Prefatory Note

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

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

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Class II FOMC – Restricted (FR)

Report to the FOMC on Economic Conditions and Monetary Policy

Book A

Economic and Financial Conditions: Current Situation and Outlook

April 24, 2013

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

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Domestic Economic Developments and Outlook

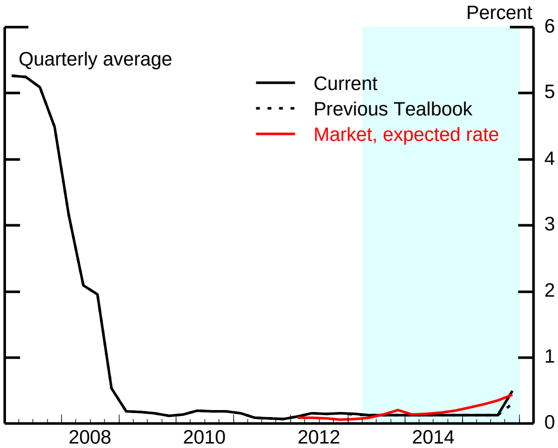
The information we have received since the March Tealbook has been mixed. In the labor market, data on private payrolls for March were disappointing, although the unemployment rate showed a further small decline. Industrial production also was weak in March, but it followed a strong February gain. On the spending side, real PCE growth for the first quarter as a whole has been revised up, reflecting solid motor vehicle expenditures and surprisingly strong purchases of energy-related services. However, the latest readings on retail sales and business orders and shipments were soft. After factoring in rebuilding from Hurricane Sandy and the rebound in farm production from last year's drought, real GDP is estimated to have risen at a 3 percent annual rate in the first quarter. We expect real GDP growth to step down to 1½ percent in the second quarter as the temporary factors boosting real PCE wane, households continue to adjust to higher taxes, federal spending declines further, and the accumulation of farm inventories levels out at a more normal pace. On average, the projected pace of growth for the first half of the year is close to our estimate in the March Tealbook.

Our medium-term projection for real activity is also very similar to the March Tealbook, with real GDP projected to rise at an annual rate of 2¾ percent over the second half of this year before accelerating to gains of 3¼ percent and 3½ percent in 2014 and 2015, respectively. We have changed our assumptions for federal fiscal policy to take on board the full federal spending sequestration, in contrast to the partial sequestration that we assumed in March. However, the added drag from this tighter fiscal policy is largely offset in our projection by the direct stimulus from lower long-term interest rates—driven in part by our assumption that the current LSAP program will turn out to be somewhat larger than assumed in the previous Tealbook—along with lower projected oil prices. These small revisions notwithstanding, the modest acceleration in real output after this year continues to reflect the anticipated waning of a number of forces that have been restraining growth for some time, most notably the economic and fiscal situation in Europe, restrictive U.S. fiscal policy, and mediocre consumer and business sentiment domestically.

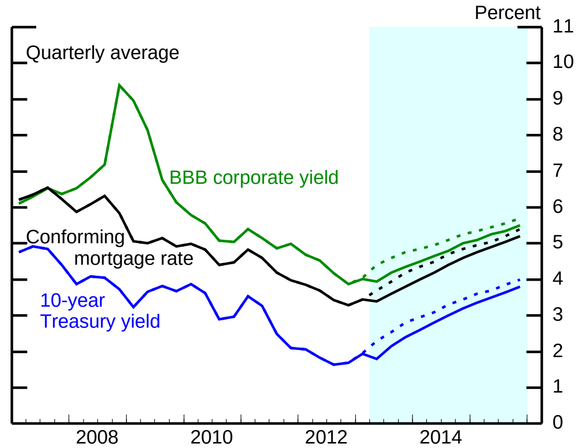
Consistent with the projected gradual strengthening in economic activity, we expect the unemployment rate to decline slowly from about 7½ percent in the current quarter to 6¼ percent at the end of 2015—about ½ percentage point above the projected natural rate. Given its slightly lower starting point, the unemployment rate crosses the

Key Background Factors underlying the Baseline Staff Projection

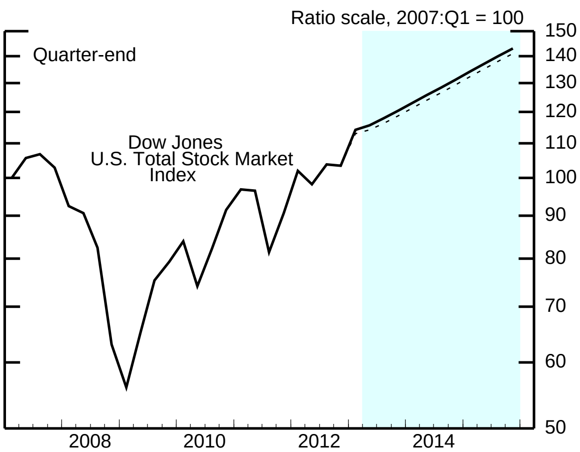
Federal Funds Rate



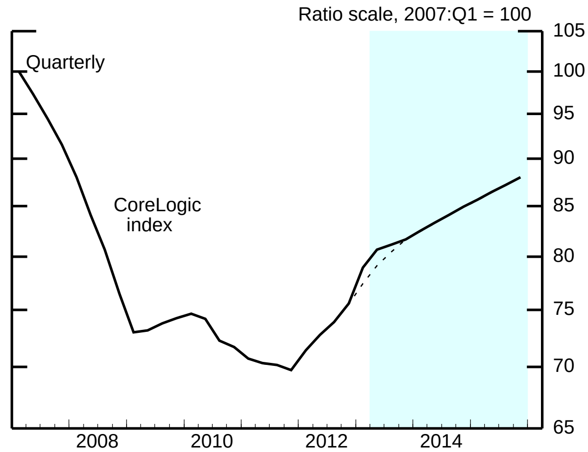
Long-Term Interest Rates



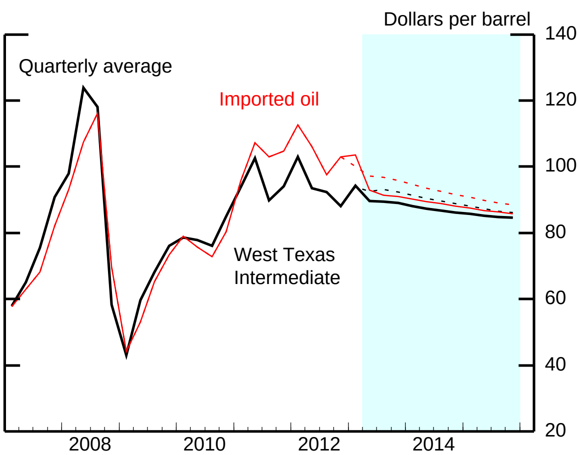
Equity Prices



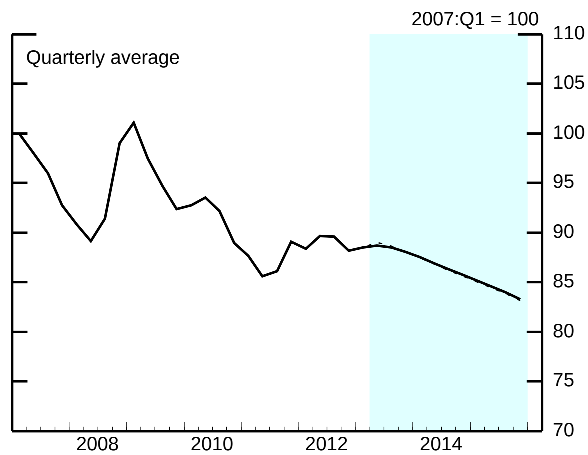
House Prices



Crude Oil Prices



Broad Real Dollar



6½ percent threshold relevant for funds rate policy setting in the third quarter of 2015, one quarter earlier than in the March Tealbook.

Incoming data on core consumer prices have been a bit softer than we had expected, and oil prices have declined considerably. Accordingly, our projection for consumer price inflation in the near term has been revised notably lower. However, we view these developments as having only transitory implications for inflation, so our medium-term inflation projection is not very different from previous Tealbooks. With persistent slack in resource utilization and stable long-run inflation expectations, core inflation is projected to remain subdued at about 1¾ percent in 2014 and 2015. Headline inflation is expected to be below core inflation throughout the medium term, reflecting a projected downward trend in energy prices.

We view the degree of uncertainty associated with our projection of real activity as being about average in comparison with the experience of the past 20 years, which is the benchmark used by the FOMC. That said, we continue to view the risks to the projection for real activity to be skewed to the downside, in part because of the constraints on monetary policy imposed by the effective lower bound. We also regard risks to inflation as being about normal, measured by the same historical standard as for real activity, and that these risks are roughly balanced. This assessment of risk is the same as was reported in the March Tealbook.

Key Background Factors

Monetary Policy

We have boosted our assumption, relative to the March Tealbook, for the cumulative purchase of long-term securities under the LSAP program. We now assume that purchases will continue through the end of the year, although the pace will be gradually reduced from the current $85 billion per month beginning with the June FOMC meeting, resulting in cumulative purchases of $750 billion in 2013—$250 billion more than previously assumed.

A tension remains, however, between our policy assumptions and market expectations for cumulative asset purchases in 2013 and beyond, as the latter also appear to have risen over the intermeeting period. Thus, as in the March Tealbook, we assume total purchases still fall about $500 billion short of current market expectations, and so we continue to anticipate that investors will bring their policy expectations in line with staff assumptions in coming months, thereby modestly increasing long-term interest rates. Although the assumed magnitude of this “learning effect” is about the same as in the March Tealbook, its timing has been pushed back, with the bulk of the adjustment taking place during the third quarter.

Our assumptions for the federal funds rate are essentially unchanged this round. In particular, the assumed policy rule continues to project that the federal funds rate will lift off from its effective lower bound in the fourth quarter of 2015, although the average level of the federal funds rate that quarter is revised up about ¼ percentage point, reflecting slightly less slack.

Other Interest Rates

Since the March Tealbook, the 10-year Treasury yield has dropped about 35 basis points to 1.7 percent, in contrast to the small increase that we had expected. We interpret that decline as largely reflecting more downbeat sentiment among market participants about the global economic outlook, as well as the unexpectedly aggressive easing of monetary policy in Japan; in addition, rates have likely shifted down in response to revised expectations for cumulative Federal Reserve asset purchases in the context of domestic economic data that fell short of expectations. We anticipate some of the recent decline in Treasury yields to reverse in the period ahead as risk sentiment improves, so we now project a somewhat steeper rise in yields over the remainder of 2013. Beyond 2013, the upward trend in the bond yield 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.

Yields on investment-grade corporate bonds have declined about 30 basis points since the March Tealbook, and their implied risk spreads have risen a little. We 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 5½ percent. Conventional 30-year mortgage rates have declined about 25 basis points since the March Tealbook and are expected to rise in line with benchmark Treasury yields to reach about 5¼ percent by the end of 2015.

Equity Prices and Home Prices

The Dow Jones U.S. total stock market index is similar to what we wrote down in the March Tealbook, despite the deterioration in sentiment signaled by Treasury yields.

We project that equity prices will rise at an average annual rate of about 9 percent through the end of 2015, leaving the path slightly higher than in the March Tealbook.

Recent readings on house prices from CoreLogic, along with other house price indicators, have been a bit stronger than anticipated. However, we suspect that seasonal-adjustment issues and other idiosyncratic factors may be affecting those data, and thus the level of house prices in our projection returns to the same path as in the March Tealbook by the end of this year. In particular, we continue to forecast that house prices will rise 8 percent in 2013 before decelerating to a 4 percent rate of increase in 2014 and 2015. (A more detailed discussion of this subject can be found in the box "House Prices.")

Fiscal Policy

We now expect fiscal policy to exert more restraint on economic growth over the forecast period than we did in the March Tealbook. Given the absence of visible progress on resolving the legislative stalemate, we have now incorporated the full effects of the sequestration into our projection as opposed to roughly half in the previous projection. With this new assumption, fiscal policy at all levels of government is projected to restrain the rate of real GDP growth in 2013 by 1¼ percentage points (excluding multiplier effects)—about ¼ percentage point more than in the March Tealbook. We forecast that the restraint on the rate of growth in aggregate demand from fiscal policy actions to be approximately ¾ percentage point in 2014 and to be around ¼ percentage point in 2015; both figures are only marginally larger than in the previous Tealbook, as we expect a substantial portion of the spending reductions from the sequestration to show through in the second half of this year. As a result of policy actions to reduce the deficit and our expectation that further improvements in the economy will generate larger gains in tax receipts, the federal budget deficit, which was 7 percent of GDP in fiscal year 2012, is projected to narrow to 4½ percent of GDP this fiscal year and to decline further to 2¼ percent of GDP by fiscal 2015.

Foreign Activity and the Dollar

We estimate that real GDP in the foreign economies increased at an annual rate of 2¼ percent in the first quarter, about ½ percentage point lower than in the March Tealbook, primarily reflecting weaker-than-expected growth in China. We now see less momentum in China and other EMEs, which, together with the weak tone of the incoming data from Europe, led us to revise down the foreign outlook a bit. Nonetheless, we expect foreign growth to pick up to about 3 percent over the remainder of the year, as China's economy recovers from the first quarter's unusually slow pace, the euro area

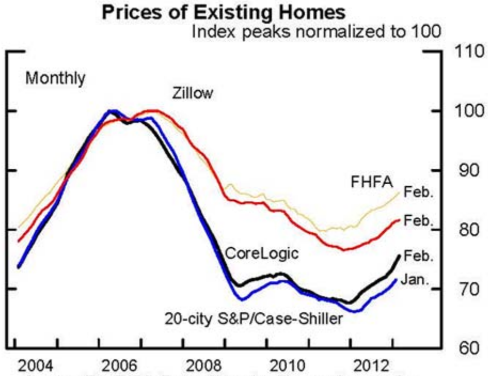
House Prices

The major national house price indexes, which are shown in the lower-left figure, have risen 6 to 11 percent since the beginning of 2012. The recovery of house prices has been broad based geographically, with 90 percent of local markets having experienced price gains over the year ending in February.

Both supply and demand factors have contributed to the rise in house prices over the past year. With regard to supply, a below-average number of homes have been on the market for sale, reflecting both the relatively low level of new home construction and a decrease in the flow of distressed properties being listed for sale. At the same time, historically low mortgage interest rates and improving macroeconomic conditions have strengthened the demand for housing. Moreover, in contrast to previous housing recoveries, demand has been supported by sizable purchases of homes among corporate investors using substantial cash financing and reportedly intending to rent out single-family homes on a large scale. Staff estimates suggest that these investors accounted for about one-half of last year's increase in home sales. Accordingly, the recent increases in house prices have occurred in an environment where access to mortgage credit has remained tight and aggregate mortgage lending has not expanded.

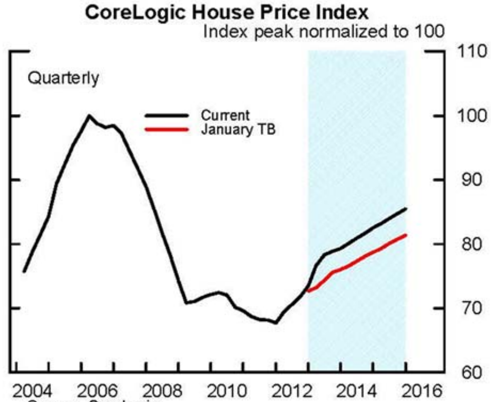
The bottom-right figure presents our current forecast for house prices, which has been revised up significantly since the January Tealbook in response to evidence that a more durable housing recovery has taken hold. We expect the strength in house prices to continue through the end of this year, resulting in an 8 percent increase for 2013 as a whole, but we expect the pace of appreciation to slow to about 4 percent per year in 2014 and 2015. Factors contributing to the projected deceleration include: (1) a reduction in housing affordability associated with the staff's projection that mortgage interest rates will rise to more than 5 percent by 2015, (2) an anticipated decline in corporate investor activity as higher house prices reduce the expected investment returns on housing, and (3) a projected rise in the pace of new construction. By the end of 2015, we expect nominal house prices to still be 15 percent below their 2006 peak.

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.

CoreLogic House Price Index

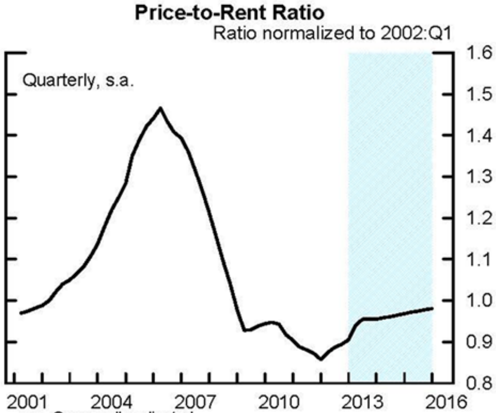


Source: CoreLogic.

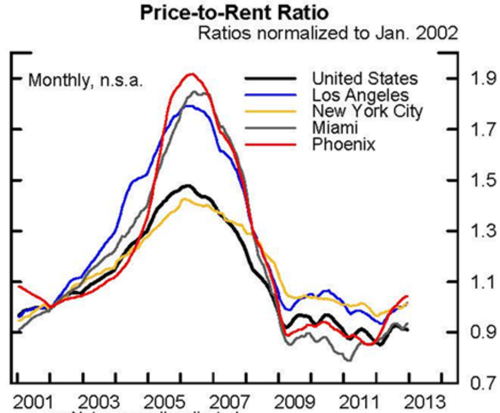
Among the many risks attending our house price forecast, we see two as particularly important. On the downside, the way in which the remaining inventory of seriously delinquent loans will be liquidated remains uncertain. In states with nonjudicial foreclosure processes, lenders have been able to complete large volumes of foreclosures and corporate investors have been quite willing to purchase foreclosed properties and rehabilitate them for the rental market. In contrast, an outsized "shadow" inventory remains in states requiring judicial foreclosure proceedings, and these properties could enter the market in the next year or two. If this inventory is released to the market faster than investors and other home buyers are willing to absorb it, the additional supply of homes for sale could exert significant downward pressure on house prices in those areas. On the upside, very tight mortgage underwriting is likely masking strong underlying demand for housing. If so, a faster-than-expected improvement in the availability of credit could accommodate much of this underlying demand, thereby boosting house prices more than in our baseline projection.

One additional risk to our house price forecast is that housing could be overvalued currently, in which case prices could fall below our projection even if fundamentals improve over the medium term. However, a nationwide measure of house prices relative to rents (shown in the bottom-left figure), which provides one measure of house prices relative to housing's current fundamental value, suggests no such overvaluation. This ratio plunged in 2007 and 2008 and has moved about sideways, on net, since then. Our forecasts for house prices and rents imply that the price-to-rent ratio will just edge up through the end of 2015, remaining near levels seen in the early 2000s.

Currently, rapid home price appreciation appears to be fairly localized, as nominal house prices have increased more than 10 percent in only about one in five large metro areas. Moreover, even in those markets where home prices have increased rapidly, the increases do not seem outsized with respect to rising nominal rents. Indeed, as shown in the bottom-right figure, price-to-rent ratios in markets with fast house price growth recently, such as Phoenix and Miami, have increased somewhat but remain close to the levels seen in the early 2000s.



s.a. Seasonally adjusted.
Source: For house prices, CoreLogic; for rents, BLS.



n.s.a. Not seasonally adjusted.
Source: For house prices, CoreLogic; for rents, BLS.

pulls out of recession, and aggressive monetary easing gives the Japanese economy a significant boost. Beyond this year, foreign growth is expected to rise to 3½ percent by 2015, as monetary policy remains accommodative, the U.S. recovery gathers steam, and financial conditions in Europe normalize.

Since the time of the March Tealbook, the nominal dollar is about unchanged, on average, against a broad set of currencies. Weaker-than-expected macroeconomic data in the United States put modest downward pressure on the dollar's exchange value against a number of currencies, balancing the effect of ongoing yen depreciation and the weaker foreign outlook. Going forward, we project the broad real dollar to depreciate at an annual rate of about 2½ percent through 2015, as European financial stresses gradually abate, safe-haven demands for the dollar ease, and trend depreciation continues against the emerging market currencies.

Oil and Other Commodity Prices

The spot price of Brent crude oil has dropped sharply since early April and closed at $100 per barrel on April 23, down about $11 from the time of the March Tealbook. The price of West Texas Intermediate has fallen about $3 per barrel over the same period. Futures prices have declined as well, albeit by less than spot prices. These declines apparently reflect market participants' concerns over the strength of economic growth in the United States and abroad, particularly in China, against a backdrop of strong global oil supply, supported by increasing North American production. Accordingly, we have revised down our forecast for the price of imported oil by about $5 per barrel through the remainder of 2013; the downward revision then tapers gradually to about $3 per barrel by the end of 2015. With these revisions, the price of imported oil is projected to remain at about $91 per barrel through the end of 2013 and then to decline slowly over the remainder of the forecast period, reaching $86 per barrel at the end of 2015.

A broad index of nonfuel commodity prices has fallen about 1¾ percent since the time of the March Tealbook, primarily reflecting lower prices for a number of metals following weaker-than-expected economic growth in China. On average, food prices are little changed from the previous Tealbook. Overall, nonfuel commodity prices are expected to remain about flat at their new lower level through the duration of the forecast.

Recent Developments and the Near-Term Outlook for Real GDP

We estimate that, after having just edged up in the fourth quarter of last year, real GDP rose at an annual rate of 3 percent in the first quarter, boosted by the rebound from the effects of last year's drought and Hurricane Sandy. Output growth in the first quarter is ¼ percentage point higher than in the March Tealbook, reflecting a surprise to household consumption that we perceive as largely transitory. In the second quarter, we expect GDP growth to slow to a 1½ percent pace, as the rebound from the drought and hurricane wane, the increase in consumer spending slows, and the effects of the sequestration show through more appreciably to federal spending. On average, real GDP is expected to grow at an annual rate of 2¼ percent over the first half of the year.

Household Spending

We estimate that real PCE rose at an annual rate of 2¾ percent in the first quarter, up ¾ percentage point from the March Tealbook. Weather-related expenditures in the energy services category and strong household spending on new and used motor vehicles account for the bulk of the upward revision. In contrast, increases in retail sales other than autos and spending on non-energy services were more downbeat; we interpret those data as suggesting that households have begun to adjust to the lower level of disposable income implied by January's increase in payroll and income taxes. Looking ahead, a boost to purchasing power from ongoing declines in gasoline prices will likely provide a partial offset to the tax hit for households. Nevertheless, as the adjustment to higher taxes continues, and as the jump in spending on energy services unwinds, we expect the pace of PCE growth to step down to 2¼ percent in the second quarter, ¼ percentage point below our forecast in the March Tealbook.

Activity in the housing sector has continued to strengthen, and near-term indicators point to further increases in spending through the second quarter, much like what we wrote down in the March Tealbook. Both new and existing home sales have continued to move up, on net, in recent months, and single-family housing starts averaged an annual rate of 630,000 units in the first quarter, up markedly from the previous quarter. The low cost of housing, continued job gains, and growing optimism about future house prices appear to be providing important support to the recovery in housing investment; these factors, combined with strengthening demand for multifamily dwellings and rebuilding after Hurricane Sandy, now lead us to project gains in residential investment averaging nearly 20 percent at an annual rate over the first half of this year. Nevertheless, activity in the housing sector continues to be restrained by

Summary of the Near-Term Outlook

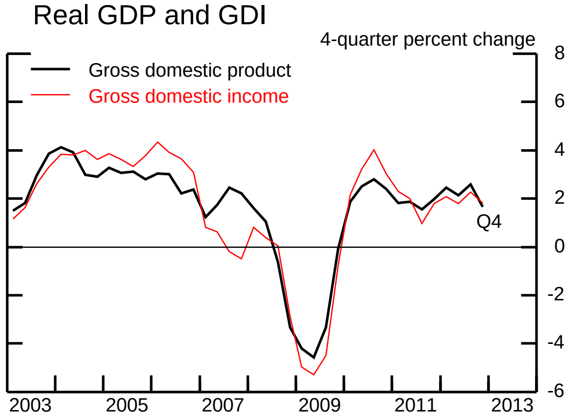
(Percent change at annual rate except as noted)

Measure	2012:Q4 Previous Tealbook	2012:Q4 Current Tealbook	2013:Q1 Previous Tealbook	2013:Q1 Current Tealbook	2013:Q2 Previous Tealbook	2013:Q2 Current Tealbook
Real GDP	**.6**	**.4**	**2.8**	**3.1**	**1.8**	**1.5**
Private domestic final purchases	3.7	3.6	2.4	2.8	3.4	3.1
Personal consumption expenditures	2.0	1.8	2.1	2.8	2.5	2.3
Residential investment	17.8	17.6	17.7	16.4	22.8	22.0
Business fixed investment	12.8	13.2	.6	-.3	5.0	4.1
Government purchases	-6.8	-7.0	-1.1	-2.3	-4.6	-4.5
Contributions to change in real GDP						
Inventory investment[1]	-1.4	-1.5	1.1	1.4	-.5	-.5
Net exports[1]	.3	.3	.0	-.1	.3	.3
Unemployment Rate[2]	**7.8**	**7.8**	**7.8**	**7.7**	**7.7**	**7.6**
PCE Chain Price Index	**1.5**	**1.6**	**1.1**	**.9**	**1.1**	**-.2**
Ex. food and energy	.9	1.0	1.4	1.2	1.6	1.4

1. Percentage points.
2. Percent.

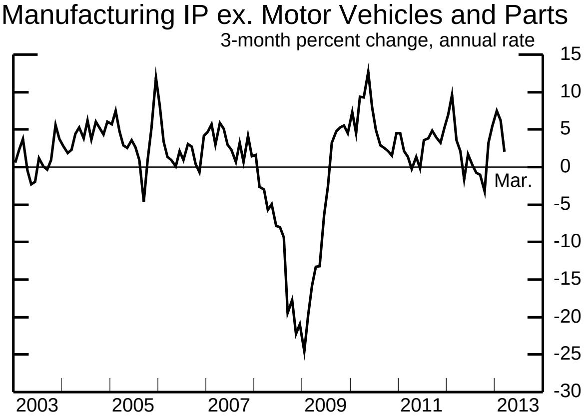
Recent Nonfinancial Developments (1)

Real GDP and GDI



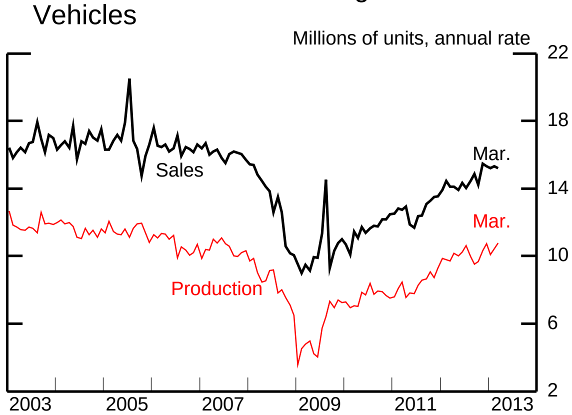
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Manufacturing IP ex. Motor Vehicles and Parts



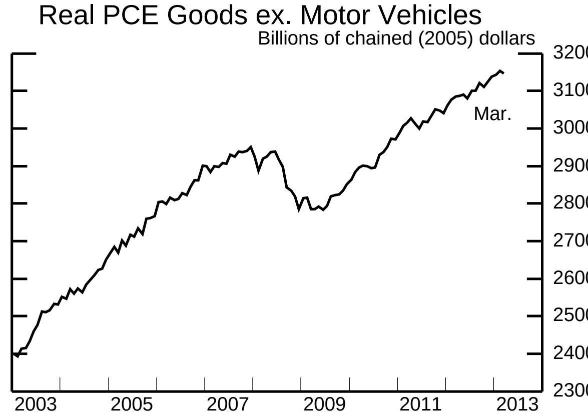
Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Sales and Production of Light Motor Vehicles



Source: Ward's Auto Infobank.

Real PCE Goods ex. Motor Vehicles



Note: Figures for January, February, and March 2013 are staff estimates based on available source data.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

limited access to mortgage credit for many individuals, along with some wariness about the durability of the recovery.

Business Investment

Real spending on equipment and software (E&S) appears to be growing at a modest pace, after a transitory surge in expenditures in the fourth quarter. New capital goods orders have moved back up in line with shipments; however, forward-looking indicators such as survey measures of business sentiment and analysts' earnings expectations for capital goods producers have been lackluster. All told, we forecast that real business spending on E&S will increase at an average annual rate of 2½ percent in the first half of this year, half the rate in the March Tealbook.[1]

Investment in nonresidential structures likely fell in the first quarter; this decline primarily reflects a sharp drop-off in expenditures on power-generating structures, as firms rushed in the fourth quarter to complete investments in wind power before the scheduled expiration of an associated tax credit.[2] Excluding power-generating structures, nonresidential building investment has moved up moderately in recent quarters, on net, and we expect more of the same in the current quarter. Overall, the level of investment in nonresidential buildings remains relatively low, as high vacancy rates, tight financing conditions for new construction, and relatively low commercial property prices continue to restrain demand for new structures. In contrast, the level of investment in drilling and mining structures remains elevated, supported by high oil prices and the continued exploitation of new drilling technologies. Cutting through the quarterly variation, investment in nonresidential structures is projected to be about unchanged, on average, over the first half of the year; even so, this tepid performance is stronger than what we wrote down in the March Tealbook.

Estimates from the staff's flow-of-goods system and indicators of inventory sentiment from the ISM survey show no evidence of sizable inventory imbalances. Consequently, real nonfarm inventory investment is expected to be roughly neutral for

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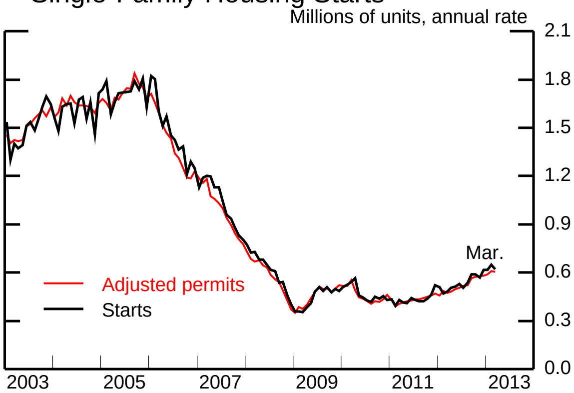
[1] The quarterly pattern for E&S spending over the first half of the year is affected by the delay in deliveries of Boeing 787 Dreamliners, which holds down aircraft investment in the first quarter and boosts it in the second and third quarters. These swings in aircraft deliveries should have no measurable effect on overall GDP, as they are offset in inventories.

[2] We think that the Census Bureau's methods for calculating construction put in place (CPIP) have not yet captured the drop-off in investment in wind power structures at the beginning of this year. Because the BEA uses these data in constructing its estimates of real GDP, we suspect that the BEA's advance estimate of real GDP growth for the first quarter will be overstated by 0.2 percentage point.

Domestic Econ Devel & Outlook

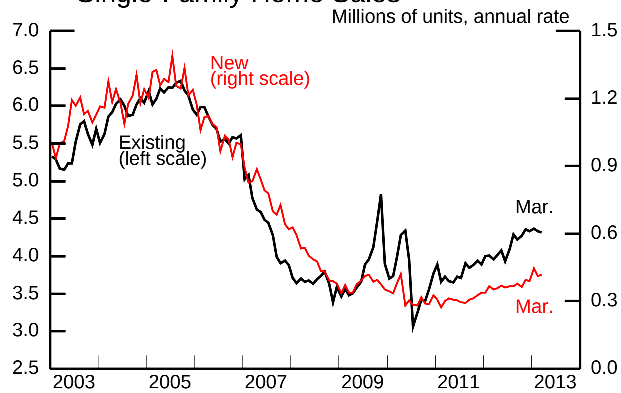
Recent Nonfinancial Developments (2)

Single-Family Housing Starts



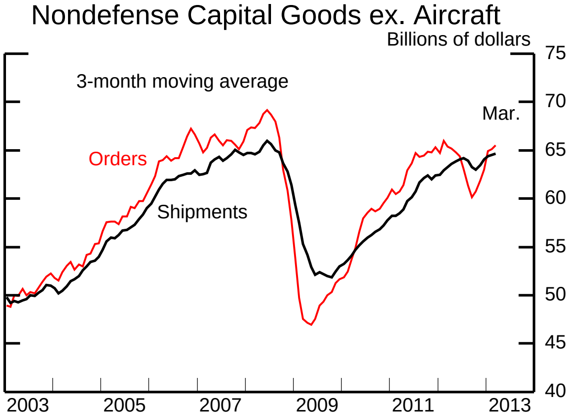
Note: Adjusted permits equal permits plus starts outside of permit-issuing areas.
Source: U.S. Census Bureau.

Single-Family Home Sales



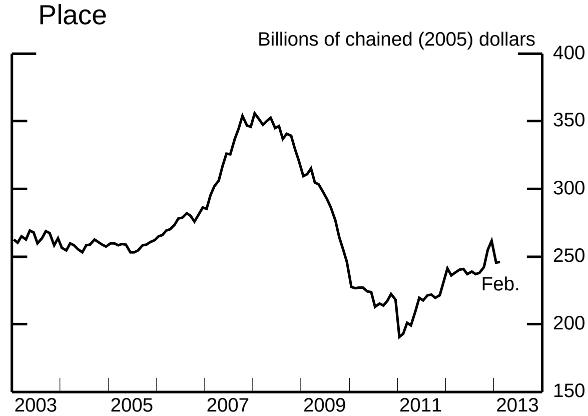
Source: For existing, National Association of Realtors; for new, U.S. Census Bureau.

Nondefense Capital Goods ex. Aircraft



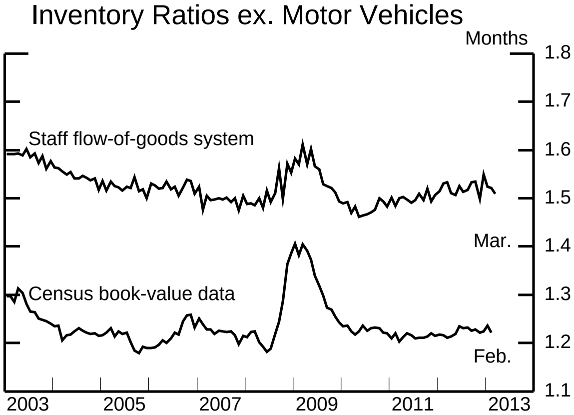
Source: U.S. Census Bureau.

Nonresidential Construction Put in Place



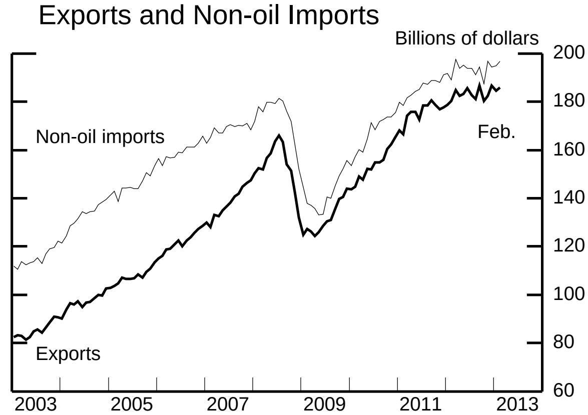
Note: Nominal CPIP deflated by BEA prices through 2012:Q4 and by staff's estimated deflator thereafter.
Source: U.S. Census Bureau.

Inventory Ratios ex. Motor Vehicles



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

Exports and Non-oil Imports



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

GDP growth in the first half of this year, largely unrevised from the March Tealbook assumptions. In the farm sector, real inventory investment is expected to boost GDP growth by ¾ percentage point in the first quarter, as farm output returns to normal after having been held down by the drought in the second half of last year. We expect this impetus to growth to disappear in the second quarter.

Government

We estimate that total real federal purchases contracted at an annual rate of 5 percent in the first quarter—a more pronounced decline than estimated in the March Tealbook—reflecting weak incoming data on defense spending. We interpret a portion of this surprise as an earlier-than-anticipated onset of the effects of sequestration. Looking ahead, although we now assume a full sequestration, we also now assume that the larger part of the expenditure reductions will not be felt until the second half of this year, an assumption driven by an announced pace for furloughs by the Department of Defense and some other agencies that was slower than we had expected. Accordingly, we continue to project real federal spending to decline at an annual rate of 10 percent in the second quarter, about the same pace as in the March Tealbook.

The budgets of state and local governments continue to improve, reducing somewhat the pressure on these jurisdictions to cut expenditures. Overall, we expect their real purchases to decrease only marginally in the first half of 2013, little changed from the March Tealbook.

Foreign Trade

After falling at the end of last year, real exports of goods and services are expected to increase at an average annual rate of 5 percent in the first half of this year, a little more than in the March Tealbook, because of stronger incoming data through February. (As with business investment, the quarterly pattern of exports is affected by the assumed delays of deliveries of the Boeing 787 Dreamliner.) Imports are also expected to pick up after having declined in the second half of last year; we project increases of about 3¾ percent, on average, in the first half of this year. Overall, net exports are expected to add about 0.1 percentage point to GDP growth in the first half.

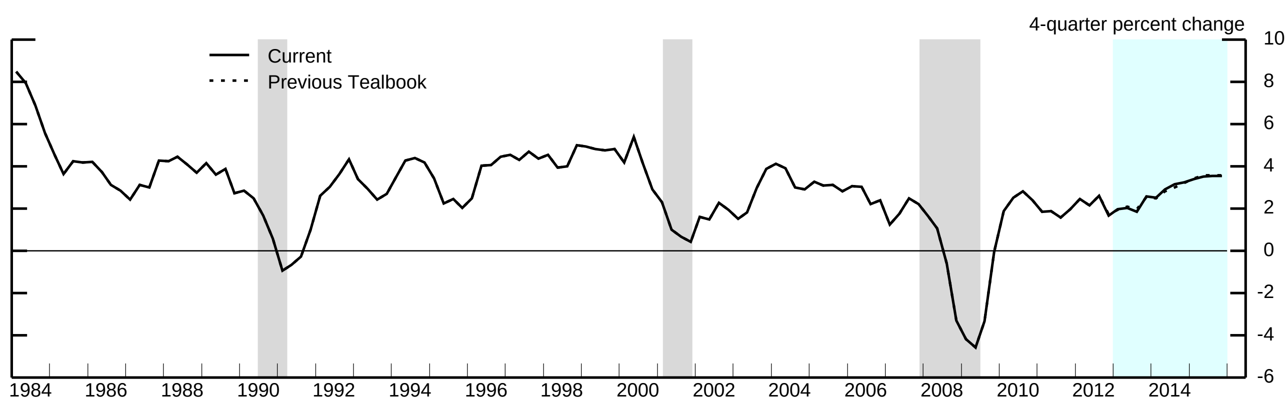
The Industrial Sector

For the first quarter as a whole, manufacturing output rose at a brisk annual rate of 5¼ percent, supported in part by the recovery in production from last year's hurricane. Nevertheless, first-quarter growth in manufacturing output was 1¾ percentage points

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

Measure	2012	2013	2013 H1	2013 H2	2014	2015
Real GDP	**1.7**	**2.6**	**2.3**	**2.8**	**3.2**	**3.5**
Previous Tealbook	1.7	2.5	2.3	2.8	3.2	3.6
Final sales	2.1	2.2	1.9	2.6	3.1	3.7
Previous Tealbook	2.1	2.3	2.0	2.6	3.0	3.7
Personal consumption expenditures	1.8	2.8	2.6	3.0	3.5	3.8
Previous Tealbook	1.9	2.5	2.3	2.6	3.3	3.7
Residential investment	14.9	17.0	19.2	14.9	16.5	13.6
Previous Tealbook	15.0	18.7	20.2	17.2	13.9	14.0
Nonresidential structures	7.3	2.6	-.1	5.3	3.5	3.1
Previous Tealbook	7.2	1.2	-4.2	7.0	3.3	3.1
Equipment and software	4.7	5.5	2.6	8.5	6.1	6.0
Previous Tealbook	4.7	6.4	5.7	7.2	5.6	6.3
Federal purchases	-2.8	-7.4	-7.9	-6.8	-5.7	-3.9
Previous Tealbook	-2.8	-5.4	-6.6	-4.1	-5.3	-3.4
State and local purchases	-1.1	-.4	-.4	-.3	.0	1.1
Previous Tealbook	-1.0	-.2	-.4	.0	.3	1.1
Exports	2.1	4.3	5.1	3.6	5.3	6.8
Previous Tealbook	2.1	4.3	4.9	3.7	5.4	6.9
Imports	.2	3.9	3.8	4.1	4.7	5.0
Previous Tealbook	.2	3.7	3.2	4.1	4.5	5.0
	Contributions to change in real GDP (percentage points)					
Inventory change	-.4	.3	.4	.3	.2	-.2
Previous Tealbook	-.4	.3	.3	.2	.2	-.2
Net exports	.3	-.1	.1	-.2	-.1	.1
Previous Tealbook	.3	.0	.1	-.2	.0	.1

Real GDP



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

below what we wrote down in the March Tealbook. In particular, factory output in March edged down 0.1 percent, as broad-based declines more than offset a jump in the production of motor vehicles and parts. Moreover, forward-looking indicators of activity have also softened, on balance, with the latest readings on new orders from the national and regional manufacturing surveys consistent with only small gains in factory output.

Nevertheless, the ongoing recovery in construction should provide support for the manufacturing sector in coming months, and a sizable increase in motor vehicle assemblies is projected for the second quarter. All told, factory output is expected to increase 3 percent in the second quarter, about 1½ percentage points below the March projection.

The Medium-Term Outlook for Real GDP

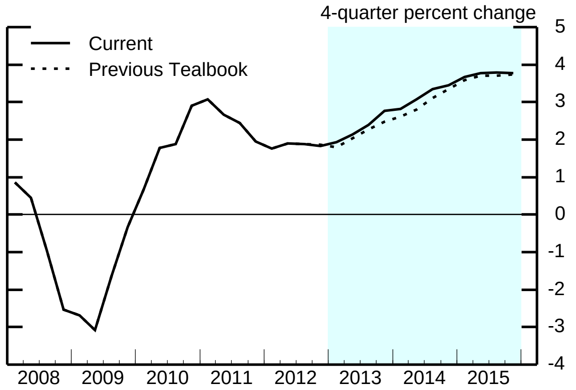
The contour of our medium-term projection for real GDP is quite similar to the forecast in the March Tealbook, as the balance of incoming data were approximately in line with our thinking and the effects of the changes in our conditioning assumptions have been about offsetting. With regard to the latter, on the downside, we now expect federal spending to restrain economic growth a little more than we assumed in our most recent projection. On the upside, our projection for the path of interest rates is lower than in the previous Tealbook, and a downward revision to oil prices also provides support for domestic economic activity over the medium term.

All told, real GDP is projected to expand 2½ percent this year. As in the March Tealbook, this pace is about ¾ percentage point above the rate of GDP growth last year. Thereafter, our forecast calls for real GDP growth to move up to 3¼ percent in 2014 and 3½ percent in 2015. This acceleration in economic activity is supported by our assumption that a number of the headwinds that have restrained the growth in economic activity over the past several years will ease. In particular, we expect the restraint on economic growth from tighter federal fiscal policy to lessen and European financial and economic conditions to improve. Given highly accommodative monetary policy, a growing sense among households and firms that downside risks to the recovery have diminished, falling asset risk premiums, and a further healing of the housing market, we project household spending, business investment, and hiring will accelerate over time.

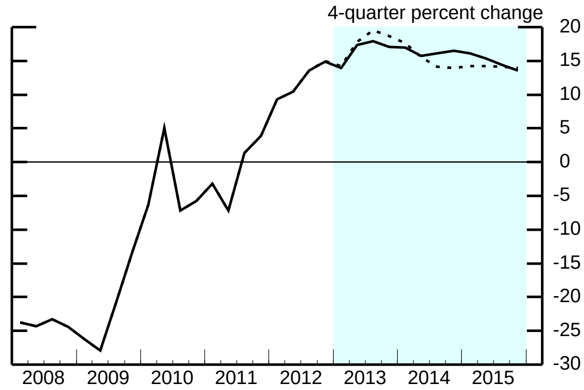
This story plays out most clearly in consumer spending. Real personal consumption expenditures are expected to grow 2¾ percent this year before stepping up to a pace of 3½ percent in 2014 and 3¾ percent in 2015—a path that is slightly higher

Components of Final Demand

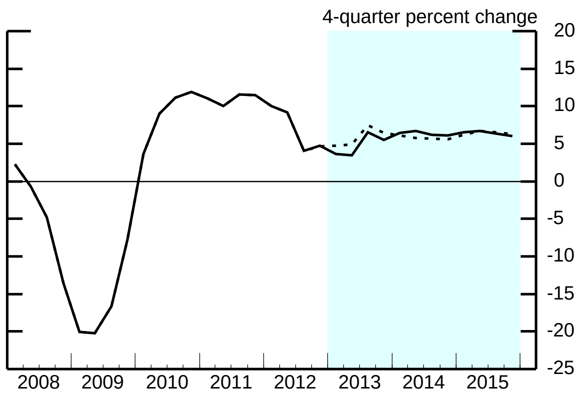
Personal Consumption Expenditures



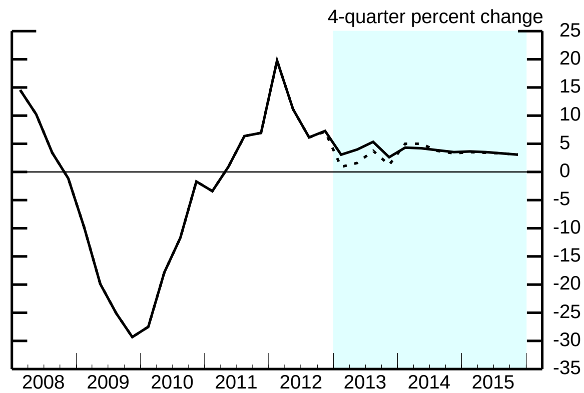
Residential Investment



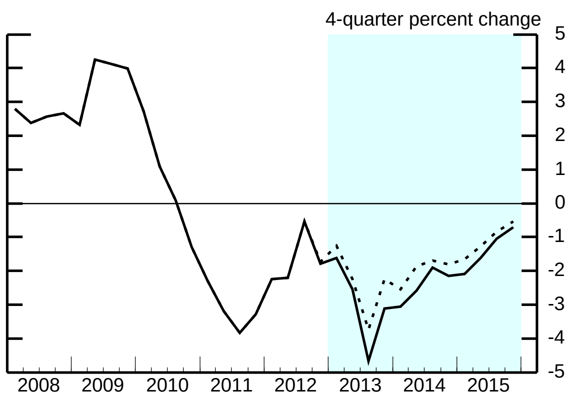
Equipment and Software



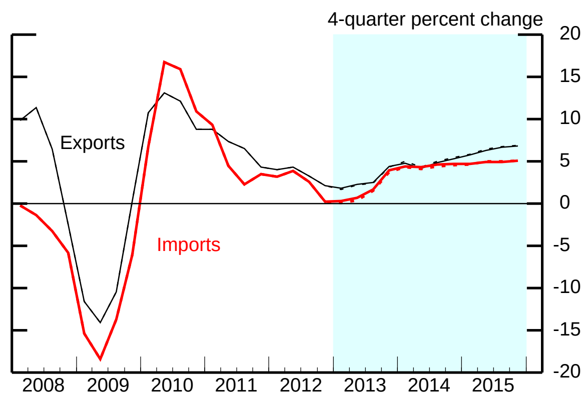
Nonresidential Structures



Government Consumption & Investment



Exports and Imports



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

than in our March forecast. We anticipate that this acceleration will be supported by rising personal disposable incomes, which are facilitated by improved labor market conditions that are themselves driven by rising household expenditures—a virtuous circle of rising spending, employment, and confidence. Along the way, increases in household wealth, reflecting the projected rise in equity and house prices, are also anticipated to continue to boost consumption growth.

The same forces that are expected to boost consumer spending are also at work in our projection for the housing sector; improving household confidence and rising employment, income, and wealth support both a brisk pace of construction and further increases in house prices, both actual and expected. However, these effects are tempered by the sizable increase in mortgage interest rates that we expect to occur over the medium term. All told, single-family housing starts are projected to rise from about 540,000 units in 2012 to a bit over 1 million units in 2015. Likewise, continued strong demand for rental units is anticipated to keep construction in the multifamily sector on a steady uptrend.

Decreases in total government purchases are a noteworthy drag on economic growth in 2013, particularly with the full sequestration. We expect the restraint from declines in real federal government purchases to recede over the medium term as the pace of fiscal consolidation slows and as the downsizing of spending on overseas military operations moderates. Our new fiscal assumptions have some effect on our projection for spending by state and local governments, as we have revised down our assumptions for federal grants to states. But that effect is relatively small, and with state and local government budget conditions anticipated to slowly improve, real purchases are expected to be roughly flat this year and next and then to begin to rise a little in 2015.

Business investment in E&S is projected to increase 6 percent per year in 2014 and 2015, a bit faster than in 2013. Broadly speaking, the modest acceleration in business output that we project over the medium term should help support further gains in investment spending despite the rising long-term corporate borrowing rates in our projection. In addition, spending in the second half of this year is projected to be boosted by a small pull-forward of investment from next year into this year in response to the expected expiration of the 50 percent bonus depreciation provision at the end of this year.

The projected acceleration in business output also raises firms' demand for nonresidential space, leading to very gradual improvements in vacancy rates and

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	.7	.9	.7	1.2	1.6	1.6
Previous Tealbook	.7	.9	.4	1.4	1.8	1.7
Nonfarm private employment[1]	189	170	166	175	220	265
Previous Tealbook	189	183	186	180	210	256
Labor force participation rate[2]	63.7	63.5	63.5	63.5	63.4	63.4
Previous Tealbook	63.7	63.6	63.6	63.6	63.5	63.4
Civilian unemployment rate[2]	7.8	7.4	7.6	7.4	6.9	6.2
Previous Tealbook	7.8	7.5	7.7	7.5	7.1	6.3

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	1.0	.3	1.6	1.5	1.6
Previous Tealbook	1.6	1.3	1.1	1.5	1.5	1.6
Food and beverages	1.1	1.1	1.1	1.1	1.0	1.5
Previous Tealbook	1.1	1.9	2.3	1.4	1.1	1.5
Energy	3.2	-6.6	-14.2	1.6	-.3	-.7
Previous Tealbook	3.2	-3.7	-6.1	-1.3	-1.2	-.8
Excluding food and energy	1.5	1.5	1.3	1.6	1.7	1.8
Previous Tealbook	1.5	1.6	1.5	1.7	1.7	1.7
Prices of core goods imports[1]	.1	.5	.3	.6	1.6	1.6
Previous Tealbook	.1	1.0	1.1	1.0	1.5	1.6

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

commercial real estate prices. With credit availability also anticipated to improve, we project that the growth of nonresidential construction spending excluding drilling and mining will pick up over the medium term. By contrast, growth in drilling and mining investment is expected to slow from its recent rapid pace as oil prices drift down. Overall, our forecast calls for growth in investment in real nonresidential structures to average a little more than 3 percent in 2014 and 2015.

Inventory investment and the external sector are both expected to be roughly neutral for real GDP growth over the medium term. With little sign of inventory imbalances currently, we expect firms to keep inventories in line with final sales over the forecast period. Meanwhile, real exports of goods and services are projected to rise 5¼ percent in 2014 and 6¾ percent in 2015 in response to accelerating foreign activity and a depreciating foreign exchange value of the dollar. Real import growth is expected to be 4¾ percent in 2014 and 5 percent in 2015, as the upward impetus from the recovery in U.S. demand is partially offset by the negative effect of dollar depreciation.

The Outlook for the Labor Market and Inflation

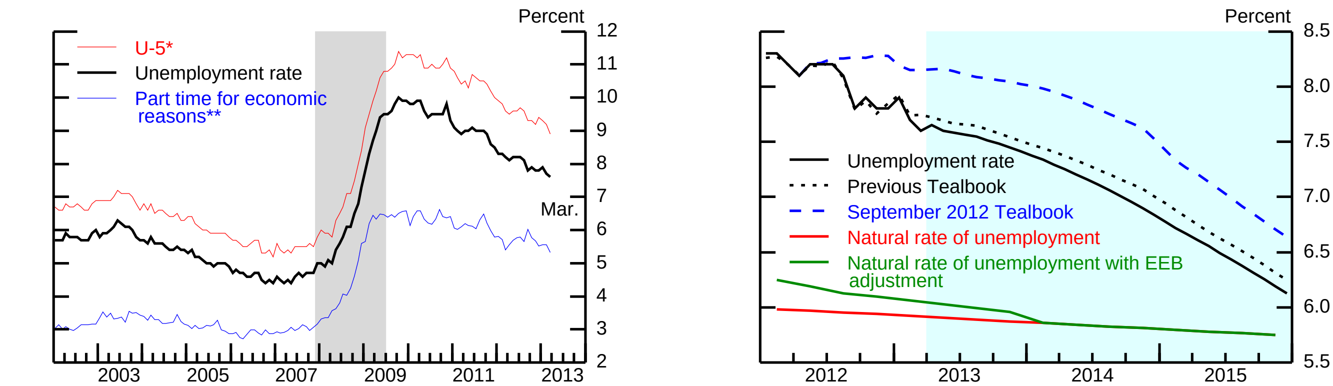
Near-Term Labor Market Developments

Conditions in the labor market have continued to improve, although we read the latest employment report as slightly weaker than we had expected. In particular, total nonfarm payroll employment rose only 88,000 last month, well below our expectations. For the first quarter as a whole, increases in payroll employment averaged 168,000 per month, notably slower than the 210,000 rate posted in the fourth quarter but still a fairly solid pace of job gains.

The unemployment rate edged down further to 7.6 percent in March, a touch lower than we expected. Although the labor force participation rate also fell in March, we nevertheless view the signal from the unemployment rate decline as suggesting a slightly tighter labor market. Consistent with this interpretation, March data also showed declines in the BLS's measure of marginally attached workers, in the number of people who are out of the labor force but say they want a job, and in the number of people working part time but would prefer to work full time. Indeed, the broader U-5 and U-6 measures of unemployment declined by more in March than did the official unemployment rate.

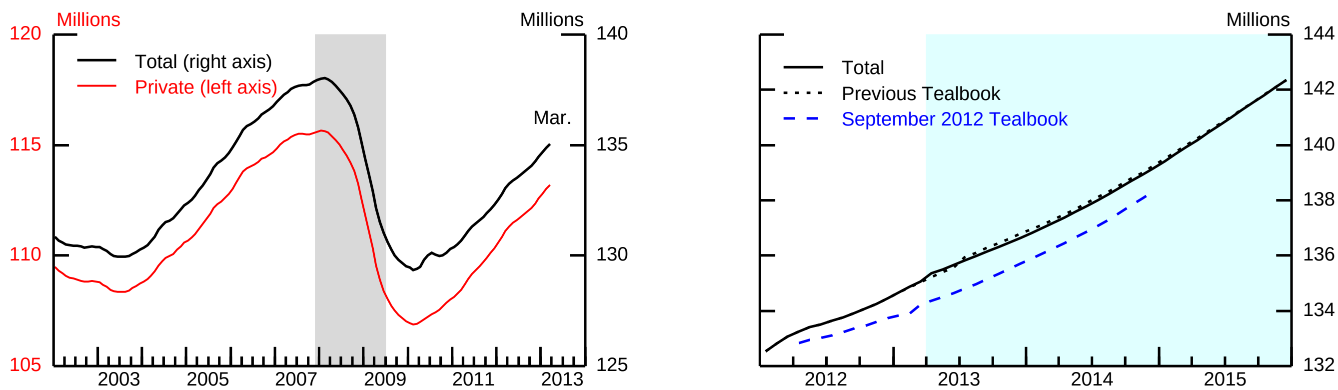
Labor Market Developments and Outlook

Measures of Labor Underutilization



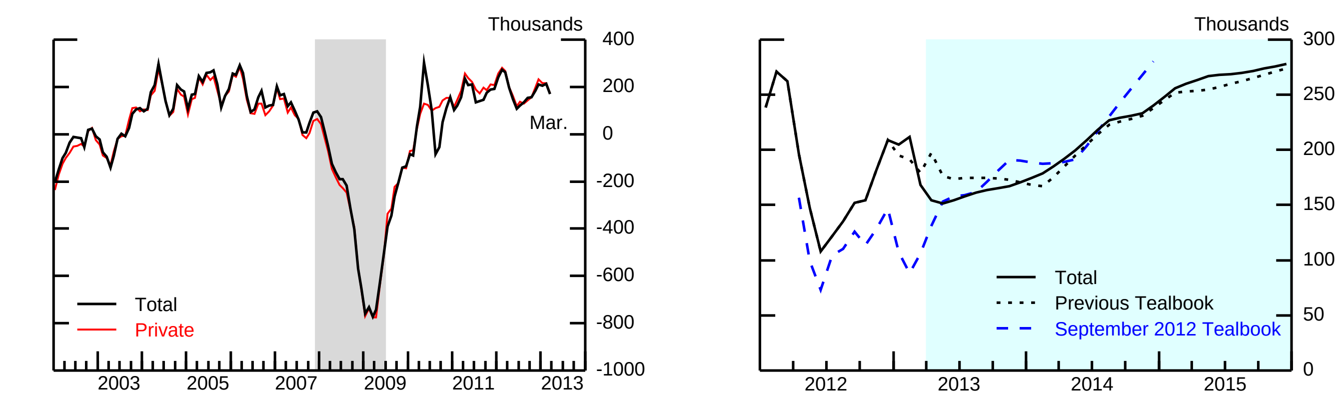
* U-5 measures total unemployed plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force.
** Percent of Current Population Survey employment.
EEB Extended and emergency unemployment benefits.
Source: U.S. Department of Labor,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

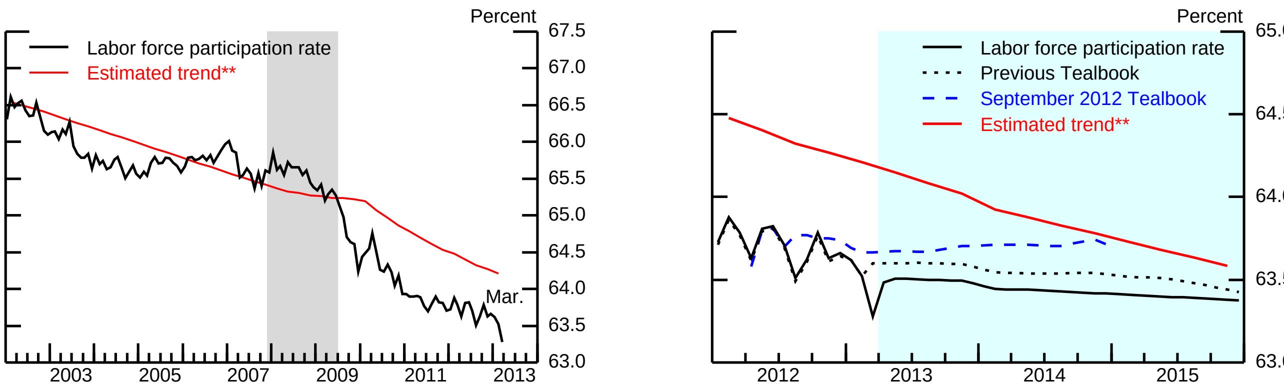


* 3-month moving averages in history; average monthly changes in each quarter during the forecast period.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

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.

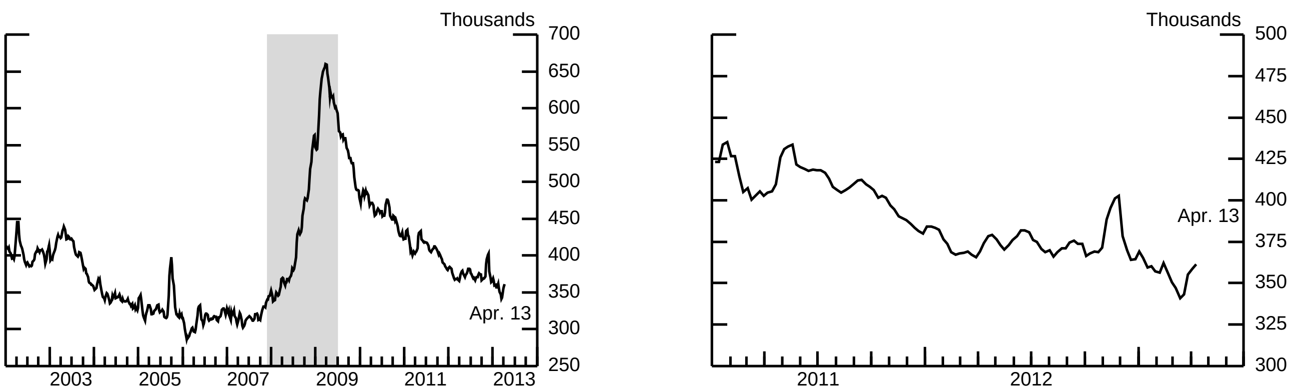
Labor Market Developments and Outlook (2)

Labor Force Participation Rate*



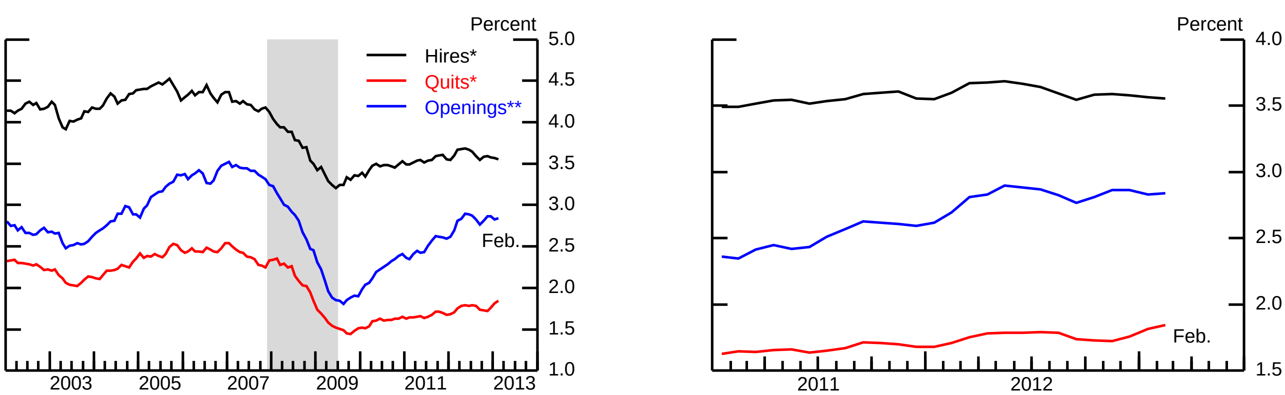
* Published data adjusted by staff to account for changes in population weights.
** Includes staff estimate of the effect of extended and emergency unemployment benefits.
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

Initial Unemployment Insurance Claims*



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

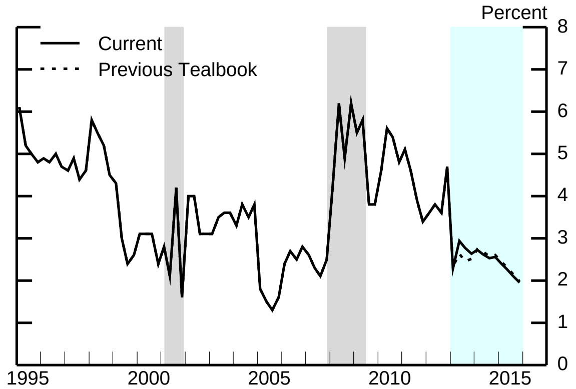
Private Hires, Quits, and Job Openings



* 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.

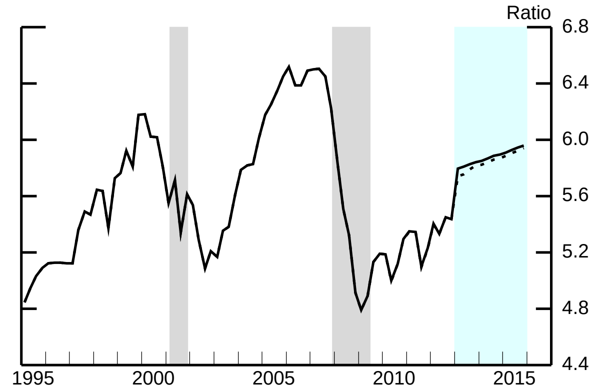
Aspects of the Medium-Term Projection

Personal Saving Rate



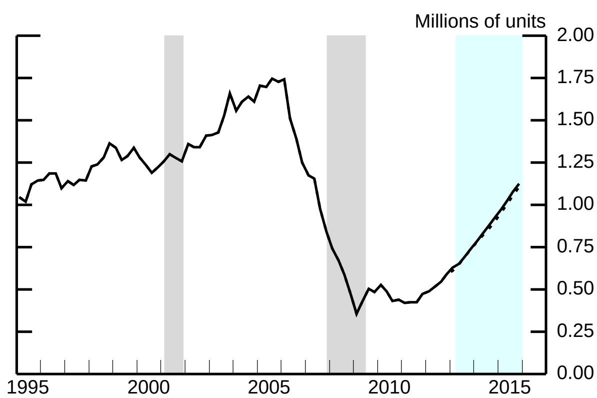
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Wealth-to-Income Ratio



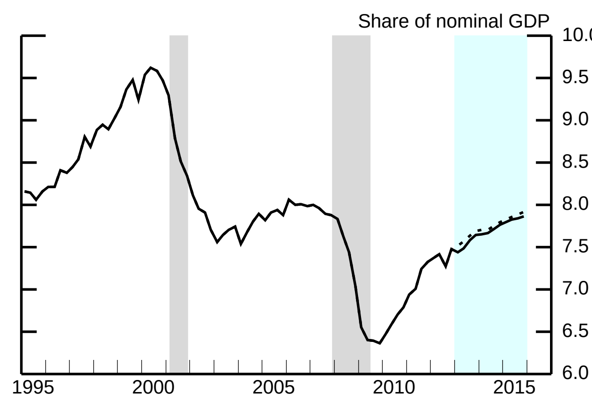
Note: Household net worth as a ratio to disposable personal income.
Source: For net worth, Federal Reserve Board, flow of funds data; for income, Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



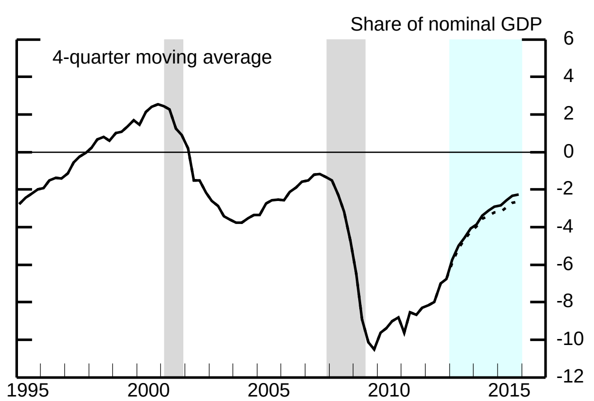
Source: U.S. Census Bureau.

Equipment and Software Spending



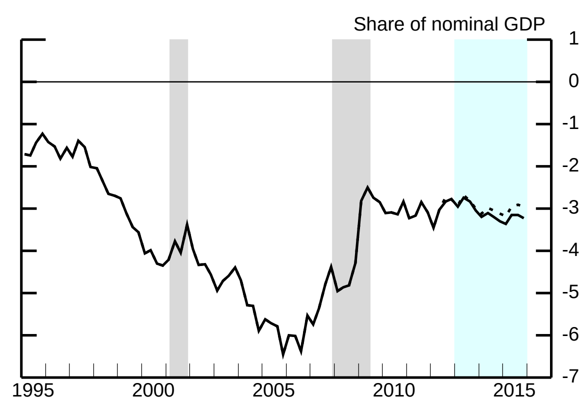
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Federal Surplus/Deficit



Source: *Monthly Treasury Statement.*

Current Account Surplus/Deficit



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

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

Although the sharp slowdown in payroll growth in March gives us some pause, forward-looking indicators of labor market activity generally appear consistent with moderate job gains in coming quarters. The job openings rate in the JOLTS edged up in February and is currently at the top of the range seen over the past year. In addition, the job quit rate, which measures the willingness of workers to change employers and is positively related to labor demand, has also moved up in recent months. That said, initial claims for unemployment insurance thus far in April have been running a touch higher than a month ago, and indicators of hiring and hiring plans have moved sideways of late. In all, we now expect private payrolls to expand an average of about 160,000 per month in the second quarter, 20,000 less than in the March Tealbook, and for the unemployment rate to hold steady at 7.6 percent over the next few months.[3]

Potential GDP and the Natural Rate of Unemployment

After the March Tealbook, we received revised data on capital services from the Bureau of Labor Statistics that reduced somewhat our estimates of capital deepening in recent history. We partially offset the downward revision to capital deepening with an upward revision to our estimates of structural multifactor productivity. On net, this adjustment results in a downward revision to the level of potential output that cumulates to ¼ percent by the end of 2012.[4] We continue to assume that potential output will rise about 2 percent per year over the projection period, and that the natural rate of unemployment will edge down from 6 percent in 2012 to 5¾ percent in 2015 as the degree of mismatch between labor demand and labor supply, which was elevated during the recession and early recovery, eases. As in previous projections, the small acceleration in potential output in our forecast reflects a step-up in capital deepening arising from the post-recession rebound in business investment as well as the projected decline in the natural rate of unemployment.

The Outlook for the Labor Market and Productivity

We estimate that output per hour in the nonfarm business sector rose only ¾ percent in 2012. We have interpreted this sluggish pace of productivity growth as suggesting that firms have been gradually building their workforces to more sustainable

[3] The federal sequestration is anticipated to subtract 30,000 per month from private payroll growth in the second quarter. In contrast, we expect the effect of the spending sequestration on federal payroll employment to be minimal this quarter as government agencies use furloughs, rather than layoffs, to reduce spending.

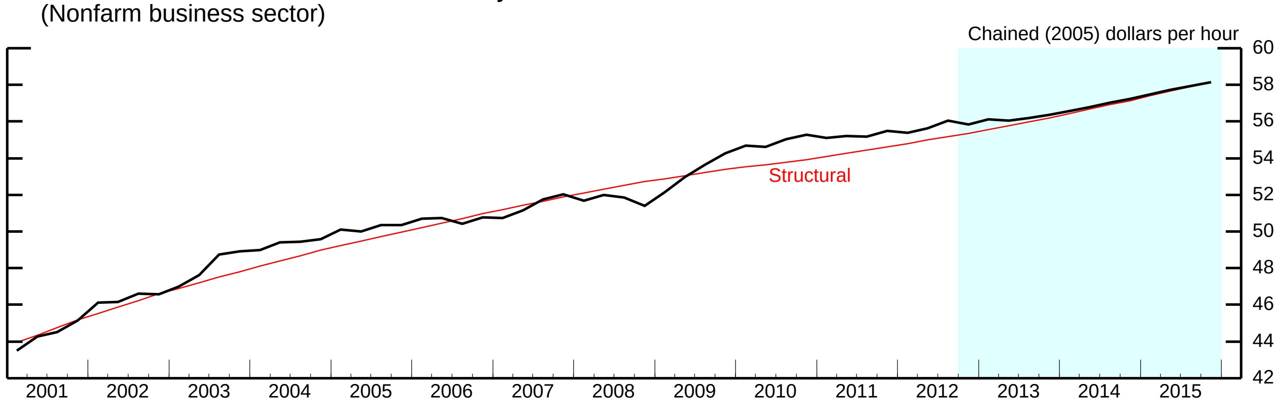
[4] This revision to the level of potential output implies a smaller output gap and essentially eliminates the previous Okun's law error in 2012:Q4. In terms of growth rates, however, the revisions to potential output are too small to be seen in most of our Tealbook exhibits.

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

Measure	1974-1995	1996-2000	2001-2010	2011	2012	2013	2014	2015
Potential real GDP	3.0	3.4	2.2	1.5	1.8	1.9	2.1	2.1
Previous Tealbook	3.0	3.4	2.2	1.5	1.8	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	1.8
Previous Tealbook	1.4	2.6	2.1	1.3	1.4	1.5	1.7	1.8
Capital deepening	.7	1.5	.7	.3	.4	.5	.6	.8
Previous Tealbook	.7	1.5	.7	.4	.5	.6	.7	.8
Multifactor productivity	.5	.8	1.2	.9	.9	.9	.9	.9
Previous Tealbook	.5	.8	1.2	.8	.8	.8	.9	.9
Structural hours	1.5	1.0	.6	.5	.6	.6	.6	.6
Previous Tealbook	1.5	1.0	.6	.5	.6	.6	.6	.6
Labor force participation	.4	.0	-.3	-.4	-.3	-.3	-.3	-.3
Previous Tealbook	.4	.0	-.3	-.4	-.3	-.3	-.3	-.3
Memo:								
GDP gap[2]	-2.4	1.9	-4.0	-3.5	-3.7	-3.1	-1.9	-.6
Previous Tealbook	-2.4	1.9	-4.2	-3.8	-3.9	-3.3	-2.2	-.8

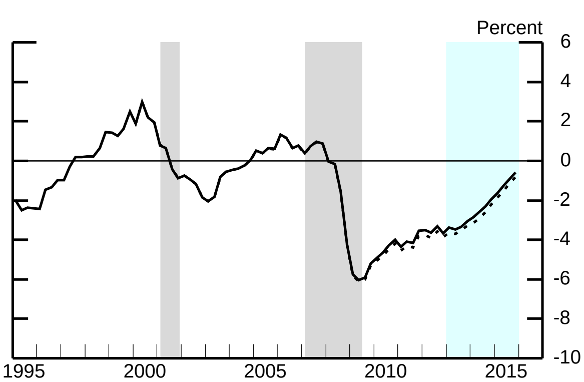
Note: For multiyear periods, the percent change is the annual average from Q4 of the year preceding the first year shown to Q4 of the last year shown.
1. Percentage points.
2. Percent difference between actual and potential GDP in the final quarter of the period indicated. A negative number indicates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

Structural and Actual Labor Productivity
(Nonfarm business sector)



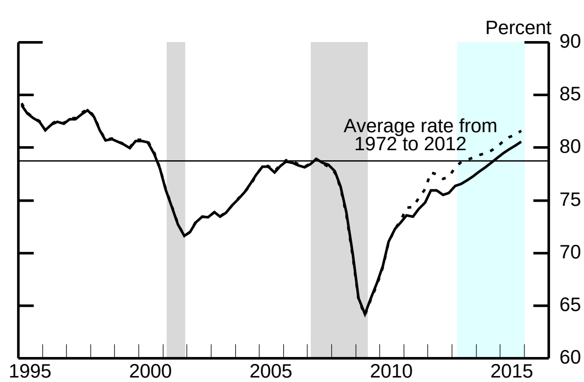
Source: U.S. Department of Labor, Bureau of Labor Statistics; Bureau of Economic Analysis; and staff assumptions.

GDP Gap



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

Manufacturing Capacity Utilization Rate



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

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

levels after having been reluctant to hire new employees earlier in the economic recovery. Our thinking is that the level of actual productivity in the fourth quarter of last year was still a bit above its structural level, which leads us to expect that actual productivity will again rise at a somewhat slower pace than structural productivity this year, as firms continue to return capital–labor ratios to more normal levels. With that adjustment projected to be mostly complete at the end of this year, growth in actual productivity is anticipated to roughly match structural productivity growth after this year.

As noted previously, we expect private payrolls to grow 160,000 per month through the second quarter. Thereafter, employment accelerates to an average monthly pace of 175,000 in the second half of the year and then to average monthly rates of 220,000 in 2014 and 265,000 in 2015. Reflecting incoming data, the unemployment rate starts the forecast period 0.1 percentage point lower than we had expected in our most recent projection, and, going forward, changes in the labor utilization gap move in line with changes in the projected output gap. As a result, the unemployment rate is projected to drop below the Committee's threshold of 6½ percent in the third quarter of 2015, one quarter earlier than in March. The labor force participation rate also came in a touch lower than predicted in March, and here too we carried forward the lower level through 2015.

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. The unemployment rate in the fourth quarter of last year was about ½ percentage point below our September Tealbook projection, and our current forecast for the medium term remains roughly ½ percentage point lower. By the end of this year, we now project the unemployment rate to reach 7.4 percent, almost ¾ percentage point below the 8.1 percent rate that prevailed last August, the last reading that was available to the Committee at the time of the September FOMC meeting. Meanwhile, the outlook for total payroll employment growth past the first half of this year has changed relatively little, on average, since September. However, our current projection for the level of total payroll employment at the end of this year is ¾ percent above what we projected in September.

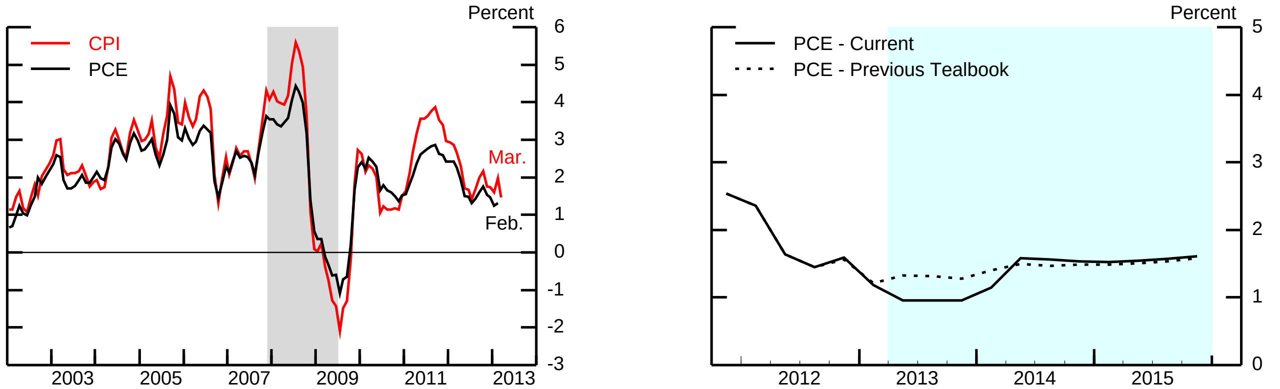
Resource Utilization

Labor market slack remains fairly substantial through most of the medium-term projection period. In the current quarter, the projected unemployment rate is

Inflation Developments and Outlook

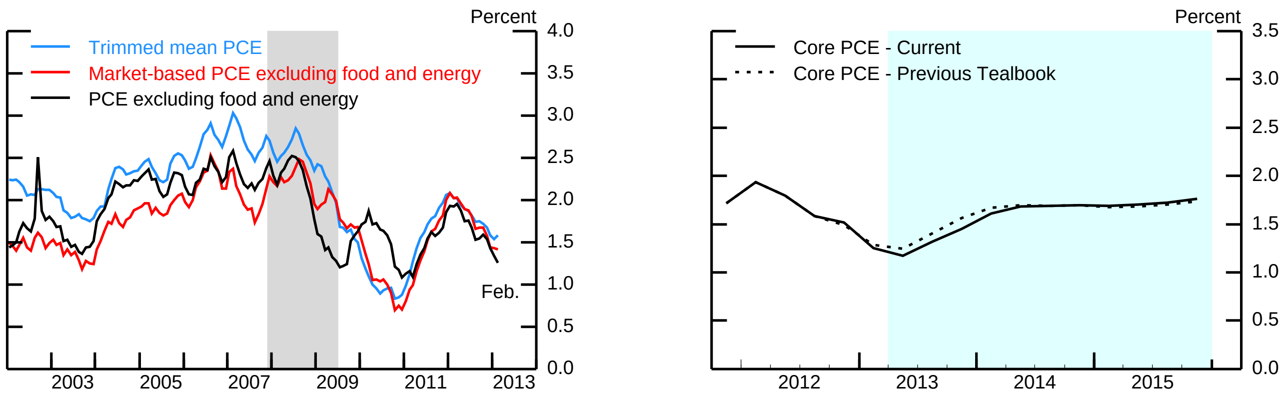
(Percent change from year-earlier period)

Headline Consumer Price Inflation



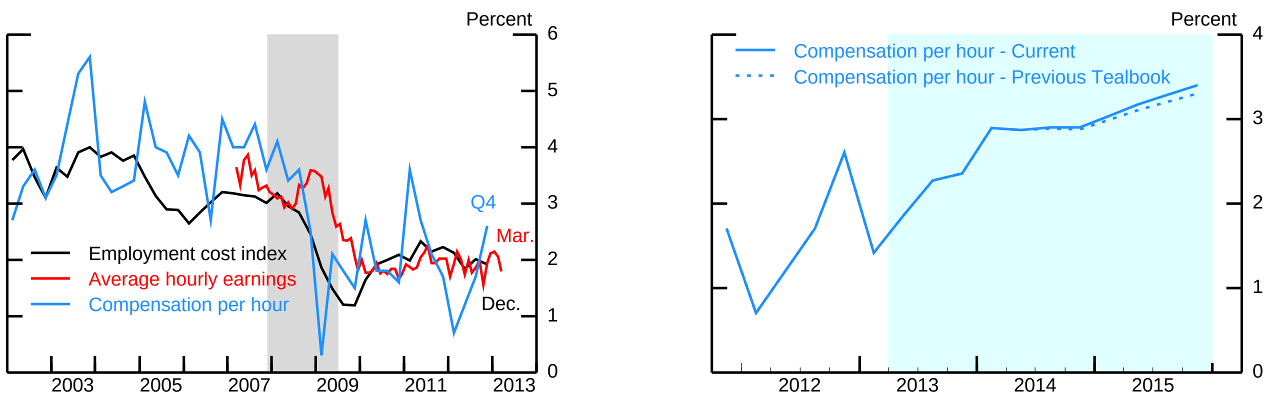
Source: For CPI, U.S. Dept. of Labor, Bureau of Labor Statistics; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Measures of Underlying PCE Price Inflation



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

Labor Cost Growth (Private Industry)

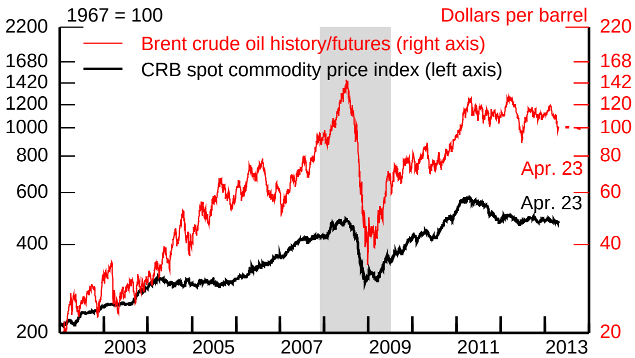


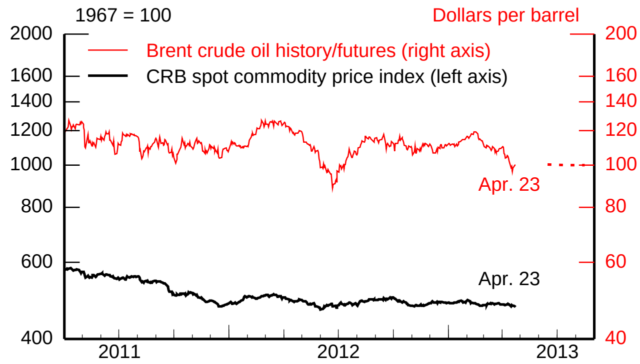
Note: Compensation per hour value for 2012:Q4 is a staff estimate.
Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

Inflation Developments and Outlook (2)

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

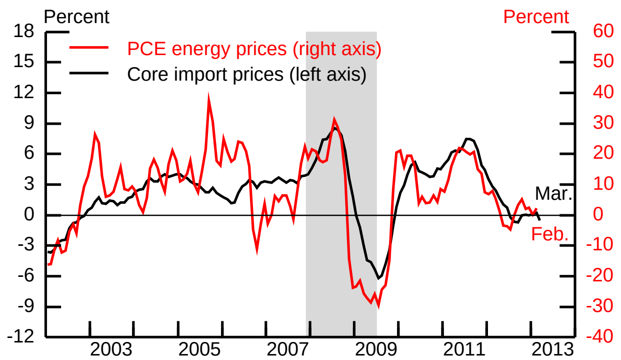
Commodity and Oil Price Levels

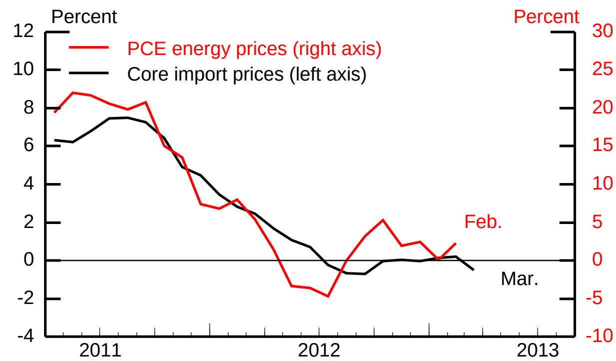




Note: Futures prices are the latest observations on monthly futures contracts.
Source: For oil prices, U.S. Dept. of Energy, Energy Information Agency; for commodity prices, Conference Research Board (CRB).

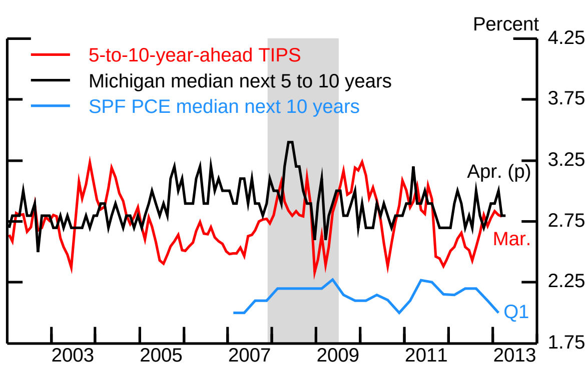
Energy and Import Price Inflation

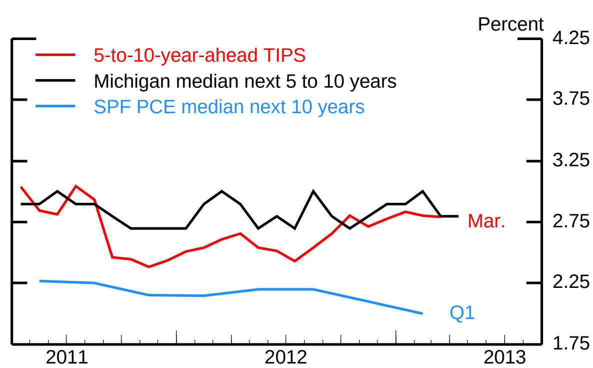




Source: For core import prices, U.S. Dept. of Labor, Bureau of Labor Statistics; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Long-Term Inflation Expectations





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

1¾ percentage points above our estimate of the natural rate, while the level of actual output is 3½ percent below potential. Similarly, in the manufacturing sector, capacity utilization is currently about 2¼ percentage points below its long-run average.[5] Over the projection period, the labor utilization gap gradually narrows (as do the output gap and the manufacturing capacity utilization gap), but our projection for the unemployment rate is still about ½ percentage point above the natural rate at the end of 2015.

The Outlook for Prices and Compensation

We currently project headline PCE prices to rise at an annual rate of only ¼ percent, on average, over the first half of the year, ¾ percentage point lower than in the March Tealbook. This revision mostly reflects steep declines in consumer energy prices, which are now expected to fall more rapidly over the first half of the year. But increases in consumer food prices and core prices also have been coming in a bit lower than we had expected in March.

The significant decline in energy prices now projected for the first half of the year has largely been driven by an unanticipated slide in gasoline prices from late February through mid-April. In fact, this decline has been larger than we would expect given the downward movement in the prices for crude oil in recent months, as gasoline price margins, which were elevated relative to their long-run average earlier in the year, also have moved down. As a result, we now project PCE energy prices to decline at an annual rate of 23 percent in the second quarter, following an estimated decline in these prices of less than 4 percent in the first quarter. Given the path for oil prices, we expect PCE energy prices to flatten out, on average, in subsequent quarters.

Consumer food prices are estimated to have increased at an annual rate of 1.3 percent in the first quarter, somewhat less than we had projected in the March Tealbook. We had been expecting consumer food prices to rise more rapidly following the run-up in food commodity prices after the drought last year; however, in light of persistent downward surprises in these data—including the CPI for March—and the gradual decline of commodity food indexes to their pre-drought levels, we have decided

[5] With the annual revisions to industrial production and capacity, manufacturing capacity utilization has revised down noticeably from the March Tealbook. Nevertheless, there still appears to be a bit less slack in the manufacturing sector than in the broader economy, in part because of unprecedented declines in production capacity from 2007 to 2010, as manufacturers shuttered plants that had been underutilized for a long time. We estimate capacity in the industrial sector based largely on survey data that attempt to capture the highest level of output that plants can sustainably maintain given realistic work schedules, assuming that inputs like materials and labor are sufficiently available.

to trim our projection for food price increases this year. We now project that PCE food prices will increase a bit less rapidly than core prices, on average, over the medium term.

We project that core inflation in the first half of the year will be a little below what we projected in March, owing to a variety of largely temporary factors. Among these, the incoming data on nonmarket prices have come in very soft, but such prices have little information content for future inflation. We also now project a larger one-time reduction in Medicare payments to health-care providers in the second quarter than we had previously thought, consistent with the staff's new assumption regarding the federal spending sequestration. Outside of Medicare prices, our forecast for market-based consumer prices is about the same as we had been previously expecting.

After increasing at an annual rate of ¾ percent in the first quarter of 2013, prices of imported core goods are expected to remain about flat in the current quarter—a downward revision of ½ percentage point relative to the March Tealbook—restrained by weaker commodity prices. In the second half of 2013, we expect core import prices to increase at a ½ percent pace, pushed up by the projected depreciation of the dollar. For the remainder of the forecast period, core import price inflation is expected to average about 1½ percent, in line with the relatively flat trajectory for commodity prices and the assumed pace of dollar depreciation.

Readings on long-term inflation expectations remain generally stable. Median 5-to-10-year-ahead inflation expectations in the preliminary Michigan survey for April were unchanged from March and in the middle of the range seen over recent years. However, measures of inflation compensation derived from TIPS have moved slightly lower since the time of the March Tealbook.

Given our projection of continued stability in long-run inflation expectations, relatively small movements in commodity and import prices beyond this year, and gradually diminishing slack in resource utilization, we expect core inflation to edge up from 1½ percent in 2013 to 1¾ percent in 2014 and 2015, essentially unchanged from the March projection; total PCE price inflation is expected to be just a bit lower, rising from 1 percent this year to about 1½ percent in 2014 and 2015. Thus, throughout the medium term, the projection for PCE inflation remains below both the Committee's long-run objective of 2 percent and the threshold level of 2½ percent.

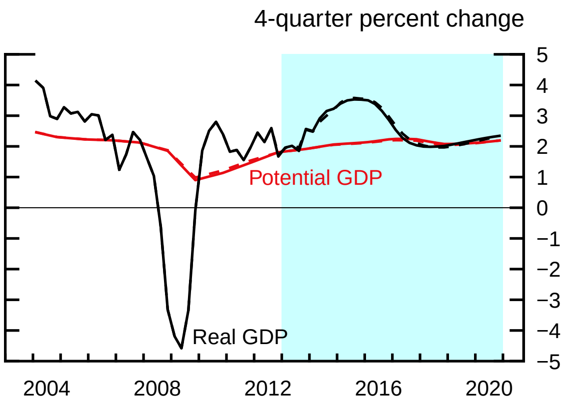
The Long-Term Outlook

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

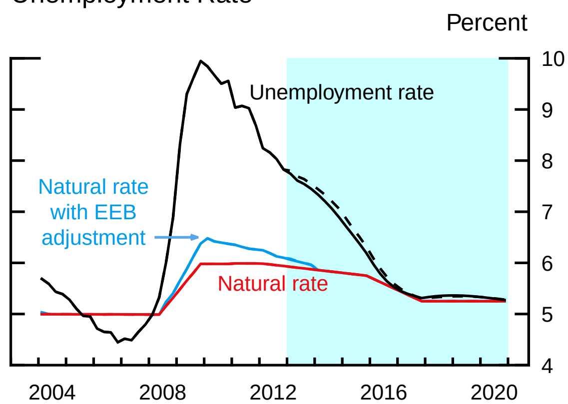
Measure	2013	2014	2015	2016	2017	Longer run
Real GDP	2.6	3.2	3.5	2.9	2.0	2.3
Previous Tealbook	2.5	3.2	3.6	3.0	2.1	2.3
Civilian unemployment rate[1]	7.4	6.9	6.2	5.5	5.3	5.2
Previous Tealbook	7.5	7.1	6.3	5.6	5.3	5.2
PCE prices, total	1.0	1.5	1.6	1.8	2.0	2.0
Previous Tealbook	1.3	1.5	1.6	1.8	2.0	2.0
Core PCE prices	1.5	1.7	1.8	1.9	2.0	2.0
Previous Tealbook	1.6	1.7	1.7	1.9	2.0	2.0
Federal funds rate[1]	.1	.1	.5	2.0	2.9	4.0
Previous Tealbook	.1	.1	.3	1.8	2.8	4.0
10-year Treasury yield[1]	2.4	3.2	3.8	4.0	4.0	4.8
Previous Tealbook	2.8	3.5	4.0	4.2	4.2	4.8

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

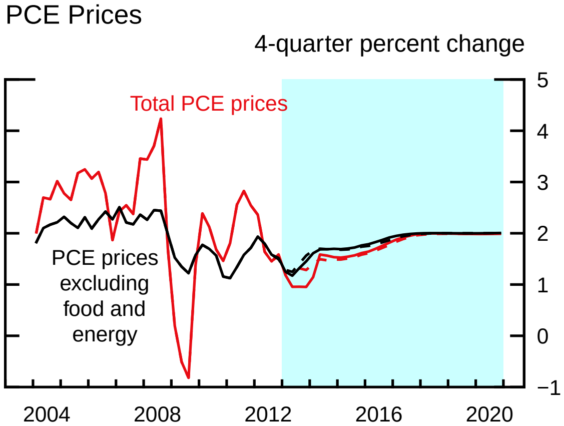
Real GDP



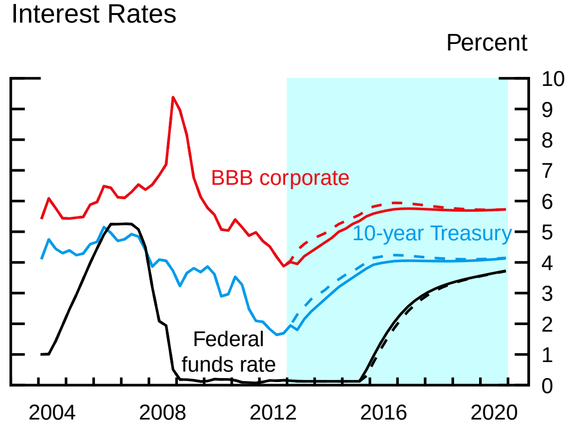
Unemployment Rate



PCE Prices



Interest Rates



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

We have received little data on hourly compensation since the March Tealbook and thus have left our near-term projection nearly unchanged. We project nonfarm compensation per hour to grow 3 percent in 2014 and 3½ percent in 2015.

THE LONG-TERM OUTLOOK

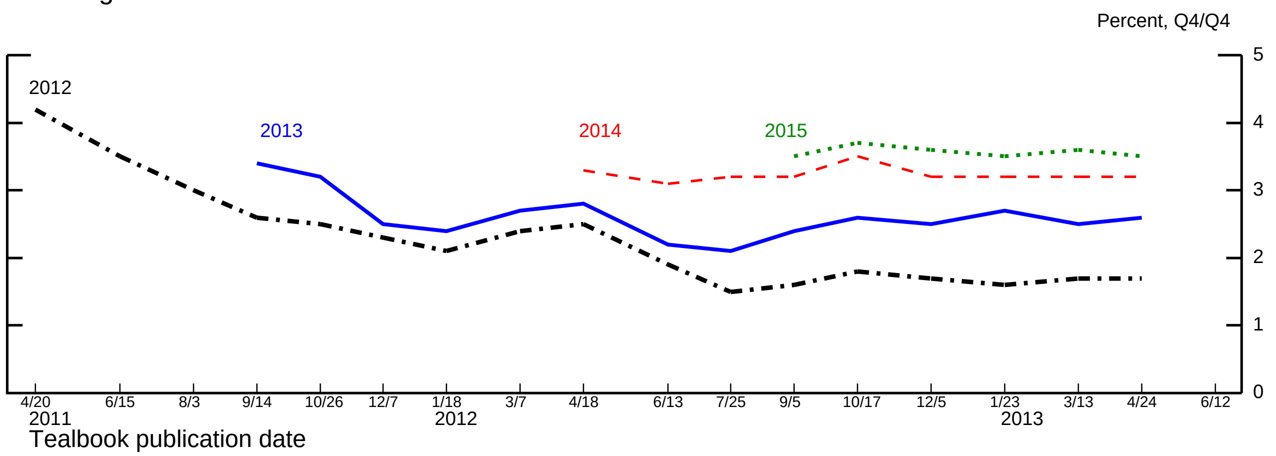
We have extended the staff's forecast beyond the medium term using the FRB/US model and our assumptions about long-run supply-side conditions, fiscal policy, and other factors. The contour of the long-term outlook depends on the following key assumptions:

- 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 third 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. By 2019, the process of portfolio normalization is essentially complete.
- Risk premiums on corporate equities and bonds continue to decrease gradually to normal levels, and financial institutions further ease their lending standards.
- The federal budget deficit (measured on a NIPA basis) begins to widen after 2016, primarily reflecting fast-rising transfer payments for retirement and health-care programs. Federal debt stabilizes temporarily at around 73 percent of GDP in 2016 and 2017 but then begins to edge up later in the decade.
- The real foreign exchange value of the dollar declines 1¾ percent per year in 2016 and 2017 and moves down more slowly thereafter. The price of crude oil declines slightly in 2016 and then holds steady in real terms. Foreign real GDP growth is 3¼ percent in 2016 and 2017 and slows to a 3 percent annual rate late in the decade.
- The natural rate of unemployment declines from 5¾ percent at the end of 2015 to 5¼ percent in the fourth quarter of 2017, as labor market functioning improves further; it remains at that level in the longer run. Potential GDP increases at an average annual rate of 2¼ percent in the 2016–20 period and in the long run.

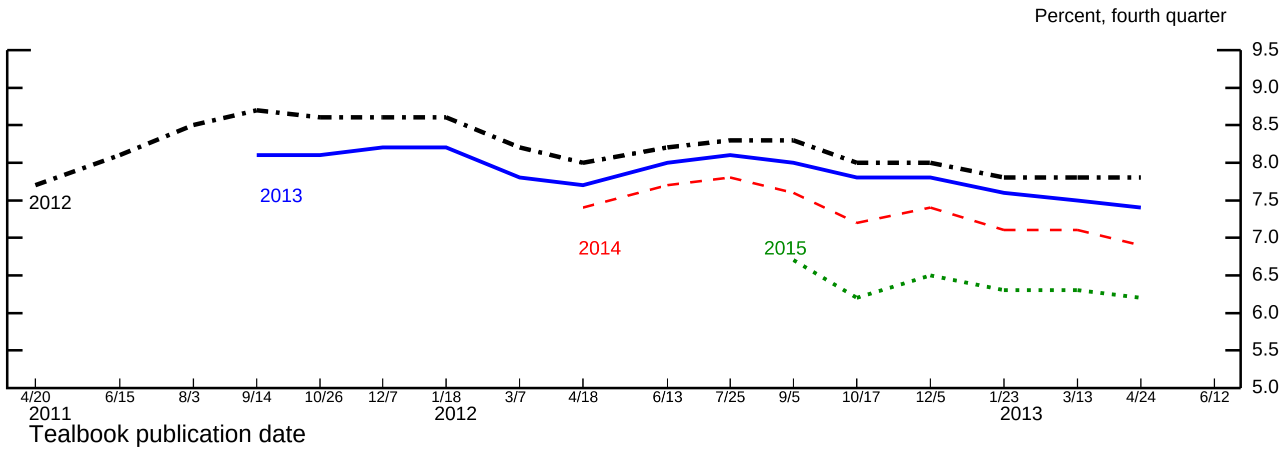
The economy is projected to enter 2016 with output below its potential level, unemployment above its natural rate, and inflation below the long-run objective of the

Evolution of the Staff Forecast

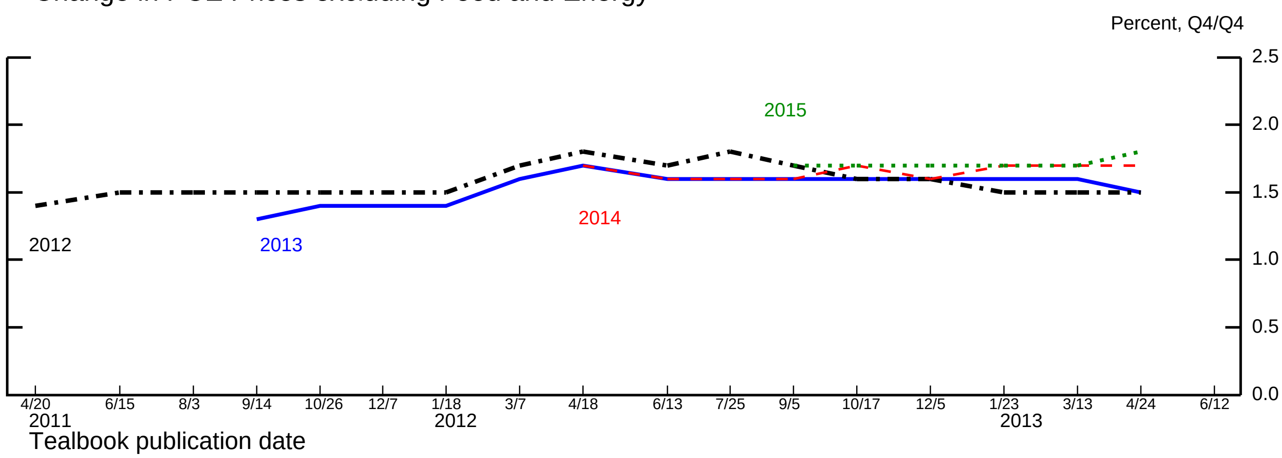
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy



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 3 percent in 2016. Thereafter, gains in real GDP move down closer to their potential pace, in large part reflecting the progressive withdrawal of monetary accommodation. The unemployment rate falls through 2017 to 5¼ percent. Long-run inflation expectations are assumed to remain well anchored, and, with the margin of slack in labor and product markets diminishing, consumer price inflation 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.

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International Economic Developments and Outlook

The international outlook is a little gloomier than in the March Tealbook, particularly in the near term. Recent data suggest that foreign output expanded at an annual rate of 2¼ percent in the first quarter, up only slightly from the previous quarter and about ½ percentage point less than we had estimated in the March Tealbook. The downward revision is mainly in the emerging market economies (EMEs), especially China, where growth slowed abruptly after surging late last year. Additionally, performance in the advanced foreign economies (AFEs), notably Canada and Europe, was a bit more downbeat in the first quarter than we had expected.

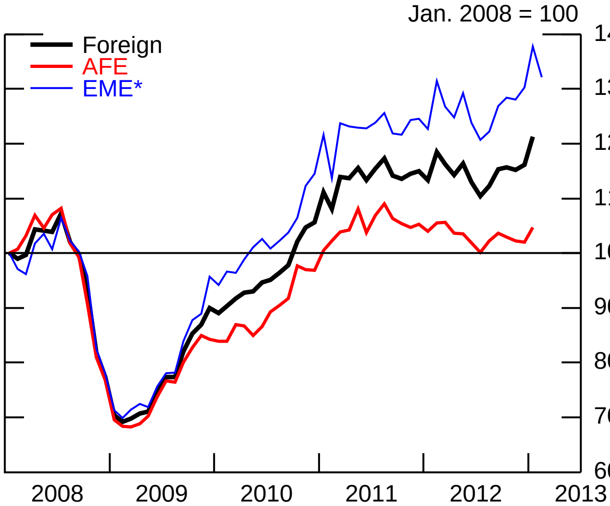
We project economic growth to pick up to a 2¾ percent pace in the current quarter and to rise further to 3 percent in the second half of the year, still a bit weaker than we wrote down in March. The projected pickup reflects both gradually improving economic conditions in the AFEs as well as a rebound in the EMEs as China's growth firms later this year. Further out, foreign growth rises to 3½ percent by 2015, supported by normalizing financial conditions in the euro area, diminishing fiscal drag and continuing monetary accommodation in the AFEs, and the firming U.S. recovery. Our longer-term outlook is little changed from the March Tealbook. Although we are now more optimistic about prospects for Japan, our upward revision for that country is offset by markdowns elsewhere, notably China.

Both the weak first-quarter GDP release in China and the gloomier data for Europe underscore the downside risks to our outlook. In particular, the risk of a hard landing in China, with its significant implications for other EMEs, has increased somewhat, while the continued weakness in the euro area poses the risk that the recession there may be deeper and more prolonged than we are anticipating. We explore both of these scenarios in the Risks and Uncertainty section. Finally, while the recent crisis in Cyprus appears to have had a limited effect beyond its borders, it nonetheless highlights the continuing threat of a severe ratcheting-up of financial turbulence in Europe.

Foreign inflation inched up to just under 2½ percent at an annual rate in the first quarter, as a decline in AFE inflation following a transitory surge in the previous quarter was more than offset by a rise in EME inflation associated with various idiosyncratic factors, including jumps in food prices in several countries. We expect inflation to ease

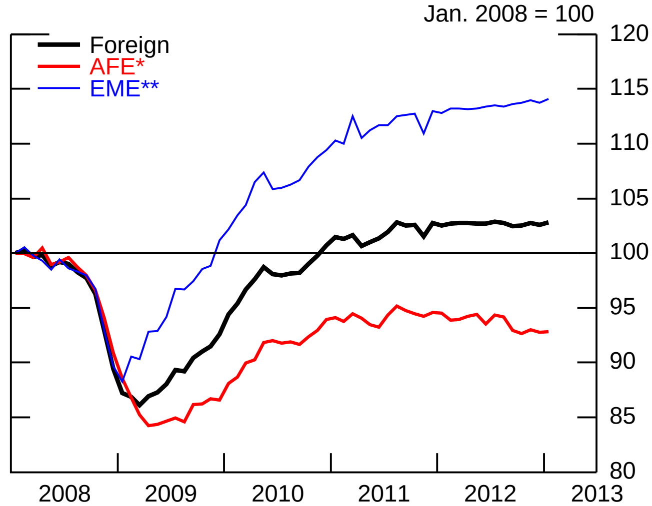
Recent Foreign Indicators

Nominal Exports



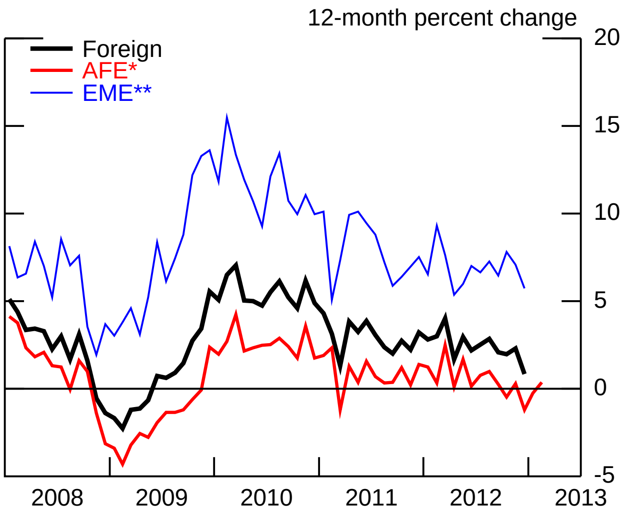
* Excludes Venezuela.

Industrial Production



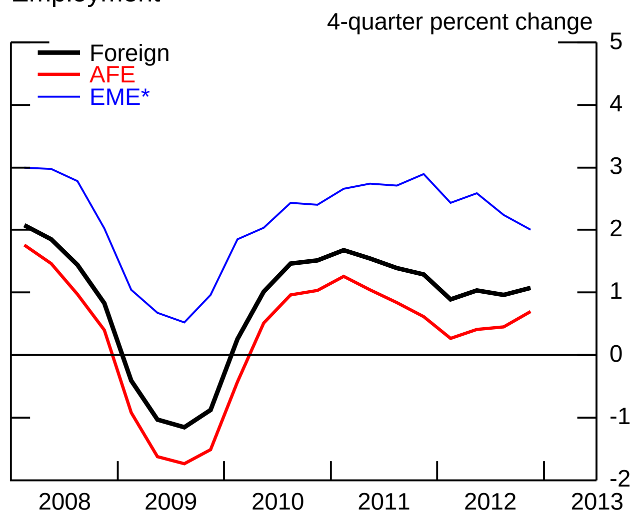
* Excludes Australia and Switzerland.
** Excludes Colombia, Hong Kong, the Philippines, and Venezuela.

Retail Sales



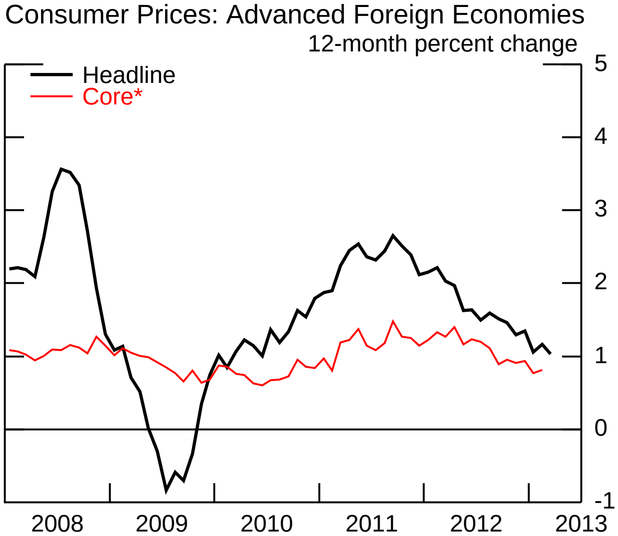
* Excludes Australia and Switzerland.
** Includes Brazil, China, Indonesia, Korea, Singapore, and Taiwan.

Employment



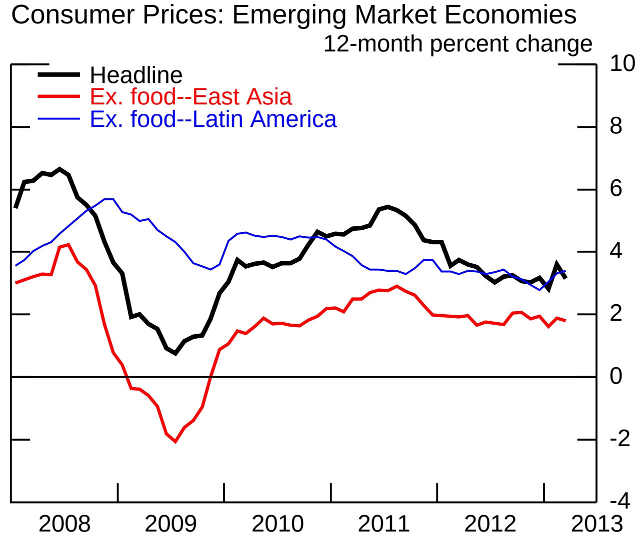
* Excludes Argentina and Mexico.

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.

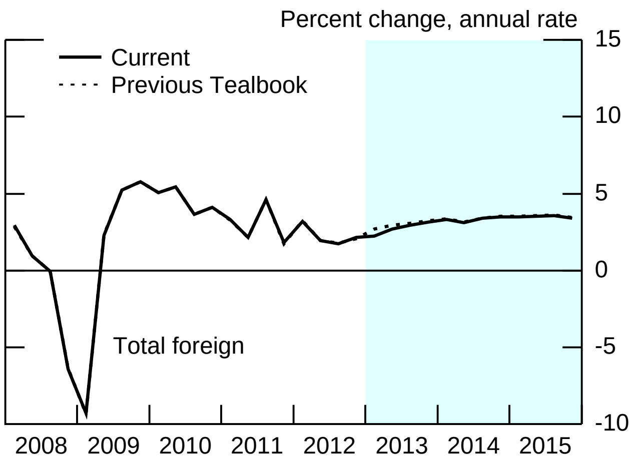
The Foreign Outlook

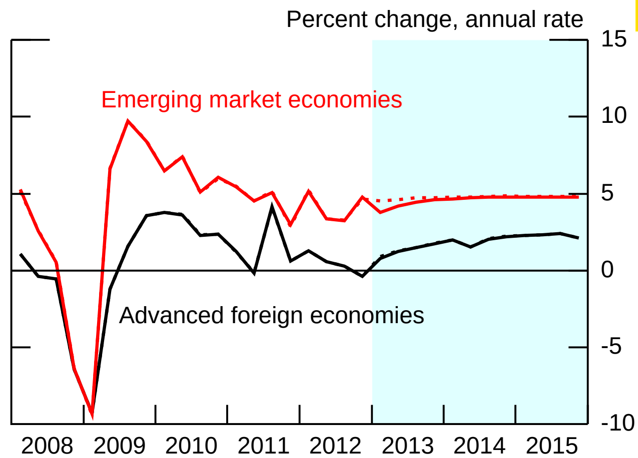
(Percent change, annual rate)

	2012			2013			2014	2015
	H1	Q3	Q4	Q1	Q2	H2		
Real GDP								
Total foreign	2.6	1.7	2.1	2.3	2.7	3.0	3.3	3.5
Previous Tealbook	2.6	1.8	2.1	2.7	2.9	3.2	3.4	3.5
Advanced foreign economies	.9	.3	-.4	.8	1.2	1.6	1.9	2.3
Previous Tealbook	.9	.3	-.4	.9	1.3	1.6	2.0	2.3
Emerging market economies	4.2	3.2	4.8	3.8	4.2	4.5	4.7	4.8
Previous Tealbook	4.3	3.3	4.6	4.5	4.6	4.7	4.8	4.8
Consumer Prices								
Total foreign	2.3	2.3	2.3	2.4	2.0	2.2	2.6	2.7
Previous Tealbook	2.3	2.4	2.3	2.2	2.2	2.3	2.6	2.6
Advanced foreign economies	1.4	.8	1.6	.9	1.1	1.2	1.7	1.9
Previous Tealbook	1.3	.9	1.6	.8	1.2	1.2	1.7	1.7
Emerging market economies	3.1	3.4	2.8	3.6	2.7	3.0	3.3	3.3
Previous Tealbook	3.0	3.5	2.8	3.2	2.9	3.1	3.3	3.3

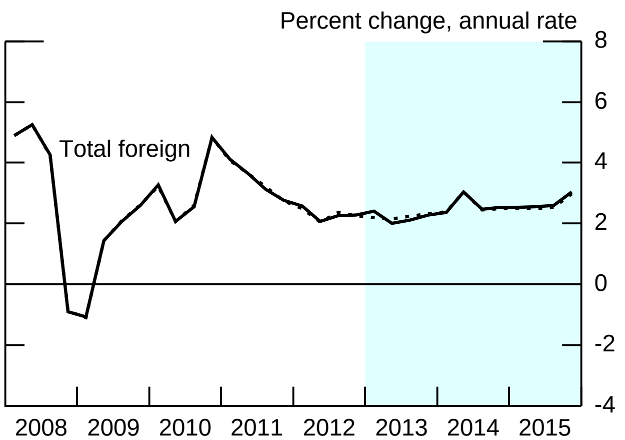
Note: Annualized percent change from final quarter of preceding period to final quarter of period indicated.

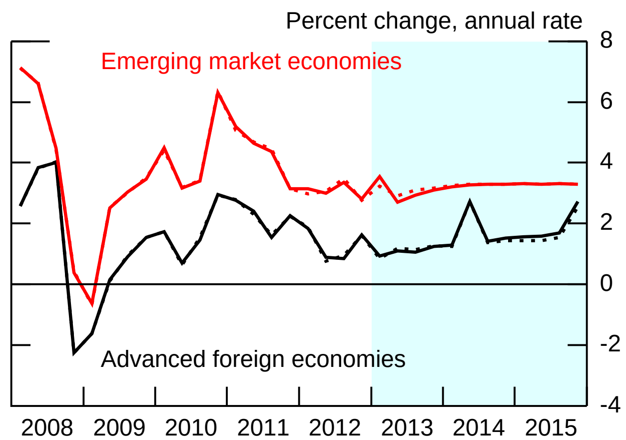
Real GDP





Consumer Prices





in the near term. As growth strengthens, inflation will edge back up, although it will be restrained by ample resource slack in the AFEs and substantially lower oil prices. Japan is a notable exception: We expect the significantly looser monetary stance to provide a meaningful boost to Japanese inflation. We continue to expect other AFE central banks, including the European Central Bank (ECB) and the Bank of England (BOE), to deliver additional monetary stimulus in coming quarters.

Advanced Foreign Economies

Recent data suggest that real GDP in the AFEs rose ¾ percent in the first quarter following a 0.4 percent decline in the fourth quarter. We estimate that Canadian and Japanese growth stepped up, U.K. economic activity stabilized, and the pace of contraction in the euro area moderated. We continue to project a gradual acceleration of growth in the AFEs, to 1¼ percent in 2013 as a whole, 2 percent in 2014, and 2¼ percent in 2015. The forecast is a bit lower than in the March Tealbook for this year and is little changed further out, with downward revisions for Canada and Europe but a significantly stronger outlook for Japan.

Inflation in the AFEs likely retreated to 1 percent in the first quarter from 1.6 percent in the fourth quarter as retail energy prices fell and the effects of earlier consumption tax hikes dissipated. We project that inflation will edge up over the forecast period, reaching nearly 2 percent in 2015. In spite of lower oil prices, this projection is a touch higher toward the end of the forecast period than in the March Tealbook, largely due to higher Japanese inflation in response to the Bank of Japan's (BOJ) more aggresive monetary easing. Amid subdued inflation and persistent resource slack, we continue to project that the Bank of Canada (BOC) will keep its main policy rate fixed through the second quarter of 2014 and that the ECB and the BOE will provide further monetary stimulus.

Euro Area

Recent indicators suggest that euro-area real GDP contracted ¾ percent in the first quarter, a more moderate decline than in the fourth quarter. Industrial production through February has fallen less sharply than in the fourth quarter, and retail sales have risen. However, economic sentiment has remained depressed. In addition, although the composite PMI improved in January, it weakened noticeably in February and March and remains deep in contractionary territory. As a result, we lowered our projection for euro-area activity a touch for the first half of 2013.

During the intermeeting period, financial conditions were volatile as market participants digested developments in Cyprus. In addition to raising questions about the level of support authorities would provide to troubled banks elsewhere in the euro area, Cypriot developments highlighted shortcomings in European policymakers' ability to manage crises. (See the box "The Crisis in Cyprus" in the Financial Developments section.) Moreover, credit conditions continued to be tight, especially for small- and medium-sized firms in the periphery, despite accommodative monetary policy and a significant improvement in banks' funding conditions since last summer. Interest rates on loans to nonfinancial corporations have remained quite elevated in the periphery, even as they have declined in Germany.

These considerations reinforce our expectation that financial market and credit conditions will ease only gradually over the forecast horizon as the political situation in Italy becomes clearer, Spain pushes forward on fiscal consolidation and bank restructuring, and incremental progress is made on banking and fiscal union. This slow normalization of financial conditions, together with diminishing fiscal drag, accommodative monetary policy, and stronger export growth, should spur a gradual economic recovery. All told, euro-area GDP is projected to rise at an anemic pace of ½ percent over the second half of 2013 before growing 1¼ percent in 2014 and 2 percent in 2015. This outlook is a little lower than in the March Tealbook.

Euro-area inflation slowed to less than 1 percent in the first quarter, largely because of declining retail energy prices. Inflation should be around 1¼ percent through the rest of the year and then edge up to 1¾ percent by the end of the forecast period as growth strengthens.

The ECB Governing Council at its April meeting left its benchmark policy rate unchanged at 0.75 percent. After the meeting, ECB President Draghi signaled that the ECB was ready to act if economic data remained weak. We continue to expect that the ECB will provide further monetary accommodation, including lowering the policy rate to 0.5 percent during the current quarter and perhaps introducing measures to improve funding for small- and medium-sized enterprises.

United Kingdom

We estimate that real GDP was flat in the first quarter following a 1.2 percent contraction in the fourth quarter. Although retail sales rose from their fourth-quarter level, exports through February were down appreciably, and industrial production was little changed on net. Survey indicators suggest a bit less momentum in near-term GDP growth than we envisioned in the March Tealbook, with first-quarter PMIs for manufacturing and construction lingering in contractionary territory. For this reason, and in light of the slightly more subdued prospects for the euro area, we marked down our U.K. growth forecast for 2013 a bit to 1 percent. We continue to expect growth to rise to 2¼ percent in 2014 and 2½ percent in 2015, supported by improvements in private-sector balance sheets and the projected euro-area recovery. In addition, the government's fiscal consolidation plans, which the 2013 budget reaffirmed, suggest a diminution of fiscal drag from an average of 1¾ percentage points over the past three years to about 1 percentage point over the forecast period.

Our inflation forecast for 2013 is down a little to 2¼ percent due to the recent fall in oil prices and the cancellation of an upcoming hike in fuel duties. Amid significant resource slack, inflation should edge down to the 2 percent target over the remainder of the forecast period. On March 20, the chancellor of the exchequer altered the BOE's remit to ensure that due consideration is given to output volatility in the pursuit of the inflation target. The BOE is now enjoined to communicate the inflation-activity tradeoffs it faces and the appropriate horizon over which inflation should return to the target. Moreover, in the new remit, the BOE is directed to report on the merits of deploying explicit forward guidance, such as the thresholds recently introduced by the Federal Reserve. We do not see these requirements as materially altering the BOE's reaction function. In light of the still-weak economic outlook and declining inflation, we continue to expect the BOE to increase its quantitative easing program £50 billion (3.2 percent of GDP) later this year. On April 24, U.K. authorities extended the Funding for Lending Scheme's drawdown period by one year to early 2015, improved its terms for loans directed at small- and medium-sized enterprises, and broadened its eligibility criteria to include some nonbank lenders.

Japan

Recent data suggest that real GDP growth increased to a 2 percent pace in the first quarter—a bit higher than in the March Tealbook—from only 0.2 percent in the fourth quarter. Household spending, supported by further gains in consumer confidence, rose robustly through February, and car registrations continued to expand in March. Exports increased at a solid pace in the first quarter following two quarters of sharp declines, and imports grew even faster. GDP growth should pick up further to nearly 3 percent by year-end, driven by a previously announced fiscal stimulus and the easing measures introduced by the BOJ on April 4, which are described in the box "The New Monetary Policy Program of the Bank of Japan." Thereafter, a planned doubling of the consumption tax rate phased in over the coming two years should slow GDP growth to a pace of only 1 percent. Reflecting the better-than-expected data and the additional monetary stimulus, our growth outlook is nearly ½ percentage point stronger than in the March Tealbook.

Consumer prices were roughly flat in January and February, suggesting that inflation remained near zero in the first quarter. However, given the BOJ's newly ultra-accommodative stance and an expected narrowing of the output gap, we now project that, net of the effect of the consumption tax hikes, inflation will rise to 1¼ percent by end-2015, ¾ percentage point higher than in the previous Tealbook.

Canada

We estimate that Canadian real GDP growth stepped up from 0.6 percent in the fourth quarter to 1½ percent in the first quarter, about ¼ percentage point lower than in the March Tealbook. Although monthly GDP rose in January and manufacturing shipments increased in February, more recent March data show employment and work hours slipping and the manufacturing PMI sinking into contractionary territory. We carried some of the recent weakness forward, and we now expect GDP to rise 1¾ percent in the second quarter and 2 percent in the second half of the year, a bit lower than in the March Tealbook. Thereafter, Canadian GDP growth, supported by improvement in U.S. and global economic conditions, picks up to nearly 2½ percent in 2014 and 2¾ percent in 2015. Private consumption and investment should be the main drivers of growth, although they will be weighed down by high household debt and some cooling of the housing market.

Headline inflation rose to an annual rate of 1.8 percent in the first quarter, somewhat higher than in the March Tealbook, as core prices bounced back more strongly than expected. In line with subdued growth prospects and lower oil prices, we have headline inflation moderating somewhat in the near term before rising back to 1¾ percent

The New Monetary Policy Program of the Bank of Japan

On April 4, the Bank of Japan (BOJ), under the new leadership of Governor Haruhiko Kuroda, announced a surprisingly aggressive policy overhaul called "Quantitative and Qualitative Monetary Easing." The announcement was a major victory for Prime Minister Shinzo Abe, who promised faster economic growth and the end of deflation and openly admonished the BOJ for not doing enough. Indeed, although the BOJ had been providing stimulus by keeping the policy rate near zero and expanding its asset purchases, it had been criticized for focusing its purchases on shorter-term securities and for exhibiting little conviction that quantitative easing would yield tangible benefits. Under pressure, the BOJ introduced a new inflation target of 2 percent in February, but it had refrained from pursuing significantly more-aggressive easing.

The new program calls for a sharp increase in purchases of Japanese government bonds (JGBs) and other assets, such as Japanese equity exchange-traded funds. In particular, the BOJ will increase its JGB holdings at an annual pace of ¥50 trillion, equivalent to more than 10 percent of Japan's GDP. The BOJ also substantially extended the maturity of its JGB purchases. All maturities, including 40-year bonds, became eligible for purchase, and the average maturity of JGB purchases rose from slightly less than 3 years to about 7 years, matching the average maturity of current outstanding JGBs in the market.

A prominently stated goal of these measures is to double the monetary base over the next two years. Indeed, the BOJ announced that it has shifted its operational target from the overnight rate to the monetary base. In our view, this shift does not imply any fundamental difference in the way monetary policy is carried out but rather appears to be a signaling mechanism designed to boost inflation expectations by underscoring the forcefulness of the new program. The BOJ committed to continue these measures "as long as necessary" to achieve the 2 percent inflation target, though its stated aim is to achieve that goal in about two years.

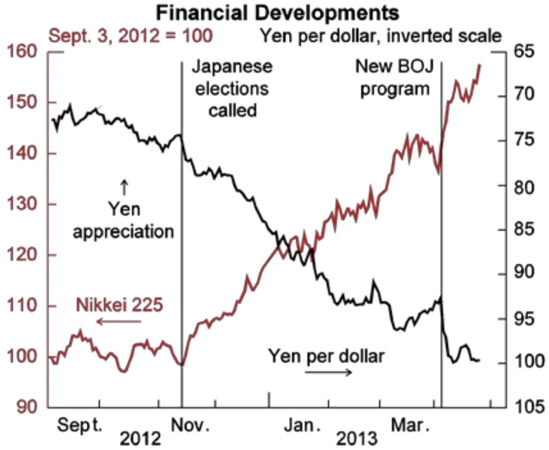
These measures were much more aggressive than market participants had expected, prompting the yen to depreciate further against the dollar and Japanese stock prices to rise. As illustrated in the upper-left figure on the next page, since November 14, 2012, when former Prime Minister Noda called for elections, the yen has depreciated nearly 25 percent against the U.S. dollar and the Nikkei index has surged more than 50 percent. Following the BOJ announcement, as shown in the upper-right figure, longer-term Japanese bond yields fell initially, but later retraced this decline. This reversal may be the result of an increase in inflation compensation, even though the extent to which inflation expectations have moved remains an open question. Inflation swap rates have risen in recent months, but the market for inflation swaps is highly illiquid, and surveys of long-term inflation forecasts have changed little even after the April 4 announcement (bottom-left figure).

Like market participants, we were also surprised by the scale and scope of the new program. As illustrated in the bottom-right figure, we now assume that the BOJ's balance sheet will expand from 35 percent of GDP to 75 percent of GDP, much higher than the 50 percent level we anticipated at the time of the March Tealbook. This expansion will bring the share of BOJ's assets relative to GDP well above that of most other major central banks and close to the 85 percent share of the Swiss National Bank.

We considered two different approaches to gauge the effects of the BOJ's new program on inflation. First, we assumed that future asset purchases by the BOJ would have similar effects on inflation to those of the Fed's large-scale asset purchase program. In this case, inflation would rise slightly more than 1 percentage point. However, this exercise presumes that the term premium on 10-year JGBs declines 200 basis points, which seems questionable given the already low level of Japanese interest rates. Alternatively, we used the staff's SIGMA model to examine the effects of the improvements in Japanese financial conditions observed since mid-November. Specifically, we assumed a 25 percent real depreciation of the yen and a 50 percent increase in equity wealth, while leaving the term premium unchanged. The model predicts an increase in inflation of about 1½ percentage points over a year, largely owing to the effect of the lower yen on import prices. Although these estimates are necessarily tenuous, we take some comfort that both approaches yield broadly similar predictions.

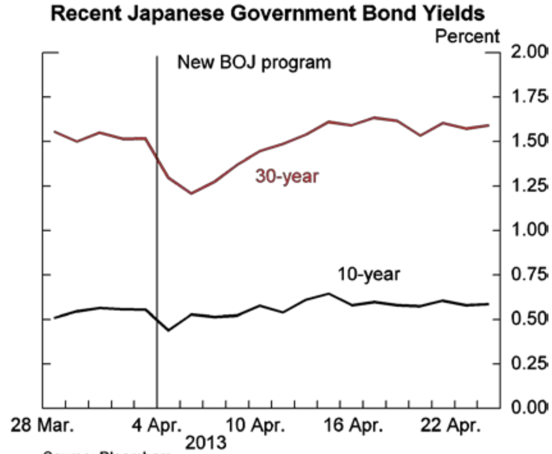
Informed by these results, we now project that inflation—net of the effects of two planned consumption rate hikes—will gradually increase from about zero in early 2013 to 1¼ percent by the end of 2015. Likewise, the combination of monetary expansion and fiscal stimulus planned by the Abe administration pushes projected GDP growth to an annual average of 1½ percent over the 2013–15 period, compared with the just-below 1 percent pace we were anticipating late last year. This markup leads to a considerably more rapid narrowing of Japan's output gap.

Financial Developments



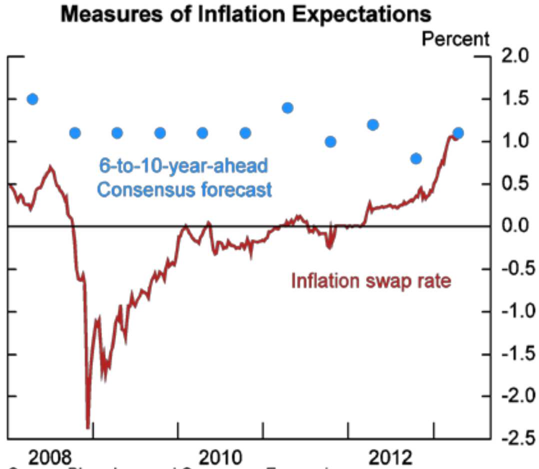
Source: Bloomberg.

Recent Japanese Government Bond Yields



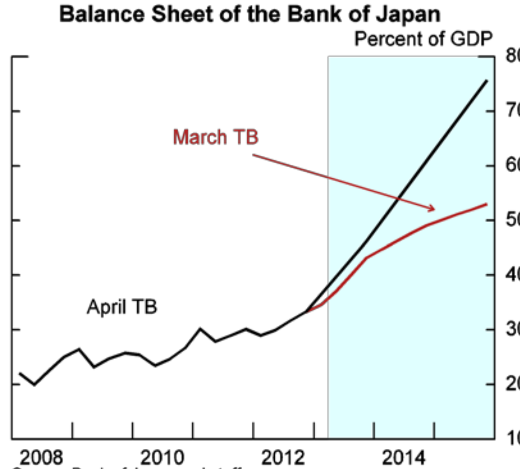
Source: Bloomberg.

Measures of Inflation Expectations



Source: Bloomberg and Consensus Economics.

Balance Sheet of the Bank of Japan



Source: Bank of Japan and staff.

in 2014 and 2015. With inflation contained, we continue to project that the BOC will keep its main policy rate fixed at 1 percent through the second quarter of 2014.

EMERGING MARKET ECONOMIES

We now estimate that real GDP growth in the EMEs slowed to an annual rate of 3¾ percent in the first quarter from 4¾ percent in the fourth, mainly reflecting a sharp step-down in economic growth in China, for which we have already received first-quarter GDP data. Economic activity also appeared to have moderated elsewhere in the EMEs, as weak Chinese growth and the slow pace of recovery in the advanced economies weighed on exports. All told, our estimate for first-quarter growth in the EMEs is about ¾ percentage point lower than projected in the March Tealbook, and, reflecting this lower momentum, our outlook for this quarter and next is also revised down about ¼ percentage point.

We judge the factors that pushed down EME growth in the first quarter to have been mainly transitory, including some payback for the very rapid expansion at the end of last year. Accordingly, we expect EME growth to pick up to 4½ percent by the end of this year and to average about 4¾ percent through the end of the forecast period, supported by accommodative macroeconomic policies and the recovery in the advanced economies. Beyond the near term, the outlook for activity is only a touch weaker than in the previous Tealbook. Nevertheless, the sharp slowdown in China and other EMEs last quarter gives us pause, and we are alert to the possibility of less favorable outcomes.

We estimate that headline inflation in the EMEs moved up to 3½ percent in the first quarter, about ¼ percentage point higher than our estimate in the March Tealbook, as food price inflation surprised on the upside in India and Mexico. EME inflation should slow to about 2¾ percent in the current quarter as food price inflation eases and oil prices decline. It then gradually increases to around 3¼ percent over the rest of the forecast period, about in line with our March Tealbook forecast, as growth in the EMEs picks up. The central banks of Colombia and India cut their policy rates, mainly on growth concerns. In contrast, the central bank of Brazil raised its policy rate to combat rising inflation.

China

China's official four-quarter GDP growth edged down to 7.7 percent in the first quarter, significantly less than market expectations. Based on this release, we estimate that Chinese GDP growth on a quarter-to-quarter basis stepped down sharply from an annual rate of 9½ percent in the fourth quarter of last year to just 6½ percent in the first quarter.[1] The slowdown does not appear to merely reflect noisy data. The GDP figure was consistent with movements in monthly indicators, including industrial production, retail sales, and imports.

Some slowing of the economy from its red-hot pace of the fourth quarter was in the cards, but the extent of the slowing was much greater than we had anticipated in the March Tealbook, suggesting less underlying dynamism in the economy. Fixed-asset investment decelerated despite strong credit growth; it is possible that the efficacy of credit creation as a means of spurring economic activity has weakened. Alternatively, it may be that the economy is rebalancing away from investment-led growth slightly faster than anticipated. Real retail sales growth also slowed a bit, reflecting in part weaker government consumption (which is included in the series), as the new Chinese leadership has strongly signaled that it expects more frugality by government bureaucrats in order to help dispel the notion of widespread corruption. As such, we revised down Chinese GDP growth an average of ¾ percentage point in the current quarter and next, so that growth reaches 8 percent only by the end of this year and remains about 8 percent in 2014 and 2015.

Chinese headline consumer prices rose 3½ percent at an annual rate in the first quarter, with food prices rising sharply early in the quarter before retracing in March. This monthly pattern suggests that inflation will step down to about 1¾ percent in the current quarter. Inflation is then expected to rise back to around 3 percent over the forecast period. With inflation fairly subdued and growth surprising on the downside, Chinese authorities are likely to institute somewhat less policy tightening over the next few quarters than previously expected.

Other Emerging Asia

Elsewhere in emerging Asia, we estimate that economic growth stepped down to an annual rate of 3½ percent in the first quarter from 4½ percent in the fourth, as growth cooled in a number of economies that had outsized expansions in the fourth quarter. This

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

estimate is about ¾ percentage point lower than in the March Tealbook, as exports, especially to China, slowed more than expected and the advance GDP release for Singapore surprised on the downside. Growth in the region should pick up to about 3¾ percent in the current quarter, and further to about 4¾ percent by the end of 2015, supported by higher Chinese growth, accommodative macroeconomic policies, and the recovery of economic activity in the advanced economies. Relative to the March Tealbook, our forecast is down ½ percentage point this quarter and next on weaker momentum and slower-than-expected growth in China.

Headline inflation is estimated to have increased to an annual rate of 3½ percent in the first quarter from about 3 percent in the fourth, reflecting such factors as a resurgence of food price inflation in India and Indonesia. We expect inflation to average a little under 3½ percent over the forecast period, about the same as in the previous Tealbook.

Latin America

In Mexico, we estimate that real GDP increased at an annual rate of 3¼ percent in the first quarter, little changed from its fourth-quarter pace but ½ percentage point lower than projected in the March Tealbook. This downward revision reflects weaker-than-expected exports, industrial production, and retail sales. We expect Mexican growth to pick up gradually to about 4 percent by the middle of 2014, broadly in line with the contour of U.S. manufacturing output growth.

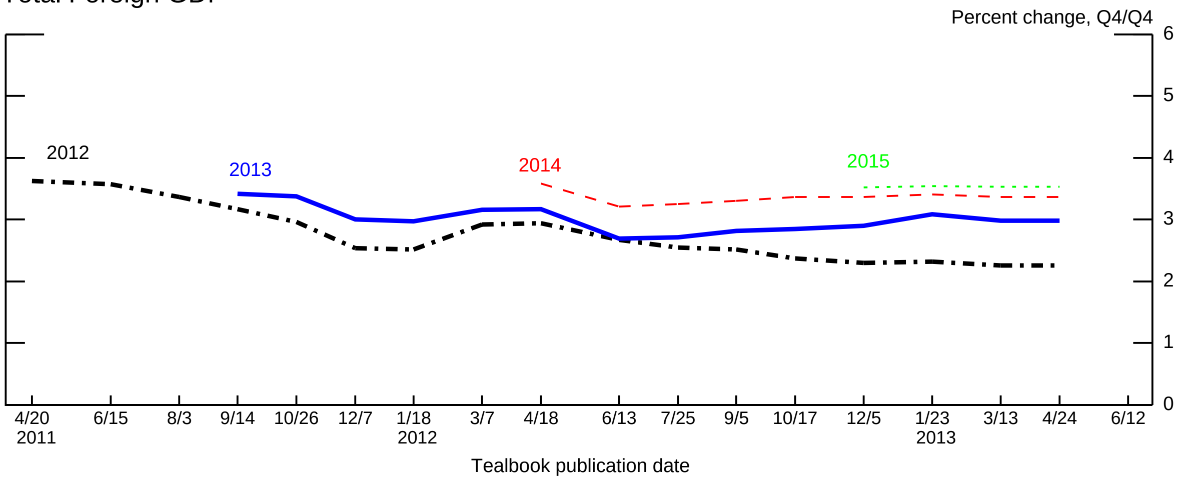
In South America, GDP growth declined from an upwardly revised 4¼ percent in the fourth quarter to an estimated 3 percent in the first. Growth in much of the region apparently cooled following surprisingly large gains in the fourth quarter, but recent indicators for Brazil, including PMIs, industrial production, and retail sales, suggest that growth picked up to 2¾ percent following more than a year of anemic performance. Although Brazil's first-quarter growth was still somewhat weaker than we anticipated in March, we continue to expect a gradual increase to 4 percent by next year, supported by still-accommodative fiscal and monetary policies, the recovery in the advanced economies, and a pickup in Chinese growth. As a result, aggregate South American growth should increase to about 3¾ percent in 2014 and 2015.

Consumer price inflation in Mexico increased to an annual rate of 3½ percent in the first quarter, significantly above our estimate in the March Tealbook, as food price inflation surprised on the upside. We expect inflation to dip later this year as these food price pressures dissipate but to return to 3½ percent by early next year.

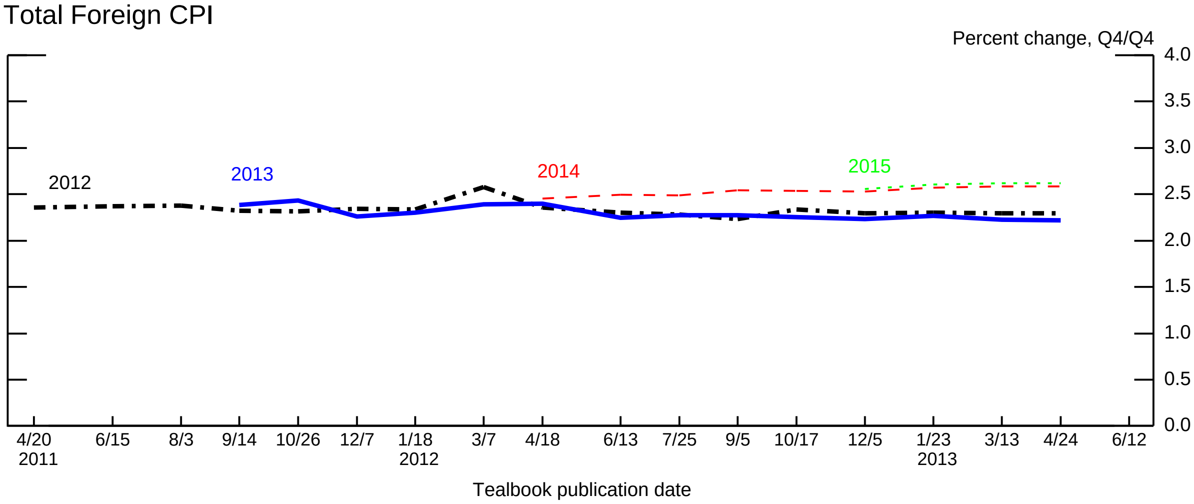
In Brazil, headline inflation moderated some in the first quarter but remained elevated amid persistent food price pressures. With 12-month inflation rising in recent months and breaching the upper limit of the target range of 2.5 to 6.5 percent, the central bank raised the policy rate 25 basis points to 7.5 percent, as anticipated. Some easing of food price pressures should push inflation back down to within the target range, aided by further monetary tightening over the next several quarters.

Evolution of Staff's International Forecast

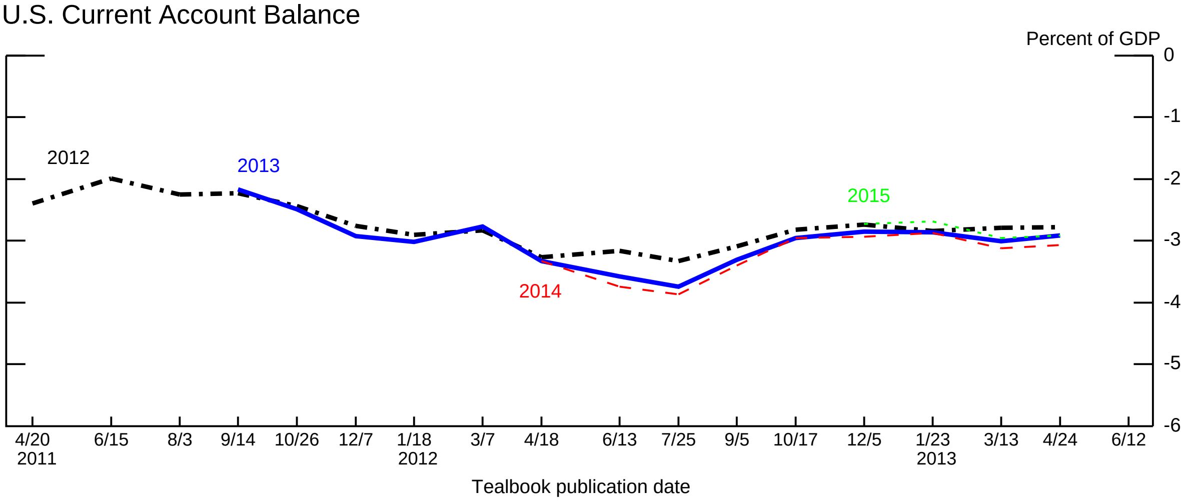
Total Foreign GDP



Total Foreign CPI



U.S. Current Account Balance



Int'l Econ Devel & Outlook

Financial Developments

Financial conditions eased a little, on balance, over the intermeeting period. The Cypriot banking crisis boosted volatility somewhat in financial markets early in the period, but its effects on financial asset prices generally appeared to be transitory. The negative tone of U.S. and foreign economic data releases, as well as more-accommodative-than-expected policy actions by the Bank of Japan (BOJ), put downward pressure on yields on longer-term Treasury securities and foreign benchmark sovereign bonds. The mean path of the federal funds rate implied by derivatives contracts also decreased moderately over the intermeeting period, though Federal Reserve communications left little imprint on asset prices. The broad dollar index was little changed, on net, as the dollar appreciated significantly against the yen. Resilient earnings expectations and lower interest rates likely helped offset the deterioration in sentiment regarding global economic growth, and domestic equity prices increased modestly on balance. Private yields edged lower across the credit spectrum; spreads on investment-grade corporate bonds changed little, while those on high-yield bonds widened modestly.

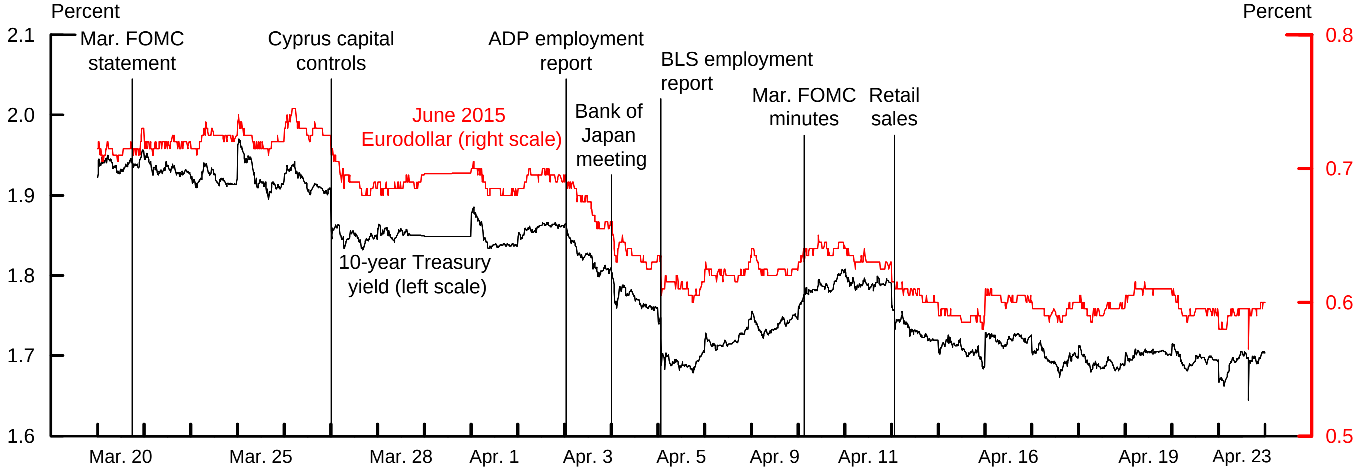
Recent trends in credit flows and financing conditions for nonfinancial businesses and households generally persisted. Lending to businesses was robust, on net, through April, and a number of indicators of the credit quality of nonfinancial corporations remained solid. In the household sector, the latest available data show that student and auto loans continued to increase significantly while credit card loans and mortgage debt were about flat. Underwriting standards in the credit card and mortgage sectors remained tight, particularly for borrowers without strong credit histories. The aggregate results for the April Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS) indicated that domestic respondents had, on net, eased their lending standards and experienced stronger demand in the first quarter of 2013 (see appendix). Meanwhile, overall bank credit and M2 expanded moderately.

Policy Expectations, Treasury Yields, and Agency MBS Yields

The March FOMC statement and other Federal Reserve communications over the intermeeting period were broadly in line with expectations and did not appear to elicit any notable price reaction. The minutes of the March FOMC meeting were reportedly seen as signaling a slightly higher-than-expected probability that the pace of asset

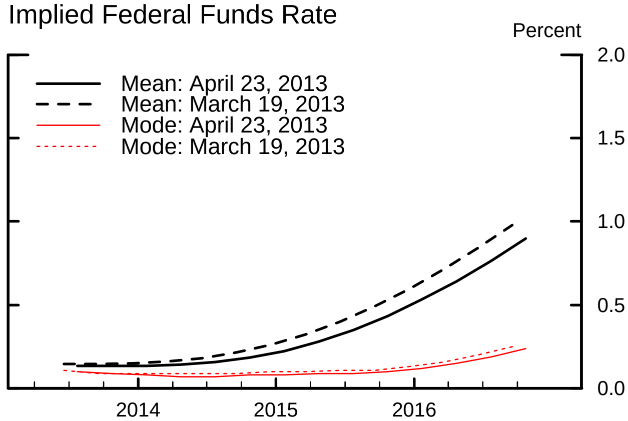
Policy Expectations and Treasury Yields

Selected Interest Rates



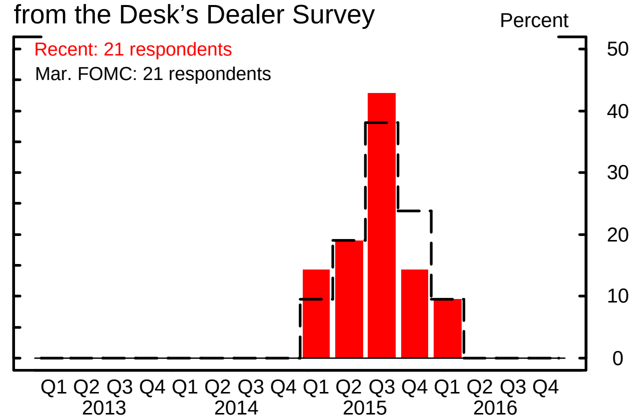
Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m. No adjustments for term premiums.
Source: Bloomberg.

Implied Federal Funds Rate



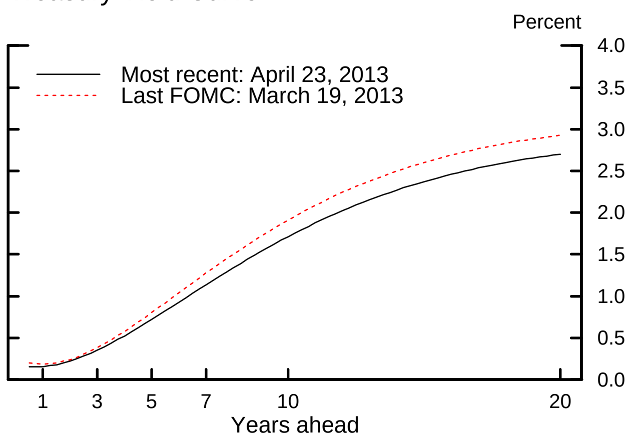
Note: Mean is estimated using overnight index swap quotes. Mode is estimated from the distribution of federal funds rate implied by interest rate caps. Both include a term premium of zero basis points per month.
Source: Bloomberg and CME Group.

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



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

Treasury Yield Curve



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

Inflation Compensation

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

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purchases would slow later this year, but market participants noted that those discussions did not reflect the disappointing economic data that followed the meeting. On balance, quotes from overnight index swaps suggest that market participants moderately lowered their mean expected paths for the federal funds rate through early 2017. The implied expected federal funds rate now rises above 25 basis points in the first quarter of 2015, one quarter later than at the time of the March FOMC meeting. The modal expectation derived from interest rate caps remains within the current target range until the fourth quarter of 2016.[1]

Results from the Open Market Desk's latest Survey of Primary Dealers indicated that the median estimate of the most likely time of the first increase in the target federal funds rate remained the third quarter of 2015, unchanged from the prior survey. The results suggested a modest increase in the median expectation of the most likely policy rate path beyond the second half of 2015 and into 2017, but the increase was due to revisions to the forecasts of only a few dealers. Median estimates of Federal Reserve securities holdings through the end of 2016 edged up, and the median expected time of the end of asset purchases moved out one quarter, to the second quarter of 2014.

Nominal Treasury yields declined over the intermeeting period, partly in response to the weaker-than-expected U.S. employment and retail sales figures (see the box "Sensitivity of Treasury Yields to Economic Data Surprises").[2] An expectation that the BOJ's policy actions may provide an incentive for some investors to reallocate their portfolios away from Japanese government bonds and toward higher-yielding safe assets, including Treasury securities, reportedly also contributed to the declines. On net, the 5-year nominal Treasury yield decreased 8 basis points, while the 10-year and 30-year yields both dropped about 20 basis points.

Against the backdrop of weaker-than-expected economic data and declines in commodity prices, near-term measures of inflation compensation moved lower. In particular, TIPS-based inflation compensation over the next 5 years fell 22 basis points, while inflation compensation 5 to 10 years ahead was little changed. Both measures

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

[2] On the afternoon of April 23, the Twitter account of the Associated Press was compromised, and a false report of explosions at the White House appeared on their feed. Bond yields and equity prices dropped precipitously for a couple of minutes but quickly recovered when the story was corrected.

Sensitivity of Treasury Yields to Economic Data Surprises

In September 2012, the FOMC announced a new round of agency MBS purchases linked to the outlook for the labor market. In December 2012, the Committee announced purchases of Treasury securities similarly linked to the outlook and replaced its earlier calendar-based forward rate guidance with numerical thresholds for the unemployment rate and projected inflation. Market participants have suggested that these policy actions might cause expectations of the Federal Reserve's securities holdings and of the future target rate to become more responsive to economic news influencing the outlook for the labor market and inflation. A simple way to evaluate whether such an increase in responsiveness has occurred is to look at whether the sensitivity of Treasury yields to surprises in economic data releases has changed since the policy actions were announced.

The figure on the next page shows estimates of the sensitivity of Treasury yields to surprises in the nonfarm payrolls data over time. The plotted series represent the estimated effect on various Treasury yields of a positive 100,000 surprise in nonfarm payrolls growth, based on data in the 12-month sample ending in the period specified on the x axis. The estimates are calculated by regressing changes in on-the-run Treasury yields during a one-hour window around nonfarm payrolls releases on the surprise component of the releases, measured as the difference between the actual change in nonfarm payrolls and the median expected change taken from Bloomberg.[1] The black vertical line in the figure denotes October 2012, the date that the estimation sample first includes observations after the announcement of asset purchases linked to the labor market outlook.

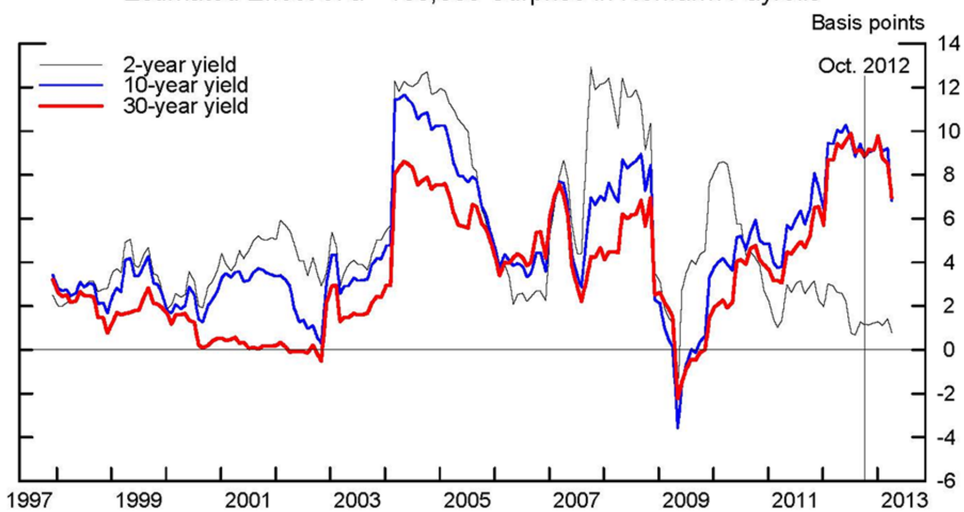
Contrary to the proposition that recent FOMC policy changes have prompted an increase in the sensitivity of Treasury yields to economic news, the estimated effects of payrolls surprises have edged down in recent months as more post-September 2012 observations have come to be included in the regression samples. However, these recent declines are small relative to the variation observed in the estimates since 1998 and to the coefficient standard errors (not shown), and one could not reject the hypothesis that the sensitivity was unchanged following September 2012 at standard significance levels. Nonetheless, the sensitivity of longer-term yields has generally trended up over recent years even as the zero lower bound has sharply reduced the sensitivity of the two-year yield. This observation is consistent with the well-established notion that Federal Reserve asset purchases affect longer-dated term premiums.

[1] The results shown here hold if the regressions are structured in a manner that controls for the effects of simultaneous surprises in the unemployment rate and other data releases.

Broadly similar results are found for surprises in many other key U.S. economic releases, including consumer confidence, core PCE, industrial production, and initial claims. While estimates of the sensitivity for some releases, including the unemployment rate, have edged up in recent months, the evidence on these releases is as tentative as that on nonfarm payrolls. Estimates of changes in sensitivity to data surprises obtained using more sophisticated econometric approaches vary with the model specification and estimation sample but generally don't indicate an increase in the sensitivity of Treasury yields since last fall.[2]

In short, there is not yet any convincing evidence that the sensitivity of Treasury yields to economic data surprises has increased as a result of recent FOMC policy decisions. Of course, given the relatively limited number of observations currently available following those decisions, it may simply be too early to discern any change in sensitivity. Separately, even if the policy actions have not prompted an increase in sensitivity to date, they may do so as economic indicators draw nearer to the numerical thresholds or more clearly suggest a substantial improvement in the labor market outlook.

Estimated Effect of a +100,000 Surprise in Nonfarm Payrolls



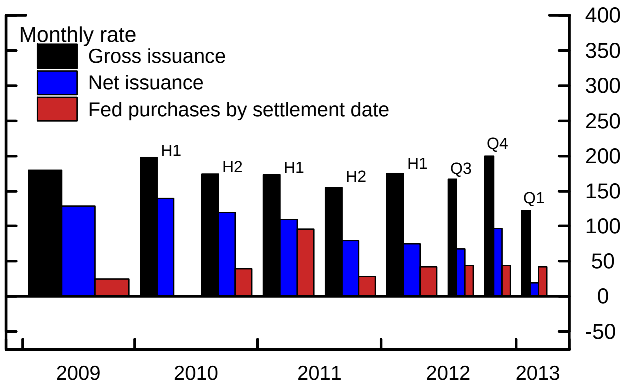
Note: Coefficients from regressions of one-hour changes in Treasury yields on nonfarm payrolls surprises in the 12-month window ending in the period specified on the x axis. The October 2012 line denotes the first sample including post-September 2012 data.
Source: Staff calculations from Bloomberg data.

[2] For related analysis on this topic, see Andrew Howland and Elad Pashtan (2013). "Has Price Sensitivity and Uncertainty around Economic Data Surprises Increased?" Federal Reserve Bank of New York, MarketSOURCE, https://marketsource.ny.frb.org/publish/view/mtahep031413.pdf.

Financial Developments

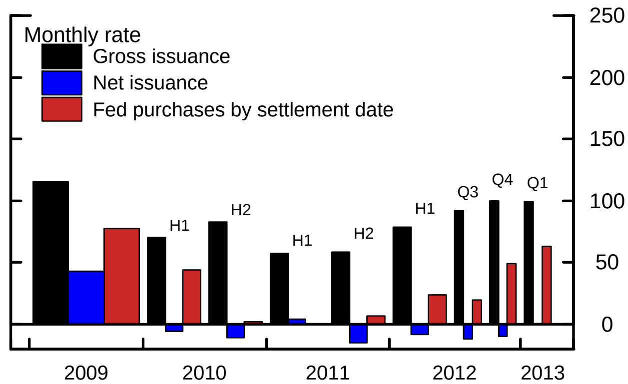
Treasury and Agency MBS Market Functioning

Nominal Treasury Issuance and Fed Purchases



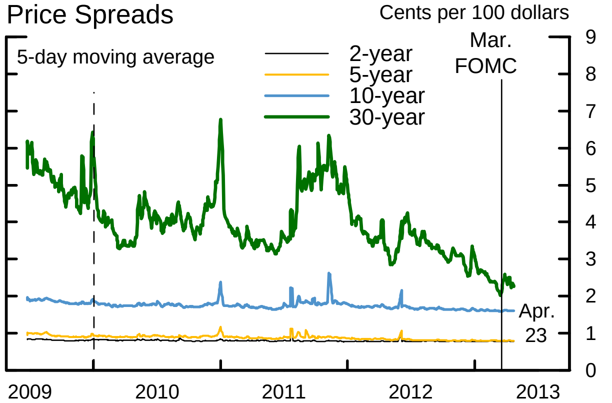
Note: Excludes bills.
Source: U.S. Department of the Treasury; Federal Reserve Bank of New York.

Agency MBS Issuance and Fed Purchases



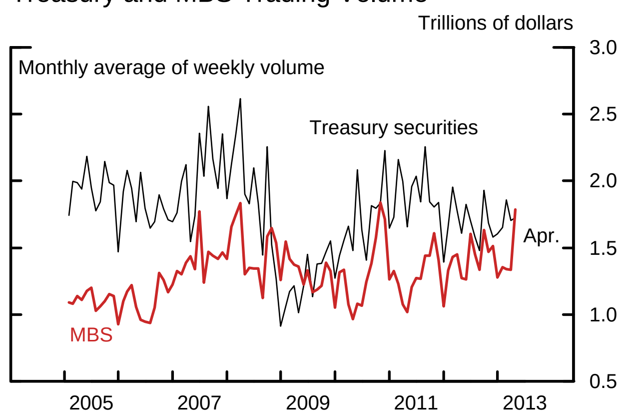
Note: Issuance and purchases of 30-year fixed-rate agency MBS.
Source: Federal Reserve Bank of New York.

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



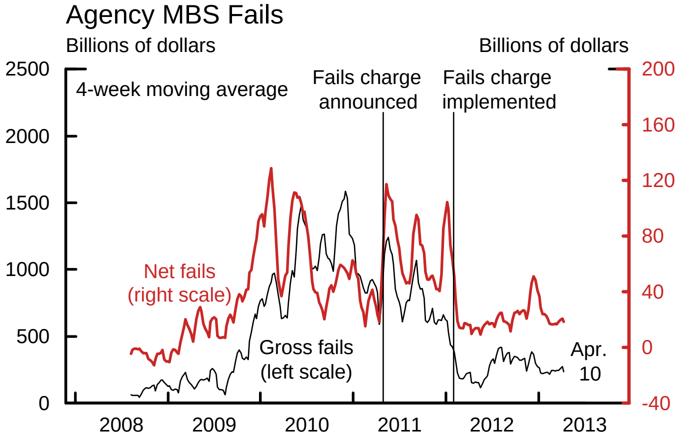
Note: Series contain breaks and are considered more reliable starting on January 1, 2010 (indicated by the dashed vertical line), and going forward.
Source: BrokerTec.

Treasury and MBS Trading Volume



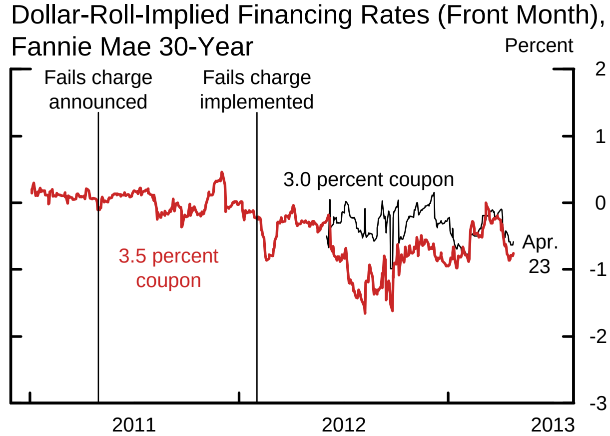
Note: Excludes bills.
Source: Federal Reserve Board, FR 2004, Government Securities Dealers Reports.

Agency MBS Fails



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

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



Source: J.P. Morgan.

Financial Developments

remain within their ranges observed over the past several years. Swaps-based inflation compensation measures behaved similarly.

MBS yields decreased about in line with yields on Treasury securities, as the 30-year Fannie Mae current-coupon MBS yield declined 17 basis points since the March FOMC meeting. The discussion in the minutes of that meeting regarding MBS sales and possible changes that the FOMC might make in paring its holdings over time appeared to leave little imprint on MBS spreads, in part because of prior communications on the subject. According to the Desk's survey, primary dealers put a probability of about one-third on the scenario of outright sales of agency MBS from the SOMA portfolio, with the most likely timing of this event being the third quarter of 2016.

Treasury and Agency MBS Market Functioning

The Desk conducted flow-based purchases of Treasury securities and agency MBS as planned, and these operations did not appear to have material adverse effects on the functioning of either Treasury or agency MBS markets.[3] Measures of liquidity conditions suggested that agency MBS markets continued to function normally over the intermeeting period, though some short-term signs of scarcity were evident in implied financing rates for certain agency MBS. For example, over the period, dollar-roll-implied financing rates for 30-year Fannie Mae 3.5 percent coupon securities declined close to levels last observed in January, when the TBA market experienced some near-term settlement pressures. However, these MBS account for a relatively small proportion of issuance and of the Desk's purchases. The Desk executed dollar rolls on 8 percent of its total agency MBS purchases for April settlement to ease pressures in the TBA market, about in line with its rolls over the previous intermeeting period.

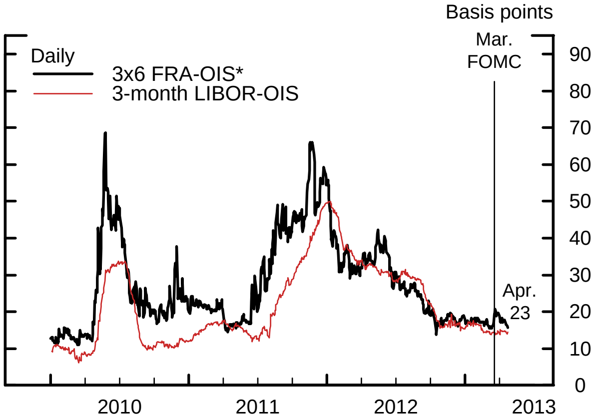
Short-Term Funding Markets and Financial Institutions

Conditions in dollar funding markets generally have been stable since the March FOMC meeting. Offshore dollar funding markets reacted only modestly to the spike in uncertainty surrounding the negotiations early in the intermeeting period to resolve the Cypriot banking crisis. The spread between three-month LIBOR and comparable-maturity OIS rates was little changed, on balance, over the period, as was the spread

[3] Over the intermeeting period, the Desk purchased $50 billion in Treasury securities under the flow-based Treasury purchase program. In addition, the Desk purchased $77 billion in agency MBS under the flow-based MBS program and the reinvestment program.

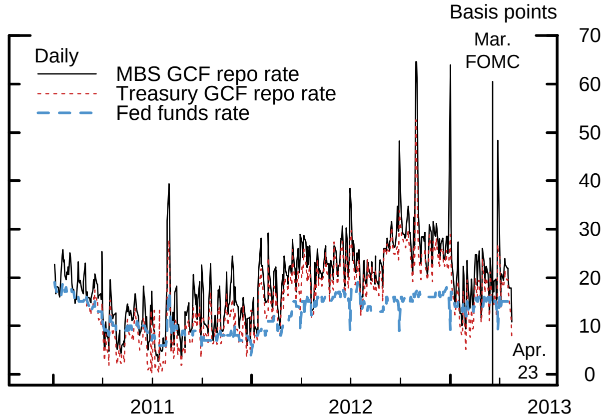
Short-Term Funding Markets and Financial Institutions

Funding Spreads



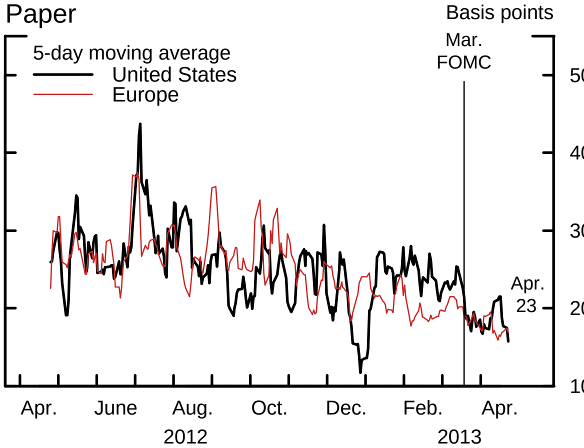
* Spread is calculated from a LIBOR forward rate agreement (FRA) 3 to 6 months in the future and the forward overnight index swap (OIS) rate for the same period.
Source: Bloomberg.

Overnight Funding Rate



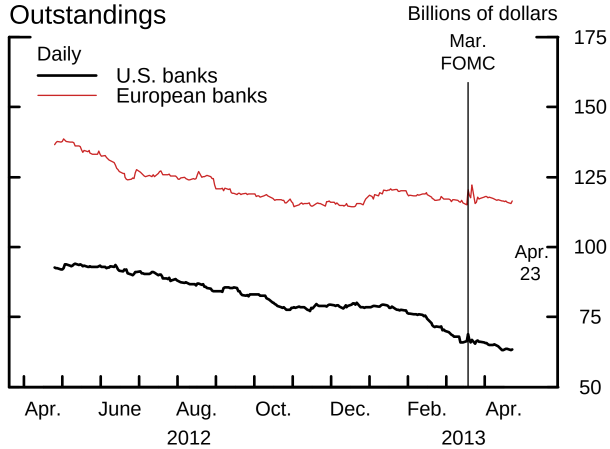
Note: GCF is general collateral finance; repo is repurchase agreement.
Source: Depository Trust & Clearing Corporation; Federal Reserve.

30-Day Rates on Unsecured Financial Commercial Paper



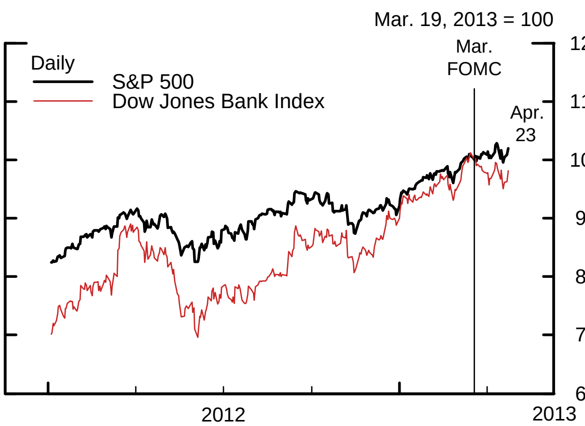
Source: Depository Trust & Clearing Corporation.

Asset-Backed Commercial Paper Daily Outstandings



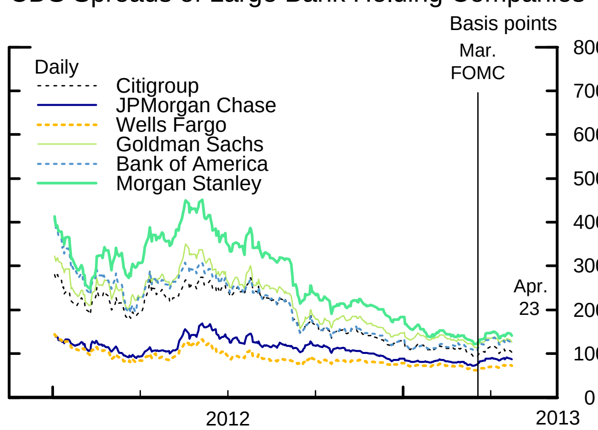
Source: Depository Trust & Clearing Corporation.

Stock Prices



Source: Bloomberg.

CDS Spreads of Large Bank Holding Companies



Source: Markit.

between the three-month forward rate agreement three months ahead and the corresponding forward OIS rate.

Treasury and MBS general collateral finance (GCF) repo rates decreased slightly, on net, over the intermeeting period amid some volatility. Quotes on GCF Treasury repo futures indicate that market participants' expectations for the Treasury repo rate over the rest of 2013 edged down on balance. Haircuts in bilateral repo contracts for a range of collateral types were reportedly about unchanged on net.

Conditions in domestic commercial paper (CP) markets remained stable over the intermeeting period. The outstanding amounts of unsecured CP issued by both European and U.S. financial institutions were little changed on net. Interest rates on unsecured financial CP remained at the low end of their range over the past several years. In asset-backed commercial paper (ABCP) markets, amounts outstanding were roughly unchanged for programs with sponsors domiciled in Europe, while amounts outstanding edged down for those with sponsors domiciled in the United States. Spreads on ABCP were about flat, on net, with spreads on most European ABCP issues remaining close to those on comparable U.S. issues.

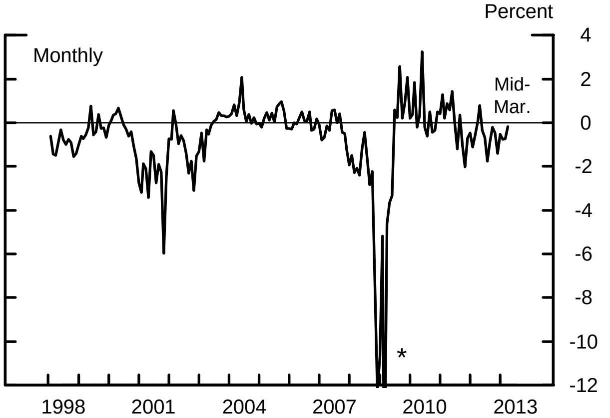
Turning to financial institutions, share prices for the largest domestic banking organizations registered modest declines, on balance, reflecting in part the expected trends in these banks' profitability. Five of the six largest U.S. banking institutions reported earnings that were above consensus forecasts, but analysts pointed to difficulties banks continue to face in increasing their revenues, as well as their reliance on expense management to meet earnings forecasts. Bank CDS spreads were slightly higher, on average, across the larger firms in the sector.

OTHER DOMESTIC ASSET MARKET DEVELOPMENTS

About one-third of the firms in the S&P 500 index have reported first-quarter earnings. Roughly three-fourths of these firms, a typical proportion, have exceeded Wall Street earnings forecasts, but less than half of the reporting firms met or exceeded analysts' revenue forecasts. Preliminary data suggest that through mid-April, firms' earnings reports generally had not caused analysts to revise their forecasts of year-ahead earnings for S&P 500 firms. Industry analysts still expect annualized earnings growth in the second half of 2013 and in 2014 to be in double digits.

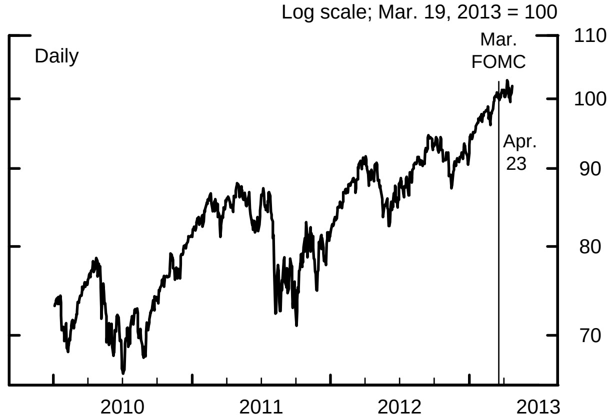
Other Domestic Asset Market Developments

Revisions to S&P 500 Earnings per Share



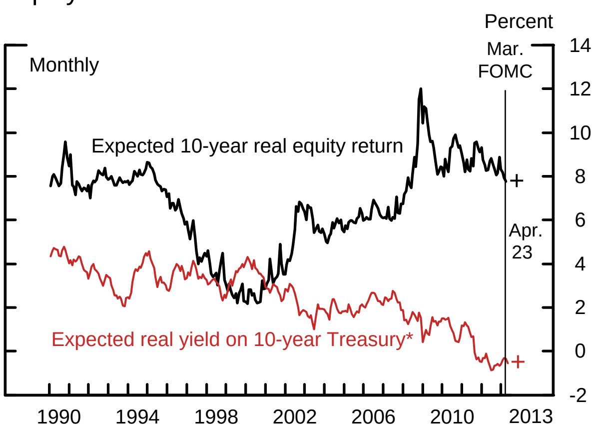
Note: Weighted average of the percent change in the consensus forecasts of current-year and following-year earnings per share.
* EPS revision is -17.22 percent in Feb. 2009.
Source: Thomson Reuters.

S&P 500 Stock Price Index



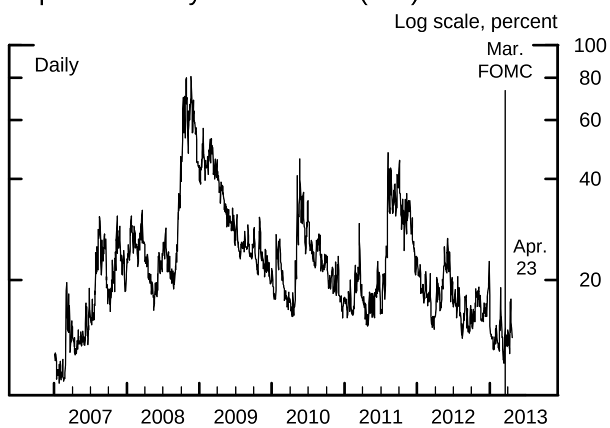
Source: Bloomberg.

Equity Risk Premium



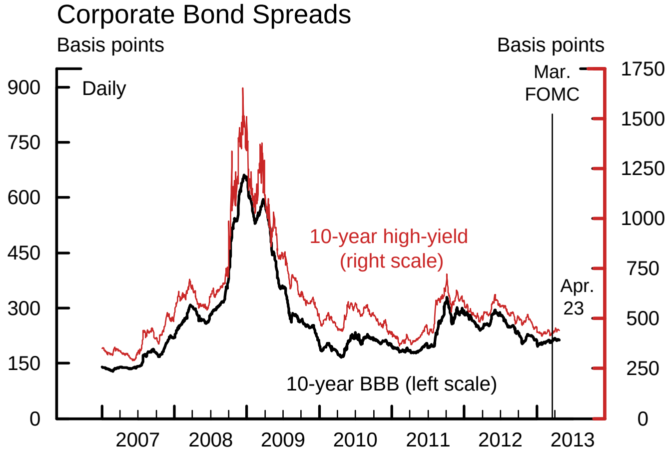
* Off-the-run 10-year Treasury yield less Philadelphia Fed 10-year expected inflation.
+ Denotes the latest observation using daily interest rates and stock prices and latest earnings data.
Source: Thomson Reuters.

Implied Volatility on S&P 500 (VIX)



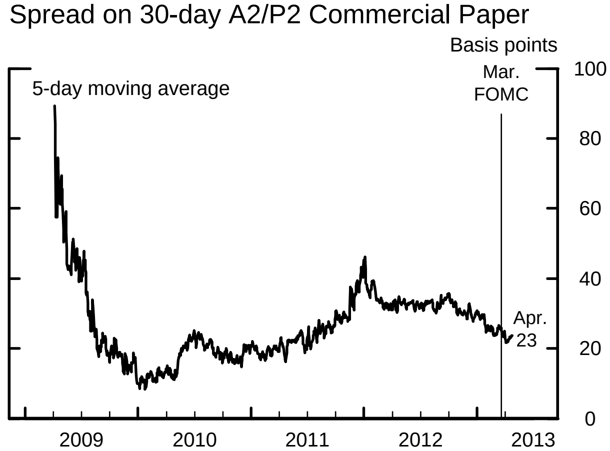
Note: Option-implied 1-month-ahead volatility on the S&P 500 index.
Source: Chicago Board Options Exchange.

Corporate Bond Spreads



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

Spread on 30-day A2/P2 Commercial Paper



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

Over the intermeeting period, broad equity price indexes increased 1½ to 2 percent, on net, despite the negative tone of economic data. This resilience in stock prices likely reflected the stability of medium-term earnings expectations as well as lower interest rates. In addition, the spread between the return on the S&P 500 index and the real 10-year Treasury yield—a gauge of the current equity premium—remained historically wide. Moreover, share prices for firms that are generally considered to be less exposed to macroeconomic risk, such as those in the utilities and health-care sectors, generally outperformed the broader market, a pattern consistent with some concerns among investors regarding global growth prospects. The VIX—an index of option-implied one-month-ahead volatility for the S&P 500 index—remained in a range that is low by historical standards.

In the corporate debt market, yields on investment-grade bonds fell roughly in line with those on Treasury securities of comparable maturity, leaving their spreads little changed. However, spreads on speculative-grade corporate bonds widened modestly. The spreads of yields on A2/P2 unsecured CP issued by nonfinancial firms over yields on AA-rated nonfinancial issues continued to edge down over the period.

Foreign Developments

Most foreign equity indexes fell over the intermeeting period, and benchmark sovereign yields declined, amid disappointing U.S. and foreign macroeconomic data. Although markets reacted negatively to Cyprus's "bail-in" of uninsured bank depositors at the two largest Cypriot banks and the imposition of an extended bank holiday early in the period, price movements were relatively contained and largely temporary (see the box "The Crisis in Cyprus").

Pulled down by a weaker outlook for global growth, European equity prices have declined about 1 percent, on net, while emerging market stock prices are also down amid modest outflows from emerging market equity mutual funds. In contrast, Japanese stock prices have risen 8½ percent, as the BOJ surprised investors with the scale of its new monetary stimulus. On April 4, the BOJ announced plans to essentially double its balance sheet by the end of 2014 by purchasing larger amounts of government bonds, including longer-maturity bonds, and other securities (for further details, see the box "The New Monetary Policy Program of the Bank of Japan" in the International Economic Developments and Outlook section). Yields on long-dated Japanese government bonds fell 10 to 50 basis points in response to the announcement but retraced over the next

The Crisis in Cyprus

The crisis in Cyprus had its origin in the country's domestic banking sector, where assets totaled roughly five-and-a-half times the nation's GDP. Cypriot banks, already suffering from the euro-area recession, took large losses on their sizable holdings of Greek debt when this debt was restructured. Last June, Cyprus, having already lost access to bond markets in mid-2011 on investor concerns about domestic banks, requested European assistance to recapitalize its banks. Amid protracted negotiations, European and IMF officials opposed fully bailing out Cypriot banks because of their perceived role as a haven for money laundering and tax evasion for large Russian depositors and because of the effects a bailout might have on the sustainability of Cyprus's sovereign debt. In contrast, Cypriot leaders wished to protect Cyprus's foreign investors and offshore banking franchise. With Cypriot bank deposits declining, European and Cypriot leaders hastily put together a plan, announced on March 16, under which Cyprus would receive €10 billion in official assistance, and additional funds for bank recapitalization would come from a tax on all bank deposits—including a 7 percent tax on insured deposits. Cypriot leaders announced a bank holiday to prevent deposit runs. Immediately controversial, the plan was rejected by the Cypriot Parliament on March 19, and negotiations began again.

With the ECB threatening to cut off funding absent an agreed-upon plan for Cyprus, on March 25, euro-area leaders unveiled a revised €10 billion assistance program in which insured deposits would be protected, as would all deposits at solvent Cypriot banks. Bank of Cyprus (the country's largest bank) will be recapitalized by imposing losses on shareholders, bondholders, and uninsured depositors. Cyprus Popular Bank (the second-largest bank, also called "Laiki") will be resolved, with its insured deposits transferred to Bank of Cyprus and losses imposed on its shareholders, bondholders, and uninsured depositors. Uninsured deposits at the two banks have been frozen. In addition, Cypriot leaders unveiled a set of capital controls and limits on banking transactions to prevent large-scale runoffs of deposits once banks were reopened. Cypriot banks reopened on March 28, but capital controls and limits on bank transactions remain in place.

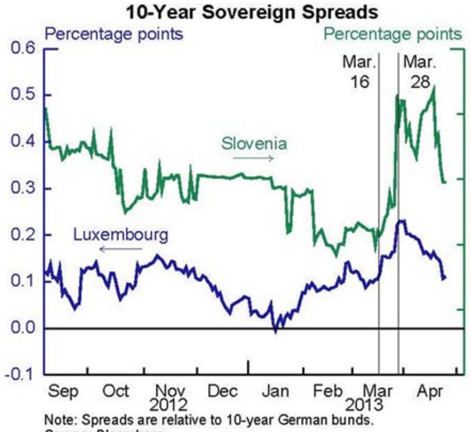
Despite fears of widespread spillovers, few signs of disruptions outside Cyprus were observed. There have been no reports of deposit runs from other peripheral banking systems. And although global financial markets initially reacted negatively to the ill-fated March 16 plan, these reactions were small relative to market movements in recent years, were partly reversed, and primarily affected the debt and equity prices of European banks. The ECB's program of Outright Monetary Transactions, which allows the ECB to purchase the debt of member countries that have negotiated programs with the European Financial Stability Facility or the European Stability Mechanism, likely reassured markets that support would be forthcoming should contagion arise. Even so, like Greece, Cyprus may have difficulty meeting the requirements of its program, and any need for renegotiation may pose the threat of impasse and contagion to other peripheral European countries.

Attention quickly turned to which European country might next require a program. Amid the search for vulnerable countries, press commentary has focused on Luxembourg, Malta, and Slovenia.[1] There was only a slight market reaction in Luxembourg (lower-left figure), where the spread of the 10-year sovereign yield over German bunds is currently 11 basis points, and in Malta (not shown).[2] However, the comparable spread jumped notably for Slovenia, where the recession is causing large losses for banks.

Market participants also raised concerns over whether the decision in Cyprus—unlike in Ireland and Spain—to impose losses on, or "bail in," senior bank creditors signaled a greater willingness of European leaders to bail in such creditors in the future. Although European authorities had already indicated their intent to move toward greater burden sharing with bank creditors, it was unclear how quickly they would do so given the persistence of financial fragility in Europe. Moreover, Cyprus's role as a large and problematic offshore banking center arguably made it a special case. That said, markets appear to have priced in a modest increase in the likelihood that bank creditors will take losses in the event of future difficulties. The iTraxx Europe senior financial credit default swap (CDS) index, although down from its recent peak, remains above its March 15 level (lower-right figure), whereas the nonfinancial CDS index is little changed. And euro-area bank stocks (not shown) declined more than headline indexes around the time of the Cyprus crisis.

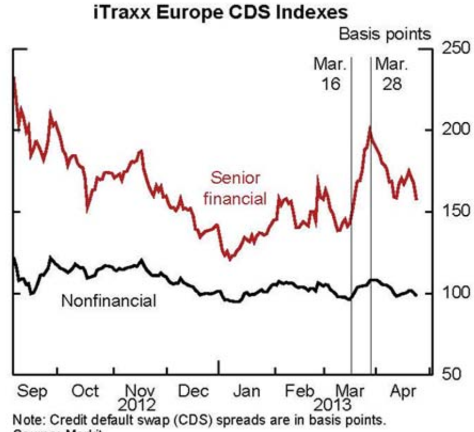
Increased expectations of creditor bail-ins could raise bank funding costs and leave European banks at greater risk of deposit flight and funding difficulties should the banks come under pressure. Although strains in most of peripheral Europe appear not to have increased, the recent experience in Cyprus highlights the need for the European authorities to push ahead on their plans for banking union, including establishing a single supervisor, harmonizing regulations, and strengthening resolution and deposit-insurance mechanisms.

10-Year Sovereign Spreads



Note: Spreads are relative to 10-year German bunds.
Source: Bloomberg.

iTraxx Europe CDS Indexes



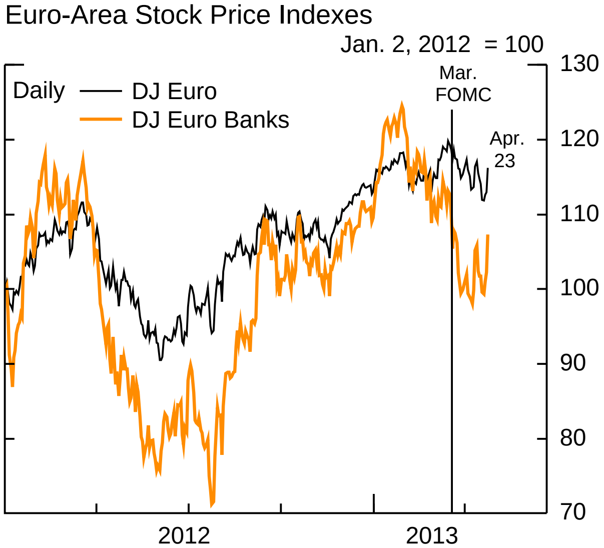
Note: Credit default swap (CDS) spreads are in basis points.
Source: Markit.

[1] Luxembourg's fiscal imbalances are small, but its banking system is outsized compared to its GDP. Malta's banking system is also outsized, and its fiscal imbalances are worse than Cyprus's. Slovenia's banking system is not large, but its macroeconomy is quite weak.

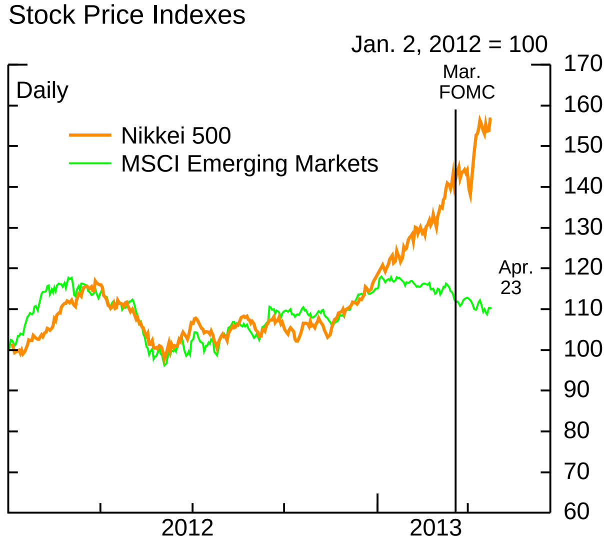
[2] In Malta, the spread of the 10-year sovereign yield over German bunds is currently below its March 15 level.

Financial Developments

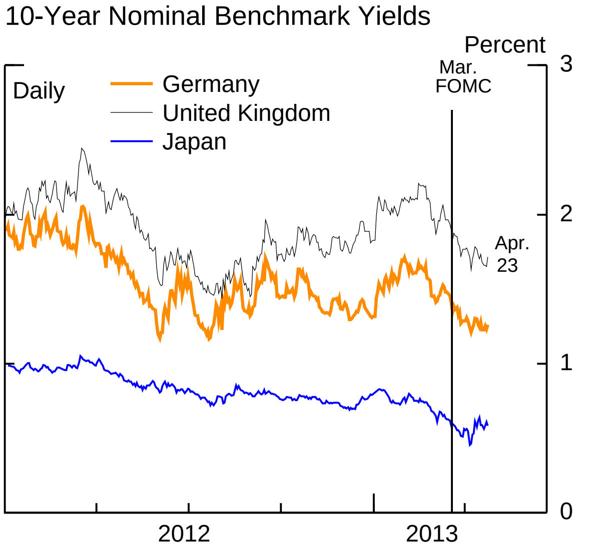
Foreign Developments



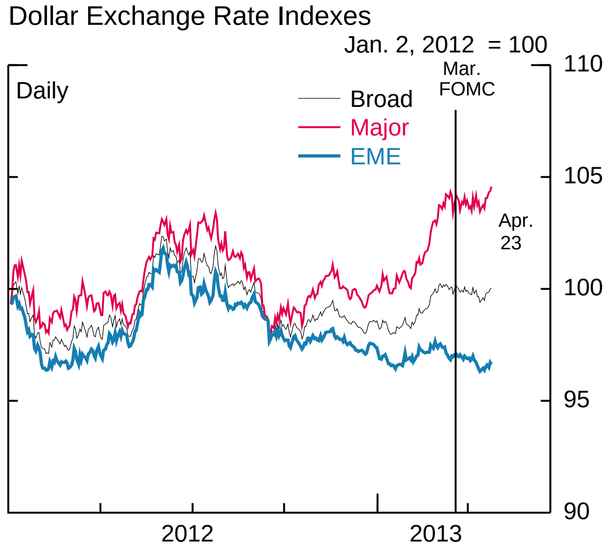
Source: Bloomberg.



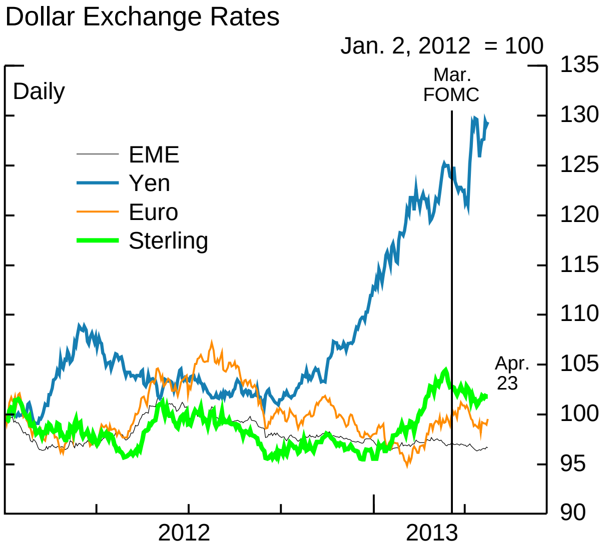
Source: Bloomberg.



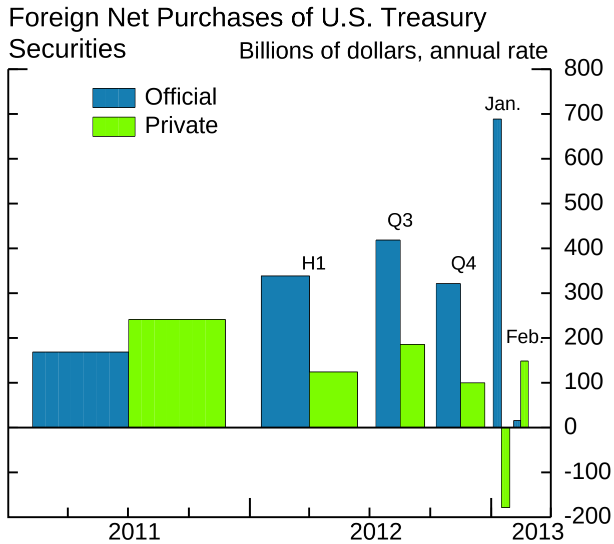
Source: Bloomberg.



Source: Federal Reserve Board; Bloomberg.



Source: Federal Reserve Board; Bloomberg.



Source: Treasury International Capital data adjusted for staff estimates.

Financial Developments

several days amid substantial intraday volatility as market participants struggled to fully understand the implications of the BOJ's purchases for market functioning and the economy.

Outside of Japan, sovereign yields fell, on net, over the intermeeting period. Early in the period, these yields were likely pushed down modestly by flight-to-quality flows induced by events in Cyprus. However, yields fell even after the situation in Cyprus appeared to stabilize, likely reflecting a combination of weak macro data releases, some spillovers from the BOJ's policy announcements, and increased expectations of additional monetary accommodation in some other major foreign economies. The ECB and the Bank of Canada kept their policies on hold over the period, but, late in the period, the Bank of England announced an expansion of its Funding for Lending Scheme. On net, 10-year sovereign yields declined about 10 basis points in Germany, the United Kingdom, and Canada.

After appreciating, on balance, since early this year, the foreign exchange value of the dollar was about unchanged against a broad set of currencies over the intermeeting period. The dollar appreciated 4½ percent against the yen but depreciated about 1 percent against the euro and pound, with most of the depreciation occurring after the weaker-than-expected U.S. March employment report. The dollar also depreciated modestly against most emerging market currencies, including the renminbi, which Chinese authorities allowed to appreciate ½ percent against the U.S. dollar.

Foreign official purchases of U.S. securities moderated in February after rebounding strongly in December and January. The lower purchases were more than accounted for by Asian counterparties. Custody holdings data at the Federal Reserve Bank of New York indicate that foreign official purchases weakened further, on net, in March. Foreign private investors showed some renewed interest in Treasury securities and U.S. corporate bonds in February, which was partially offset by sales of agency bonds and corporate stocks. U.S. investors made modest purchases of foreign bonds and very large purchases of foreign stocks in February.

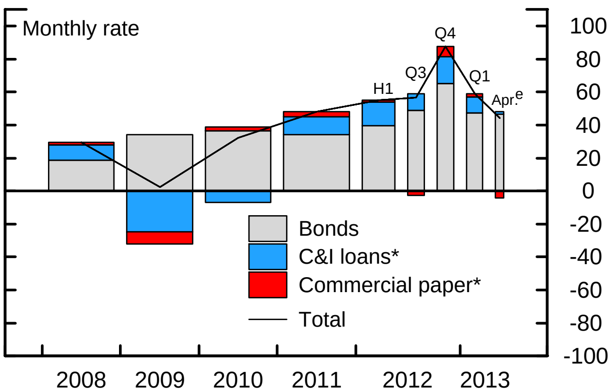
Business Finance

Credit flows to nonfinancial businesses remained strong so far this year, though they slowed somewhat from the outsized pace observed at the end of last year. The rate of bond issuance by nonfinancial firms was robust in March and April, roughly in line

Business and Government Finance

Selected Components of Net Debt Financing, Nonfinancial Firms

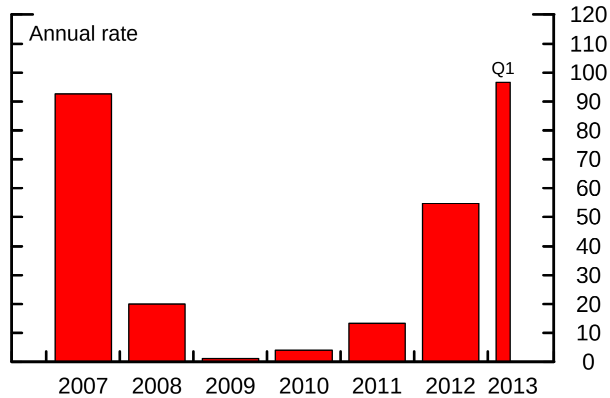
Billions of dollars



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

U.S. CLO Issuance

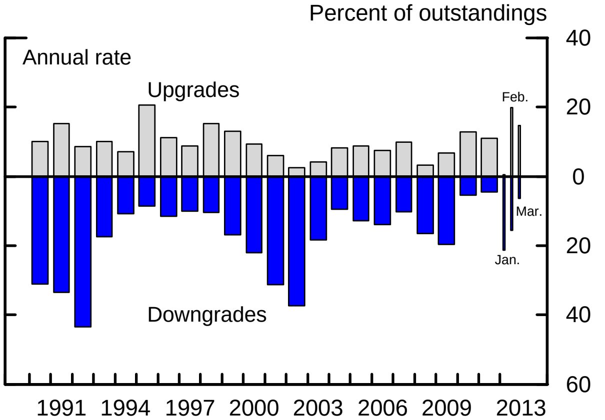
Billions of dollars



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

Bond Ratings Changes of Nonfinancial Firms

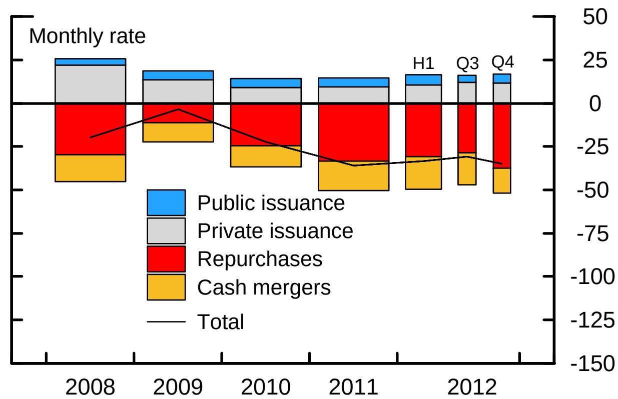
Percent of outstandings



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

Selected Components of Net Equity Issuance, Nonfinancial Firms

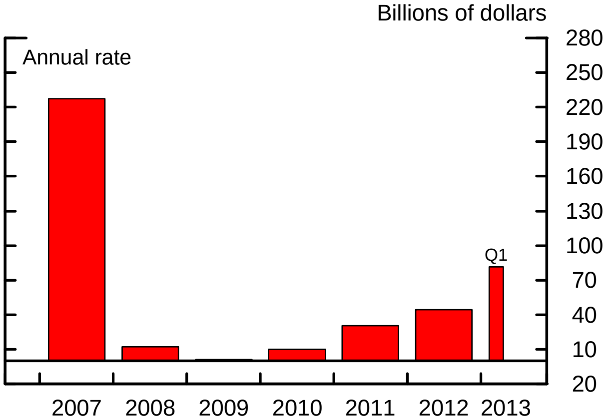
Billions of dollars



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

CMBS Issuance

Billions of dollars

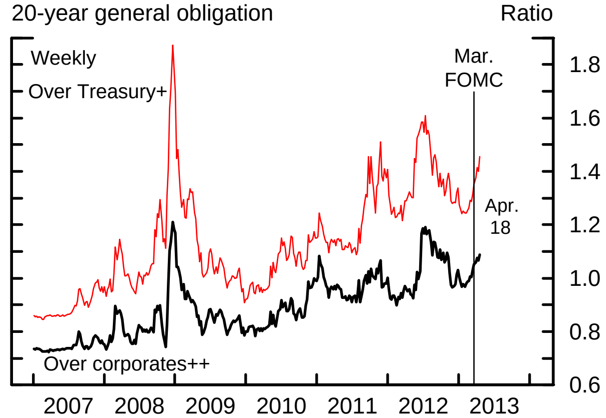


Note: CMBS is commercial mortgage-backed securities.
Source: Commercial Mortgage Alert.

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.

with the pace in January and February. Consistent with recent trends, some companies reportedly retired a notable portion of their CP outstanding and issued longer-term bonds in comparable amounts. Syndicated leveraged loans were issued at a record pace in the first quarter, supported by robust demand for these generally floating-rate assets from banks and particularly nonbank institutions, such as CLOs and loan funds. About 75 percent of that volume was used to refinance existing debt, and the amount of incremental issuance (or "new money") in the first quarter of 2013 remained near the pace seen over the past couple of years. Strong demand from investors for leveraged loans also pushed the median bid price in the secondary market for the 100 most liquid loans slightly above par for the first time since mid-2007.

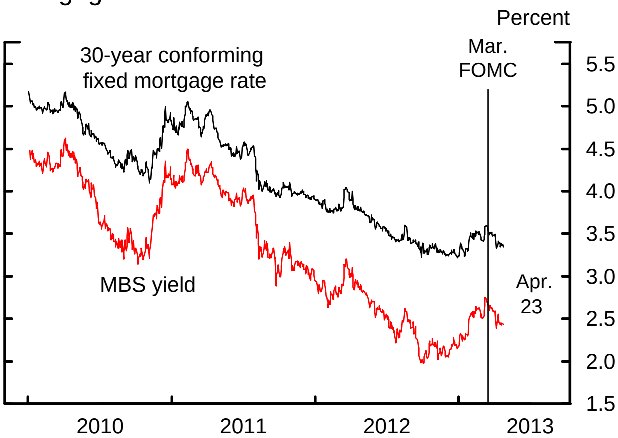
The latest available indicators of the credit quality of nonfinancial corporations continued to be solid. The volume of nonfinancial corporate bonds upgraded by Moody's Investors Service rebounded in February and significantly exceeded that of downgrades in March. The six-month trailing bond default rate for nonfinancial firms remained low by historical standards in March, while the KMV expected year-ahead default rate for nonfinancial firms was roughly unchanged in April.

Turning to equity finance, gross public issuance was solid in the first quarter, mainly owing to robust IPO and secondary offerings in January that reflected improved sentiment in the U.S. equity markets over the corresponding period. However, with the corporate sector still flush with cash, net equity issuance appears to have remained deeply negative so far this year. Moreover, data on merger activity and announcements of new share repurchase programs in the first quarter indicate that equity retirements are likely to significantly outpace gross issuance over coming months.

Conditions in some segments of the commercial real estate (CRE) sector continued to improve at a moderate pace in recent months. Outstanding CRE loans held by commercial banks have edged up in the past two quarters, following a prolonged period of decline. According to the April SLOOS, the fraction of banks that reported having eased standards on CRE loans over the past three months increased to a relatively high level while demand for these loans reportedly strengthened further. CMBS issuance was strong in the first quarter, and spreads on newly issued securities, as well as those trading in the secondary market, were stable at moderate levels. Prices on commercial properties have generally continued to move up slowly, and price indexes for various market segments are now at levels last seen in late 2008. Vacancy rates have returned to

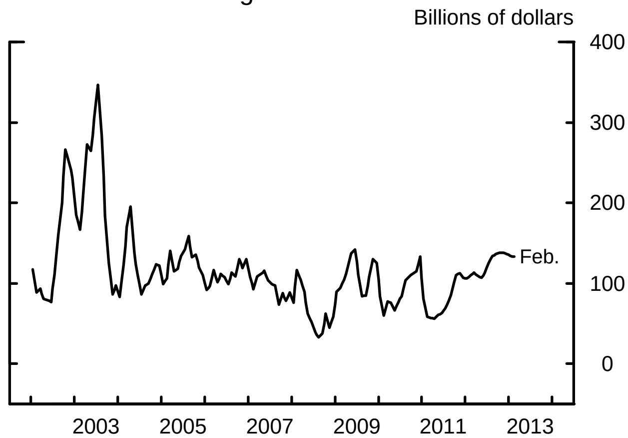
Household Finance

Mortgage Rate and MBS Yield



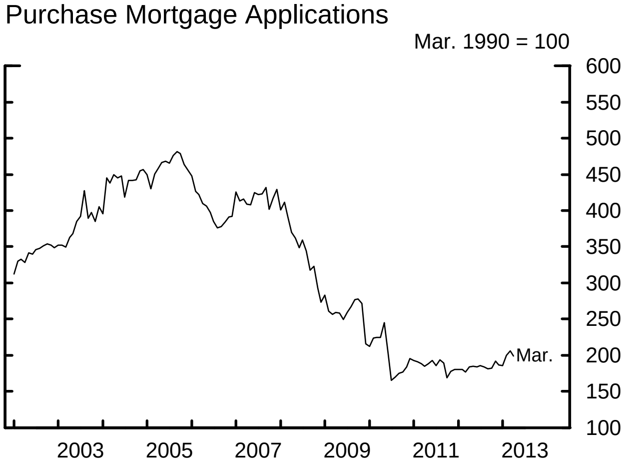
Note: For MBS yield, the data are daily and consist of the Fannie Mae 30-year current-coupon rate; for mortgage rate, the data are weekly before 2010 and daily thereafter.
Source: For MBS yield, Barclays; for mortgage rate, Freddie Mac (before 2010) and Loansifter (from 2010).

Refinance Loan Originations



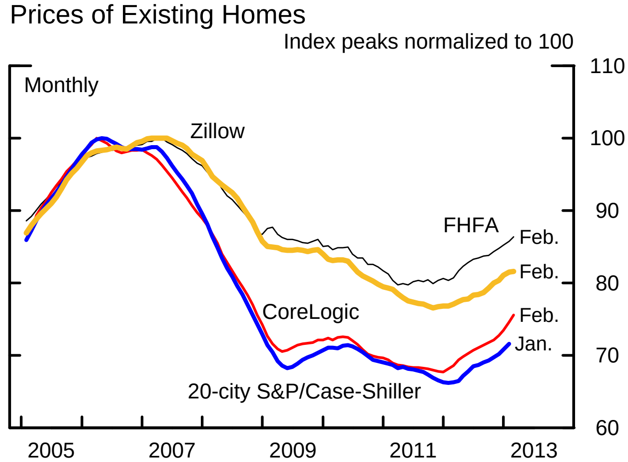
Note: The data are seasonally adjusted by FRB staff.
Source: Staff estimates.

Purchase Mortgage Applications



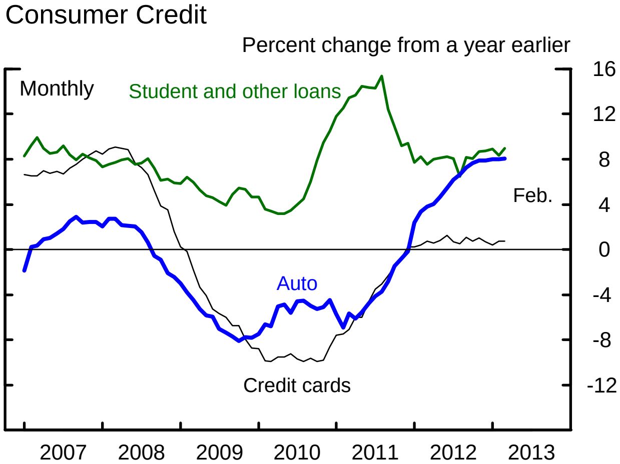
Source: Mortgage Bankers Association.

Prices of Existing Homes



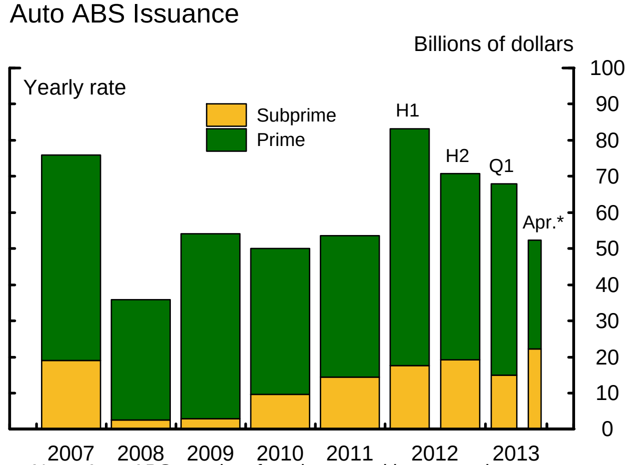
Source: For FHFA, Federal Housing Finance Agency; for CoreLogic, CoreLogic; for S&P/Case-Shiller, Standard & Poor's; for Zillow, Zillow.

Consumer Credit



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

Auto ABS Issuance



Note: Auto ABS consist of car loans and leases and financing for buyers of motorcycles.
* Month to date.
Source: Inside MBS & ABS; Merrill Lynch; Bloomberg.

Financial Developments

about their long-term averages for office properties but have remained elevated for retail and industrial properties.

GOVERNMENT FINANCE

Since the March FOMC meeting, the Treasury Department has auctioned $200 billion in nominal securities and $31 billion in TIPS.[4] On balance, the auctions were about in line with expectations, although for some, especially the five-year TIPS auction later in the intermeeting period, the bid-to-cover ratios were below their recent averages.

The pace of gross issuance of long-term municipal bonds picked up somewhat toward the end of the first quarter, largely owing to issuance for new capital projects. The ratio of yields on 20-year municipal bonds to yields on comparable-maturity Treasury securities—a gauge of the perceived relative risk of municipal bonds—increased moderately, on net, over the intermeeting period. Investor demand for municipal bonds may have softened against the backdrop of the inclusion in the Administration's budget proposal of a cap on the tax deduction for interest on municipal debt, as well as a federal court ruling allowing the municipality of Stockton, California, to proceed with chapter 9 bankruptcy, which may have raised the specter of lower recovery rates for municipal bond investors.

HOUSEHOLD FINANCE

Mortgage rates declined 16 basis points over the intermeeting period, bringing the average rate to about 3.3 percent. The primary–secondary spread remains well below the peaks seen during the second half of 2012. Estimated mortgage refinance origination volumes continued to be heavy, reflecting the historically low mortgage rates. However, purchase mortgage applications stayed essentially unchanged at low levels.

House prices continued to grow briskly in recent months. All four major indexes—CoreLogic, Zillow, FHFA, and S&P/Case–Shiller—registered their largest year-over-year increases since June 2006. Robust investor demand has boosted prices,

[4] On May 19, 2013, the statutory debt limit will be increased to the level of debt subject to limit as of May 18, 2013. The new limit will reflect only the funding needed for authorized commitments incurred by the federal government through that date. At that point, if the Treasury were to declare a "debt issuance suspension period," we project that the use of extraordinary measures would allow the Treasury to delay the breach of the debt ceiling for several months.

and a tight supply of homes listed for sale in many markets with strong demand has reportedly also played a role. Staff estimates suggest that increases in house prices contributed to lifting about 4 million homeowners out of a negative equity position in 2012.

The performance of outstanding residential mortgages continued to improve in the first quarter. Overall mortgage delinquencies have trended lower in both the prime and subprime sectors. Moreover, the transition rate into delinquency for prime mortgages is now at roughly its very low 2005 rate, primarily reflecting the very tight underwriting standards imposed over the past several years, as well as the increases in house prices and employment.

The April SLOOS contained a set of special questions regarding banks' residential real estate (RRE) lending policies. On a portfolio-weighted basis, banks' willingness to approve GSE-eligible home-purchase loans was reportedly about unchanged, regardless of credit score and down-payment size. In contrast, moderate net fractions of banks indicated that they were less willing to approve FHA-insured home-purchase loan applications from borrowers with relatively low FICO scores. Banks cited a number of important factors generally restraining their ability or willingness to approve all types of home-purchase loans, especially the risk of putback of delinquent mortgages by the GSEs and periods in which volumes of loan applications exceeded the banks' processing capacity.

Consumer credit continued to expand in January and February, primarily driven by sizable increases in nonrevolving credit. Growth in auto loans and that in student loans extended through the Department of Education's Direct Loan Program were particularly strong. In contrast, total revolving credit was about flat amid continued tight underwriting standards and terms on credit card loans. Securitized consumer finance activity remained robust in recent months. In particular, subprime auto ABS issuance has totaled nearly \$5½ billion in the year to date, approaching its pre-recession pace.

Although the student loan segment has been an exception, consumer debt has continued to perform well. For example, the delinquency rate for credit card loans in securitized pools over January and February, at 2¼ percent, was near its historical low, likely reflecting a substantial compositional shift of outstanding credit card balances toward the least risky borrowers since late 2008 and early 2009.

COMMERCIAL BANKING AND MONEY

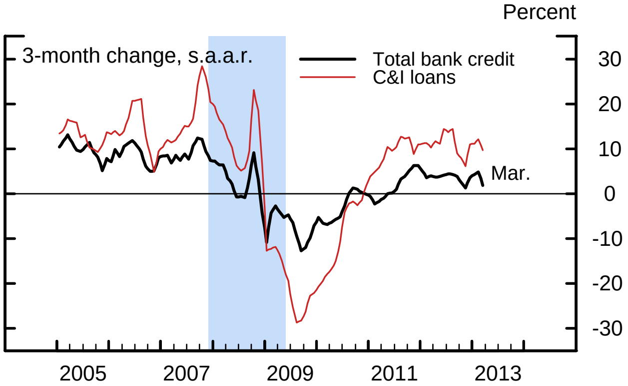
Bank credit expanded moderately during the first quarter of 2013, as loans and securities holdings grew at a similar pace. Gains in core loans continued to be concentrated in commercial and industrial (C&I) loans, which increased at an especially robust rate at domestic banks. The “other loans and leases” category also grew notably during the first quarter. Growth in banks’ holdings of securities over the past three months was roughly on par with that of previous quarters, with the main contributor to recent growth being sizable purchases by a few large domestic banks of securities that are not backed by the U.S. government or the GSEs. Finally, balance sheet data from U.S. branches and agencies of European banks showed little evidence of renewed strains despite the events in Cyprus.

The April SLOOS indicated that, in the aggregate, domestic respondents eased their lending standards on core loans and experienced stronger demand for such loans in the first quarter of 2013. In particular, relatively large net fractions of domestic banks reported having eased standards and reduced spreads on C&I loans to firms of all sizes. However, the fraction of domestic banks reporting stronger demand for C&I loans declined relative to the previous survey. Concerning lending conditions for households, a significant net fraction of banks experienced stronger demand for prime residential mortgage loans, but only a modest fraction indicated that they had eased standards on such loans over the past three months. Respondent banks’ standards and terms on most types of consumer loans remained basically unchanged. The exception was auto loans, for which moderate net fractions of banks reported having eased some terms and having experienced stronger demand.

Average annualized growth of M2 over March and April was about 5 percent, a faster pace than was observed over the course of the first two months of the year. Liquid deposits and currency advanced moderately over March and April, while retail money market funds and small time deposits contracted. Recent money growth may have been boosted slightly by the higher level of annual tax receipts relative to recent years. However, year-to-date growth in liquid deposits has been somewhat below the average pace observed in the same period during the prior two years. Meanwhile, the monetary base expanded at a 37½ percent annual rate over March and April, driven mainly by the increase in reserve balances that resulted from the Federal Reserve’s purchases of Treasury securities and agency MBS. Overall, the growth in reserve balances since year-

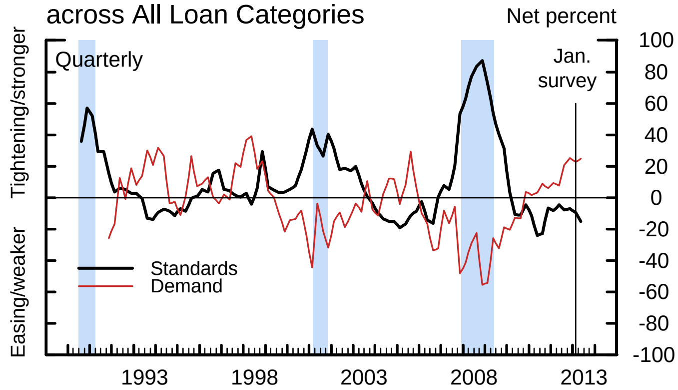
Commercial Banking and Money

Change in Bank Credit



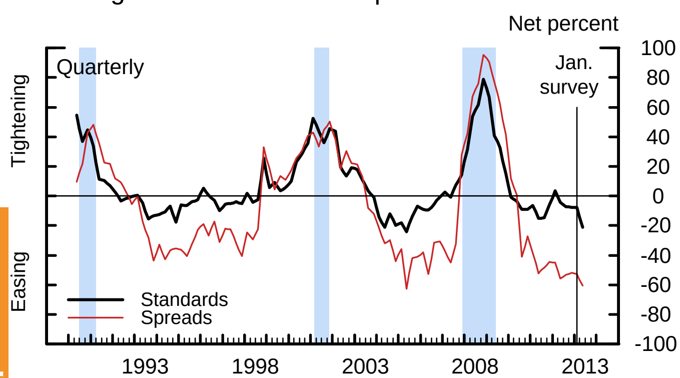
Note: The data have been adjusted to remove the estimated effects of certain changes to accounting standards and nonbank structure activity of $5 billion or more. C&I is commercial and industrial.
Source: Federal Reserve Board.

Change in Standards and Demand across All Loan Categories



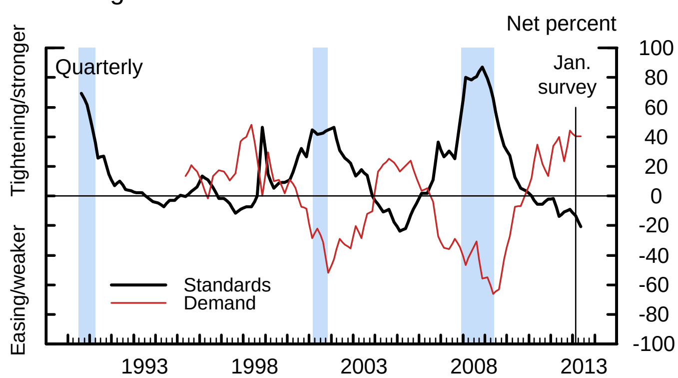
Note: A composite index that represents the net percentage of loans on respondents' balance sheets that were in categories for which banks reported tighter lending standards or stronger loan demand over the past 3 months, with results weighted by survey respondents' holdings of loans in each category.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

Change in Standards and Spreads for C&I Loans



Note: Net percent of respondents that reported tighter lending standards or increased spreads over the past 3 months. Spreads are defined as spreads of loan rates over a bank's cost of funds. C&I is commercial and industrial.
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Change in Standards and Demand for CRE Loans



Note: Net percent of respondents that reported tighter lending standards or stronger loan demand over the past 3 months. CRE is commercial real estate.
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

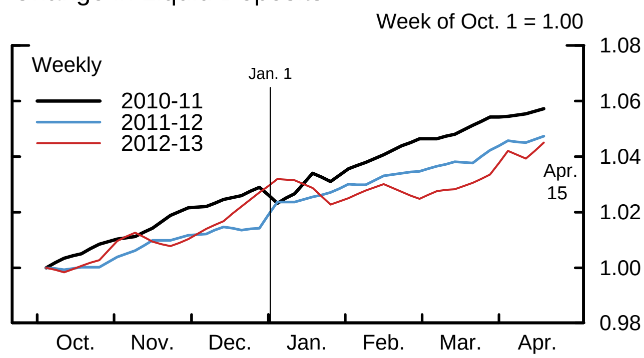
Growth of M2 and Its Components

Percent, s.a.a.r.

	M2	Liquid deposits	Small time deposits	Retail MMFs	Curr.
2012	7.5	11.1	-16.8	-5.7	9.0
2012:H1	5.7	9.2	-16.7	-10.1	9.1
2012:H2	9.0	12.5	-18.5	-1.4	8.6
2013:Q1	4.7	6.6	-19.6	2.8	5.8
Mar. & Apr.(e)	5.2	7.9	-18.3	-6.7	5.2

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

Change in Liquid Deposits



Note: Seasonally adjusted.
Source: Federal Reserve Board.

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

Financial Developments

end has been absorbed primarily by large domestic banks and U.S. branches and agencies of foreign banks, in roughly equal proportions.

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Appendix

Senior Loan Officer Opinion Survey on Bank Lending Practices

On balance, the responses to the April Senior Loan Officer Opinion Survey on Bank Lending Practices indicated that domestic banks eased their lending standards and experienced stronger loan demand during the first quarter.[1] Moderate to large net fractions of survey respondents reported having eased pricing terms on commercial and industrial (C&I) loans, and moderate net fractions reportedly eased standards on both C&I and commercial real estate (CRE) loans. Meanwhile, lending standards and terms were little changed, on balance, for most other types of loans. Regarding the demand for bank loans, respondents indicated that demand for CRE, residential real estate, and auto loans had strengthened on balance. Demand for C&I loans also reportedly increased, but such reports were less widespread than in the previous survey. The April survey included a number of special questions regarding banks' lending policies for residential real estate and private student loans; the survey also repeated a set of special questions on lending to and competition from banks headquartered in Europe.

The survey results generally indicated that banks' policies regarding lending to businesses eased over the past three months. In particular, a relatively large fraction of domestic respondents reported having eased standards on C&I loans and moderate to large net fractions of such respondents reportedly eased many terms on C&I loans to firms of all sizes. Banks that eased their C&I lending policies generally cited increased competition for such loans as an important reason for having done so. A moderate net fraction of banks reportedly eased their CRE lending standards over the past three months—a slightly higher fraction in comparison with the previous survey.

On the household side, the survey results were more mixed. On balance, a few domestic banks reported having eased standards on prime residential mortgages over the past three months. For the fourth consecutive survey, on a portfolio-weighted basis, respondents reported that demand for prime residential mortgage loans had strengthened on net.[2] A small net fraction of respondents reported that they had eased standards on credit card and auto loans over the past three months, while standards on other consumer loans had remained about unchanged. On

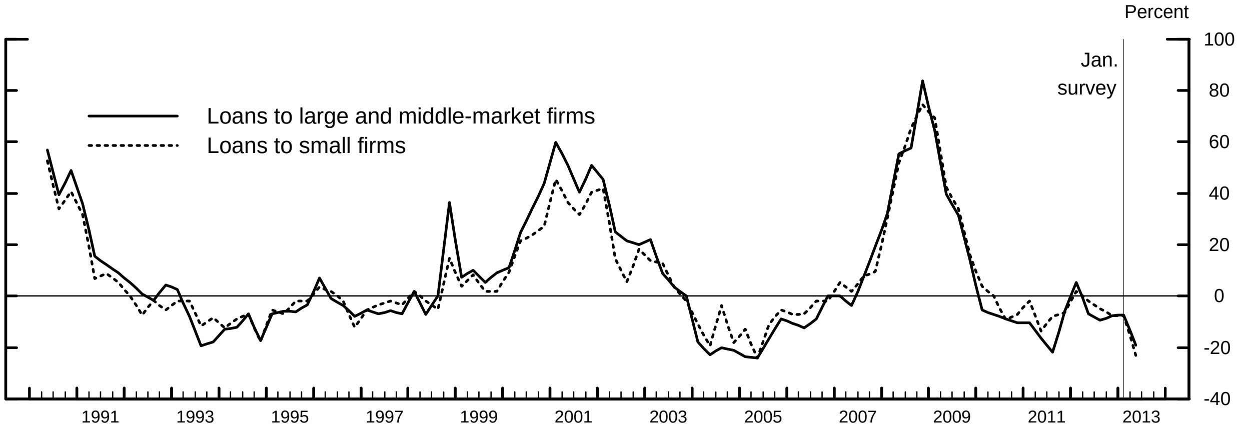
[1] The April 2013 survey addressed changes in the supply of and demand for loans to businesses and households over the past three months. This appendix is based on responses from 68 domestic banks and 21 U.S. branches and agencies of foreign banks. Respondent banks received the survey on or after April 2, 2013, and responses were due by April 16, 2013.

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

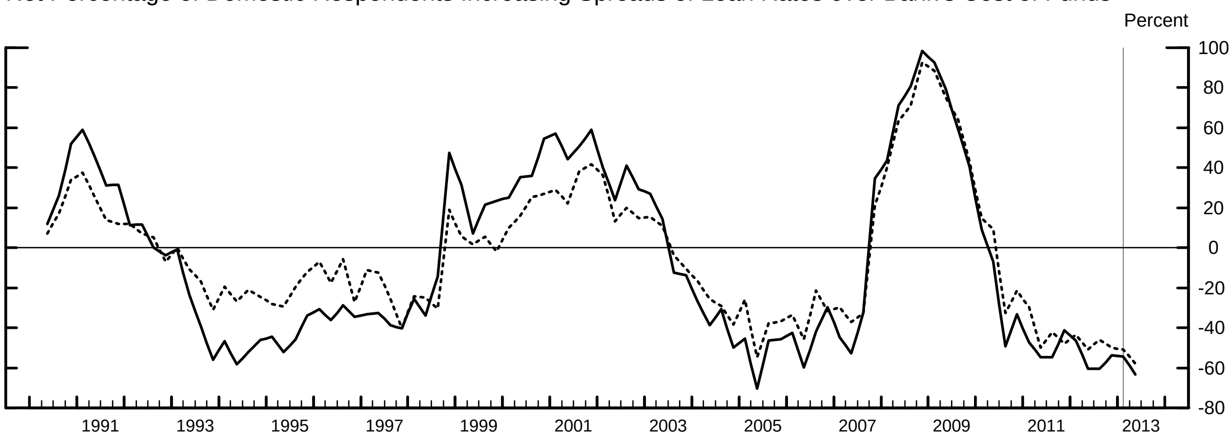
[2] Where noted, responses are weighted by survey respondents' holdings of the relevant loan type as reported in the December 31, 2012, Call Report.

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

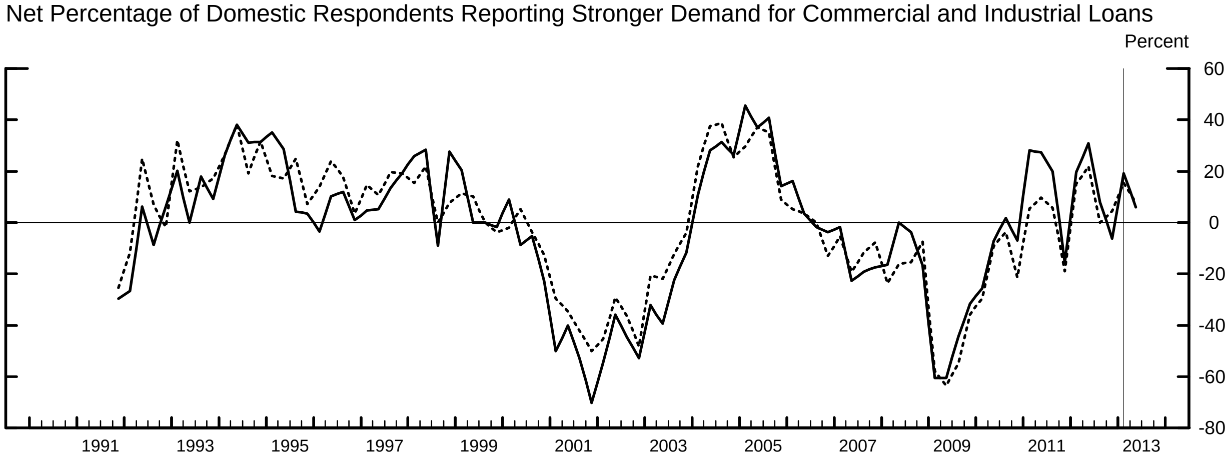
Net Percentage of Domestic Respondents Tightening Standards for Commercial and Industrial Loans



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



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



balance, banks reported having eased selected terms on auto loans, but terms on credit card and other consumer loans were reportedly little changed.

In response to a set of special questions on banks' residential real estate lending policies, most banks indicated that their willingness to approve GSE-eligible mortgages to borrowers with lower credit scores was about unchanged relative to a year ago, despite improvements in the housing sector over this period. In contrast, about one-third of respondents indicated that they were less likely to approve home-purchase loan applications insured by the Federal Housing Administration (FHA) with relatively low FICO scores. Banks reported a number of important factors restraining their current willingness or ability to approve home-purchase loans, especially the risk of putback of delinquent mortgages by the GSEs despite moves by those agencies to address concerns expressed by the industry. When asked to look ahead over the next year, a moderate net fraction of banks, on a portfolio-weighted basis, reported that they expected to decrease their holdings of residential real estate assets—loans, agency mortgage-backed securities (MBS), and private-label MBS.

LENDING TO BUSINESSES

Questions on Commercial and Industrial Lending

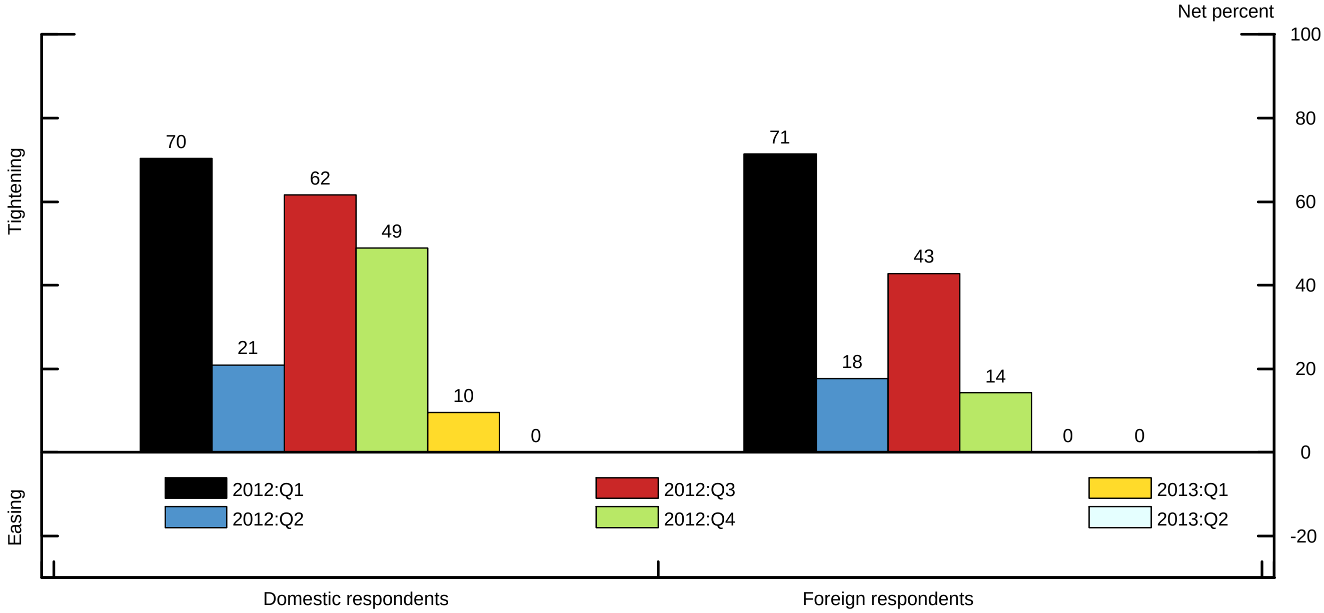
A moderate fraction of domestic survey respondents, on net, indicated that their C&I lending standards had eased somewhat for all firm sizes over the first quarter of 2013. On balance, respondents reported that they had eased most terms on C&I loans, regardless of firm size, and that no such terms were tightened. As has been the case for some time, there was considerable variation in the number of banks that reported having eased various C&I loan terms. A very large fraction of respondents indicated that they had decreased spreads on C&I loan rates over their bank's cost of funds for firms of all sizes. Moderate to large net fractions of banks again reported having reduced the cost of credit lines and decreased the use of interest rate floors for all firm sizes. In addition, consistent with reports of increases in so-called covenant-lite deals in the syndicated leveraged loan market, about one-half of large domestic banks reported having eased loan covenants for large and middle-market firms in the April survey, up from 30 percent in the January survey.[3]

Of the respondents that reported having eased either standards or terms on C&I loans over the past three months, all but one cited more-aggressive competition from other banks or nonbank lenders as an important reason for having done so. About 40 percent of respondents that had eased their C&I loan policies cited a more favorable or less uncertain economic outlook as a somewhat important or very important reason. As in the previous two surveys, no other reasons were broadly cited by banks as being important for easing their C&I lending policies.

[3] *Large banks* are defined as those with total domestic assets of $20 billion or more as of December 31, 2012. *Large and middle-market firms* are generally defined as firms with annual sales of $50 million or more and *small firms* as those with annual sales of less than $50 million.

Special Questions on Lending to and Competition from European Banks

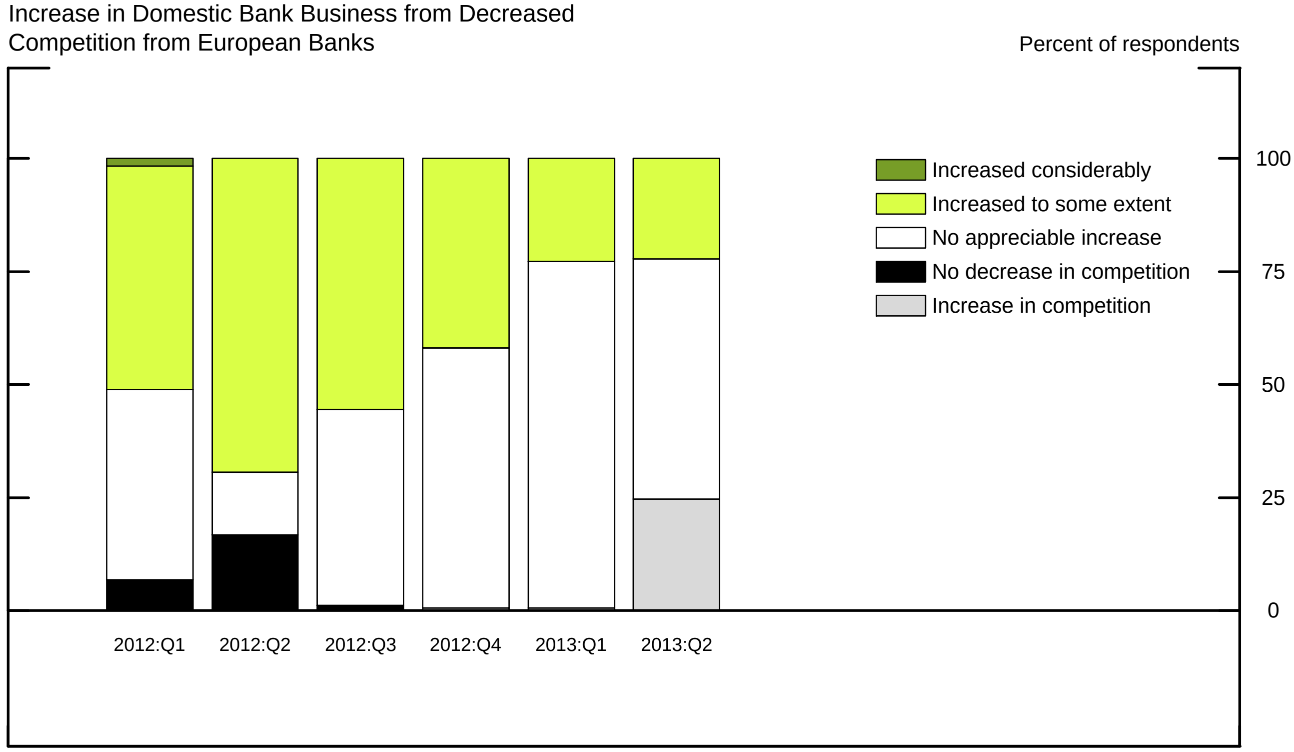
Changes in Standards and Terms for Lending to European Banks*



* Includes affiliates and subsidiaries.

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

Increase in Domestic Bank Business from Decreased Competition from European Banks



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

Financial Developments

Meanwhile, responses from domestic banks indicated that the change in demand for C&I loans was mixed in the first quarter, with large banks reporting weaker demand for C&I loans, on balance, and other banks reporting stronger demand. Large banks also reported a net decrease in the number of inquiries from potential business borrowers regarding new or increased credit lines, while other banks reported net increases. Consistent with survey results, the Federal Reserve's weekly bank balance sheet data suggest that the growth rate of C&I loans slowed in the first quarter at banks reporting weaker demand in the survey. However, these data indicate that for the banking sector as a whole, C&I loans at large banks are still growing at a faster pace than at smaller banks so far this year. Banks reporting weaker C&I loan demand in the survey most often cited decreases in customers' funding needs related to investment in plant or equipment as a reason. Banks indicating that C&I loan demand had strengthened cited increases in customers' funding needs related to investment in plant or equipment, inventories, and accounts receivable as the top reasons.

Similar to the previous two surveys, foreign respondents reported that their C&I lending standards had remained about unchanged, on net, over the past three months, but that some terms had been eased. A moderate net fraction of foreign respondents reported having narrowed C&I loan spreads over their cost of funds, increased the maximum size of credit lines, and reduced premiums charged on riskier loans. As was the case for domestic respondents, the reason most widely cited by foreign respondents for easing standards or terms on C&I loans was more-aggressive competition from other lenders. Consistent with robust growth in the issuance of collateralized loan obligations in the first quarter, a majority of foreign respondents that eased standards or terms on C&I loans also pointed to increased liquidity in the secondary market for such loans as a reason for having done so. Modest net fractions of foreign respondents indicated that demand for C&I loans had strengthened over the past three months. Almost all foreign respondents reporting stronger demand cited customers' increased merger or acquisition financing needs as a very important reason.

Special Questions on Lending to and Competition from European Banks

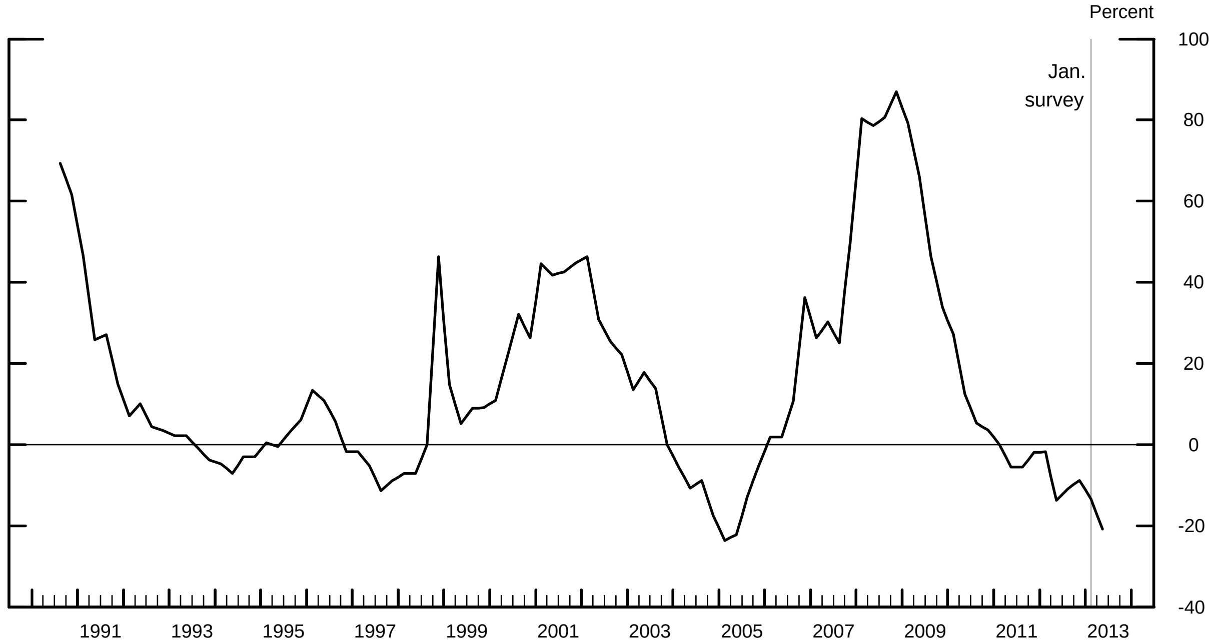
The April survey again included special questions about lending to banks headquartered in Europe and affiliates and subsidiaries of European banks regardless of their location (hereafter, European banks). All respondents, both foreign and domestic, reported that their standards for loans to European banks remained basically unchanged over the past three months, the first time there was no additional tightening since the introduction of this special question in the October 2011 survey. As in the January survey, domestic banks reported that they had experienced little change in demand for loans from European banks. The share of domestic banks that have observed an expansion of C&I lending business as a result of a decrease in competition from European banks continued to trend down. In fact, two respondents reported an increase in competition from European banks.

Questions on Commercial Real Estate Lending

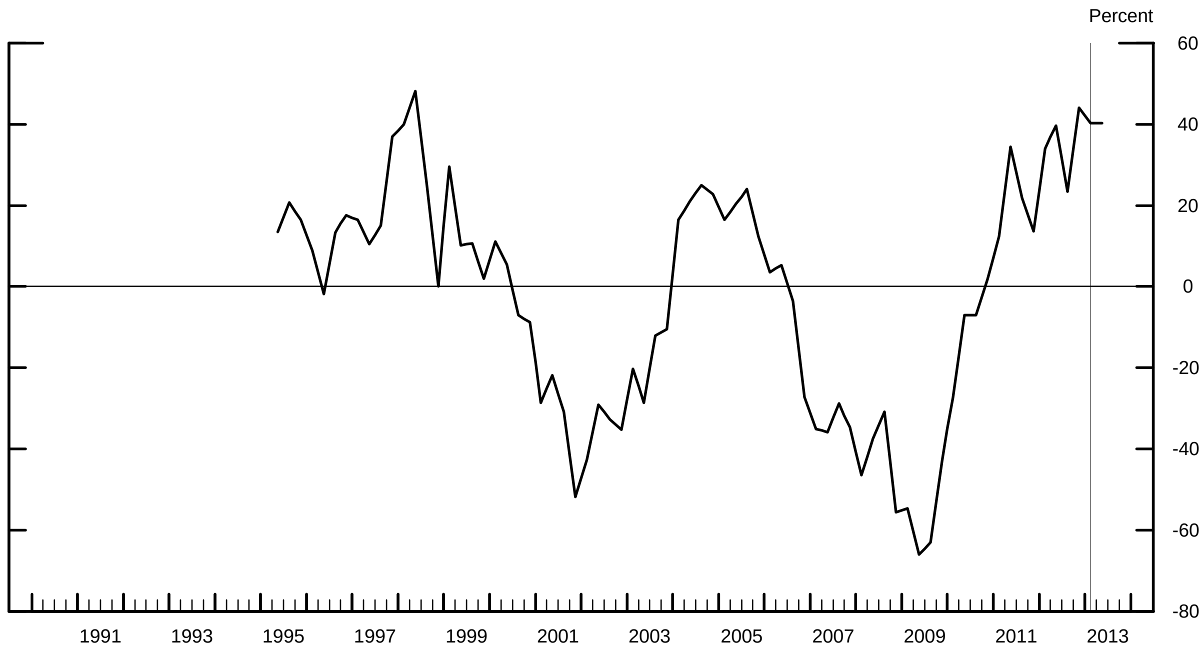
A moderate net fraction of domestic respondents to the April survey reported that they had eased standards on CRE loans over the previous three months. In addition, significant net

Measures of Supply and Demand for Commercial Real Estate Loans

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



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



Financial Developments

fractions of domestic banks reported that demand for CRE loans had strengthened, while a moderate net fraction of foreign respondents reportedly experienced stronger demand for such loans. The reported changes in standards and demand are consistent with the modest growth observed in outstanding CRE loans on banks' books over the past two quarters following several years of declines.

LENDING TO HOUSEHOLDS

Questions on Residential Real Estate Lending

Overall, only small numbers of domestic respondents reported changes in either standards or demand for residential real estate lending during the previous three months, with the exception of a significant net fraction of banks that indicated that the demand for prime mortgages had picked up. The reported increase in demand for prime residential mortgages is even larger when the responses are weighted by the amount of outstanding closed-end mortgage balances held on each respondent's books. In contrast, weighted responses continued to indicate that demand for nontraditional mortgages had declined. Meanwhile, a few domestic banks reported having eased their standards on prime residential mortgages and respondents' lending standards for nontraditional mortgages were little changed. On a weighted basis, a modest fraction of banks reportedly had eased standards for home equity lines of credit, on net, while demand for such loans was unchanged.

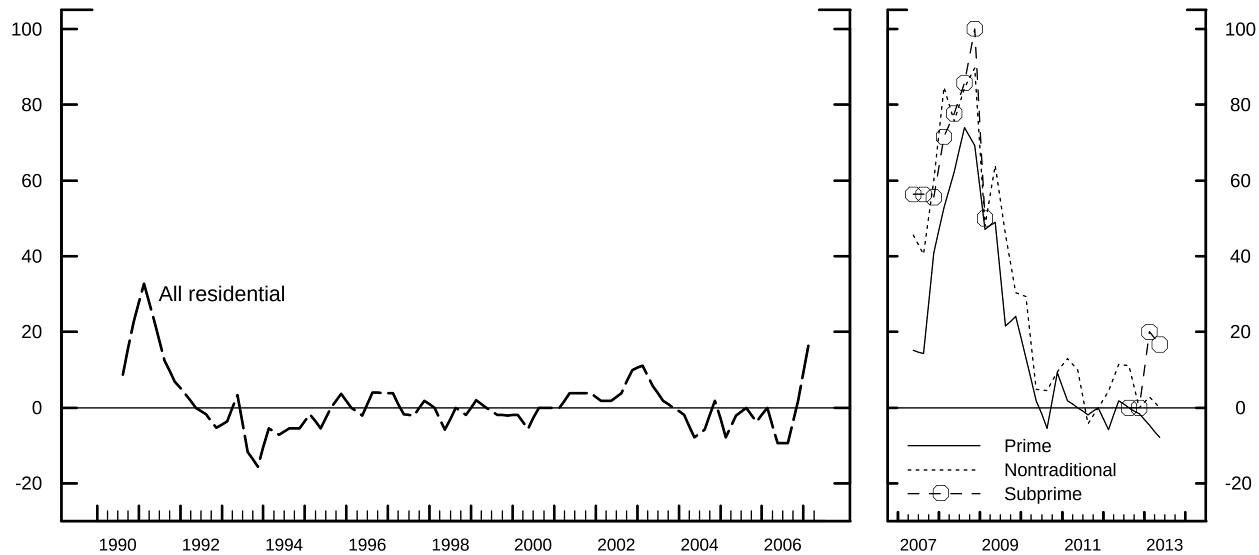
Special Questions on Residential Real Estate Lending

The April survey contained a set of special questions about banks' residential real estate lending policies. One such question asked banks how much more or less likely it currently is, compared with a year ago, that their bank would approve an application for a GSE-eligible, 30-year fixed-rate home-purchase loan from a borrower with a FICO score (or equivalent) of 620, 680, or 720 and a down payment of 10 or 20 percent (for a total of six categories of borrowers). About 25 percent of the banks surveyed indicated that they were currently less likely to approve such loan applications with a FICO score of 620 and a down payment of 10 percent, but only 10 percent of banks were less likely to approve the loan if the down payment was 20 percent. However, when weighted by their holdings of residential real estate loans, banks reported they were currently about as likely to approve GSE-eligible home-purchase loan applications as they were a year ago regardless of FICO score and down-payment size. Banks were also asked to compare their bank's current likelihood of approving an application for an FHA-insured home-purchase loan with a given FICO score with their likelihood a year ago. On a weighted basis, for a borrower with a FICO score of 620, about 45 percent of banks reported that they would be at least somewhat less likely to approve such a loan currently. Banks' lower willingness to approve FHA-insured loan applications versus GSE-eligible loan applications relative to a year ago may reflect the more recent decision by the FHA to tighten its underwriting criteria. The GSEs tightened such criteria several years ago.

Another special question asked banks about factors currently restraining their willingness or ability to approve conforming and nonconforming home-purchase loans. Despite the new

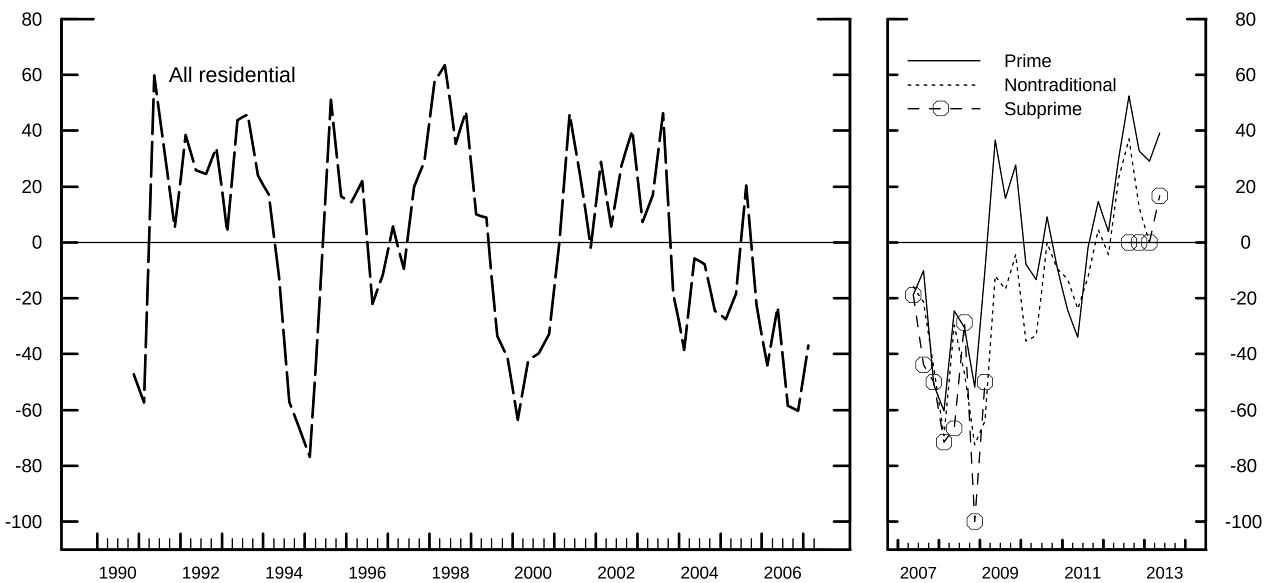
Measures of Supply and Demand for Residential Mortgage Loans

Net Percentage of Domestic Respondents Tightening Standards for Residential Mortgage Loans



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

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

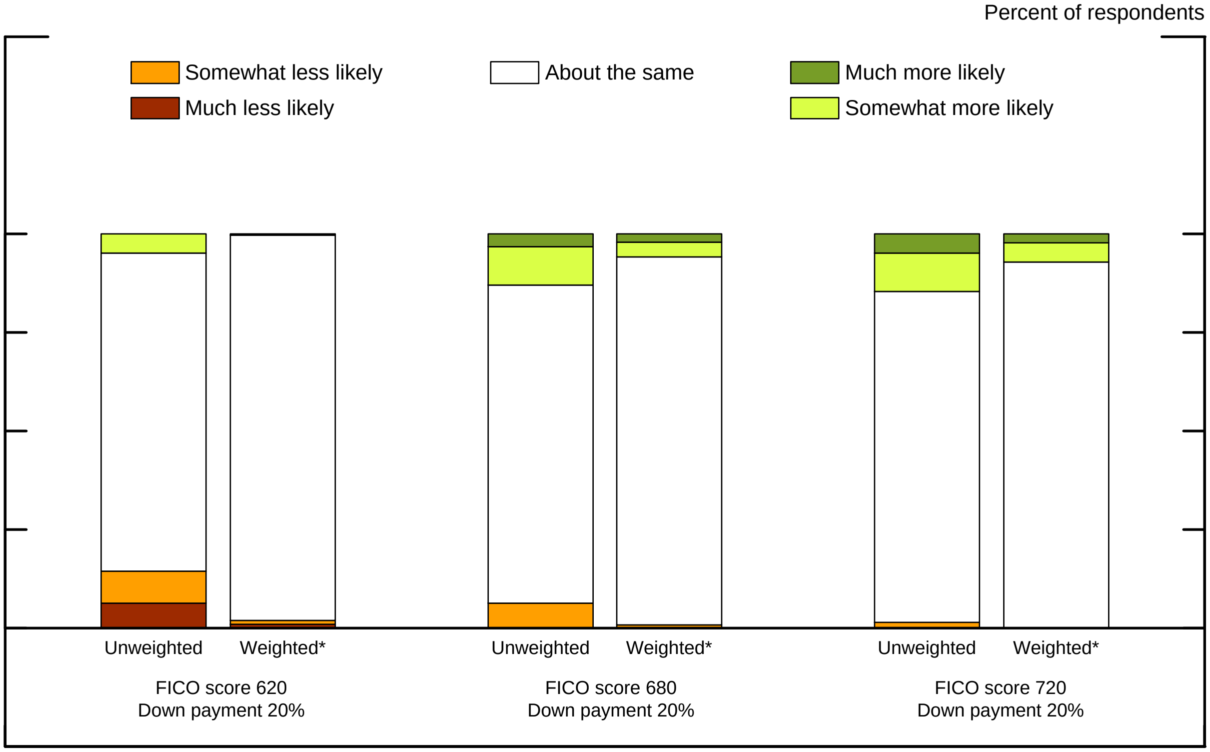


Note: For data starting in 2007:Q2, changes in demand for prime, nontraditional, and subprime mortgage loans are reported separately. Series are not reported when the number of respondents is three or fewer.

Financial Developments

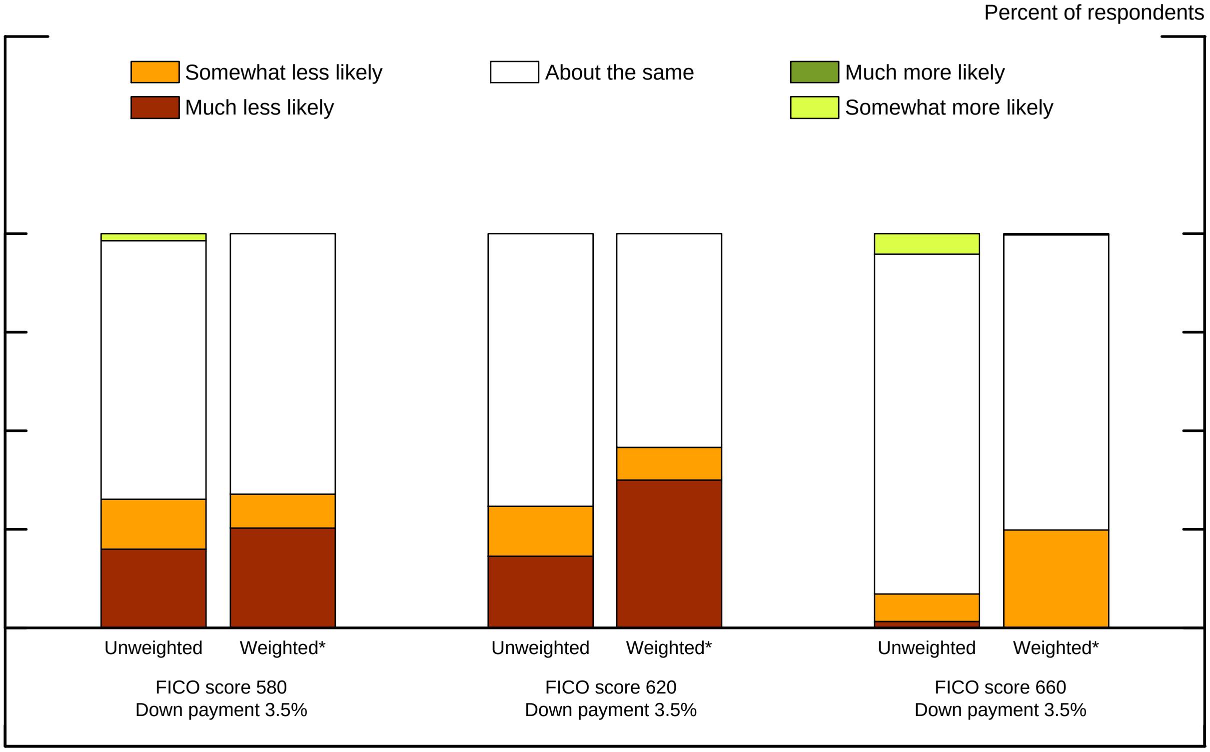
Special Questions on GSE and FHA Mortgages

Likelihood of Approving an Application for a GSE-Eligible Home-Purchase Loan Relative to Last Year



*Responses are weighted by survey respondents' holdings of residential real estate loans, excluding multifamily loans and home equity lines of credit.

Likelihood of Approving an Application for an FHA Home-Purchase Loan Relative to Last Year

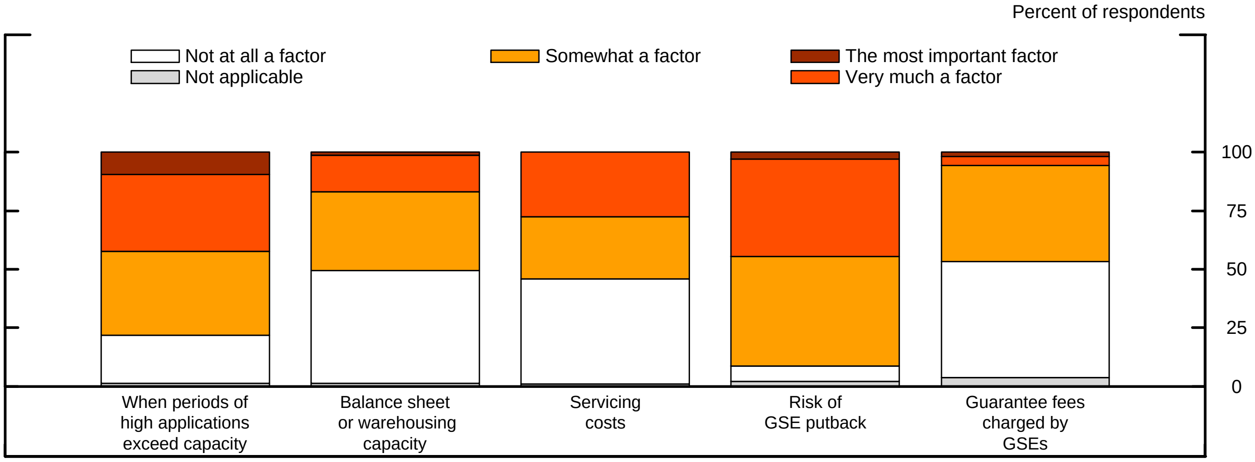


*Responses are weighted by survey respondents' holdings of residential real estate loans, excluding multifamily loans and home equity lines of credit.

Financial Developments

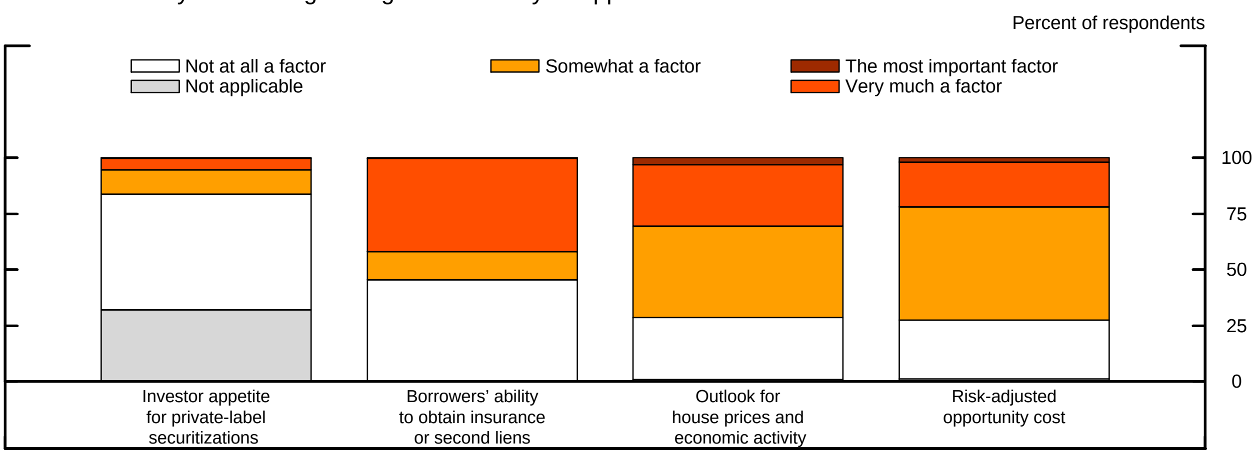
Special Questions on Residential Real Estate Assets

Factors Currently Restraining Willingness or Ability to Approve RRE Loans



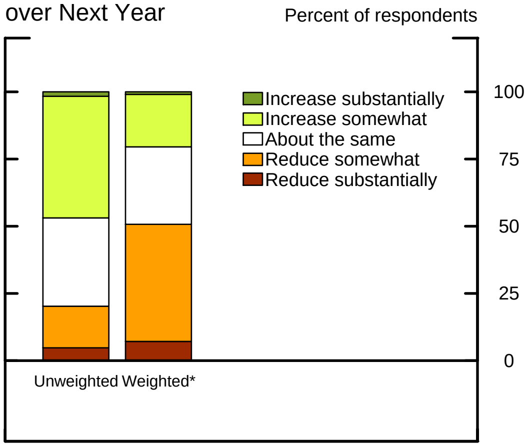
Note: Responses are weighted by survey respondents' holdings of residential real estate (RRE) loans, excluding multifamily loans and home equity lines of credit.

Factors Currently Restraining Willingness or Ability to Approve RRE Loans



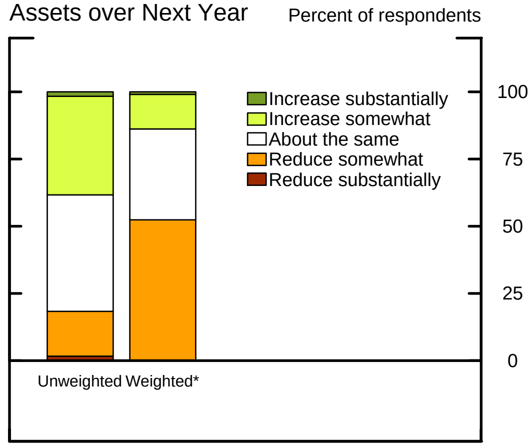
Note: Responses are weighted by survey respondents' holdings of residential real estate (RRE) loans, excluding multifamily loans and home equity lines of credit.

Anticipated Change in Banks' Holdings of RRE Loans over Next Year



*Responses are weighted by survey respondents' holdings of residential real estate (RRE) loans.

Anticipated Change in Banks' Holdings of Total RRE Assets over Next Year



*Responses are weighted by survey respondents' holdings of residential real estate (RRE) loans, agency mortgage-backed securities (MBS), and residential MBS.

Financial Developments

representation and warranty framework that took effect on January 1, almost all banks, on a portfolio-weighted basis, cited the risk of putback of delinquent mortgages by the GSEs as an important factor restraining their current ability or willingness to approve home-purchase loans.[4] Continuing to use portfolio-weighted responses, more than three-fourths of banks cited periods during which a high volume of residential real estate loan applications exceed their banks' capacity to process applications and complete appraisals and underwriting as at least a somewhat important factor. While house prices have generally improved over the past year, three-fourths of respondents viewed either the outlook for house prices or economic activity as at least somewhat important factors currently restraining their bank's residential real estate lending. Three-fourths of respondents also indicated that the "risk-adjusted profitability of the residential mortgage business relative to other possible uses of funds" was an important factor restraining such lending, and in a separate question, a large fraction of respondents reported an increase in the importance of this factor over the past year.

Looking ahead, portfolio-weighted survey responses indicated that a modest net fraction of banks anticipate reducing their holdings of residential real estate loans over the next year. Similar net fractions reportedly anticipate reducing their combined exposure to all types of residential real estate assets over the next year, including residential mortgage loans held on balance sheet and holdings of government-backed or other mortgage-backed securities. While most large banks reported that their appetite for residential mortgage assets will stay the same or decline somewhat over the same period, a number of smaller banks indicated that they anticipated their exposure would increase. On both a weighted and unweighted basis, a moderate fraction of banks reportedly anticipate reducing their holdings of private-label MBS on net.

Questions on Consumer Lending

Responses from domestic banks indicated that they are somewhat more willing to make consumer installment loans now as opposed to three months ago. However, only a small net fraction of banks reported having eased standards on credit card loans and auto loans, and respondents' standards on other consumer loans reportedly remained about unchanged. On balance, several banks reported that they had increased the maximum maturity of auto loans and reduced spreads on such loans. Other terms across the three categories of consumer loans remained little changed, on net, over the past three months.

Demand for credit card loans was reportedly unchanged on a portfolio-weighted basis, but a large net fraction of respondents reported stronger demand for auto and other consumer loans.

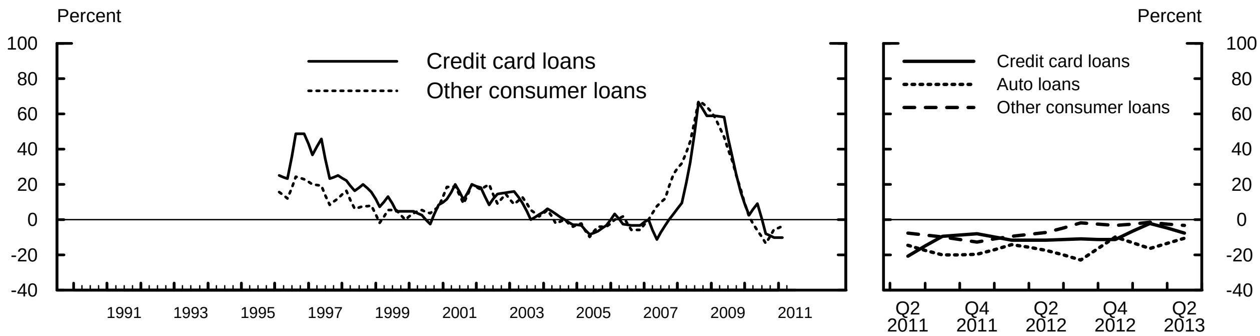
Special Questions on Private Student Loans

The April survey also contained a set of special questions on private student loans. Only 14 of the 68 domestic respondents indicated that they currently hold private student loans.

[4] See the September 11, 2012, Federal Housing Finance Agency news release for more information at www.fhfa.gov/webfiles/24366/Reps_and_Warrants_Release_and_FAQs_091112.pdf.

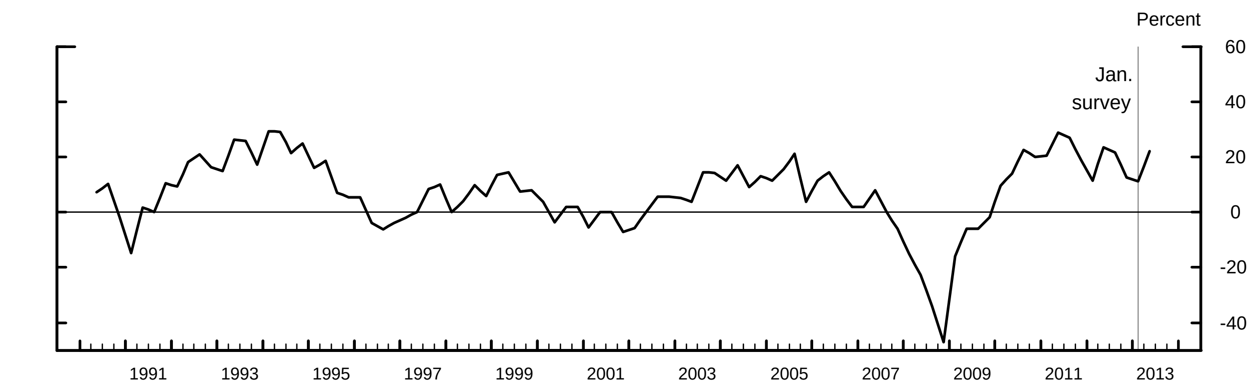
Measures of Supply and Demand for Consumer Loans

Net Percentage of Domestic Respondents Tightening Standards for Consumer Loans

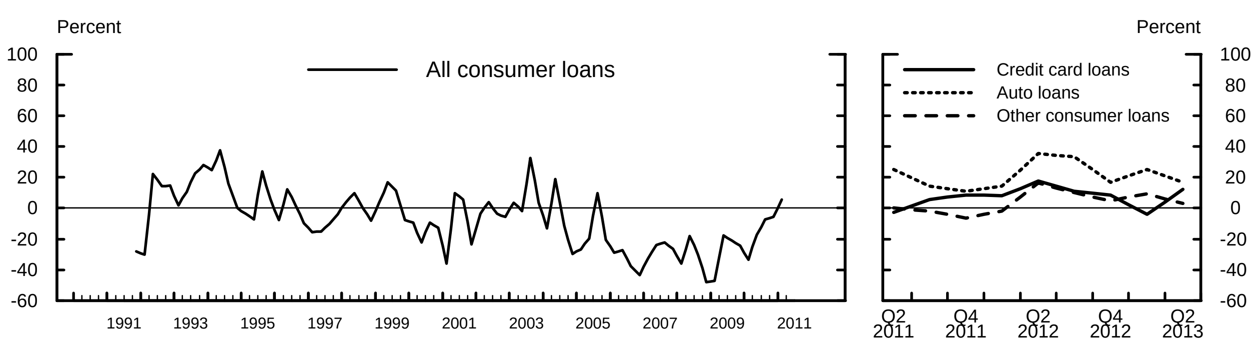


Note: For data starting in 2011:Q2, changes in standards for auto loans and consumer loans excluding credit card and auto loans are reported separately. In 2011:Q2 only, new and used auto loans are reported separately and equally weighted to calculate the auto loans series.

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



Net Percentage of Domestic Respondents Reporting Stronger Demand for Consumer Loans

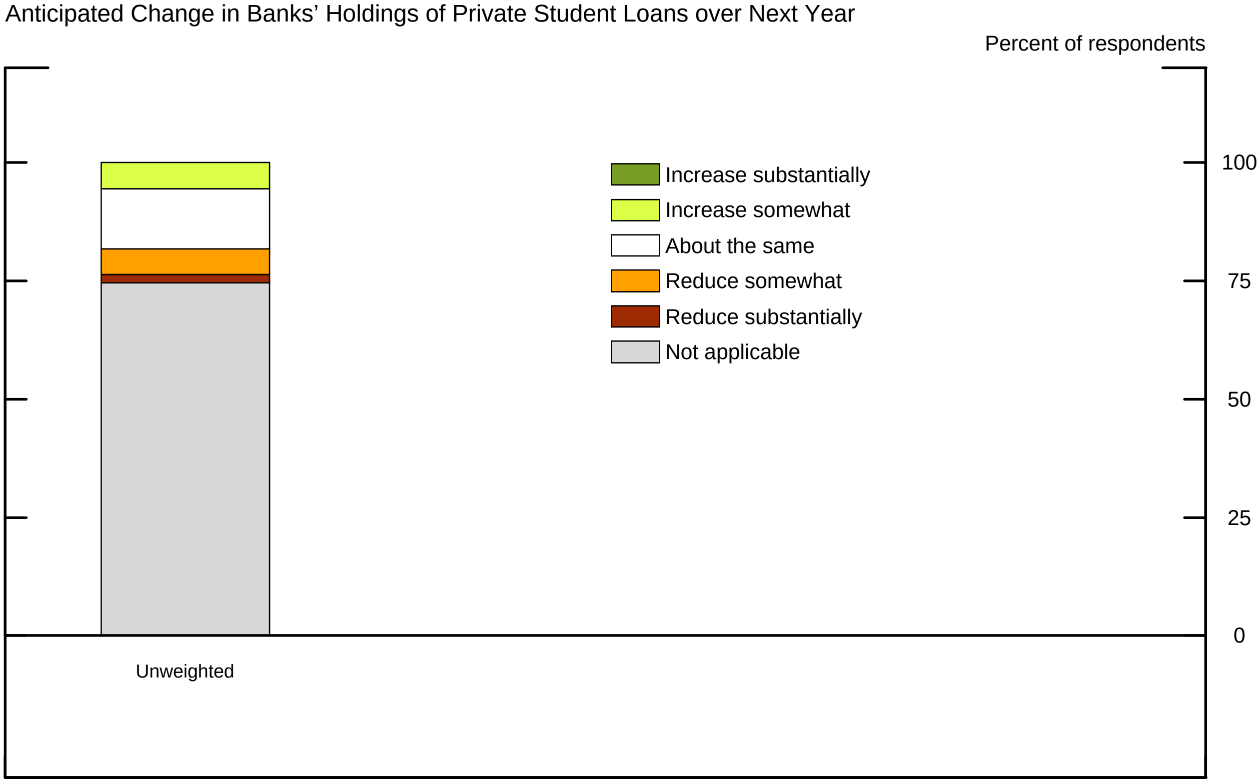


Note: For data starting in 2011:Q2, changes in demand for credit card loans, auto loans, and consumer loans excluding credit card and auto loans are reported separately.

Financial Developments

Moreover, a few of these banks reported that they had withdrawn from this line of business and are letting their portfolio run off. On balance, the banks that are still active in this market reported that their lending policies on private student loans changed little, on net, over the past year. Looking ahead, among the 11 banks that reportedly continue to originate private student loans, a modest net fraction indicated that they expected to increase their holdings of private student loans over the next year.

Special Question on Private Student Loans



Financial Developments

Risks and Uncertainty

ALTERNATIVE SCENARIOS

To illustrate some of the risks to the outlook, we construct a number of alternatives to the baseline projection using simulations of staff models. The first scenario focuses on the possibility that the normalization of conditions in financial and labor markets proceeds more gradually than assumed in the baseline, resulting in a slower recovery. The second scenario contemplates a stronger recovery in residential construction and house prices that sparks broader and faster improvements in the overall economy; the third scenario then builds on the second by considering the prospect that more-rapid economic growth could be accompanied by greater financial risk-taking and a persistent increase in inflation. The fourth and fifth scenarios are motivated by alternatives to the staff's explanation for the combination of modest GDP growth and a substantial decline in the unemployment rate seen over the past few years—either that past and projected declines in the natural rate are more rapid than assumed in the baseline because more long-term unemployed workers are permanently leaving the labor force, or that structural productivity is lower and increasing less rapidly than we estimate. The final two scenarios consider risks to the U.S. economy from foreign economic developments—first, that the recession in Europe could be deeper than we currently anticipate, and, second, that economic growth in China could slow sharply further.

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

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

Alternative Scenarios

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

Measure and scenario	2013 H1	2013 H2	2014	2015	2016-17
Real GDP					
Extended Tealbook baseline	2.3	2.8	3.2	3.5	2.4
Weak recovery	2.2	2.6	2.4	2.3	2.6
Housing-led recovery	2.5	3.5	4.4	4.3	1.5
Boom with adverse side effects	2.5	3.5	4.5	4.6	1.7
Lower natural rate	2.3	2.7	3.1	3.4	2.1
Supply-side damage	2.3	2.6	2.9	2.8	1.3
Prolonged European recession	2.2	2.2	2.3	3.4	2.5
Hard landing in China	2.2	2.0	2.7	3.7	2.7
Unemployment rate[1]					
Extended Tealbook baseline	7.6	7.4	6.9	6.2	5.3
Weak recovery	7.6	7.4	7.2	7.0	6.0
Housing-led recovery	7.6	7.3	6.2	5.0	5.0
Boom with adverse side effects	7.6	7.3	6.2	4.9	4.6
Lower natural rate	7.6	7.2	6.7	5.9	5.5
Supply-side damage	7.6	7.3	6.5	5.7	5.6
Prolonged European recession	7.6	7.5	7.3	6.8	5.8
Hard landing in China	7.6	7.5	7.3	6.6	5.5
Total PCE prices					
Extended Tealbook baseline	.3	1.6	1.5	1.6	1.9
Weak recovery	.3	1.4	1.2	1.3	1.6
Housing-led recovery	.3	1.6	1.6	1.8	2.2
Boom with adverse side effects	.4	1.8	1.8	2.0	2.6
Lower natural rate	.3	1.5	1.4	1.5	1.8
Supply-side damage	.3	1.6	1.5	1.6	1.8
Prolonged European recession	.2	1.1	1.1	1.3	1.8
Hard landing in China	.0	.7	1.1	1.6	2.0
Core PCE prices					
Extended Tealbook baseline	1.3	1.6	1.7	1.8	2.0
Weak recovery	1.3	1.4	1.4	1.5	1.7
Housing-led recovery	1.3	1.6	1.8	2.0	2.3
Boom with adverse side effects	1.4	1.8	2.0	2.2	2.7
Lower natural rate	1.3	1.5	1.6	1.7	1.9
Supply-side damage	1.3	1.6	1.7	1.8	1.9
Prolonged European recession	1.3	1.4	1.4	1.6	1.9
Hard landing in China	1.3	1.3	1.4	1.7	2.0
Federal funds rate[1]					
Extended Tealbook baseline	.1	.1	.1	.5	2.9
Weak recovery	.1	.1	.1	.1	.8
Housing-led recovery	.1	.1	.2	2.5	4.3
Boom with adverse side effects	.1	.1	.3	2.8	5.2
Lower natural rate	.1	.1	.1	1.1	2.8
Supply-side damage	.1	.1	.1	1.8	3.0
Prolonged European recession	.1	.1	.1	.1	2.3
Hard landing in China	.1	.1	.1	.1	2.6

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

Weak Recovery

Despite the disappointingly slow pace of the recovery to date and recent weakness in some indicators, the baseline forecast continues to feature a steady normalization of financial and labor market conditions. But even this guarded outlook could prove to be overly optimistic. In this scenario, risk premiums remain elevated at roughly their current level through 2015, while real wage growth runs substantially below the baseline projection. In response to higher borrowing costs, less wealth, and lower labor income, household expenditures decline relative to the baseline. Firms are also less willing to invest and hire in this environment, further restraining household income and consumption. All told, real GDP growth averages just under 2½ percent per year through 2015, ¾ percentage point less, on average, than in the baseline. Accordingly, the unemployment rate stays above the 6½ percent threshold until mid-2017, while inflation remains below 2 percent; consequently, the federal funds rate does not begin to rise until the third quarter of 2017.

Housing-Led Recovery

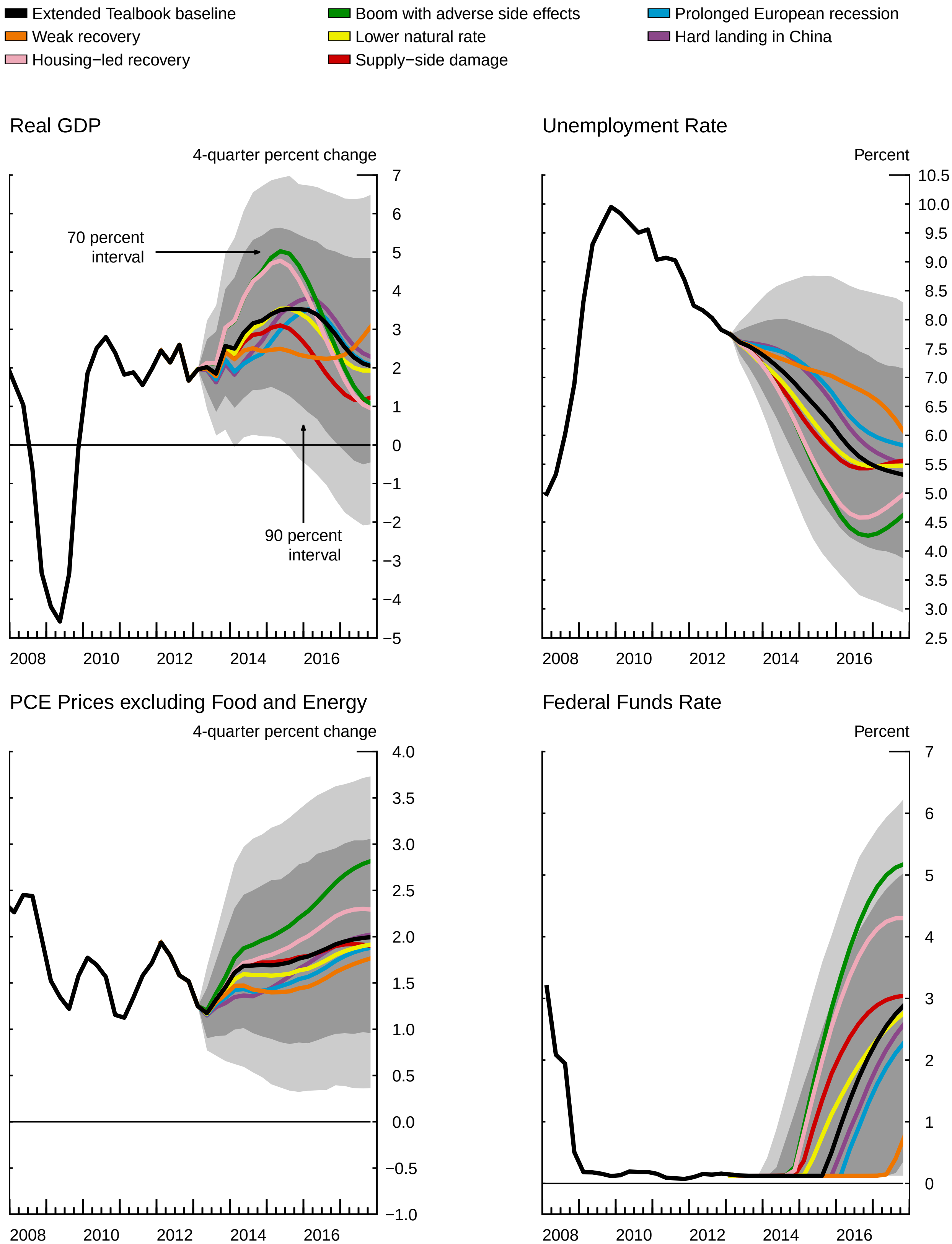
The increases in house prices, housing starts, and home sales over the past year or so may be pointing to a more robust recovery in the housing market (and ultimately the overall economy) than assumed in the baseline. In this scenario, a stronger housing recovery, along with reduced uncertainty about the durability of the expansion more broadly, sparks a self-reinforcing boom involving increased consumer and business confidence, faster hiring, improved financial conditions, and greater credit availability that leads to stronger growth in spending by households and firms. As a result, real GDP rises at an annual rate of 3½ percent in the second half of this year and above 4 percent in 2014 and 2015; the unemployment rate falls below 6½ percent by the end of 2014 and declines to 5 percent in late 2015—¾ percentage point below our projection of the natural rate at that time. With resource slack disappearing more rapidly, wages and unit labor costs begin to accelerate gradually relative to the baseline; however, with long-term inflation expectations assumed to be well anchored, consumer price inflation rises to only 2¼ percent by 2017. The federal funds rate lifts off at the beginning of 2015 and remains well above the baseline thereafter.

Boom with Adverse Side Effects

In the previous scenario, while the recovery is robust, inflation is nevertheless well-contained and financial market conditions display few signs of froth; as a result, the unexpected strength of demand in that scenario does not pose a dilemma for monetary

Forecast Confidence Intervals and Alternative Scenarios

Confidence Intervals Based on FRB/US Stochastic Simulations



Risks & Uncertainty

policy. In this scenario, by contrast, the stronger recovery engenders a more substantial financial market response including a larger reduction of risk aversion in financial markets, faster growth in lending, and greater use of leverage—developments that boost real activity further but also increase risks to financial stability. In addition, the ensuing rapid pace of economic growth, in an environment of still highly accommodative monetary policy, is assumed to lead to an unmooring of inflation expectations. As a result, actual inflation climbs to 2¾ percent later in the decade. Under these conditions, the federal funds rate rises to 5¼ percent, 2 percentage points above the baseline. Thus, although the risks to financial stability do not develop into a financial crisis in this scenario, policymakers confront an economy with both persistently high inflation and heightened financial vulnerability.

Lower Natural Rate

In assessing the factors that may explain why the unemployment rate has declined substantially over the past few years despite only modest growth in real GDP, the staff may have understated the role played by declines in the natural rate. In this scenario, we consider the possibility that the natural rate of unemployment has already declined to around 5½ percent (nearly ½ percentage point below the staff's estimate) and that it reaches its long-run value of 5¼ percent by late 2013—several years earlier than in the baseline. However, this more rapid decline is assumed to be the result of a greater number of the long-term unemployed permanently leaving the labor force, rather than an improvement in labor market functioning. The combination of a lower natural rate and a steeper downward trend in labor force participation implies little change in potential labor input—and thus only a small revision from the baseline in potential GDP—through 2015.[2] Under these conditions, real GDP and employment run close to the baseline, but the unemployment rate declines more rapidly and falls below its threshold value in the first quarter of 2015. Given the assumption that the federal funds rate will be set according to the inertial Taylor rule once the threshold on unemployment is crossed, the funds rate begins to rise two quarters earlier than in the baseline.

[2] In contrast, the natural rate of unemployment could decline because of an improvement in labor market functioning. In this case, the natural rate would fall but trend labor force participation would not, resulting in higher potential output. In such circumstances, GDP growth would be somewhat higher than in this scenario, but the unemployment rate would be little different.

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	2.6	3.2	3.5	2.9	2.0
Confidence interval					
Tealbook forecast errors	1.3–3.8	1.3–5.2	. . .	. . .	. . .
FRB/US stochastic simulations	1.3–4.0	1.4–5.4	1.1–5.5	.1–5.0	-.4–4.9
Civilian unemployment rate					
(percent, Q4)					
Projection	7.4	6.9	6.2	5.5	5.3
Confidence interval					
Tealbook forecast errors	6.9–7.9	6.1–7.7	. . .	. . .	. . .
FRB/US stochastic simulations	6.9–7.9	5.6–8.0	4.6–7.7	4.1–7.4	3.9–7.1
PCE prices, total					
(percent change, Q4 to Q4)					
Projection	1.0	1.5	1.6	1.8	2.0
Confidence interval					
Tealbook forecast errors	.2–1.7	.3–2.8	. . .	. . .	. . .
FRB/US stochastic simulations	.2–1.8	.6–2.7	.5–2.8	.6–3.1	.8–3.2
PCE prices excluding					
food and energy					
(percent change, Q4 to Q4)					
Projection	1.5	1.7	1.8	1.9	2.0
Confidence interval					
Tealbook forecast errors	1.0–1.9	1.0–2.4	. . .	. . .	. . .
FRB/US stochastic simulations	.9–2.0	.9–2.6	.9–2.8	1.0–3.0	1.0–3.1
Federal funds rate					
(percent, Q4)					
Projection	.1	.1	.5	2.0	2.9
Confidence interval					
FRB/US stochastic simulations	.1–.1	.1–1.2	.1–2.9	.1–4.3	.4–5.0

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.

Risks & Uncertainty

Supply-Side Damage

In explaining the co-movements of output and the unemployment rate over the past few years, and in contrast to the previous scenario, the staff may have instead understated the damage to potential output caused by the financial crisis and the subsequent recession. Specifically, the staff may still be overestimating the growth of structural productivity during the past few years, as more of the growth in actual productivity early in the recession may have been a result of unsustainably aggressive cuts to the workforce than the staff has assumed. Accordingly, more of the recent downward surprise in the unemployment rate may reflect the ongoing reversal of this prior reduction in the workforce. This scenario assumes that the current level of potential output is 1 percent lower than in the baseline because of smaller-than-estimated gains in structural productivity over the past few years. Moreover, these smaller productivity gains continue, shaving ¼ percentage point off the average annual growth rate of potential GDP in the coming years. As a result, real GDP rises only about 2¾ percent per year, on average, in 2013 and 2014, and economic growth remains below the baseline pace through 2017. Given the downward revision to potential output, the output gap is initially narrower, which, consistent with Okun's law, implies a more rapid decline in the unemployment rate early in the projection period. With the unemployment rate falling below its threshold value in early 2015, and inflation little changed from the baseline, the federal funds rate begins to rise from its effective lower bound three quarters earlier than in the baseline.

Prolonged European Recession

In the baseline forecast, the European economies expand at a modest pace while financial stress and sovereign and corporate spreads slowly decline to their 2010 levels. Risks remain of a severe escalation in financial stress in Europe that disrupts global financial markets. However, a more prominent downside risk is that the recession in Europe will prove deeper and more prolonged than we currently project but will not trigger a global financial crisis. In this scenario, fiscal and financial headwinds in Europe are assumed to prove stronger than anticipated, but the spillover effects to other financial markets are relatively limited. Specifically, continued investor concerns and weak loan supply leave borrowing costs about 100 basis points higher than in the baseline, leading to weaker business and household spending. As a consequence, European GDP declines 2¼ percent relative to the baseline by the end of 2014, notwithstanding a real depreciation of the European currencies of about 10 percent against the dollar. The stronger dollar and weaker foreign activity cause U.S. net exports to fall relative to the baseline, but, with limited financial market contagion, the spillover effects on the United States are not severe. All told, U.S. real GDP expands about 2¼ percent, on average, this year and in 2014, about ½ percentage point less than in the baseline. With a higher unemployment rate, the federal funds rate remains near zero until the second quarter of 2016, two quarters longer than in the baseline.

Hard Landing in China

Although real GDP growth in China appears to have slowed substantially in the first quarter of this year, in our baseline forecast we expect it to return to a pace close to 8 percent by the end of 2013. Nevertheless, important downside risks attend this outlook, including the possibility of a bust in the property sector associated with a sharp slowdown in credit growth and a collapse in construction. In this scenario, we assume these risks materialize and real GDP in China rises at an annual pace of only 5 percent in 2013 and 7 percent in 2014. Moreover, we assume that the slowdown in China's economy has pronounced spillovers to other major U.S. trading partners in Asia. In this environment, the trade-weighted exchange value of the dollar averages about 3 percent higher than in the baseline over the next 2 years. U.S. real net exports decline relative to the baseline in response to weaker foreign economic growth and the dollar's appreciation. U.S. real GDP expands at an annual rate of only 2 percent and 2¾ percent in 2013 and 2014, respectively, and the unemployment rate stays above 7½ percent until mid-2014, about ¼ percentage point higher than in the baseline. Core PCE inflation falls below 1½ percent in 2013 and 2014 because of both the appreciation in the dollar and lower resource utilization. With a higher unemployment rate, the federal funds rate remains near zero until early 2016, one quarter longer than in the baseline.

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

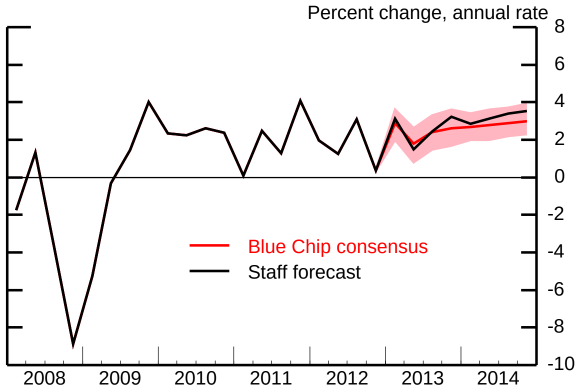
Measure and projection	2012		2013		2014	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
Real GDP						
Staff	1.7	1.7	2.5	2.6	3.2	3.2
FRB/US	1.7	1.7	1.8	1.9	2.3	2.4
EDO	1.7	1.7	3.0	3.3	3.0	3.0
Blue Chip	1.6	1.7	2.3	2.4	2.8	2.9
Unemployment rate[1]						
Staff	7.8	7.8	7.5	7.4	7.1	6.9
FRB/US	7.8	7.8	7.8	7.8	7.7	7.7
EDO	7.8	7.8	7.5	7.4	7.3	7.2
Blue Chip	7.8	7.8	7.6	7.5	7.1	7.0
Total PCE prices						
Staff	1.6	1.6	1.3	1.0	1.5	1.5
FRB/US	1.6	1.6	1.1	.7	1.0	1.0
EDO	1.6	1.6	1.3	1.1	1.5	1.4
Blue Chip[2]	1.9	1.9	1.9	2.0	2.2	2.2
Core PCE prices						
Staff	1.5	1.5	1.6	1.5	1.7	1.7
FRB/US	1.5	1.5	1.4	1.3	1.2	1.2
EDO	1.5	1.5	1.4	1.2	1.5	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	1.0	.9	1.9	1.8
Blue Chip[3]	.1	.1	.1	.1	.3	.3

Note: Blue Chip forecast completed on April 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

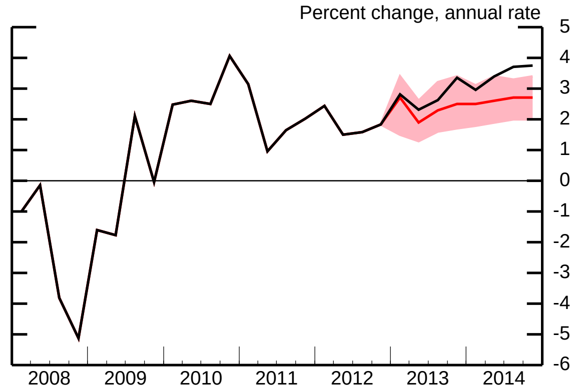
Tealbook Forecast Compared with Blue Chip
(Blue Chip survey released April 10, 2013)

Real GDP

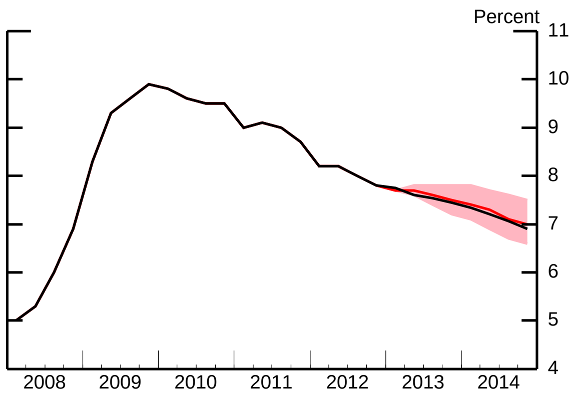


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

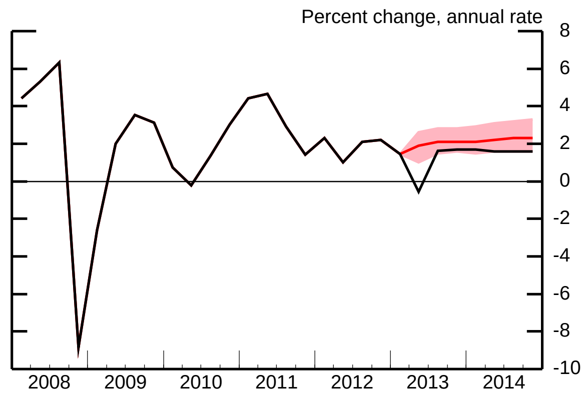
Real PCE



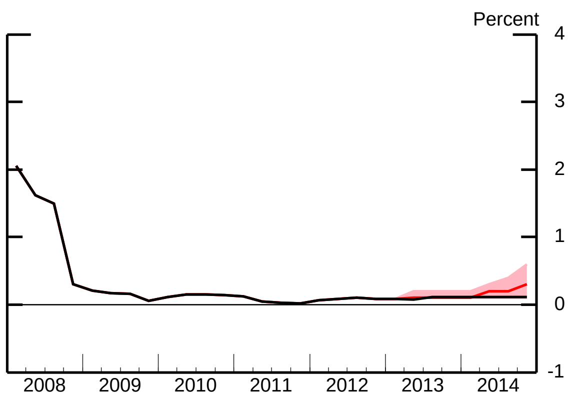
Unemployment Rate



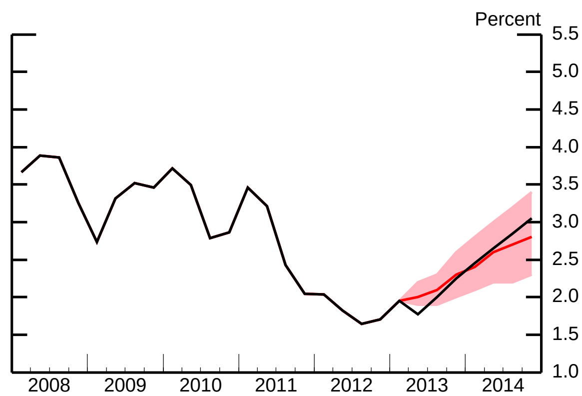
Consumer Price Index



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:Q1)

Probability that the 4-quarter change in total PCE prices will be ...	Staff	FRB/US	EDO	BVAR
Greater than 3 percent				
Current Tealbook	.03	.01	.10	.06
Previous Tealbook	.05	.03	.11	.06
Less than 1 percent				
Current Tealbook	.42	.57	.32	.18
Previous Tealbook	.30	.43	.30	.17

Probability of Unemployment Events
(4 quarters ahead—2014:Q1)

Probability that the unemployment rate will ...	Staff	FRB/US	EDO	BVAR
Increase by 1 percentage point				
Current Tealbook	.02	.06	.19	.01
Previous Tealbook	.02	.06	.19	.02
Decrease by 1 percentage point				
Current Tealbook	.17	.04	.24	.20
Previous Tealbook	.15	.04	.25	.16

Probability of Near-Term Recession

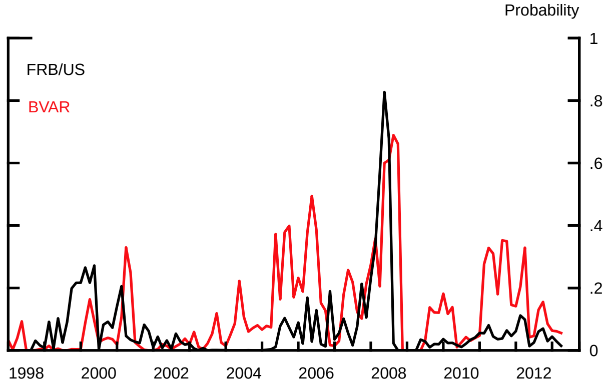
Probability that real GDP declines in each of 2013:Q2 and 2013:Q3	Staff	FRB/US	EDO	BVAR	Factor Model
Current Tealbook	.03	.06	.04	.03	.16
Previous Tealbook	.04	.06	.05	.03	.11

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

Assessment of Key Macroeconomic Risks (2)

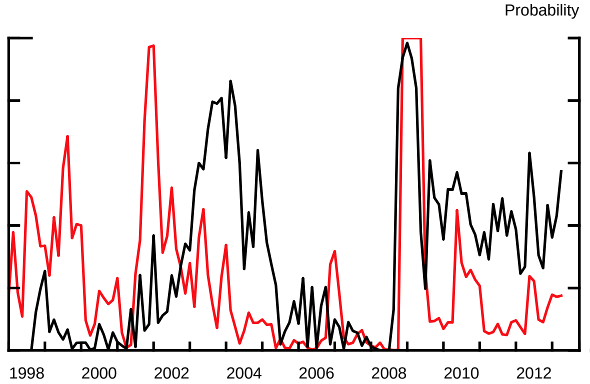
Probability that Total PCE Inflation Is above 3 Percent

(4 quarters ahead)



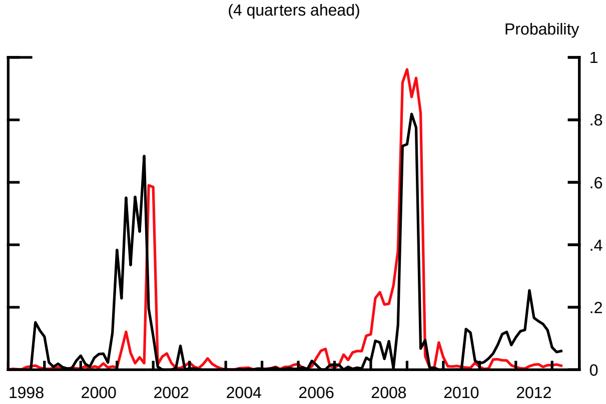
Probability that Total PCE Inflation Is below 1 Percent

(4 quarters ahead)



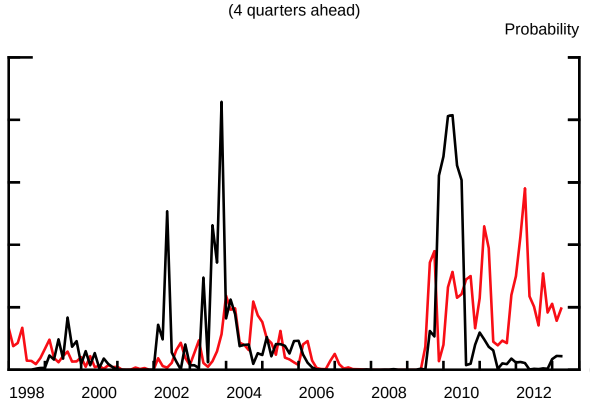
Probability that the Unemployment Rate Increases 1 ppt

(4 quarters ahead)

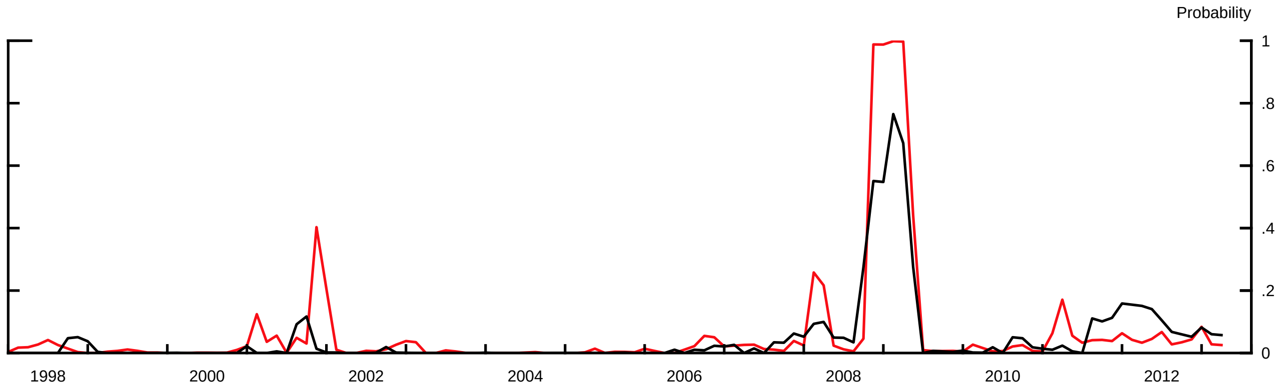


Probability that the Unemployment Rate Decreases 1 ppt

(4 quarters ahead)



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



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

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Risks & Uncertainty

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

Interval	Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate[1]	
	03/13/13	04/24/13	03/13/13	04/24/13	03/13/13	04/24/13	03/13/13	04/24/13	03/13/13	04/24/13
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	1.5	1.3	.6	.4	1.5	1.6	.9	1.0	7.8	7.8
2013:Q1	4.2	4.4	2.8	3.1	1.1	.9	1.4	1.2	7.8	7.7
Q2	3.3	2.2	1.8	1.5	1.1	-.2	1.6	1.4	7.7	7.6
Q3	4.2	4.2	2.7	2.4	1.6	1.6	1.7	1.7	7.6	7.5
Q4	4.4	4.9	3.0	3.2	1.4	1.6	1.6	1.6	7.5	7.4
2014:Q1	4.2	4.7	2.6	2.9	1.6	1.6	1.8	1.8	7.4	7.3
Q2	4.6	4.8	3.0	3.1	1.5	1.5	1.7	1.7	7.3	7.2
Q3	5.0	5.0	3.5	3.4	1.5	1.5	1.7	1.7	7.2	7.1
Q4	5.2	5.1	3.7	3.5	1.4	1.5	1.6	1.6	7.1	6.9
Two-quarter[2]										
2012:Q2	3.5	3.5	1.6	1.6	1.6	1.6	2.0	2.0	-.5	-.5
Q4	3.7	3.6	1.8	1.7	1.5	1.6	1.0	1.1	-.4	-.4
2013:Q2	3.8	3.3	2.3	2.3	1.1	.3	1.5	1.3	-.1	-.2
Q4	4.3	4.6	2.8	2.8	1.5	1.6	1.7	1.6	-.2	-.2
2014:Q2	4.4	4.7	2.8	3.0	1.5	1.6	1.7	1.7	-.2	-.2
Q4	5.1	5.1	3.6	3.5	1.5	1.5	1.6	1.6	-.2	-.3
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	3.6	3.5	1.7	1.7	1.6	1.6	1.5	1.5	-.9	-.9
2013:Q4	4.0	3.9	2.5	2.6	1.3	1.0	1.6	1.5	-.3	-.4
2014:Q4	4.8	4.9	3.2	3.2	1.5	1.5	1.7	1.7	-.4	-.5
2015:Q4	5.2	5.2	3.6	3.5	1.6	1.6	1.7	1.8	-.8	-.7
Annual										
2011	4.0	4.0	1.8	1.8	2.4	2.4	1.4	1.4	8.9	8.9
2012	4.1	4.0	2.2	2.2	1.8	1.8	1.7	1.7	8.1	8.1
2013	3.7	3.5	2.1	2.1	1.3	1.0	1.4	1.3	7.7	7.6
2014	4.4	4.6	2.9	2.9	1.5	1.5	1.7	1.7	7.3	7.1
2015	5.1	5.2	3.5	3.5	1.5	1.6	1.7	1.7	6.6	6.5

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

Greensheets

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	3.1	1.5	2.4	3.2	2.9	3.1	3.4	3.5	1.7	2.6	3.2	3.5
Previous Tealbook	1.3	3.1	.6	2.8	1.8	2.7	3.0	2.6	3.0	3.5	3.7	1.7	2.5	3.2	3.6
Final sales	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
Previous Tealbook	1.7	2.4	2.0	1.7	2.3	2.4	2.8	2.1	2.9	3.4	3.5	2.1	2.3	3.0	3.7
Priv. dom. final purch.	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
Previous Tealbook	1.9	1.5	3.7	2.4	3.4	3.7	3.6	3.2	3.7	4.4	4.3	2.7	3.3	3.9	4.4
Personal cons. expend.	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
Previous Tealbook	1.5	1.6	2.0	2.1	2.5	2.5	2.7	2.7	3.2	3.8	3.7	1.9	2.5	3.3	3.7
Durables	-.2	8.9	13.6	7.1	4.6	7.9	8.8	9.0	8.9	9.0	8.9	8.3	7.1	9.0	8.7
Nondurables	.6	1.2	.1	2.3	2.3	1.7	2.5	2.1	2.7	3.0	3.0	.9	2.2	2.7	3.0
Services	2.1	.6	.6	2.3	1.9	2.1	2.7	2.2	2.7	3.0	3.1	1.1	2.2	2.8	3.2
Residential investment	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
Previous Tealbook	8.5	13.5	17.8	17.7	22.8	20.1	14.4	13.4	14.4	14.4	13.4	15.0	18.7	13.9	14.0
Business fixed invest.	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
Previous Tealbook	3.6	-1.8	12.8	.6	5.0	7.6	6.7	3.7	4.0	6.0	6.1	5.4	4.9	5.0	5.4
Equipment & software	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
Previous Tealbook	4.8	-2.6	11.4	5.7	5.6	7.3	7.1	4.3	4.3	6.9	7.0	4.7	6.4	5.6	6.3
Nonres. structures	.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
Previous Tealbook	.6	.0	16.3	-11.3	3.4	8.5	5.6	2.4	3.3	3.7	3.9	7.2	1.2	3.3	3.1
Net exports[2]	-407	-395	-385	-389	-380	-387	-392	-399	-399	-401	-398	-401	-387	-399	-390
Previous Tealbook[2]	-407	-395	-385	-387	-376	-383	-387	-390	-388	-389	-387	-401	-383	-389	-377
Exports	5.3	1.9	-2.8	3.0	7.2	2.7	4.5	4.8	4.6	5.6	6.2	2.1	4.3	5.3	6.8
Imports	2.8	-.6	-4.2	3.3	4.2	3.6	4.6	5.2	3.9	4.8	4.7	.2	3.9	4.7	5.0
Gov't. cons. & invest.	-.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
Previous Tealbook	-.7	3.9	-6.8	-1.1	-4.6	-2.3	-.8	-2.4	-1.8	-1.7	-1.3	-1.7	-2.2	-1.8	-.5
Federal	-.2	9.5	-14.8	-4.9	-10.8	-11.9	-1.4	-5.5	-6.6	-5.9	-4.8	-2.8	-7.4	-5.7	-3.9
Defense	-.2	12.9	-22.1	-5.7	-10.1	-12.6	-2.9	-7.0	-7.4	-6.4	-5.6	-5.0	-7.9	-6.6	-4.2
Nondefense	-.4	3.0	1.7	-3.3	-11.9	-10.7	1.5	-2.7	-5.1	-5.1	-3.5	1.5	-6.3	-4.1	-3.5
State & local	-1.0	.3	-1.5	-.6	-.2	-.3	-.3	.0	.0	.0	.1	-1.1	-.4	.0	1.1
Change in bus. inventories[2]	41	60	13	61	44	58	59	73	80	81	79	43	56	78	70
Previous Tealbook[2]	41	60	18	58	43	48	54	67	73	74	82	44	51	74	73
Nonfarm[2]	53	88	35	54	37	51	52	68	75	76	74	60	49	73	68
Farm[2]	-8	-19	-15	7	7	7	7	5	5	5	5	-11	7	5	1

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

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

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Real GDP	2.4	2.2	-3.3	-.1	2.4	2.0	1.7	2.6	3.2	3.5
Previous Tealbook	2.4	2.2	-3.3	-.1	2.4	2.0	1.7	2.5	3.2	3.6
Final sales	2.8	2.4	-2.6	-.5	1.7	1.7	2.1	2.2	3.1	3.7
Previous Tealbook	2.8	2.4	-2.6	-.5	1.7	1.7	2.1	2.3	3.0	3.7
Priv. dom. final purch.	2.4	1.2	-4.5	-2.8	3.2	2.9	2.6	3.5	4.2	4.4
Previous Tealbook	2.4	1.2	-4.5	-2.8	3.2	2.9	2.7	3.3	3.9	4.4
Personal cons. expend.	3.2	1.7	-2.5	-.3	2.9	1.9	1.8	2.8	3.5	3.8
Previous Tealbook	3.2	1.7	-2.5	-.3	2.9	1.9	1.9	2.5	3.3	3.7
Durables	7.0	4.6	-13.0	3.0	9.5	5.9	8.3	7.1	9.0	8.7
Nondurables	2.9	.8	-3.1	.4	3.0	1.4	.9	2.2	2.7	3.0
Services	2.6	1.4	-.5	-1.1	1.9	1.5	1.1	2.2	2.8	3.2
Residential investment	-15.7	-20.7	-24.4	-13.3	-5.7	3.9	14.9	17.0	16.5	13.6
Previous Tealbook	-15.7	-20.7	-24.4	-13.3	-5.7	3.9	15.0	18.7	13.9	14.0
Business fixed invest.	7.8	7.9	-9.4	-15.7	7.7	10.2	5.4	4.7	5.3	5.2
Previous Tealbook	7.8	7.9	-9.4	-15.7	7.7	10.2	5.4	4.9	5.0	5.4
Equipment & software	6.0	3.9	-13.6	-7.8	11.9	11.4	4.7	5.5	6.1	6.0
Previous Tealbook	6.0	3.9	-13.6	-7.8	11.9	11.4	4.7	6.4	5.6	6.3
Nonres. structures	13.0	17.3	-1.2	-29.4	-1.8	6.9	7.3	2.6	3.5	3.1
Previous Tealbook	13.0	17.3	-1.2	-29.4	-1.8	6.9	7.2	1.2	3.3	3.1
Net exports[1]	-729	-649	-495	-355	-420	-408	-401	-387	-399	-390
Previous Tealbook[1]	-729	-649	-495	-355	-420	-408	-401	-383	-389	-377
Exports	10.2	10.1	-2.5	.3	8.8	4.3	2.1	4.3	5.3	6.8
Imports	4.1	.8	-5.9	-6.1	10.9	3.5	.2	3.9	4.7	5.0
Gov't. cons. & invest.	1.5	1.9	2.7	4.0	-1.3	-3.3	-1.8	-3.1	-2.1	-.7
Previous Tealbook	1.5	1.9	2.7	4.0	-1.3	-3.3	-1.7	-2.2	-1.8	-.5
Federal	2.2	3.1	8.8	5.1	2.3	-4.2	-2.8	-7.4	-5.7	-3.9
Defense	4.4	2.6	9.8	4.1	1.0	-4.0	-5.0	-7.9	-6.6	-4.2
Nondefense	-2.3	4.2	6.8	7.2	5.2	-4.6	1.5	-6.3	-4.1	-3.5
State & local	1.2	1.2	-.9	3.3	-3.6	-2.7	-1.1	-.4	.0	1.1
Change in bus. inventories[1]	59	28	-36	-139	51	31	43	56	78	70
Previous Tealbook[1]	59	28	-36	-139	51	31	44	51	74	73
Nonfarm[1]	63	29	-38	-138	58	36	60	49	73	68
Farm[1]	-4	-1	1	-1	-6	-4	-11	7	5	1

1. Billions of chained (2005) dollars.

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

Item	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2012[1]	2013[1]	2014[1]	2015[1]
Real GDP	1.3	3.1	.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
Previous Tealbook	1.3	3.1	.6	2.8	1.8	2.7	3.0	2.6	3.0	3.5	3.7	1.7	2.5	3.2	3.6
Final sales	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
Previous Tealbook	1.7	2.4	2.0	1.7	2.2	2.4	2.8	2.1	2.9	3.4	3.5	2.1	2.3	3.0	3.7
Priv. dom. final purch.	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
Previous Tealbook	1.6	1.3	3.0	2.0	2.8	3.1	3.0	2.7	3.1	3.7	3.7	2.2	2.8	3.3	3.7
Personal cons. expend.	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
Previous Tealbook	1.1	1.1	1.4	1.5	1.8	1.8	1.9	1.9	2.3	2.7	2.6	1.3	1.8	2.4	2.6
Durables	.0	.7	1.0	.5	.4	.6	.7	.7	.7	.7	.7	.6	.6	.7	.7
Nondurables	.1	.2	.0	.4	.4	.3	.4	.3	.4	.5	.5	.1	.4	.4	.5
Services	1.0	.3	.3	1.1	.9	1.0	1.3	1.1	1.3	1.4	1.5	.5	1.1	1.3	1.5
Residential investment	.2	.3	.4	.4	.5	.4	.4	.5	.5	.5	.5	.3	.4	.5	.5
Previous Tealbook	.2	.3	.4	.4	.6	.5	.4	.4	.4	.4	.4	.3	.5	.4	.5
Business fixed invest.	.4	-.2	1.3	.0	.4	.8	.7	.4	.5	.7	.7	.6	.5	.6	.6
Previous Tealbook	.4	-.2	1.2	.1	.5	.8	.7	.4	.4	.6	.6	.5	.5	.5	.6
Equipment & software	.4	-.2	.8	.1	.3	.7	.6	.4	.4	.5	.5	.3	.4	.5	.5
Previous Tealbook	.4	-.2	.8	.4	.4	.5	.5	.3	.3	.5	.5	.3	.5	.4	.5
Nonres. structures	.0	.0	.5	-.1	.1	.2	.2	.1	.1	.1	.1	.2	.1	.1	.1
Previous Tealbook	.0	.0	.4	-.4	.1	.2	.2	.1	.1	.1	.1	.2	.0	.1	.1
Net exports	.2	.4	.3	-.1	.3	-.2	-.2	-.2	.0	.0	.1	.3	-.1	-.1	.1
Previous Tealbook	.2	.4	.3	.0	.3	-.2	-.1	-.1	.0	.0	.0	.3	.0	.0	.1
Exports	.7	.3	-.4	.4	1.0	.4	.6	.7	.6	.8	.8	.3	.6	.7	.9
Imports	-.5	.1	.7	-.6	-.7	-.6	-.8	-.9	-.7	-.8	-.8	.0	-.7	-.8	-.9
Gov't. cons. & invest.	-.1	.8	-1.4	-.4	-.9	-.9	-.1	-.4	-.4	-.4	-.3	-.4	-.6	-.4	-.1
Previous Tealbook	-.1	.8	-1.4	-.2	-.9	-.4	-.1	-.4	-.3	-.3	-.2	-.3	-.4	-.3	-.1
Federal	.0	.7	-1.2	-.4	-.8	-.9	-.1	-.4	-.4	-.4	-.3	-.2	-.6	-.4	-.2
Defense	.0	.6	-1.3	-.3	-.5	-.6	-.1	-.3	-.3	-.3	-.2	-.3	-.4	-.3	-.2
Nondefense	.0	.1	.0	-.1	-.3	-.3	.0	-.1	-.1	-.1	-.1	.0	-.2	-.1	-.1
State & local	-.1	.0	-.2	-.1	.0	.0	.0	.0	.0	.0	.0	-.1	.0	.0	.1
Change in bus. inventories	-.5	.7	-1.5	1.4	-.5	.5	.0	.4	.2	.0	.0	-.4	.3	.2	-.2
Previous Tealbook	-.5	.7	-1.4	1.1	-.5	.2	.2	.4	.2	.1	.2	-.4	.3	.2	-.2
Nonfarm	-.3	1.1	-1.7	.6	-.6	.5	.0	.5	.2	.0	.0	-.3	.1	.2	-.1
Farm	-.2	-.4	.1	.7	.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	1.3	.7	1.7	1.7	1.8	1.7	1.6	1.5	1.8	1.3	1.6	1.6
Previous Tealbook	1.6	2.7	.9	1.4	1.5	1.5	1.4	1.6	1.5	1.5	1.5	1.8	1.5	1.5	1.6
PCE chain-wt. price index	.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
Previous Tealbook	.7	1.6	1.5	1.1	1.1	1.6	1.4	1.6	1.5	1.5	1.4	1.6	1.3	1.5	1.6
Energy	-13.6	10.5	9.9	-3.8	-23.4	.6	2.6	.5	-.4	-.7	-.7	3.2	-6.6	-.3	-.7
Previous Tealbook	-13.6	10.5	9.9	-4.7	-7.5	-1.2	-1.4	-1.3	-1.3	-1.2	-1.0	3.2	-3.7	-1.2	-.8
Food	.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
Previous Tealbook	.7	.6	1.8	2.0	2.6	1.9	1.0	.9	1.0	1.1	1.2	1.1	1.9	1.1	1.5
Ex. food & energy	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
Previous Tealbook	1.7	1.1	.9	1.4	1.6	1.7	1.6	1.8	1.7	1.7	1.6	1.5	1.6	1.7	1.7
Ex. food & energy, market based	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
Previous Tealbook	1.8	1.3	.9	1.6	1.4	1.6	1.4	1.7	1.6	1.6	1.5	1.6	1.5	1.6	1.6
CPI	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
Previous Tealbook	1.0	2.1	2.2	1.4	1.1	1.5	1.4	1.6	1.5	1.5	1.5	1.9	1.4	1.5	1.6
Ex. food & energy	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
Previous Tealbook	2.4	1.6	1.7	2.1	1.8	1.7	1.7	1.9	1.9	1.9	1.8	1.9	1.8	1.9	1.9
ECI, hourly compensation[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
Previous Tealbook[2]	2.1	1.7	2.1	2.2	2.4	2.5	2.5	2.7	2.7	2.7	2.7	1.9	2.4	2.7	2.9
Nonfarm business sector															
Output per hour	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
Previous Tealbook	1.7	3.1	-1.4	.9	-.1	1.4	1.4	1.2	1.7	2.0	2.1	.7	.9	1.8	1.7
Compensation per hour	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
Previous Tealbook	1.2	1.2	2.6	.7	2.9	2.8	2.9	2.9	2.9	2.9	2.9	2.6	2.4	2.9	3.3
Unit labor costs	-.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
Previous Tealbook	-.5	-1.9	4.6	-.2	3.1	1.4	1.5	1.6	1.1	.9	.8	2.1	1.5	1.1	1.6
Core goods imports chain-wt. price index[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
Previous Tealbook[3]	1.2	-2.3	1.7	1.8	.4	.7	1.2	1.3	1.5	1.8	1.5	.1	1.0	1.5	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	1.3	1.6	1.6
Previous Tealbook	2.9	2.6	2.1	.5	1.8	2.0	1.8	1.5	1.5	1.6
PCE chain-wt. price index	1.9	3.5	1.7	1.4	1.5	2.5	1.6	1.0	1.5	1.6
Previous Tealbook	1.9	3.5	1.7	1.4	1.5	2.5	1.6	1.3	1.5	1.6
Energy	-3.7	19.3	-8.8	2.7	6.5	11.9	3.2	-6.6	-.3	-.7
Previous Tealbook	-3.7	19.3	-8.8	2.7	6.5	11.9	3.2	-3.7	-1.2	-.8
Food	1.7	4.7	7.0	-1.7	1.3	5.1	1.1	1.1	1.0	1.5
Previous Tealbook	1.7	4.7	7.0	-1.7	1.3	5.1	1.1	1.9	1.1	1.5
Ex. food & energy	2.3	2.4	2.0	1.6	1.2	1.7	1.5	1.5	1.7	1.8
Previous Tealbook	2.3	2.4	2.0	1.6	1.2	1.7	1.5	1.6	1.7	1.7
Ex. food & energy, market based	2.2	2.1	2.2	1.7	.7	1.9	1.6	1.5	1.6	1.7
Previous Tealbook	2.2	2.1	2.2	1.7	.7	1.9	1.6	1.5	1.6	1.6
CPI	2.0	4.0	1.6	1.5	1.2	3.3	1.9	1.0	1.6	1.7
Previous Tealbook	2.0	4.0	1.6	1.5	1.2	3.3	1.9	1.4	1.5	1.6
Ex. food & energy	2.7	2.3	2.0	1.7	.6	2.2	1.9	1.8	1.9	2.0
Previous Tealbook	2.7	2.3	2.0	1.7	.6	2.2	1.9	1.8	1.9	1.9
ECI, hourly compensation[1]	3.2	3.0	2.4	1.2	2.1	2.2	1.9	2.4	2.7	3.0
Previous Tealbook[1]	3.2	3.0	2.4	1.2	2.1	2.2	1.9	2.4	2.7	2.9
Nonfarm business sector										
Output per hour	.8	2.4	-1.2	5.6	1.9	.4	.7	.9	1.6	1.6
Previous Tealbook	.8	2.4	-1.2	5.6	1.9	.4	.7	.9	1.8	1.7
Compensation per hour	4.5	3.6	2.5	1.5	1.6	1.7	2.6	2.4	2.9	3.4
Previous Tealbook	4.5	3.6	2.5	1.5	1.6	1.7	2.6	2.4	2.9	3.3
Unit labor costs	3.6	1.1	3.7	-3.9	-.2	1.3	2.1	1.4	1.3	1.8
Previous Tealbook	3.6	1.1	3.7	-3.9	-.2	1.3	2.1	1.5	1.1	1.6
Core goods imports chain-wt. price index[2]	2.5	2.9	3.7	-1.7	2.7	4.3	.1	.5	1.6	1.6
Previous Tealbook[2]	2.5	2.9	3.7	-1.7	2.7	4.3	.1	1.0	1.5	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	2.0	2.5	3.2
Unemployment rate[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
Previous Tealbook[3]	8.2	8.0	7.8	7.8	7.7	7.6	7.5	7.4	7.3	7.2	7.1	7.8	7.5	7.1	6.3
Natural rate of unemployment[3]	6.0	6.0	5.9	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8	5.9	5.9	5.8	5.8
Previous Tealbook[3]	6.0	6.0	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]	-3.6	-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
Previous Tealbook[4]	-3.9	-3.6	-3.9	-3.7	-3.7	-3.5	-3.3	-3.2	-2.9	-2.6	-2.2	-3.9	-3.3	-2.2	-.8
Industrial production[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
Previous Tealbook[5]	2.4	.5	2.7	5.5	6.1	4.7	3.8	3.6	3.7	3.9	4.1	2.8	5.0	3.8	4.3
Manufacturing industr. prod.[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
Previous Tealbook[5]	.8	-.8	2.3	6.9	4.6	3.4	3.2	3.6	3.5	3.7	4.1	2.9	4.5	3.7	4.7
Capacity utilization rate - mfg.[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
Previous Tealbook[3]	77.5	77.0	77.2	78.1	78.6	78.9	79.1	79.3	79.5	79.7	80.1	77.2	79.1	80.1	81.6
Housing starts[6]	.7	.8	.9	1.0	1.0	1.1	1.2	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	15.3	15.4	15.5	15.8	15.9	16.1	16.3	14.4	15.4	16.0	16.6
Income and saving															
Nominal GDP[5]	2.8	5.9	1.3	4.4	2.2	4.2	4.9	4.7	4.8	5.0	5.1	3.5	3.9	4.9	5.2
Real disposable pers. income[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
Previous Tealbook[5]	2.2	.7	6.2	-7.2	3.8	1.9	3.0	3.7	3.1	3.3	3.8	3.2	.3	3.5	3.1
Personal saving rate[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
Previous Tealbook[3]	3.8	3.6	4.7	2.3	2.6	2.5	2.5	2.7	2.7	2.6	2.6	4.7	2.5	2.6	2.0
Corporate profits[7]	4.7	9.9	9.6	10.5	-.7	4.3	2.0	1.0	3.2	5.8	5.6	3.1	3.9	3.9	2.3
Profit share of GNP[3]	12.1	12.3	12.5	12.7	12.6	12.6	12.5	12.4	12.4	12.4	12.5	12.5	12.5	12.5	12.1
Net federal saving[8]	-1,115	-1,087	-1,067	-801	-778	-737	-717	-621	-611	-606	-612	-1,082	-758	-612	-521
Net state & local saving[8]	-124	-140	-125	-116	-104	-96	-87	-91	-69	-62	-53	-129	-101	-69	-24
Gross national saving rate[3]	12.3	12.3	13.0	13.8	14.3	14.5	14.6	14.7	14.8	14.9	15.0	13.0	14.6	15.0	15.4
Net national saving rate[3]	-.4	-.3	.4	1.5	2.0	2.2	2.2	2.4	2.5	2.6	2.7	.4	2.2	2.7	3.1

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

Other Macroeconomic Indicators

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

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Employment and production										
Nonfarm payroll employment[1]	2.1	1.2	-2.8	-5.6	.8	2.0	2.2	2.0	2.5	3.2
Unemployment rate[2]	4.5	4.8	6.9	9.9	9.5	8.7	7.8	7.4	6.9	6.2
Previous Tealbook[2]	4.5	4.8	6.9	9.9	9.5	8.7	7.8	7.5	7.1	6.3
Natural rate of unemployment[2]	5.0	5.0	5.3	6.0	6.0	6.0	5.9	5.9	5.8	5.8
Previous Tealbook[2]	5.0	5.0	5.3	6.0	6.0	6.0	5.9	5.9	5.8	5.8
GDP gap[3]	.8	.9	-4.3	-5.2	-4.0	-3.5	-3.7	-3.1	-1.9	-.6
Previous Tealbook[3]	.8	.8	-4.3	-5.3	-4.2	-3.8	-3.9	-3.3	-2.2	-.8
Industrial production[4]	2.1	2.7	-8.9	-5.5	6.2	3.3	2.7	4.5	4.4	4.0
Previous Tealbook[4]	2.1	2.5	-9.0	-5.7	6.3	4.1	2.8	5.0	3.8	4.3
Manufacturing industr. prod.[4]	1.7	2.9	-11.6	-6.1	6.4	3.3	2.8	4.0	4.4	4.3
Previous Tealbook[4]	1.8	2.8	-11.8	-6.5	6.5	4.2	2.9	4.5	3.7	4.7
Capacity utilization rate - mfg.[2]	78.1	78.4	69.9	67.2	72.9	74.8	75.7	77.3	79.0	80.6
Previous Tealbook[2]	78.2	78.2	69.7	67.0	73.1	76.1	77.2	79.1	80.1	81.6
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	15.4	16.0	16.6
Income and saving										
Nominal GDP[4]	5.3	4.9	-1.2	.4	4.3	4.0	3.5	3.9	4.9	5.2
Real disposable pers. income[4]	4.6	1.6	1.0	-3.0	3.5	.3	3.2	.7	3.4	3.2
Previous Tealbook[4]	4.6	1.6	1.0	-3.0	3.5	.3	3.2	.3	3.5	3.1
Personal saving rate[2]	2.8	2.5	6.2	3.8	4.8	3.4	4.7	2.6	2.6	2.0
Previous Tealbook[2]	2.8	2.5	6.2	3.8	4.8	3.4	4.7	2.5	2.6	2.0
Corporate profits[6]	3.7	-8.1	-33.5	57.0	17.3	9.2	3.1	3.9	3.9	2.3
Profit share of GNP[2]	11.6	10.1	6.8	10.7	12.0	12.5	12.5	12.5	12.5	12.1
Net federal saving[7]	-204	-245	-613	-1,229	-1,308	-1,237	-1,082	-758	-612	-521
Net state & local saving[7]	51	12	-72	-113	-90	-102	-129	-101	-69	-24
Gross national saving rate[2]	16.5	13.9	12.6	11.0	12.1	12.4	13.0	14.6	15.0	15.4
Net national saving rate[2]	4.4	1.7	-.6	-2.3	-.6	-.3	.4	2.2	2.7	3.1

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	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unified budget					Not seasonally adjusted											
Receipts[1]	2,450	2,763	3,005	3,252	509	760	625	616	581	859	707	678	622	938	767	743
Outlays[1]	3,537	3,498	3,528	3,660	966	885	810	909	888	867	834	898	903	874	852	937
Surplus/deficit[1]	-1,087	-735	-522	-408	-457	-125	-185	-293	-307	-9	-126	-221	-280	64	-85	-194
Previous Tealbook	*-1,089*	*-757*	*-566*	*-476*	*-457*	*-125*	*-185*	*-293*	*-333*	*-6*	*-124*	*-228*	*-293*	*52*	*-97*	*-209*
On-budget	-1,149	-763	-535	-409	-458	-187	-160	-311	-303	-57	-93	-243	-260	18	-50	-213
Off-budget	62	28	13	1	1	62	-25	17	-4	48	-33	22	-20	46	-35	19
Means of financing																
Borrowing	1,152	824	627	528	398	198	230	314	336	-8	181	236	310	-34	115	224
Cash decrease	-27	1	15	0	42	-48	6	-7	14	-15	10	15	0	0	0	0
Other[2]	-38	-90	-120	-120	17	-25	-51	-13	-43	31	-65	-30	-30	-30	-30	-30
Cash operating balance, end of period	85	85	70	70	43	91	85	93	79	95	85	70	70	70	70	70
NIPA federal sector					Seasonally adjusted annual rates											
Receipts	2,633	2,908	3,172	3,400	2,665	2,659	2,673	2,705	2,943	2,975	3,007	3,044	3,176	3,213	3,255	3,297
Expenditures	3,744	3,753	3,811	3,954	3,724	3,775	3,761	3,772	3,744	3,753	3,744	3,762	3,797	3,824	3,861	3,909
Consumption expenditures	1,062	1,018	969	934	1,056	1,055	1,086	1,042	1,037	1,012	982	985	976	964	953	946
Defense	709	668	633	607	703	701	728	682	679	665	646	645	637	628	622	616
Nondefense	353	350	336	327	352	354	358	360	358	347	337	339	339	335	332	330
Other spending	2,682	2,735	2,841	3,020	2,668	2,720	2,674	2,730	2,707	2,742	2,762	2,777	2,821	2,860	2,907	2,963
Current account surplus	-1,111	-846	-639	-554	-1,059	-1,115	-1,087	-1,067	-801	-778	-737	-717	-621	-611	-606	-612
Gross investment	156	150	135	125	152	156	155	155	153	147	143	140	137	134	131	129
Gross saving less gross investment[3]	-1,126	-850	-625	-525	-1,071	-1,130	-1,100	-1,079	-809	-780	-733	-710	-609	-595	-586	-588
Fiscal indicators[4]																
High-employment (HEB) surplus/deficit	-932.7	-652.4	-469.1	-437.1	-879.3	-937.1	-921.6	-886.3	-609.5	-580.7	-533.2	-526.0	-448.4	-447.0	-454.9	-475.2
Change in HEB, percent of potential GDP	-1.0	-1.9	-1.2	-.3	-.8	.3	-.2	-.3	-1.7	-.2	-.3	-.1	-.5	.0	.0	.1
Fiscal impetus (FI), percent of GDP	-.7	-1.3	-.8	-.4	-.7	-.6	.3	-1.5	-1.6	-1.4	-1.5	-.6	-1.0	-.9	-.6	-.4
Previous Tealbook	*-.7*	*-1.1*	*-.7*	*-.3*	*-.7*	*-.6*	*.3*	*-1.5*	*-1.4*	*-1.3*	*-1.0*	*-.6*	*-1.0*	*-.8*	*-.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.

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

					-----------------	-----------------	Projected	-----------------	-----------------	-----------------	-----------------	-----------------
	2012				2013				2014			
Measure and country	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP [1]												
Total foreign	3.2	1.9	1.7	2.1	2.3	2.7	2.9	3.2	3.3	3.1	3.4	3.5
Previous Tealbook	*3.2*	*1.9*	*1.8*	*2.1*	*2.7*	*2.9*	*3.1*	*3.2*	*3.4*	*3.1*	*3.4*	*3.5*
Advanced foreign economies	1.3	.6	.3	-.4	.8	1.2	1.5	1.7	2.0	1.5	2.0	2.2
Canada	1.2	1.9	.7	.6	1.5	1.8	2.0	2.1	2.2	2.4	2.6	2.7
Japan	6.1	-.9	-3.7	.2	2.1	2.7	2.8	2.9	3.7	-2.3	1.0	1.1
United Kingdom	-.3	-1.5	3.8	-1.2	.3	.8	1.4	1.8	2.0	2.2	2.4	2.5
Euro area	-.3	-.6	-.3	-2.3	-.8	-.2	.3	.8	1.0	1.2	1.4	1.6
Germany	2.0	1.1	.9	-2.3	.4	.9	1.1	1.4	1.6	1.7	1.9	2.0
Emerging market economies	5.2	3.3	3.2	4.8	3.8	4.2	4.4	4.6	4.7	4.7	4.8	4.8
Asia	5.9	3.9	4.7	6.1	4.4	5.0	5.3	5.6	5.7	5.7	5.7	5.8
Korea	3.3	1.2	.2	1.1	2.9	3.4	3.7	3.9	4.0	4.1	4.2	4.3
China	7.0	6.5	8.4	9.5	6.5	7.3	7.8	8.0	8.0	8.0	8.0	8.0
Latin America	4.5	2.9	1.7	3.5	3.2	3.4	3.6	3.7	3.7	3.8	3.8	3.9
Mexico	5.3	3.1	1.5	3.1	3.2	3.6	3.8	3.8	3.8	3.9	3.9	3.9
Brazil	.6	1.3	1.5	2.2	2.7	3.3	3.7	3.7	3.8	3.8	4.0	4.0
Consumer prices [2]												
Total foreign	2.6	2.1	2.3	2.3	2.4	2.0	2.1	2.3	2.4	3.0	2.5	2.5
Previous Tealbook	*2.5*	*2.1*	*2.4*	*2.3*	*2.2*	*2.2*	*2.2*	*2.3*	*2.4*	*3.0*	*2.5*	*2.5*
Advanced foreign economies	1.8	.9	.8	1.6	.9	1.1	1.1	1.3	1.3	2.7	1.4	1.5
Canada	2.0	.2	.1	1.4	1.8	1.3	1.2	1.5	1.7	1.7	1.8	1.8
Japan	1.2	-.7	-1.5	.0	.1	.2	.3	.4	.5	8.7	.7	.9
United Kingdom	1.6	1.4	3.2	4.4	2.0	2.2	1.8	2.9	1.8	1.7	1.7	2.9
Euro area	2.3	2.3	2.1	2.4	.5	1.3	1.2	1.3	1.3	1.3	1.4	1.4
Germany	2.2	1.6	2.0	2.2	1.4	2.1	1.7	1.7	1.7	1.7	1.8	1.9
Emerging market economies	3.1	3.0	3.4	2.8	3.6	2.7	2.9	3.1	3.2	3.3	3.3	3.3
Asia	2.4	3.2	2.4	2.4	3.5	2.2	2.8	2.9	3.0	3.1	3.2	3.2
Korea	1.6	1.2	1.0	3.1	.4	1.9	2.8	2.9	3.0	3.0	3.0	3.1
China	2.0	2.5	1.7	2.0	3.5	1.8	2.7	2.8	2.9	3.0	3.0	3.0
Latin America	5.1	2.6	5.7	3.7	3.8	3.8	3.2	3.5	3.7	3.7	3.7	3.7
Mexico	5.2	2.4	5.7	3.1	3.5	3.6	2.9	3.2	3.4	3.4	3.4	3.4
Brazil	4.0	3.8	7.3	7.5	6.9	5.4	5.5	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	2014	2015
Real GDP [1]									
Total foreign	4.3	-.7	.8	4.6	3.0	2.2	2.8	3.3	3.5
Previous Tealbook	*4.3*	*-.7*	*.8*	*4.6*	*2.9*	*2.3*	*3.0*	*3.4*	*3.5*
Advanced foreign economies	2.4	-1.6	-1.5	3.0	1.4	.4	1.3	1.9	2.3
Canada	2.3	.0	-1.6	3.6	2.4	1.1	1.8	2.5	2.7
Japan	1.6	-4.8	-.6	3.5	-.1	.4	2.6	.9	1.0
United Kingdom	3.8	-4.6	-.9	1.5	1.1	.2	1.1	2.3	2.6
Euro area	2.4	-2.1	-2.3	2.2	.6	-.9	.0	1.3	2.0
Germany	2.4	-1.9	-2.2	4.2	1.9	.4	.9	1.8	2.4
Emerging market economies	6.7	.4	3.6	6.2	4.5	4.1	4.2	4.7	4.8
Asia	8.9	.8	8.1	7.8	5.0	5.1	5.1	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	7.4	8.0	7.8
Latin America	4.4	-.2	-.8	4.5	3.9	3.1	3.5	3.8	3.8
Mexico	3.5	-1.1	-2.2	4.1	4.0	3.3	3.6	3.9	3.8
Brazil	6.6	.9	5.3	5.4	1.4	1.4	3.3	3.9	4.0
Consumer prices [2]									
Total foreign	3.7	3.3	1.2	3.2	3.4	2.3	2.2	2.6	2.7
Previous Tealbook	*3.7*	*3.3*	*1.2*	*3.2*	*3.4*	*2.3*	*2.2*	*2.6*	*2.6*
Advanced foreign economies	2.2	2.0	.2	1.7	2.2	1.3	1.1	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	.2	2.6	2.5
United Kingdom	2.1	3.9	2.2	3.4	4.6	2.7	2.2	2.0	2.0
Euro area	2.9	2.3	.4	2.0	2.9	2.3	1.1	1.3	1.7
Germany	3.1	1.7	.3	1.6	2.6	2.0	1.7	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	2.9	3.1	3.2
Korea	3.4	4.5	2.4	3.2	4.0	1.7	2.0	3.0	3.2
China	6.7	2.5	.6	4.6	4.6	2.1	2.7	3.0	3.0
Latin America	4.2	6.6	3.9	4.4	4.0	4.3	3.6	3.7	3.7
Mexico	3.8	6.2	4.0	4.3	3.5	4.1	3.3	3.4	3.4
Brazil	4.3	6.3	4.3	5.6	6.7	5.6	5.8	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

					Projected							
	2012				2013				2014			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Billions of dollars, s.a.a.r.											
U.S. current account balance	**-535.1**	**-473.4**	**-449.8**	**-441.7**	**-474.6**	**-442.1**	**-463.7**	**-503.4**	**-532.9**	**-524.1**	**-546.4**	**-571.7**
Previous Tealbook	*-535.4*	*-473.4*	*-431.4*	*-442.2*	*-469.2*	*-435.3*	*-461.6*	*-497.0*	*-522.1*	*-505.3*	*-521.2*	*-540.1*
Current account as percent of GDP	-3.5	-3.0	-2.8	-2.8	-3.0	-2.7	-2.8	-3.1	-3.2	-3.1	-3.2	-3.3
Previous Tealbook	*-3.5*	*-3.0*	*-2.7*	*-2.8*	*-2.9*	*-2.7*	*-2.8*	*-3.0*	*-3.1*	*-3.0*	*-3.1*	*-3.1*
Net goods & services	-594.4	-550.6	-499.4	-513.7	-523.2	-470.5	-476.5	-500.8	-518.4	-498.1	-501.4	-515.2
Investment income, net	197.8	216.0	194.1	217.1	195.4	171.3	159.1	145.6	132.3	117.0	101.1	91.8
Direct, net	283.4	291.8	271.2	307.9	274.1	247.8	233.6	228.1	222.8	216.1	210.6	212.5
Portfolio, net	-85.6	-75.8	-77.1	-90.8	-78.7	-76.5	-74.5	-82.5	-90.5	-99.2	-109.4	-120.7
Other income and transfers, net	-138.5	-138.8	-144.5	-145.1	-146.8	-142.9	-146.2	-148.3	-146.8	-142.9	-146.2	-148.3

Annual Data

							Projected		
	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Billions of dollars								
U.S. current account balance	**-710.3**	**-677.1**	**-381.9**	**-442.0**	**-465.9**	**-475.0**	**-470.9**	**-543.8**	**-576.7**
Previous Tealbook	*-710.3*	*-677.1*	*-381.9*	*-442.0*	*-465.9*	*-470.6*	*-465.8*	*-522.2*	*-536.0*
Current account as percent of GDP	-5.1	-4.7	-2.7	-3.0	-3.1	-3.0	-2.9	-3.2	-3.2
Previous Tealbook	*-5.1*	*-4.7*	*-2.7*	*-3.0*	*-3.1*	*-3.0*	*-2.9*	*-3.1*	*-3.0*
Net goods & services	-696.7	-698.3	-379.2	-494.7	-559.9	-539.5	-492.7	-508.3	-508.6
Investment income, net	111.1	157.8	127.6	191.0	235.0	206.2	167.9	110.5	76.9
Direct, net	244.6	284.3	253.0	297.9	321.7	288.6	245.9	215.5	227.7
Portfolio, net	-133.5	-126.5	-125.4	-106.9	-86.7	-82.3	-78.0	-105.0	-150.7
Other income and transfers, net	-124.7	-136.6	-130.3	-138.2	-141.1	-141.7	-146.1	-146.1	-145.0

Abbreviations

ABCP	asset-backed commercial paper
ABS	asset-backed securities
AFE	advanced foreign economy
BOC	Bank of Canada
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
CPI	consumer price index
CRE	commercial real estate
Desk	Open Market Desk
ECB	European Central Bank
EME	emerging market economy
E&S	equipment and software
FHA	Federal Housing Administration
FHFA	Federal Housing Finance Agency
FOMC	Federal Open Market Committee; also, the Committee
GCF	general collateral finance
GDP	gross domestic product
GSE	government-sponsored enterprise
IPO	initial public offering
ISM	Institute for Supply Management
JOLTS	Job Openings and Labor Turnover Survey
LIBOR	London interbank offered rate

LSAP	large-scale asset purchase
MBS	mortgage-backed securities
Michigan survey	Thomson Reuters/University of Michigan Surveys of Consumers
NIPA	national income and product accounts
OIS	overnight index swap
PCE	personal consumption expenditures
PMI	purchasing managers index
repo	repurchase agreement
RRE	residential real estate
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices
SOMA	System Open Market Account
S&P	Standard & Poor’s
TBA	to be announced (for example, TBA market)
TIPS	Treasury inflation-protected securities
VIX	Chicago Board Options Exchange Market Volatility Index