rises to only 2¼ percent by 2017. The federal funds rate lifts off from its effective lower bound by the end of 2014 and rises more steeply than in the baseline thereafter.

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

Risks & Uncertainty

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

Measure	2013	2014	2015	2016	2017
Real GDP					
(percent change, Q4 to Q4)					
Projection	2.5	3.4	3.6	2.8	2.1
Confidence interval					
Tealbook forecast errors	1.2–3.7	1.4–5.3	. . .	. . .	. . .
FRB/US stochastic simulations	1.5–3.6	1.6–5.5	1.4–5.7	.4–5.2	-.5–4.9
Civilian unemployment rate					
(percent, Q4)					
Projection	7.3	6.6	5.8	5.3	5.3
Confidence interval					
Tealbook forecast errors	6.8–7.8	5.8–7.4	. . .	. . .	. . .
FRB/US stochastic simulations	7.0–7.7	5.5–7.6	4.3–7.2	3.7–7.0	3.7–6.9
PCE prices, total					
(percent change, Q4 to Q4)					
Projection	.9	1.4	1.6	1.8	2.0
Confidence interval					
Tealbook forecast errors	.1–1.6	.2–2.7	. . .	. . .	. . .
FRB/US stochastic simulations	.2–1.6	.5–2.5	.5–2.8	.6–3.0	.8–3.3
PCE prices excluding food and energy					
(percent change, Q4 to Q4)					
Projection	1.2	1.6	1.8	1.9	2.0
Confidence interval					
Tealbook forecast errors	.8–1.7	.9–2.3	. . .	. . .	. . .
FRB/US stochastic simulations	.8–1.7	.9–2.5	.9–2.7	.9–3.0	1.0–3.1
Federal funds rate					
(percent, Q4)					
Projection	.1	.1	1.0	2.2	3.0
Confidence interval					
FRB/US stochastic simulations	.1–.1	.1–1.0	.1–2.9	.1–4.5	.8–5.3

Note: Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1969–2012 set of model equation residuals.

Intervals derived from Tealbook forecast errors are based on projections made from 1979–2012, except for PCE prices excluding food and energy, where the sample is 1981–2012.

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

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Boom–Bust

The faster recovery in the previous scenario incorporates a sustainable expansion in credit availability to households and firms. In this scenario, by contrast, the stronger recovery is spurred by a more-aggressive easing in lending standards, greater use of leverage, house prices that run ahead of fundamentals, and a larger reduction in risk spreads. These developments boost real activity this year and next above that of the previous scenario but also significantly increase the vulnerability of the financial system to adverse shocks. Such a shock is assumed to occur in mid-2015, bringing the leverage cycle to an abrupt end. Credit market functioning becomes impaired; premiums on corporate bonds jump about 150 basis points above the baseline; house prices begin to fall back to their fundamental level; and spending on consumer durables, housing, and investment declines sharply as the economy falls into recession. The unemployment rate rises about 2¾ percentage points, reaching almost 8 percent by early 2017. Monetary policy responds to the boom by tightening beginning in mid-2014 but later reverses course once the credit market disruption begins. Although the inertial nature of the assumed policy rule prevents a rapid return of the federal funds rate to its effective lower bound, the policy easing (coupled with an assumed waning of the adverse effects of the crisis) is sufficient to enable an economic recovery to begin in 2017. After rising to 2 percent during the boom, inflation falls during the recession and is about 1½ percent at the end of the simulation horizon.

Headwinds

Despite the disappointingly slow pace of the recovery to date and recent weakness in some indicators, the staff forecast continues to feature a marked acceleration in real GDP. In this scenario, however, our baseline assumptions about the normalization of credit availability and anticipated improvements in household and business confidence turn out to be overly optimistic; as a result, real activity continues to expand at only a moderate rate. Real GDP rises 2 percent per year, on average, in 2013 and 2014, and economic growth barely exceeds its potential for some time thereafter. Because margins of resource slack remain wide, inflation stays close to 1¼ percent rather than rising as in the baseline. With inflation persistently below the FOMC’s longer-run objective and the unemployment rate far above its natural rate, the federal funds rate remains near zero until after 2017.

Low Inflation

In the baseline forecast, recent low readings on inflation prove to be transitory, and, over the next few years, inflation gradually moves back toward 2 percent. In this scenario, the recent price data instead prove to be a harbinger of a longer-lasting decline in actual inflation, accompanied by a modest decrease in long-run inflation expectations. Inflation runs below 1 percent next year and edges down further thereafter. In this environment, investors become increasingly concerned that the economy is mired in a weak state, with inflation running substantially below 2 percent and monetary policy persistently constrained by the zero lower bound. As a result, bond premiums rise and put upward pressure on real long-term interest rates, thereby modestly restraining household and business spending and boosting unemployment relative to the baseline over the next few years. The higher trajectory of the unemployment rate delays liftoff of the federal funds rate until late 2016. In the longer run, monetary policy is sufficiently stimulative to eventually bring the unemployment rate below the baseline and to check any further disinflation.

Prolonged European Recession

In the baseline forecast, the European economies expand at a modest pace next year and beyond while measures of financial stress, such as sovereign and corporate spreads, slowly decline to their 2010 levels. In this scenario, the fiscal and financial headwinds in Europe instead prove stronger and more persistent than anticipated. Specifically, continued financial uncertainty and weak credit supply leave private borrowing costs about 100 basis points higher than in the baseline in 2013, and consumer confidence remains depressed, leading to weaker business and household spending. As a consequence, real GDP in Europe is 2½ percent lower than in the baseline by the first half of 2015, notwithstanding a persistent real depreciation in the foreign exchange value of European currencies of about 10 percent against the dollar. The stronger dollar and weaker foreign activity, in turn, cause U.S. real net exports to fall relative to the baseline. Nevertheless, the overall impact on the U.S. economy is not too severe because the magnitude of the assumed financial shock in Europe is not so large as to substantially disrupt financial markets outside of Europe. All told, U.S. real GDP expands roughly 2½ percent on average this year and in 2014, almost ¾ percentage point less than in the baseline. With a higher unemployment rate, the federal funds rate runs a little below the baseline through the end of the forecast period.

Stronger Dollar

In light of the considerable appetite of investors for additional yield in today's low interest rate environment, the foreign exchange value of the dollar may respond to the projected increases in U.S. interest rates to a greater extent than we have assumed. To capture this possibility, this scenario introduces a shock to the exchange risk premium that boosts the dollar by 10 percent above the baseline by the end of this year before gradually receding. The higher foreign exchange value of the dollar restrains U.S. real net exports and causes the trade balance as a share of GDP to fall by 1½ percentage points by the end of 2014, although part of the drag on GDP growth is offset by stronger private consumption that benefits from the appreciated dollar. All told, growth in U.S. real GDP is only 2½ percent in 2014, and the unemployment rate remains above 7 percent through most of 2014, about ½ percentage point higher by the end of 2014 than in our baseline. Core inflation falls to 1 percent in 2014, due to lower U.S. real activity and the stronger dollar. With a higher unemployment rate and lower core inflation, the federal funds rate stays somewhat below the baseline throughout the forecast period.

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

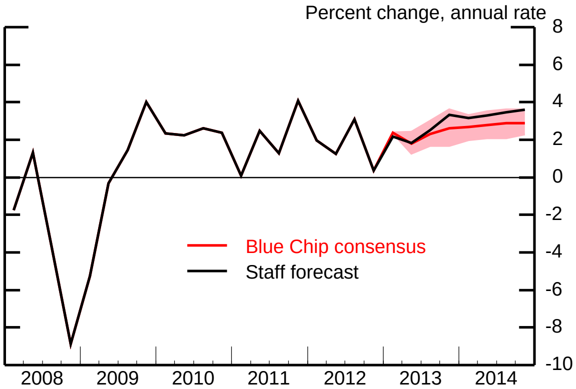
Measure and projection	2012 Previous Tealbook	2012 Current Tealbook	2013 Previous Tealbook	2013 Current Tealbook	2014 Previous Tealbook	2014 Current Tealbook
Real GDP						
Staff	1.7	1.7	2.6	2.5	3.2	3.4
FRB/US	1.7	1.7	1.9	2.1	2.4	3.3
EDO	1.7	1.7	3.3	2.5	3.0	2.9
Blue Chip	1.7	1.7	2.4	2.3	2.9	2.8
Unemployment rate[1]						
Staff	7.8	7.8	7.4	7.3	6.9	6.6
FRB/US	7.8	7.8	7.8	7.5	7.7	7.3
EDO	7.8	7.8	7.4	7.5	7.2	7.3
Blue Chip	7.8	7.8	7.5	7.4	7.0	6.9
Total PCE prices						
Staff	1.6	1.6	1.0	.9	1.5	1.4
FRB/US	1.6	1.6	.7	.8	1.0	1.1
EDO	1.6	1.6	1.1	.8	1.4	1.4
Blue Chip[2]	1.9	1.9	2.0	1.5	2.2	2.2
Core PCE prices						
Staff	1.5	1.5	1.5	1.2	1.7	1.6
FRB/US	1.5	1.5	1.3	1.2	1.2	1.3
EDO	1.5	1.5	1.2	1.1	1.4	1.4
Blue Chip	. . .	. . .	. . .	. . .	. . .	. . .
Federal funds rate[1]						
Staff	.2	.2	.1	.1	.1	.1
FRB/US	.2	.2	.1	.1	.1	.1
EDO	.2	.2	.9	.7	1.8	1.6
Blue Chip[3]	.1	.1	.1	.1	.3	.2

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

Risks & Uncertainty

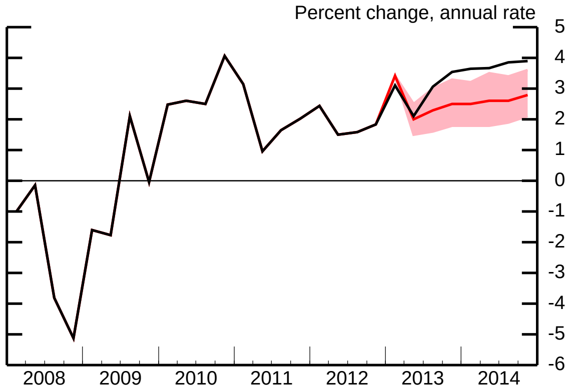
Tealbook Forecast Compared with Blue Chip
(Blue Chip survey released June 10, 2013)

Real GDP

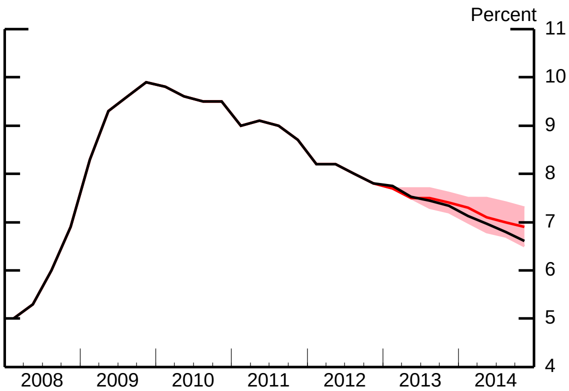


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

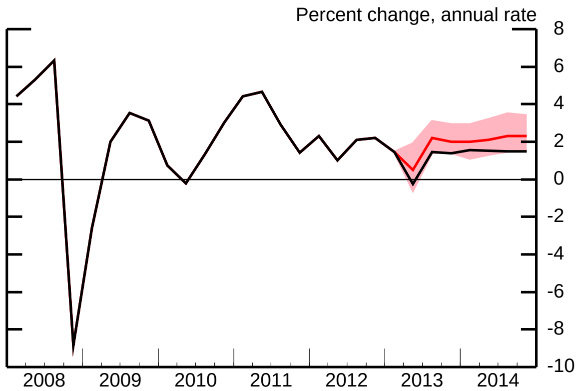
Real PCE



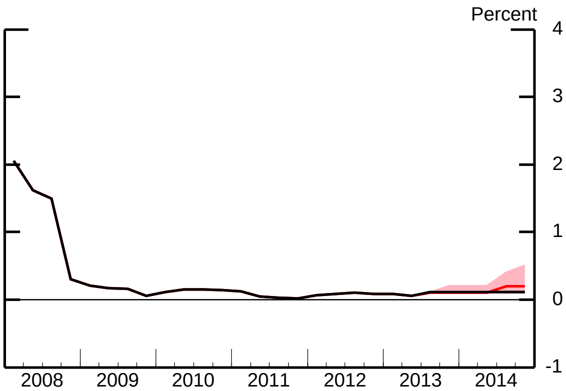
Unemployment Rate



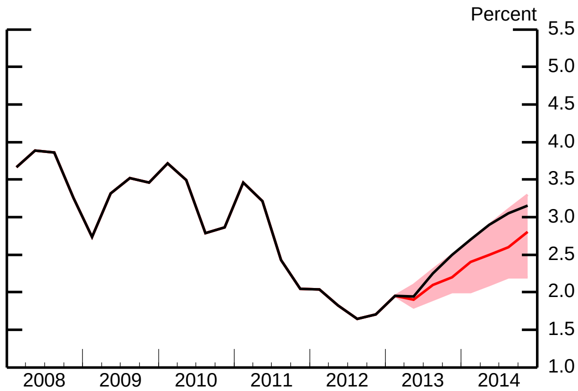
Consumer Price Index



Treasury Bill Rate



10-Year Treasury Yield



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

Assessment of Key Macroeconomic Risks (1)

Probability of Inflation Events

(4 quarters ahead—2014:Q2)

Probability that the 4-quarter change in total PCE prices will be ...	Staff	FRB/US	EDO	BVAR
Greater than 3 percent				
Current Tealbook	.05	.04	.09	.01
Previous Tealbook	.03	.01	.10	.06
Less than 1 percent				
Current Tealbook	.31	.40	.36	.43
Previous Tealbook	.42	.57	.32	.18

Probability of Unemployment Events

(4 quarters ahead—2014:Q2)

Probability that the unemployment rate will ...	Staff	FRB/US	EDO	BVAR
Increase by 1 percentage point				
Current Tealbook	.01	.05	.19	.01
Previous Tealbook	.02	.06	.19	.01
Decrease by 1 percentage point				
Current Tealbook	.24	.06	.24	.22
Previous Tealbook	.17	.04	.24	.20

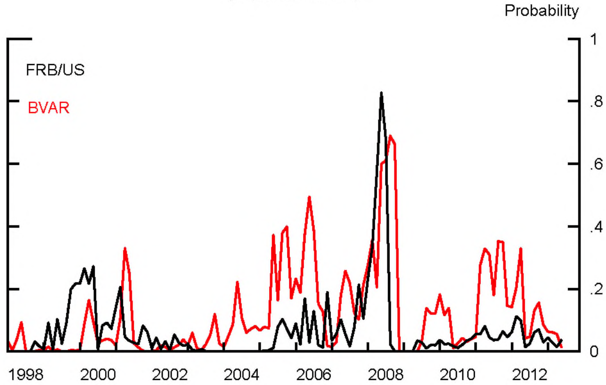
Probability of Near-Term Recession

Probability that real GDP declines in each of 2013:Q3 and 2013:Q4	Staff	FRB/US	EDO	BVAR	Factor Model
Current Tealbook	.02	.03	.04	.04	.11
Previous Tealbook	.03	.06	.04	.03	.16

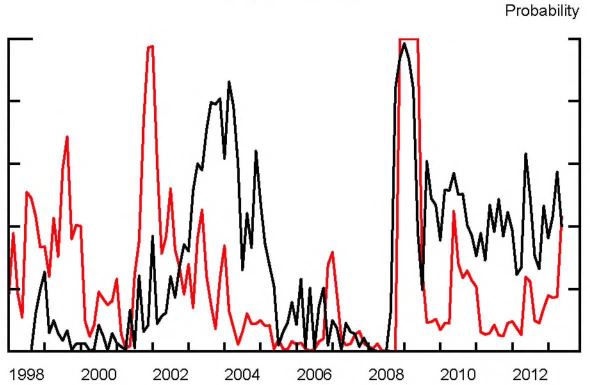
Note: "Staff" represents Tealbook forecast errors applied to the Tealbook baseline; baselines for FRB/US, BVAR, EDO, and the factor model are generated by those models themselves, up to the current-quarter estimate. The current quarter is taken as data from the staff estimate for the second Tealbook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

Assessment of Key Macroeconomic Risks (2)

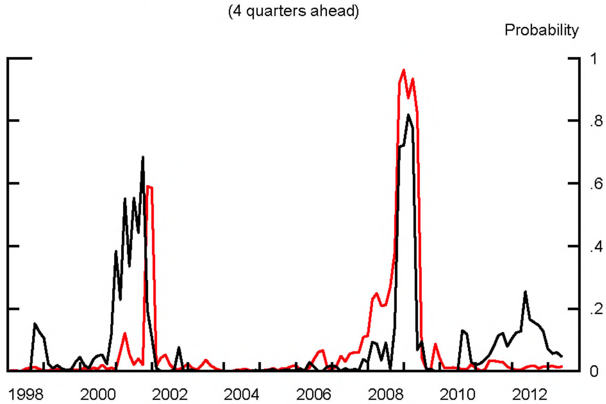
Probability that Total PCE Inflation Is above 3 Percent
(4 quarters ahead)



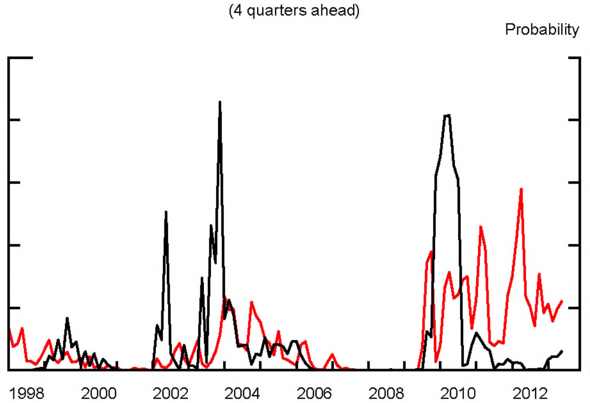
Probability that Total PCE Inflation Is below 1 Percent
(4 quarters ahead)



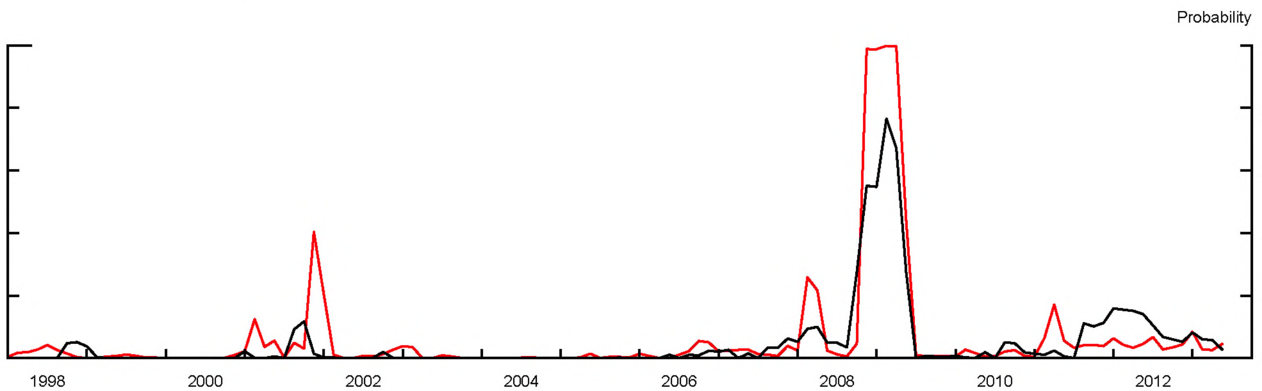
Probability that the Unemployment Rate Increases 1 ppt
(4 quarters ahead)



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



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



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

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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]	
	04/24/13	06/12/13	04/24/13	06/12/13	04/24/13	06/12/13	04/24/13	06/12/13	04/24/13	06/12/13
Quarterly										
2012:Q1	4.2	4.2	2.0	2.0	2.5	2.5	2.2	2.2	8.2	8.2
Q2	2.8	2.8	1.3	1.3	.7	.7	1.7	1.7	8.2	8.2
Q3	5.9	5.9	3.1	3.1	1.6	1.6	1.1	1.1	8.0	8.0
Q4	1.3	1.3	.4	.4	1.6	1.6	1.0	1.0	7.8	7.8
2013:Q1	4.4	3.4	3.1	2.2	.9	1.0	1.2	1.3	7.7	7.7
Q2	2.2	2.1	1.5	1.8	-.2	-.1	1.4	.8	7.6	7.5
Q3	4.2	3.9	2.4	2.5	1.6	1.2	1.7	1.3	7.5	7.4
Q4	4.9	4.8	3.2	3.3	1.6	1.3	1.6	1.5	7.4	7.3
2014:Q1	4.7	4.8	2.9	3.2	1.6	1.5	1.8	1.7	7.3	7.1
Q2	4.8	4.9	3.1	3.3	1.5	1.4	1.7	1.6	7.2	7.0
Q3	5.0	5.0	3.4	3.5	1.5	1.4	1.7	1.6	7.1	6.8
Q4	5.1	5.2	3.5	3.6	1.5	1.4	1.6	1.6	6.9	6.6
Two-quarter[2]										
2012:Q2	3.5	3.5	1.6	1.6	1.6	1.6	2.0	2.0	-.5	-.5
Q4	3.6	3.6	1.7	1.7	1.6	1.6	1.1	1.1	-.4	-.4
2013:Q2	3.3	2.7	2.3	2.0	.3	.4	1.3	1.0	-.2	-.3
Q4	4.6	4.4	2.8	2.9	1.6	1.3	1.6	1.4	-.2	-.2
2014:Q2	4.7	4.9	3.0	3.2	1.6	1.5	1.7	1.7	-.2	-.3
Q4	5.1	5.1	3.5	3.5	1.5	1.4	1.6	1.6	-.3	-.4
Four-quarter[3]										
2011:Q4	4.0	4.0	2.0	2.0	2.5	2.5	1.7	1.7	-.8	-.8
2012:Q4	3.5	3.5	1.7	1.7	1.6	1.6	1.5	1.5	-.9	-.9
2013:Q4	3.9	3.5	2.6	2.5	1.0	.9	1.5	1.2	-.4	-.5
2014:Q4	4.9	5.0	3.2	3.4	1.5	1.4	1.7	1.6	-.5	-.7
2015:Q4	5.2	5.4	3.5	3.6	1.6	1.6	1.8	1.8	-.7	-.8
Annual										
2011	4.0	4.0	1.8	1.8	2.4	2.4	1.4	1.4	8.9	8.9
2012	4.0	4.0	2.2	2.2	1.8	1.8	1.7	1.7	8.1	8.1
2013	3.5	3.2	2.1	1.9	1.0	1.0	1.3	1.2	7.6	7.5
2014	4.6	4.6	2.9	3.1	1.5	1.3	1.7	1.5	7.1	6.9
2015	5.2	5.2	3.5	3.6	1.6	1.5	1.7	1.7	6.5	6.1

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

Greensheets

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

Item	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2012[1]	2013[1]	2014[1]	2015[1]
Real GDP	1.3	3.1	.4	2.2	1.8	2.5	3.3	3.2	3.3	3.5	3.6	1.7	2.5	3.4	3.6
Previous Tealbook	1.3	3.1	.4	3.1	1.5	2.4	3.2	2.9	3.1	3.4	3.5	1.7	2.6	3.2	3.5
Final sales	1.7	2.4	1.9	1.5	1.8	2.4	3.0	2.8	3.2	3.5	3.8	2.1	2.2	3.3	3.8
Previous Tealbook	1.7	2.4	1.9	1.8	2.0	2.0	3.2	2.4	2.9	3.4	3.6	2.1	2.2	3.1	3.7
Priv. dom. final purch.	1.9	1.5	3.6	3.1	2.6	3.7	4.2	4.2	4.4	4.7	4.7	2.6	3.4	4.5	4.6
Previous Tealbook	1.9	1.5	3.6	2.8	3.1	3.7	4.2	3.6	4.0	4.5	4.5	2.6	3.5	4.2	4.4
Personal cons. expend.	1.5	1.6	1.8	3.1	2.1	3.1	3.6	3.6	3.7	3.8	3.9	1.8	3.0	3.8	3.9
Previous Tealbook	1.5	1.6	1.8	2.8	2.3	2.6	3.3	3.0	3.4	3.7	3.8	1.8	2.8	3.5	3.8
Durables	-.2	8.9	13.6	8.4	4.4	8.8	8.9	9.9	9.4	9.3	9.4	8.3	7.6	9.5	8.6
Nondurables	.6	1.2	.1	2.5	1.2	2.9	2.8	2.8	3.0	3.1	3.1	.9	2.3	3.0	3.2
Services	2.1	.6	.6	2.4	2.0	2.2	2.9	2.9	3.0	3.2	3.2	1.1	2.4	3.1	3.4
Residential investment	8.5	13.5	17.6	13.3	18.6	13.9	15.3	17.8	17.8	18.3	17.1	14.9	15.3	17.8	15.2
Previous Tealbook	8.5	13.5	17.6	16.4	22.0	15.8	14.0	16.3	17.0	17.3	15.3	14.9	17.0	16.5	13.6
Business fixed invest.	3.6	-1.8	13.2	.9	2.4	5.7	6.0	4.0	5.1	6.3	6.5	5.4	3.7	5.5	5.5
Previous Tealbook	3.6	-1.8	13.2	-.3	4.1	8.2	7.0	4.2	4.6	6.1	6.3	5.4	4.7	5.3	5.2
Equipment & software	4.8	-2.6	11.8	4.6	1.6	6.2	6.6	4.7	5.6	7.4	7.6	4.7	4.7	6.3	6.4
Previous Tealbook	4.8	-2.6	11.8	1.1	4.2	9.3	7.7	4.8	5.1	7.1	7.3	4.7	5.5	6.1	6.0
Nonres. structures	.6	.0	16.7	-7.9	4.5	4.4	4.7	2.2	4.1	3.7	3.8	7.3	1.3	3.4	3.4
Previous Tealbook	.6	.0	16.7	-3.8	3.8	5.5	5.2	2.7	3.5	3.9	4.0	7.3	2.6	3.5	3.1
Net exports[2]	-407	-395	-385	-391	-382	-382	-388	-401	-401	-402	-399	-401	-386	-401	-401
Previous Tealbook[2]	-407	-395	-385	-389	-380	-387	-392	-399	-399	-401	-398	-401	-387	-399	-390
Exports	5.3	1.9	-2.8	-1.2	5.7	4.6	3.4	4.7	4.4	5.4	5.9	2.1	3.1	5.1	6.5
Imports	2.8	-.6	-4.2	.1	3.0	3.7	4.0	6.2	3.7	4.6	4.3	.2	2.7	4.7	5.4
Gov't. cons. & invest.	-.7	3.9	-7.0	-4.8	-3.4	-3.8	-2.0	-1.6	-2.5	-2.3	-1.8	-1.8	-3.5	-2.1	-.7
Previous Tealbook	-.7	3.9	-7.0	-2.3	-4.5	-4.9	-.7	-2.1	-2.5	-2.2	-1.7	-1.8	-3.1	-2.1	-.7
Federal	-.2	9.5	-14.8	-8.7	-7.9	-9.0	-4.8	-4.3	-6.6	-6.0	-5.1	-2.8	-7.6	-5.5	-3.8
Defense	-.2	12.9	-22.1	-12.1	-7.8	-10.7	-3.8	-3.9	-8.0	-6.6	-6.1	-5.0	-8.6	-6.2	-4.1
Nondefense	-.4	3.0	1.7	-2.1	-8.1	-5.8	-6.8	-4.9	-4.0	-5.0	-3.3	1.5	-5.7	-4.3	-3.3
State & local	-1.0	.3	-1.5	-2.1	-.5	-.4	-.2	.0	.0	.0	.1	-1.1	-.8	.0	1.0
Change in bus. inventories[2]	41	60	13	37	38	42	52	63	66	64	59	43	42	63	49
Previous Tealbook[2]	41	60	13	61	44	58	59	73	80	81	79	43	56	78	70
Nonfarm[2]	53	88	35	29	30	34	44	57	61	59	54	60	34	58	48
Farm[2]	-8	-19	-15	8	8	8	8	6	5	5	5	-11	8	6	1

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

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

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Real GDP	2.4	2.2	-3.3	-.1	2.4	2.0	1.7	2.5	3.4	3.6
Previous Tealbook	2.4	2.2	-3.3	-.1	2.4	2.0	1.7	2.6	3.2	3.5
Final sales	2.8	2.4	-2.6	-.5	1.7	1.7	2.1	2.2	3.3	3.8
Previous Tealbook	2.8	2.4	-2.6	-.5	1.7	1.7	2.1	2.2	3.1	3.7
Priv. dom. final purch.	2.4	1.2	-4.5	-2.8	3.2	2.9	2.6	3.4	4.5	4.6
Previous Tealbook	2.4	1.2	-4.5	-2.8	3.2	2.9	2.6	3.5	4.2	4.4
Personal cons. expend.	3.2	1.7	-2.5	-.3	2.9	1.9	1.8	3.0	3.8	3.9
Previous Tealbook	3.2	1.7	-2.5	-.3	2.9	1.9	1.8	2.8	3.5	3.8
Durables	7.0	4.6	-13.0	3.0	9.5	5.9	8.3	7.6	9.5	8.6
Nondurables	2.9	.8	-3.1	.4	3.0	1.4	.9	2.3	3.0	3.2
Services	2.6	1.4	-.5	-1.1	1.9	1.5	1.1	2.4	3.1	3.4
Residential investment	-15.7	-20.7	-24.4	-13.3	-5.7	3.9	14.9	15.3	17.8	15.2
Previous Tealbook	-15.7	-20.7	-24.4	-13.3	-5.7	3.9	14.9	17.0	16.5	13.6
Business fixed invest.	7.8	7.9	-9.4	-15.7	7.7	10.2	5.4	3.7	5.5	5.5
Previous Tealbook	7.8	7.9	-9.4	-15.7	7.7	10.2	5.4	4.7	5.3	5.2
Equipment & software	6.0	3.9	-13.6	-7.8	11.9	11.4	4.7	4.7	6.3	6.4
Previous Tealbook	6.0	3.9	-13.6	-7.8	11.9	11.4	4.7	5.5	6.1	6.0
Nonres. structures	13.0	17.3	-1.2	-29.4	-1.8	6.9	7.3	1.3	3.4	3.4
Previous Tealbook	13.0	17.3	-1.2	-29.4	-1.8	6.9	7.3	2.6	3.5	3.1
Net exports[1]	-729	-649	-495	-355	-420	-408	-401	-386	-401	-401
Previous Tealbook[1]	-729	-649	-495	-355	-420	-408	-401	-387	-399	-390
Exports	10.2	10.1	-2.5	.3	8.8	4.3	2.1	3.1	5.1	6.5
Imports	4.1	.8	-5.9	-6.1	10.9	3.5	.2	2.7	4.7	5.4
Gov't. cons. & invest.	1.5	1.9	2.7	4.0	-1.3	-3.3	-1.8	-3.5	-2.1	-.7
Previous Tealbook	1.5	1.9	2.7	4.0	-1.3	-3.3	-1.8	-3.1	-2.1	-.7
Federal	2.2	3.1	8.8	5.1	2.3	-4.2	-2.8	-7.6	-5.5	-3.8
Defense	4.4	2.6	9.8	4.1	1.0	-4.0	-5.0	-8.6	-6.2	-4.1
Nondefense	-2.3	4.2	6.8	7.2	5.2	-4.6	1.5	-5.7	-4.3	-3.3
State & local	1.2	1.2	-.9	3.3	-3.6	-2.7	-1.1	-.8	.0	1.0
Change in bus. inventories[1]	59	28	-36	-139	51	31	43	42	63	49
Previous Tealbook[1]	59	28	-36	-139	51	31	43	56	78	70
Nonfarm[1]	63	29	-38	-138	58	36	60	34	58	48
Farm[1]	-4	-1	1	-1	-6	-4	-11	8	6	1

1. Billions of chained (2005) dollars.

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

Item	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2012[1]	2013[1]	2014[1]	2015[1]
Real GDP	1.3	3.1	.4	2.2	1.8	2.5	3.3	3.2	3.3	3.5	3.6	1.7	2.5	3.4	3.6
Previous Tealbook	1.3	3.1	.4	3.1	1.5	2.4	3.2	2.9	3.1	3.4	3.5	1.7	2.6	3.2	3.5
Final sales	1.7	2.4	1.9	1.5	1.8	2.4	3.0	2.8	3.2	3.5	3.8	2.1	2.2	3.3	3.8
Previous Tealbook	1.7	2.4	1.9	1.8	2.0	2.0	3.2	2.4	2.9	3.4	3.6	2.1	2.2	3.1	3.7
Priv. dom. final purch.	1.6	1.3	3.0	2.6	2.2	3.1	3.6	3.5	3.7	4.0	4.0	2.2	2.9	3.8	3.9
Previous Tealbook	1.6	1.3	3.0	2.4	2.6	3.1	3.5	3.0	3.4	3.8	3.8	2.2	2.9	3.5	3.7
Personal cons. expend.	1.1	1.1	1.3	2.2	1.5	2.2	2.5	2.6	2.6	2.7	2.8	1.3	2.1	2.7	2.8
Previous Tealbook	1.1	1.1	1.3	2.0	1.6	1.9	2.4	2.1	2.4	2.6	2.7	1.3	2.0	2.4	2.7
Durables	.0	.7	1.0	.6	.3	.7	.7	.8	.7	.7	.8	.6	.6	.8	.7
Nondurables	.1	.2	.0	.4	.2	.5	.4	.4	.5	.5	.5	.1	.4	.5	.5
Services	1.0	.3	.3	1.1	.9	1.0	1.4	1.4	1.4	1.5	1.5	.5	1.1	1.4	1.6
Residential investment	.2	.3	.4	.3	.5	.4	.4	.5	.5	.6	.5	.3	.4	.5	.5
Previous Tealbook	.2	.3	.4	.4	.5	.4	.4	.5	.5	.5	.5	.3	.4	.5	.5
Business fixed invest.	.4	-.2	1.3	.1	.3	.6	.6	.4	.5	.7	.7	.6	.4	.6	.6
Previous Tealbook	.4	-.2	1.3	.0	.4	.8	.7	.4	.5	.7	.7	.6	.5	.6	.6
Equipment & software	.4	-.2	.8	.3	.1	.5	.5	.4	.4	.6	.6	.3	.4	.5	.5
Previous Tealbook	.4	-.2	.8	.1	.3	.7	.6	.4	.4	.5	.5	.3	.4	.5	.5
Nonres. structures	.0	.0	.5	-.2	.1	.1	.1	.1	.1	.1	.1	.2	.0	.1	.1
Previous Tealbook	.0	.0	.5	-.1	.1	.2	.2	.1	.1	.1	.1	.2	.1	.1	.1
Net exports	.2	.4	.3	-.2	.2	.0	-.2	-.4	.0	.0	.1	.3	.0	-.1	.0
Previous Tealbook	.2	.4	.3	-.1	.3	-.2	-.2	-.2	.0	.0	.1	.3	-.1	-.1	.1
Exports	.7	.3	-.4	-.2	.8	.6	.5	.6	.6	.7	.8	.3	.4	.7	.9
Imports	-.5	.1	.7	.0	-.5	-.6	-.7	-1.0	-.6	-.8	-.7	.0	-.5	-.8	-.9
Gov't. cons. & invest.	-.1	.8	-1.4	-.9	-.7	-.7	-.4	-.3	-.4	-.4	-.3	-.4	-.7	-.4	-.1
Previous Tealbook	-.1	.8	-1.4	-.4	-.9	-.9	-.1	-.4	-.4	-.4	-.3	-.4	-.6	-.4	-.1
Federal	.0	.7	-1.2	-.7	-.6	-.7	-.3	-.3	-.4	-.4	-.3	-.2	-.6	-.4	-.2
Defense	.0	.6	-1.3	-.6	-.4	-.5	-.2	-.2	-.4	-.3	-.3	-.3	-.4	-.3	-.2
Nondefense	.0	.1	.0	-.1	-.2	-.1	-.2	-.1	-.1	-.1	-.1	.0	-.1	-.1	-.1
State & local	-.1	.0	-.2	-.2	-.1	.0	.0	.0	.0	.0	.0	-.1	-.1	.0	.1
Change in bus. inventories	-.5	.7	-1.5	.7	.0	.1	.3	.3	.1	-.1	-.2	-.4	.3	.1	-.2
Previous Tealbook	-.5	.7	-1.5	1.4	-.5	.5	.0	.4	.2	.0	.0	-.4	.3	.2	-.2
Nonfarm	-.3	1.1	-1.7	-.2	.0	.1	.3	.4	.1	-.1	-.2	-.3	.1	.1	-.1
Farm	-.2	-.4	.1	.9	.0	.0	.0	-.1	.0	.0	.0	-.1	.2	.0	.0

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

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

Item	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2012[1]	2013[1]	2014[1]	2015[1]
GDP chain-wt. price index	1.6	2.7	1.0	1.2	.2	1.3	1.5	1.6	1.6	1.5	1.5	1.8	1.0	1.6	1.7
Previous Tealbook	1.6	2.7	1.0	1.3	.7	1.7	1.7	1.8	1.7	1.6	1.5	1.8	1.3	1.6	1.6
PCE chain-wt. price index	.7	1.6	1.6	1.0	-.1	1.2	1.3	1.5	1.4	1.4	1.4	1.6	.9	1.4	1.6
Previous Tealbook	.7	1.6	1.6	.9	-.2	1.6	1.6	1.6	1.5	1.5	1.5	1.6	1.0	1.5	1.6
Energy	-13.6	10.5	9.9	-3.7	-14.1	-.9	-.8	-.4	-.8	-1.1	-1.1	3.2	-5.0	-.9	-.9
Previous Tealbook	-13.6	10.5	9.9	-3.8	-23.4	.6	2.6	.5	-.4	-.7	-.7	3.2	-6.6	-.3	-.7
Food	.7	.6	1.8	1.3	1.1	1.3	.9	.7	.8	1.0	1.2	1.1	1.2	.9	1.4
Previous Tealbook	.7	.6	1.8	1.3	1.0	1.3	.9	.8	.9	1.1	1.2	1.1	1.1	1.0	1.5
Ex. food & energy	1.7	1.1	1.0	1.3	.8	1.3	1.5	1.7	1.6	1.6	1.6	1.5	1.2	1.6	1.8
Previous Tealbook	1.7	1.1	1.0	1.2	1.4	1.7	1.6	1.8	1.7	1.7	1.6	1.5	1.5	1.7	1.8
Ex. food & energy, market based	1.8	1.3	.9	1.6	.4	1.2	1.4	1.6	1.5	1.5	1.4	1.6	1.1	1.5	1.7
Previous Tealbook	1.8	1.3	.9	1.6	1.2	1.6	1.4	1.7	1.6	1.6	1.5	1.6	1.5	1.6	1.7
CPI	1.0	2.1	2.2	1.4	-.2	1.4	1.4	1.6	1.5	1.5	1.5	1.9	1.0	1.5	1.7
Previous Tealbook	1.0	2.1	2.2	1.4	-.6	1.6	1.7	1.7	1.6	1.6	1.6	1.9	1.0	1.6	1.7
Ex. food & energy	2.4	1.6	1.7	2.1	1.3	1.7	1.7	1.9	1.8	1.8	1.8	1.9	1.7	1.8	2.0
Previous Tealbook	2.4	1.6	1.7	2.1	1.9	1.7	1.7	1.9	1.9	1.9	1.8	1.9	1.8	1.9	2.0
ECI, hourly compensation[2]	2.1	1.7	1.7	1.4	2.4	2.5	2.5	2.6	2.6	2.7	2.7	1.9	2.2	2.6	3.0
Previous Tealbook[2]	2.1	1.7	2.1	2.2	2.4	2.5	2.5	2.7	2.7	2.7	2.8	1.9	2.4	2.7	3.0
Nonfarm business sector															
Output per hour	1.7	3.1	-1.7	.3	.2	1.5	1.6	1.6	1.6	1.6	1.5	.6	.9	1.6	1.6
Previous Tealbook	1.7	3.1	-1.5	1.8	-.5	1.1	1.2	1.4	1.6	1.6	1.6	.7	.9	1.6	1.6
Compensation per hour	1.2	1.2	9.9	-3.8	2.0	2.1	2.7	2.8	2.8	2.9	3.0	4.4	.7	2.8	3.4
Previous Tealbook	1.2	1.2	2.6	.7	2.9	2.8	2.9	2.9	2.9	3.0	3.0	2.6	2.4	2.9	3.4
Unit labor costs	-.5	-1.9	11.8	-4.1	1.8	.6	1.1	1.1	1.2	1.3	1.4	3.8	-.2	1.3	1.7
Previous Tealbook	-.5	-1.9	4.6	-1.1	3.4	1.7	1.8	1.4	1.2	1.3	1.3	2.1	1.4	1.3	1.8
Core goods imports chain-wt. price index[3]	1.2	-2.3	1.7	.2	-1.1	-.2	.5	1.0	1.4	1.7	1.4	.1	-.1	1.4	1.5
Previous Tealbook[3]	1.2	-2.3	1.7	.7	-.1	.3	.9	1.2	1.6	1.9	1.6	.1	.5	1.6	1.6

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

Greensheets

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

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GDP chain-wt. price index	2.9	2.6	2.1	.5	1.8	2.0	1.8	1.0	1.6	1.7
Previous Tealbook	2.9	2.6	2.1	.5	1.8	2.0	1.8	1.3	1.6	1.6
PCE chain-wt. price index	1.9	3.5	1.7	1.4	1.5	2.5	1.6	.9	1.4	1.6
Previous Tealbook	1.9	3.5	1.7	1.4	1.5	2.5	1.6	1.0	1.5	1.6
Energy	-3.7	19.3	-8.8	2.7	6.5	11.9	3.2	-5.0	-.9	-.9
Previous Tealbook	-3.7	19.3	-8.8	2.7	6.5	11.9	3.2	-6.6	-.3	-.7
Food	1.7	4.7	7.0	-1.7	1.3	5.1	1.1	1.2	.9	1.4
Previous Tealbook	1.7	4.7	7.0	-1.7	1.3	5.1	1.1	1.1	1.0	1.5
Ex. food & energy	2.3	2.4	2.0	1.6	1.2	1.7	1.5	1.2	1.6	1.8
Previous Tealbook	2.3	2.4	2.0	1.6	1.2	1.7	1.5	1.5	1.7	1.8
Ex. food & energy, market based	2.2	2.1	2.2	1.7	.7	1.9	1.6	1.1	1.5	1.7
Previous Tealbook	2.2	2.1	2.2	1.7	.7	1.9	1.6	1.5	1.6	1.7
CPI	2.0	4.0	1.6	1.5	1.2	3.3	1.9	1.0	1.5	1.7
Previous Tealbook	2.0	4.0	1.6	1.5	1.2	3.3	1.9	1.0	1.6	1.7
Ex. food & energy	2.7	2.3	2.0	1.7	.6	2.2	1.9	1.7	1.8	2.0
Previous Tealbook	2.7	2.3	2.0	1.7	.6	2.2	1.9	1.8	1.9	2.0
ECI, hourly compensation[1]	3.2	3.0	2.4	1.2	2.1	2.2	1.9	2.2	2.6	3.0
Previous Tealbook[1]	3.2	3.0	2.4	1.2	2.1	2.2	1.9	2.4	2.7	3.0
Nonfarm business sector										
Output per hour	.8	2.4	-1.2	5.6	1.9	.4	.6	.9	1.6	1.6
Previous Tealbook	.8	2.4	-1.2	5.6	1.9	.4	.7	.9	1.6	1.6
Compensation per hour	4.5	3.6	2.5	1.5	1.6	1.7	4.4	.7	2.8	3.4
Previous Tealbook	4.5	3.6	2.5	1.5	1.6	1.7	2.6	2.4	2.9	3.4
Unit labor costs	3.6	1.1	3.7	-3.9	-.2	1.3	3.8	-.2	1.3	1.7
Previous Tealbook	3.6	1.1	3.7	-3.9	-.2	1.3	2.1	1.4	1.3	1.8
Core goods imports chain-wt. price index[2]	2.5	2.9	3.7	-1.7	2.7	4.3	.1	-.1	1.4	1.5
Previous Tealbook[2]	2.5	2.9	3.7	-1.7	2.7	4.3	.1	.5	1.6	1.6

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

Other Macroeconomic Indicators

Item	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2012[1]	2013[1]	2014[1]	2015[1]
Employment and production															
Nonfarm payroll employment[2]	.5	.4	.5	.6	.5	.5	.5	.5	.6	.6	.7	2.2	2.2	2.5	3.1
Unemployment rate[3]	8.2	8.0	7.8	7.7	7.5	7.4	7.3	7.1	7.0	6.8	6.6	7.8	7.3	6.6	5.8
Previous Tealbook[3]	8.2	8.0	7.8	7.7	7.6	7.5	7.4	7.3	7.2	7.1	6.9	7.8	7.4	6.9	6.2
Natural rate of unemployment[3]	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.4	5.4	5.7	5.5	5.4	5.3
Previous Tealbook[3]	6.0	6.0	5.9	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8	5.9	5.9	5.8	5.8
GDP gap[4]	-3.8	-3.5	-3.9	-3.8	-3.9	-3.8	-3.4	-3.2	-2.9	-2.6	-2.2	-3.9	-3.4	-2.2	-.8
Previous Tealbook[4]	-3.6	-3.3	-3.7	-3.4	-3.5	-3.4	-3.1	-2.9	-2.6	-2.3	-1.9	-3.7	-3.1	-1.9	-.6
Industrial production[5]	2.9	.3	2.6	4.4	.7	4.3	4.7	5.4	4.7	4.5	4.2	2.8	3.5	4.7	4.3
Previous Tealbook[5]	2.9	.3	2.3	5.0	4.2	4.7	4.0	4.5	4.5	4.3	4.1	2.7	4.5	4.4	4.0
Manufacturing industr. prod.[5]	1.6	-.5	2.5	5.0	-.6	2.8	4.0	5.2	4.7	4.6	4.6	2.9	2.8	4.8	4.7
Previous Tealbook[5]	1.6	-.5	2.3	5.3	3.0	3.8	3.8	4.3	4.5	4.3	4.4	2.8	4.0	4.4	4.3
Capacity utilization rate - mfg.[3]	75.9	75.5	75.7	76.3	75.9	76.0	76.4	77.0	77.6	78.1	78.6	75.7	76.4	78.6	80.6
Previous Tealbook[3]	75.9	75.5	75.7	76.3	76.6	76.9	77.3	77.7	78.2	78.6	79.0	75.7	77.3	79.0	80.6
Housing starts[6]	.7	.8	.9	1.0	1.0	1.1	1.1	1.2	1.3	1.3	1.4	.8	1.0	1.3	1.6
Light motor vehicle sales[6]	14.1	14.5	15.0	15.3	15.2	15.3	15.5	15.7	15.9	16.1	16.3	14.4	15.3	16.0	16.6
Income and saving															
Nominal GDP[5]	2.8	5.9	1.3	3.4	2.1	3.9	4.8	4.8	4.9	5.0	5.2	3.5	3.5	5.0	5.4
Real disposable pers. income[5]	2.2	.7	8.9	-8.4	4.5	2.6	2.5	4.1	3.2	3.6	3.6	3.8	.2	3.6	3.5
Previous Tealbook[5]	2.2	.7	6.2	-6.7	5.1	2.0	2.8	3.4	3.0	3.4	3.9	3.2	.7	3.4	3.2
Personal saving rate[3]	3.8	3.6	5.3	2.4	3.0	2.8	2.6	2.7	2.5	2.5	2.4	5.3	2.6	2.4	2.0
Previous Tealbook[3]	3.8	3.6	4.7	2.3	2.9	2.8	2.6	2.7	2.6	2.5	2.6	4.7	2.6	2.6	2.0
Corporate profits[7]	4.7	9.9	9.6	-8.4	-1.0	4.7	4.3	.7	2.6	4.7	6.0	3.1	-.2	3.5	2.4
Profit share of GNP[3]	12.1	12.3	12.5	12.1	12.0	12.1	12.1	12.0	11.9	11.9	11.9	12.5	12.1	11.9	11.6
Net federal saving[8]	-1,115	-1,087	-1,036	-783	-541	-608	-678	-598	-585	-582	-577	-1,074	-652	-585	-507
Net state & local saving[8]	-124	-140	-125	-117	-90	-86	-75	-74	-49	-40	-28	-129	-92	-48	6
Gross national saving rate[3]	12.3	12.3	13.6	13.5	14.3	14.4	14.5	14.5	14.6	14.7	14.8	13.6	14.5	14.8	15.2
Net national saving rate[3]	-.4	-.3	1.2	1.3	3.4	2.8	2.2	2.2	2.4	2.4	2.5	1.2	2.2	2.5	3.0

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

Greensheets

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

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Employment and production										
Nonfarm payroll employment[1]	2.1	1.2	-2.8	-5.6	.8	2.0	2.2	2.2	2.5	3.1
Unemployment rate[2]	4.5	4.8	6.9	9.9	9.5	8.7	7.8	7.3	6.6	5.8
Previous Tealbook[2]	4.5	4.8	6.9	9.9	9.5	8.7	7.8	7.4	6.9	6.2
Natural rate of unemployment[2]	5.0	5.0	5.3	6.0	6.0	5.8	5.7	5.5	5.4	5.3
Previous Tealbook[2]	5.0	5.0	5.3	6.0	6.0	6.0	5.9	5.9	5.8	5.8
GDP gap[3]	.8	.9	-4.3	-5.2	-4.0	-3.6	-3.9	-3.4	-2.2	-.8
Previous Tealbook[3]	.8	.9	-4.3	-5.2	-4.0	-3.5	-3.7	-3.1	-1.9	-.6
Industrial production[4]	2.1	2.7	-8.9	-5.5	6.2	3.3	2.8	3.5	4.7	4.3
Previous Tealbook[4]	2.1	2.7	-8.9	-5.5	6.2	3.3	2.7	4.5	4.4	4.0
Manufacturing industr. prod.[4]	1.7	2.9	-11.6	-6.1	6.4	3.3	2.9	2.8	4.8	4.7
Previous Tealbook[4]	1.7	2.9	-11.6	-6.1	6.4	3.3	2.8	4.0	4.4	4.3
Capacity utilization rate - mfg.[2]	78.1	78.4	69.9	67.2	72.9	74.8	75.7	76.4	78.6	80.6
Previous Tealbook[2]	78.1	78.4	69.9	67.2	72.9	74.8	75.7	77.3	79.0	80.6
Housing starts[5]	1.8	1.4	.9	.6	.6	.6	.8	1.0	1.3	1.6
Light motor vehicle sales[5]	16.5	16.1	13.1	10.4	11.5	12.7	14.4	15.3	16.0	16.6
Income and saving										
Nominal GDP[4]	5.3	4.9	-1.2	.4	4.3	4.0	3.5	3.5	5.0	5.4
Real disposable pers. income[4]	4.6	1.6	1.0	-3.0	3.5	.3	3.8	.2	3.6	3.5
Previous Tealbook[4]	4.6	1.6	1.0	-3.0	3.5	.3	3.2	.7	3.4	3.2
Personal saving rate[2]	2.8	2.5	6.2	3.8	4.8	3.4	5.3	2.6	2.4	2.0
Previous Tealbook[2]	2.8	2.5	6.2	3.8	4.8	3.4	4.7	2.6	2.6	2.0
Corporate profits[6]	3.7	-8.1	-33.5	57.0	17.3	9.2	3.1	-.2	3.5	2.4
Profit share of GNP[2]	11.6	10.1	6.8	10.7	12.0	12.5	12.5	12.1	11.9	11.6
Net federal saving[7]	-204	-245	-613	-1,229	-1,308	-1,237	-1,074	-652	-585	-507
Net state & local saving[7]	51	12	-72	-113	-90	-102	-129	-92	-48	6
Gross national saving rate[2]	16.5	13.9	12.6	11.0	12.1	12.4	13.6	14.5	14.8	15.2
Net national saving rate[2]	4.4	1.7	-.6	-2.3	-.6	-.3	1.2	2.2	2.5	3.0

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

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

Item	Fiscal year				2012				2013				2014			
	2012[a]	2013	2014	2015	Q1[a]	Q2[a]	Q3[a]	Q4[a]	Q1[a]	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unified budget					Not seasonally adjusted											
Receipts[1]	2,449	2,804	3,028	3,270	509	760	625	616	581	897	710	676	633	952	768	741
Outlays[1]	3,538	3,435	3,531	3,656	966	885	810	909	888	807	831	897	901	875	857	933
Surplus/deficit[1]	-1,089	-632	-503	-387	-457	-125	-185	-293	-307	90	-121	-221	-269	76	-90	-192
Previous Tealbook	*-1,087*	*-735*	*-522*	*-408*	*-457*	*-125*	*-185*	*-293*	*-307*	*-9*	*-126*	*-221*	*-280*	*64*	*-85*	*-194*
On-budget	-1,151	-668	-524	-396	-458	-187	-160	-311	-303	35	-90	-245	-251	28	-56	-213
Off-budget	62	37	21	9	1	62	-25	17	-4	54	-30	24	-18	48	-33	21
Means of financing:																
Borrowing	1,152	561	859	507	398	198	230	314	336	-80	-9	507	278	-46	120	222
Cash decrease	-27	1	15	0	42	-48	6	-7	14	-16	10	-6	20	0	0	0
Other[2]	-36	70	-371	-120	17	-25	-51	-13	-43	6	120	-281	-30	-30	-30	-30
Cash operating balance, end of period	85	85	70	70	43	91	85	93	79	95	85	90	70	70	70	70
NIPA federal sector					Seasonally adjusted annual rates											
Receipts	2,633	3,001	3,187	3,407	2,665	2,659	2,673	2,736	2,947	3,192	3,128	3,072	3,187	3,224	3,264	3,309
Expenditures	3,744	3,743	3,797	3,940	3,724	3,775	3,761	3,772	3,730	3,733	3,736	3,750	3,785	3,809	3,846	3,886
Consumption expenditures	1,062	1,020	972	937	1,056	1,055	1,086	1,042	1,032	1,014	993	985	978	967	956	948
Defense	709	665	634	608	703	701	728	682	672	661	645	643	639	630	623	616
Nondefense	353	355	338	329	352	354	358	360	360	353	348	342	339	337	333	331
Other spending	2,682	2,723	2,826	3,003	2,668	2,720	2,674	2,730	2,698	2,719	2,744	2,764	2,806	2,842	2,891	2,939
Current account surplus	-1,111	-742	-611	-533	-1,059	-1,115	-1,087	-1,036	-783	-541	-608	-678	-598	-585	-582	-577
Gross investment	156	146	132	122	152	156	155	155	146	142	139	136	134	131	128	125
Gross saving less gross investment[3]	-1,126	-742	-592	-499	-1,071	-1,130	-1,100	-1,048	-783	-537	-600	-665	-582	-565	-557	-548
Fiscal indicators[4]																
High-employment (HEB) surplus/deficit	-922.1	-518.0	-413.3	-396.0	-869.8	-925.3	-907.7	-837.0	-556.2	-308.7	-370.3	-449.4	-398.5	-397.0	-408.3	-417.5
Change in HEB, percent of potential GDP	-1.1	-2.6	-.7	-.2	-.8	.3	-.2	-.5	-1.7	-1.5	.4	.4	-.3	.0	.0	.0
Fiscal impetus (FI), percent of GDP	-.7	-1.4	-.8	-.4	-.7	-.6	.3	-1.5	-2.0	-1.2	-1.3	-.9	-.9	-.9	-.7	-.5
Previous Tealbook	*-.7*	*-1.3*	*-.8*	*-.4*	*-.7*	*-.6*	*.3*	*-1.5*	*-1.6*	*-1.4*	*-1.5*	*-.6*	*-1.0*	*-.9*	*-.6*	*-.4*

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

Greensheets

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

	2012				2013	-----Projected-----			2014			
Measure and country	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP [1]												
Total foreign	3.2	1.8	1.7	2.3	2.0	2.3	2.7	3.2	3.3	3.1	3.4	3.5
Previous Tealbook	*3.2*	*1.9*	*1.7*	*2.1*	*2.3*	*2.7*	*2.9*	*3.2*	*3.3*	*3.1*	*3.4*	*3.5*
Advanced foreign economies	1.0	.4	.3	-.2	1.5	1.3	1.6	1.8	2.0	1.6	2.1	2.2
Canada	.8	1.6	.8	.9	2.5	2.0	2.2	2.2	2.4	2.6	2.7	2.7
Japan	4.8	-.6	-3.6	1.2	4.1	3.2	2.8	2.9	3.7	-2.3	1.0	1.1
United Kingdom	-.3	-1.5	3.8	-1.2	1.3	1.0	1.4	1.8	2.0	2.2	2.4	2.5
Euro area	-.2	-.8	-.5	-2.3	-.8	-.3	.2	.8	1.0	1.2	1.4	1.6
Germany	2.5	.7	.9	-2.7	.3	1.2	1.3	1.4	1.6	1.7	1.9	2.0
Emerging market economies	5.4	3.3	3.2	4.8	2.4	3.3	3.9	4.6	4.7	4.7	4.7	4.8
Asia	6.0	3.8	4.8	6.4	3.1	4.2	5.0	5.7	5.6	5.7	5.7	5.8
Korea	3.3	1.2	.2	1.1	3.5	3.0	3.5	3.9	4.0	4.1	4.2	4.3
China	7.0	6.5	8.4	9.5	6.5	6.5	7.5	8.3	8.0	8.0	8.0	8.0
Latin America	5.0	2.8	1.4	3.3	1.7	2.4	2.9	3.7	3.8	3.8	3.8	3.8
Mexico	5.8	3.0	1.4	2.7	1.8	2.2	2.8	3.8	4.0	4.0	3.9	3.9
Brazil	.5	1.3	1.2	2.6	2.2	2.8	3.4	3.5	3.6	3.6	3.8	3.8
Consumer prices [2]												
Total foreign	2.6	2.1	2.2	2.3	2.3	1.9	2.1	2.3	2.4	3.0	2.5	2.5
Previous Tealbook	*2.6*	*2.1*	*2.3*	*2.3*	*2.4*	*2.0*	*2.1*	*2.3*	*2.4*	*3.0*	*2.5*	*2.5*
Advanced foreign economies	1.9	.9	.8	1.6	.8	.6	1.1	1.3	1.3	2.7	1.4	1.5
Canada	2.0	.2	.1	1.4	1.6	1.0	1.4	1.6	1.7	1.7	1.8	1.8
Japan	1.2	-.7	-1.5	.0	-.4	.3	.3	.4	.5	8.7	.7	.9
United Kingdom	1.7	1.4	3.1	4.3	2.2	1.0	2.1	2.9	1.8	1.7	1.7	2.9
Euro area	2.5	2.3	2.0	2.3	.7	.4	1.2	1.3	1.3	1.3	1.4	1.4
Germany	2.2	1.6	2.0	2.2	1.4	1.6	1.7	1.7	1.7	1.7	1.8	1.9
Emerging market economies	3.1	3.0	3.4	2.8	3.5	2.9	2.8	3.1	3.2	3.3	3.3	3.3
Asia	2.4	3.2	2.4	2.4	3.5	1.9	2.5	3.0	3.1	3.1	3.2	3.2
Korea	1.6	1.2	1.0	3.1	.4	1.4	2.5	2.8	3.0	3.0	3.0	3.1
China	2.0	2.5	1.7	2.0	3.5	2.0	2.2	2.8	2.9	3.0	3.0	3.0
Latin America	5.1	2.6	5.7	3.7	3.8	5.4	3.4	3.4	3.6	3.7	3.7	3.7
Mexico	5.2	2.4	5.7	3.1	3.5	5.6	3.1	3.1	3.3	3.4	3.4	3.4
Brazil	4.0	3.8	7.3	7.5	6.9	4.3	5.4	5.5	5.5	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	2007	2008	2009	2010	2011	2012	Projected 2013	Projected 2014	Projected 2015
Real GDP[1]									
Total foreign	4.3	-.7	.9	4.6	3.0	2.2	2.5	3.3	3.5
Previous Tealbook	*4.3*	*-.7*	*.8*	*4.6*	*3.0*	*2.2*	*2.8*	*3.3*	*3.5*
Advanced foreign economies	2.4	-1.6	-1.3	3.0	1.5	.4	1.5	2.0	2.3
Canada	2.3	.1	-1.4	3.6	2.4	1.0	2.2	2.6	2.6
Japan	1.6	-4.8	-.5	3.5	.0	.4	3.2	.9	1.0
United Kingdom	3.8	-4.6	-.9	1.5	1.1	.2	1.4	2.3	2.6
Euro area	2.3	-2.1	-2.2	2.2	.7	-1.0	.0	1.3	2.0
Germany	2.4	-1.9	-2.2	4.2	1.9	.3	1.0	1.8	2.4
Emerging market economies	6.7	.4	3.6	6.2	4.5	4.2	3.6	4.7	4.8
Asia	8.9	.8	8.1	7.8	4.9	5.2	4.5	5.7	5.8
Korea	5.8	-3.2	6.3	5.0	3.4	1.4	3.5	4.1	4.5
China	13.7	7.7	11.3	9.7	8.8	7.8	7.2	8.0	7.8
Latin America	4.4	-.3	-.8	4.5	3.9	3.1	2.7	3.8	3.8
Mexico	3.5	-1.1	-2.2	4.1	3.9	3.2	2.7	3.9	3.8
Brazil	6.6	.9	5.3	5.3	1.4	1.4	3.0	3.7	4.0
Consumer prices[2]									
Total foreign	3.7	3.3	1.2	3.2	3.4	2.3	2.1	2.6	2.7
Previous Tealbook	*3.7*	*3.3*	*1.2*	*3.2*	*3.4*	*2.3*	*2.2*	*2.6*	*2.7*
Advanced foreign economies	2.2	2.0	.2	1.7	2.2	1.3	1.0	1.7	1.9
Canada	2.5	1.8	.8	2.2	2.7	.9	1.4	1.7	1.8
Japan	.5	1.1	-2.0	-.2	-.3	-.2	.1	2.6	2.5
United Kingdom	2.1	3.9	2.2	3.4	4.6	2.7	2.1	2.0	2.0
Euro area	2.9	2.3	.4	2.0	2.9	2.3	.9	1.3	1.7
Germany	3.1	1.7	.3	1.6	2.6	2.0	1.6	1.8	1.9
Emerging market economies	5.1	4.6	2.1	4.3	4.3	3.1	3.1	3.3	3.3
Asia	5.5	3.6	1.2	4.3	4.5	2.6	2.7	3.1	3.2
Korea	3.4	4.5	2.4	3.2	4.0	1.7	1.8	3.0	3.2
China	6.7	2.5	.6	4.6	4.6	2.1	2.6	3.0	3.0
Latin America	4.2	6.6	3.9	4.4	4.0	4.3	4.0	3.7	3.7
Mexico	3.8	6.2	4.0	4.3	3.5	4.1	3.8	3.4	3.4
Brazil	4.3	6.3	4.3	5.6	6.7	5.6	5.5	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.

U.S. Current Account

Quarterly Data

	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4
							Projected					
					Billions of dollars, s.a.a.r.							
U.S. current account balance	**-512.5**	**-464.0**	**-466.5**	**-437.5**	**-445.1**	**-421.5**	**-453.5**	**-495.0**	**-527.4**	**-517.5**	**-547.2**	**-565.3**
Previous Tealbook	*-535.1*	*-473.4*	*-449.8*	*-441.7*	*-474.6*	*-442.1*	*-463.7*	*-503.4*	*-532.9*	*-524.1*	*-546.4*	*-571.7*
Current account as percent of GDP	-3.3	-3.0	-3.0	-2.8	-2.8	-2.6	-2.8	-3.0	-3.2	-3.1	-3.2	-3.3
Previous Tealbook	*-3.5*	*-3.0*	*-2.8*	*-2.8*	*-3.0*	*-2.7*	*-2.8*	*-3.1*	*-3.2*	*-3.1*	*-3.2*	*-3.3*
Net goods & services	-571.8	-541.2	-516.1	-509.5	-494.6	-472.8	-486.4	-507.5	-526.6	-504.9	-515.8	-523.5
Investment income, net	197.8	216.0	194.1	217.1	196.5	192.6	177.5	159.2	144.4	128.7	113.2	104.9
Direct, net	283.4	291.8	271.2	307.9	274.9	269.6	257.1	249.9	244.7	239.0	234.4	236.2
Portfolio, net	-85.6	-75.8	-77.1	-90.8	-78.4	-77.0	-79.5	-90.7	-100.3	-110.3	-121.2	-131.3
Other income and transfers, net	-138.5	-138.8	-144.5	-145.1	-146.9	-141.3	-144.6	-146.7	-145.2	-141.3	-144.6	-146.7

Annual Data

	2007	2008	2009	2010	2011	2012	2013	2014	2015
								Projected	
					Billions of dollars				
U.S. current account balance	**-712.6**	**-681.1**	**-386.4**	**-446.6**	**-462.9**	**-470.1**	**-453.8**	**-539.3**	**-581.8**
Previous Tealbook	*-710.3*	*-677.1*	*-381.9*	*-442.0*	*-465.9*	*-475.0*	*-470.9*	*-543.8*	*-576.7*
Current account as percent of GDP	-5.1	-4.8	-2.8	-3.1	-3.1	-3.0	-2.8	-3.2	-3.3
Previous Tealbook	*-5.1*	*-4.7*	*-2.7*	*-3.0*	*-3.1*	*-3.0*	*-2.9*	*-3.2*	*-3.2*
Net goods & services	-699.1	-702.3	-383.7	-499.4	-556.8	-534.7	-490.3	-517.7	-525.8
Investment income, net	111.1	157.8	127.6	191.0	235.0	206.2	181.5	122.8	87.5
Direct, net	244.6	284.3	253.0	297.9	321.7	288.6	262.9	238.6	251.5
Portfolio, net	-133.5	-126.5	-125.4	-106.9	-86.7	-82.3	-81.4	-115.8	-164.0
Other income and transfers, net	-124.7	-136.6	-130.3	-138.2	-141.1	-141.7	-144.9	-144.5	-143.4

Abbreviations

ABS	asset-backed securities
AFE	advanced foreign economy
BEA	Bureau of Economic Analysis
BHC	bank holding company
BOE	Bank of England
BOJ	Bank of Japan
CDS	credit default swaps
C&I	commercial and industrial
CLO	collateralized loan obligation
CMBS	commercial mortgage-backed securities
CP	commercial paper
CPH	compensation per hour
CPI	consumer price index
Desk	Open Market Desk
ECB	European Central Bank
EME	emerging market economy
E&S	equipment and software
ETF	exchange-traded funds
FDIC	Federal Deposit Insurance Corporation
FOMC	Federal Open Market Committee; also, the Committee
GCF	general collateral finance
GDP	gross domestic product
IMF	International Monetary Fund
ISM	Institute for Supply Management
JEC	Joint Economic Committee
JOLTS	Job Openings and Labor Turnover Survey
LIBOR	London interbank offered rate

LSAP	large-scale asset purchase
M&A	mergers and acquisitions
MBS	mortgage-backed securities
Michigan survey	Thomson Reuters/University of Michigan Surveys of Consumers
NIM	net interest margin
NIPA	national income and product accounts
OIS	overnight index swap
OTC	over-the-counter
PCE	personal consumption expenditures
PMI	purchasing managers index
QS	quantitative surveillance
REIT	real estate investment trust
repo	repurchase agreement
RMBS	residential mortgage-backed securities
SCOOS	Senior Credit Officer Opinion Survey on Dealer Financing Terms
SOMA	System Open Market Account
TALF	Term Asset-Backed Securities Loan Facility
TBA	to be announced (for example, TBA market)
TIPS	Treasury inflation-protected securities