Prefatory Note

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

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

Content last modified 02/03/2017.

Report to the FOMC on Economic Conditions and Monetary Policy

Book A

Economic and Financial Conditions: Current Situation and Outlook

September 14, 2011

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

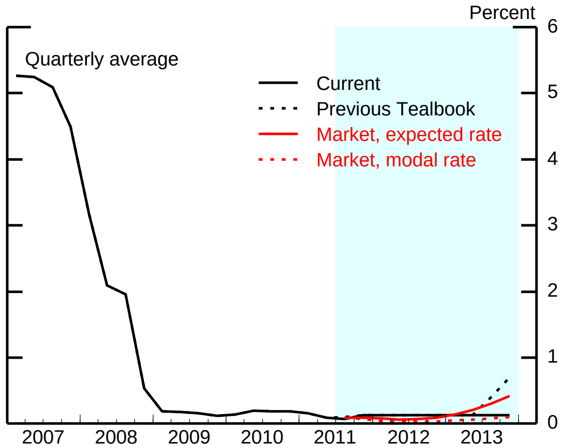
On balance, the incoming data on household and business spending have been in line with our expectations at the time of the previous Tealbook, and the rebound in motor vehicle production associated with the unwinding of supply chain disruptions following the earthquake in Japan is proceeding pretty much as we had anticipated. However, several key nonspending indicators of near-term economic activity have come in well below our expectations: in particular, the disappointing performance of the labor market, the dramatic worsening of consumer and business sentiment, and the sharp drop in stock prices. As a consequence, although we continue to anticipate that economic activity will increase more rapidly in the second half of this year than it did in the first, we now expect real GDP to rise at an annual rate of just 2¼ percent on average over the third and fourth quarters, ½ percentage point less than in our previous projection.

We have also lowered our projection for economic growth in the medium term, consistent with the deterioration of conditions in financial markets over the past six weeks. This deterioration, which appears to have reflected increased concerns about economic prospects both in the United States and abroad, has extended beyond the drop in equity prices; it also includes widening spreads on corporate bonds and a rise in the foreign exchange value of the dollar. A projected lower path for crude oil prices should provide a small offset to these negatives. After factoring everything in, we now expect real GDP growth in 2012 to be ½ percentage point less than in our previous forecast.

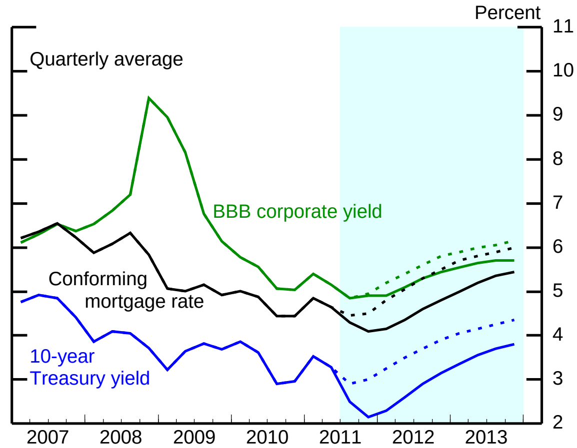
Despite the downward revision, we still expect economic activity to accelerate gradually over the forecast period. Progress has been made in repairing household balance sheets, and credit availability has improved over the past couple of years; against a backdrop of continued accommodative monetary policy, we expect these developments to continue throughout the projection period. In this environment, we anticipate that consumer and business confidence will move up from today's extremely low levels and that businesses will expand hiring and capital spending as demand strengthens. All told, our forecast has real GDP increasing 2½ percent in 2012 and 3½ percent in 2013. Even so, resource slack remains sizable throughout the projection period, and the unemployment rate is projected to still be around 8 percent at the end of 2013.

Key Background Factors underlying the Baseline Staff Projection

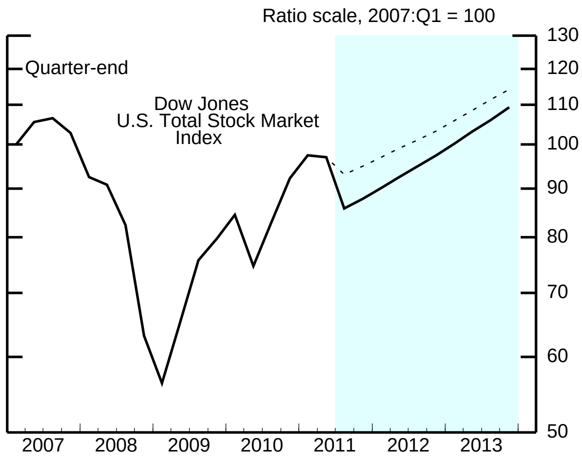
Federal Funds Rate



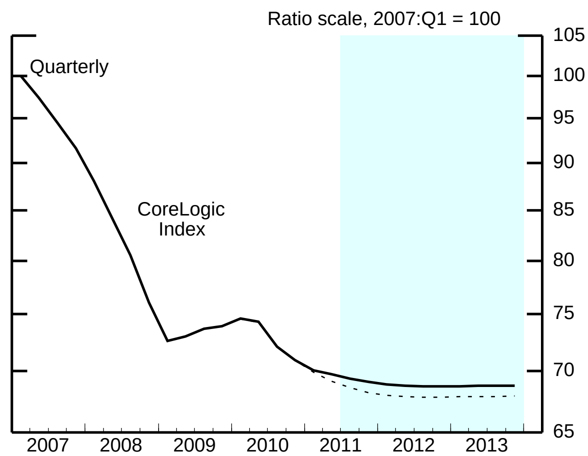
Long-Term Interest Rates



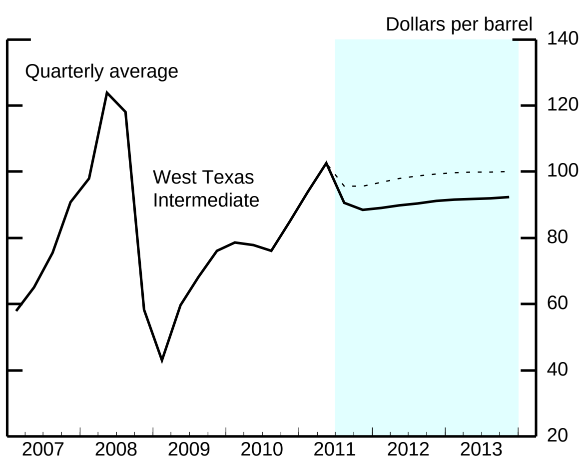
Equity Prices



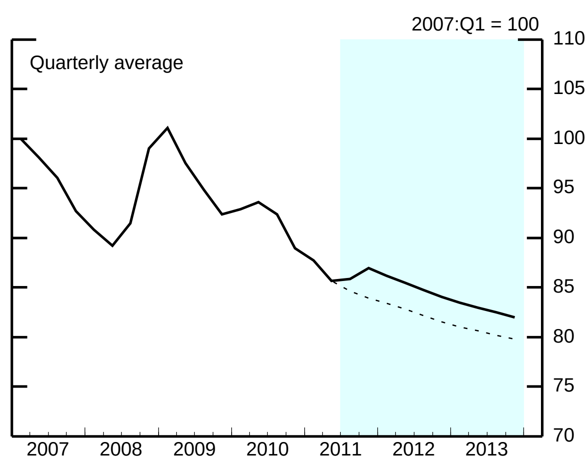
House Prices



Crude Oil Prices



Broad Real Dollar



The outlook for inflation is similar to that in the August Tealbook and continues to be shaped by our assessment that the recent upturn in core inflation is attributable largely to transitory factors, most notably the pass-through of the surge in commodity and import prices during the first half of the year; with commodity prices off their recent peaks and import prices slowing, these pressures should fade in coming quarters. Thus, in an environment of well-anchored long-run inflation expectations, and with considerable slack in labor and product markets projected to persist over the projection period, we expect core inflation to drop from nearly 2 percent this year to 1½ percent in 2012 and then to edge down to 1¼ percent in 2013. With consumer energy prices expected to decline for the next few quarters and then to hold roughly steady over the remainder of the forecast period, we project overall consumer prices to rise 1¼ percent in each of the next two years after increasing 2½ percent in 2011.

KEY BACKGROUND FACTORS

Monetary Policy

As a result of the staff's weaker outlook for real GDP growth and labor market conditions, and with little change to our inflation forecast, we now assume that the FOMC will hold the target federal funds rate in the current range of 0 to ¼ percent until the third quarter of 2014, four quarters later than in the August Tealbook. Regarding nonconventional monetary policy, our forecast assumes that the FOMC will announce at the upcoming meeting that it will extend the average maturity of the SOMA portfolio by purchasing $400 billion of long-term securities while selling $400 billion of securities with remaining maturities of three years or less. We also assume the FOMC will reinvest principal payments from its securities holdings into long-term Treasury securities until the first quarter of 2014, four quarters later than in the August Tealbook.

Financial Conditions

Since the time of the August Tealbook, the yield on 10-year Treasury securities has decreased about 65 basis points on net as market participants have marked down their expectations for the federal funds rate in the medium term, and as investors have increased their demand for low-risk assets in light of the weaker global economic outlook and an intensification of fiscal and related financial strains in Europe. The 10-year Treasury yield was also likely pushed down by mounting expectations that the FOMC would announce additional nonconventional monetary policy stimulus. In response to these developments, we lowered our projection for the 10-year Treasury yield in the near term significantly. However, we continue to expect this yield to rise markedly through 2013; this expectation reflects the movement of the valuation window through the period of near-zero short-term interest rates and a waning of Federal Reserve balance sheet effects, as well as an unwinding of flight-to-safety demands as the economic recovery gains firmer footing and European authorities over time manage to provide substantial additional support to vulnerable countries and institutions.

Yields on investment-grade corporate bonds have increased a bit since the August Tealbook despite the substantial declines in Treasury yields. As a result, spreads on investment-grade corporate bonds have risen to their highest levels since late 2009. Over the projection period, we expect yields on investment-grade corporate bonds to increase, but by less than yields on 10-year Treasury securities, as risk spreads narrow in response to slowly improving economic conditions. Since early August, interest rates on conforming fixed-rate mortgages have declined about 25 basis points to around 4¼ percent and their spreads to intermediate-term Treasury yields have risen sharply. Looking ahead, yields on conforming mortgages are projected to rise a bit less than yields on medium-term Treasury securities, as mortgage spreads are also expected to narrow.

The Dow Jones U.S. Total Stock Market Index has dropped about 6½ percent on net since the August Tealbook amid weaker-than-expected economic data as well as continued concerns about the global economy and fiscal and related financial strains in Europe. Although we marked down the projected level of stock prices this round, we expect them to rise at an average annual rate of about 11½ percent through the end of 2013. That pace of stock price appreciation would bring the equity premium down toward longer-run norms.

The latest data from CoreLogic show that existing home prices were little changed in July, in line with the projection in the August Tealbook. Looking ahead, we expect house prices to decline slightly in the near term before flattening out over the remainder of the forecast period. The current projected level of home prices is about 1 percent above the previous one because of upward revisions to home prices in previous months.

Fiscal Policy

Our fiscal policy assumptions are unchanged. We continue to expect federal fiscal policy to be a roughly neutral influence on aggregate demand in 2011. In 2012 and

2013, federal fiscal policy is expected to impose a drag of around 1 percent of GDP per year as stimulus-related policies wind down and additional fiscal restraint is imposed by the recent Budget Control Act. Consistent with the act, we assume that discretionary spending starting in fiscal year 2012 will be subject to caps and that additional budgetary restraint totaling $1.2 trillion through fiscal 2021 will be implemented.[1]

Our forecast for the federal deficit is little changed. The deficit is expected to narrow from $1.3 trillion (8½ percent of GDP) in fiscal 2011 to $1.1 trillion in fiscal 2012 (7 percent of GDP) and then to around $900 billion (5¼ percent of GDP) in fiscal 2013, reflecting both the tightening of fiscal policy and the effects of the recovery on tax receipts. Federal debt is projected to rise to almost 75 percent of GDP by the end of fiscal 2013, up from 36 percent at the end of fiscal 2007 at the start of the financial crisis.

Foreign Activity and the Dollar

We continue to expect foreign economic growth to pick up this quarter after having been depressed in the second quarter by supply chain disruptions resulting from Japan's earthquake and by other special factors. However, the underlying pace of growth abroad appears to be slower than we judged in the August Tealbook: Recent data on foreign activity, particularly for exports and manufacturing, have come in below our expectations, and financial conditions in the euro area have worsened as policymakers there continue to struggle to find a solution to the region's fiscal stresses and attendant pressures on financial institutions. As a result, we now expect foreign GDP growth to average just 3¼ percent over the second half of 2011 and to remain at roughly that pace in 2012; these projections are about ¼ percentage point below those in the August Tealbook. Our projection for 2013 has foreign growth picking up to 3½ percent as activity in the United States quickens somewhat and as the euro-area economy recuperates.

The starting point for our projected path for the broad real dollar is 3½ percent higher than we anticipated in the August Tealbook. From this higher level, the dollar is

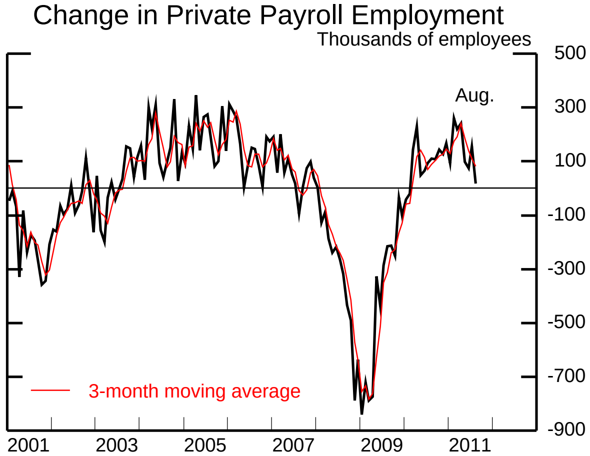
[1] The President has proposed a set of jobs measures that total almost $450 billion; the budget cost of these proposals would be offset mainly through higher taxes on high-income taxpayers. Achieving agreement on the package—especially on the required offsets—is likely to be extremely difficult. Indeed, the joint committee created by the Budget Control Act is already tasked with finding at least $1.2 trillion in deficit reduction (even before the offsets to the jobs measures are taken into account). Because of this consideration, along with the usual uncertainties in the political environment, we have not included the President's proposals in our baseline forecast.

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

Measure	2011:Q2		2011:Q3		2011:Q4	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
Real GDP	**1.4**	**1.2**	**2.9**	**2.5**	**2.4**	**2.0**
Private domestic final purchases	1.1	1.7	1.9	2.1	2.2	1.2
Personal consumption expenditures	.1	.4	1.6	1.7	1.9	1.1
Residential investment	3.5	3.8	3.1	-1.3	.5	-.8
Nonres. structures	15.2	22.6	-2.0	3.7	-.2	-1.6
Equipment and software	5.6	6.7	6.3	6.0	6.3	4.2
Federal purchases	2.2	1.9	1.9	-.7	1.4	3.7
State and local purchases	-2.9	-2.9	-1.8	-2.6	-.8	-1.2
	Contribution to change in real GDP (percentage points)					
Inventory investment	.1	-.2	1.4	.8	-.6	.2
Net exports	.6	.3	.0	.3	1.2	.6

Recent Nonfinancial Developments (1)

Change in Private Payroll Employment

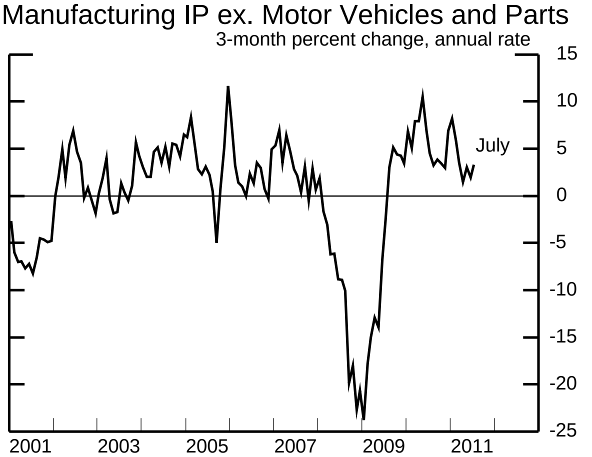


Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

Unemployment Rate

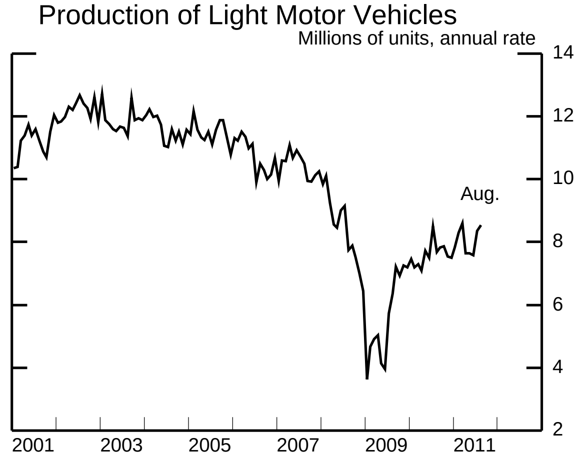
Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

Manufacturing IP ex. Motor Vehicles and Parts



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

Production of Light Motor Vehicles



Source: Ward's Auto Infobank.

assumed to depreciate at an annual rate of almost 3 percent over the forecast period, a slightly faster pace than we assumed in August. Most of the projected decline in the dollar occurs against the currencies of the emerging market economies (EMEs).

Oil and Other Commodity Prices

The spot price of West Texas Intermediate (WTI) crude oil has fallen about $5 per barrel since the time of the previous forecast, as concerns over the global economic outlook have intensified and the dollar has strengthened; on September 13, it closed at $90 per barrel. We project that the spot price of WTI will stay around that level throughout the forecast period, compared with a projection of $100 per barrel at the end of 2012 in the August Tealbook. Because the price of WTI has fallen by more than the prices of other types of crude oil, we have made a somewhat smaller revision to our projection for the price of imported oil, which is expected to drift down from $97 per barrel this month to $94 per barrel by the end of 2013.

Our aggregate index for nonfuel commodity prices is down slightly since early August. Metals prices have fallen modestly, reflecting the weaker global economic outlook and the stronger dollar, while prices for some agricultural commodities, such as corn and soybeans, have moved up on concerns about supply. In particular, the USDA recently marked down its estimates of U.S. corn yields because of the extreme summer heat. Consistent with our interpretation of quotes from futures markets, we expect nonfuel commodity prices to remain near their current elevated levels over the forecast period.

Recent Developments and the Near-Term Outlook

We continue to expect economic activity to pick up in the current quarter as the drag on domestic production from the Japan-related disruptions to global supply chains unwinds.[2] As noted, on balance, the incoming data on household and business spending have been in line with our expectations. However, government purchases are running lower than we had anticipated, and we have marked down our near-term forecasts for private-sector spending in light of the sharp deterioration over the intermeeting period in household and business sentiment. As a result, we now expect real GDP to increase at an

[2] As in the August Tealbook, we estimate that "Japan effects" are adding about 1 percentage point to real GDP growth in the current quarter after subtracting about ¾ percentage point in the second quarter. Effects on GDP growth rates in subsequent quarters are small.

annual rate of just 2½ percent in the current quarter and 2 percent in the fourth quarter; both projections are ½ percentage point below those in the August Tealbook.

The Labor Market

Labor market conditions deteriorated over the course of the summer. After rising 156,000 in July, private nonfarm employment rose only 62,000 (after adjusting for the Verizon strike) in August. In addition, the private nonfarm workweek fell another tenth of an hour last month, and aggregate hours worked declined 0.2 percent. Meanwhile, employment in the state and local government sector fell 40,000 on average in July and August—somewhat more than in the first half of the year.

Other labor market indicators have also been disappointing and point to only tepid gains in payroll employment in coming months; in particular, initial claims for unemployment insurance have risen slightly on net in recent weeks, and help-wanted advertising has dropped off. Putting this information together with the softer near-term outlook for real GDP growth, we now project private payroll employment to rise 75,000 on a strike-adjusted basis in September; in the fourth quarter, private employment gains are expected to average 100,000 per month, roughly 35,000 per month less than we had anticipated previously. With state and local governments expected to make sizable further cuts to payrolls in response to budget pressures, monthly gains in total payroll employment over the four-month period are expected to average only about 60,000 per month on a strike-adjusted basis.

The unemployment rate has been essentially flat at a bit above 9 percent since May, while the labor force participation rate has edged down to 64 percent in recent months. With labor demand expected to remain anemic in the near term, we expect the unemployment rate and participation rate to stay near these levels through the end of the year.

The Industrial Sector

After having been held down in the second quarter by supply chain disruptions stemming from the earthquake in Japan, manufacturing production rose ½ percent in July; the available information on production-worker hours and the weekly physical product data point to another moderate increase in August. However, these gains are due mainly to the direct and upstream effects of the post-earthquake rebound in motor vehicle output. After stripping out our estimates of the effects of the earthquake on production, the underlying pace of growth in manufacturing output appears to have slowed this quarter. Looking ahead, assemblies of motor vehicles are expected to step up further in coming months as automakers continue to replenish low dealer inventories. Outside of motor vehicles, however, the softening in the various national and regional manufacturing surveys led us to mark down our forecast for production, and we now expect relatively small gains in coming months. (See the box "The Information Content of the Monthly Business Surveys" for further discussion.) All told, we project that manufacturing production will increase at an annual rate of 4½ percent on average over the second half of the year.

Household Spending

Consumer spending rose at an annual rate of just 1¼ percent in real terms over the first half of the year, and we expect it to continue to increase at about this pace on average in the second half. To be sure, real PCE rose ½ percent in July as sales of light vehicles picked up and outlays for other goods and services firmed. However, much of the July gain in non-auto spending reflected transitory factors—for example, demand for energy services was boosted by unseasonably hot weather. In addition, the available data for August—most notably, sales of light vehicles and the advance retail sales report—point to little change in real consumer spending last month. Forward-looking indicators suggest that spending is likely to remain soft in coming months. The stock market decline pulled down household net worth, and income growth is projected to be quite modest given the tepid near-term employment gains we are forecasting. In addition, consumer sentiment plunged in August, returning to levels comparable to those seen in late 2008. As a result, we expect real PCE to rise just 1¾ percent in the current quarter and 1 percent in the fourth quarter.

In an environment of weak demand and a large inventory of vacant properties on the market, homebuilding has remained at a very low level. In the single-family sector, starts and permits have been essentially flat since last summer, and home sales have remained moribund. Households' concerns about the prospects for jobs and incomes are likely continuing to weigh on housing demand, and although conventional mortgage rates have fallen of late, many households do not have the down payment or good credit history required to obtain such loans. Moreover, the large stock of vacant homes for sale will likely channel much of any improvement in demand toward existing homes rather than new homes. At the same time, limited availability of credit for builders is reportedly impeding supply in the few areas where the demand for new homes is increasing. Given

The Information Content of the Monthly Business Surveys

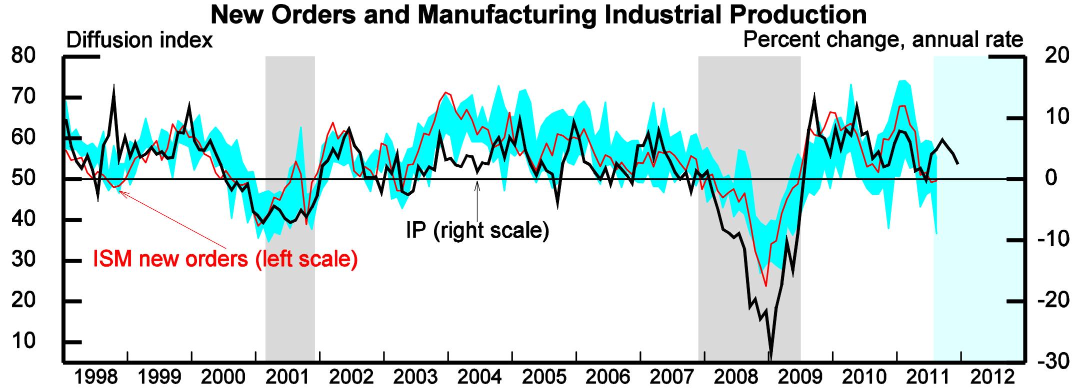
Information from the national and regional surveys of activity at manufacturing firms contributes importantly to the Board staff's projections of near-term economic activity. In particular, these surveys help inform the projections of industrial production (IP) and business spending on equipment and software (E&S), and they are significant inputs into the staff's factor-model projections of aggregate economic conditions.

The various manufacturing surveys report similar information.[1] Each month, purchasing managers and other business executives are asked to assess whether several measures of business activity—such as new orders, production, employment, inventories, and prices—are greater than, less than, or the same as in the previous month. Their answers are then aggregated into diffusion indexes, which measure the difference between the share of positive and negative responses to each question. The surveys also include a headline index that is either the average of these different measures of activity or a diffusion index of responses to one subjective question about business conditions.

The new orders diffusion indexes from these surveys correlate well with near-term changes in manufacturing IP (see the figure below). The staff has found that these indexes contain predictive power for manufacturing activity several months out, even when other data—such as the Census Bureau's monthly data on manufacturing orders, motor vehicle production schedules, and past movements in IP—are taken into account.

The new orders indexes have fallen sharply since the spring. By themselves, the levels of these indexes suggest manufacturing IP should be roughly flat in the coming months. However, these indexes occasionally diverge from actual manufacturing production for periods lasting at least several months. For example, in 2004 and in early 2011, the survey-based new orders indexes rose to elevated levels and suggested much stronger growth in IP than was ultimately realized; in the second half of 1998, by contrast, the new orders index from the national Institute for Supply Management (ISM) survey predicted noticeably weaker growth in IP than actually occurred.

New Orders and Manufacturing Industrial Production



Note: The darker blue area is the range of new orders indexes from the regional surveys. Grey areas indicate recessions as defined by the National Bureau of Economic Research. IP is a 3-month moving average.
Source: Federal Reserve and Institute for Supply Management (ISM).

[1] These surveys include the national survey from the Institute for Supply Management (ISM), regional surveys from the Federal Reserve Banks of New York, Philadelphia, Richmond, Dallas, and Kansas City, and the Chicago Report from the ISM-Chicago.

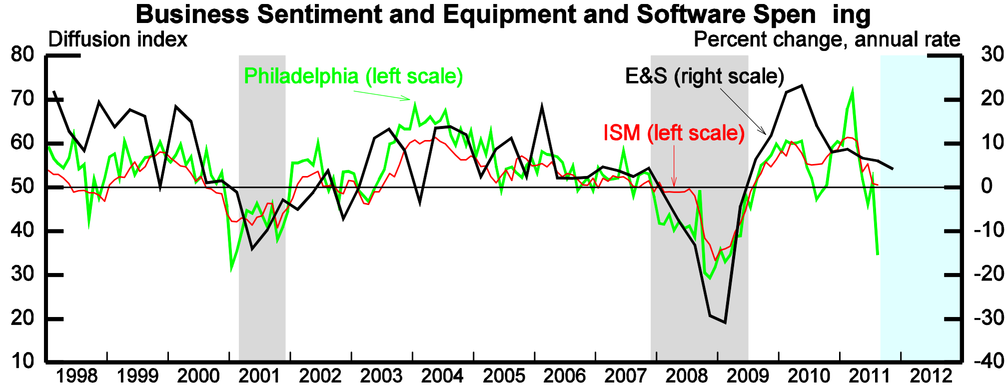
One reason such divergences can arise is that diffusion indexes capture the breadth of changes but not their magnitude (we refer to this as the "mile wide and inch deep" problem): Small but broad-based decreases (or increases) in new orders would register as a sharp drop (or rise) in a diffusion index and thus overstate the weakness (or strength) in underlying manufacturing activity. Conversely, diffusion indexes can understate the changes in IP that result from large movements in a relatively narrow segment of manufacturing; indeed, we believe this is currently the case, as a post-earthquake rebound in motor vehicle assemblies is expected to materially boost IP in the near term, even as the new orders indexes are tepid.

Surveys of manufacturing conditions are also useful for predicting E&S spending for the current quarter and the upcoming quarter. The headline indexes from the Federal Reserve Bank of Philadelphia's survey and the ISM survey do particularly well; both surveys have a long history, and the Philadelphia survey is especially timely. The sharp downturn in August in the Philadelphia survey and the recent softness in the ISM survey point to a weakening in business spending in the second half of this year, part of which we have taken on board in the current staff projection (see the figure below).

Purchases by manufacturers account for only about 15 percent of business investment, so it is perhaps surprising that a manufacturing survey would do well forecasting overall E&S spending. One possibility is that the manufacturing measures partly reflect the activity and confidence of capital goods producers (who are themselves manufacturers), which tend to improve when E&S spending is rising. These manufacturing measures might also be correlated with the activity and sentiment of firms in the much larger nonmanufacturing sector, where there are few similarly constructed surveys and none with a long history.

Finally, the monthly business surveys also have some predictive power for broader measures of economic activity. For example, the new orders and headline indexes from the ISM and Philadelphia manufacturing surveys are important contributors to the staff's factor models, which combine information from a large number of data series to forecast near-term GDP and other measures of current economic conditions. In addition, in simple regressions, the staff has found the nonmanufacturing ISM survey, despite its short history (it begins in 1997), to have some predictive power for real GDP growth. However, as other high-frequency data become available (such as retail sales), the nonmanufacturing ISM data add little to forecasts of GDP growth.

Business Sentiment and Equipment and Software Spen ing

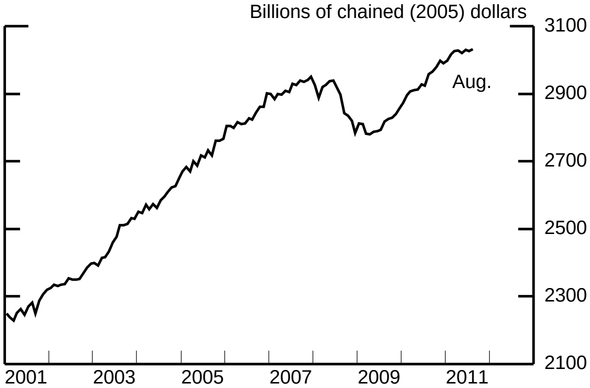


Note: The sentiment measures are the headline indexes from the respective surveys.
Source: Federal Reserve, ISM, and the Bureau of Economic Analysis.

Recent Nonfinancial Developments (2)

Real PCE Goods ex. Motor Vehicles

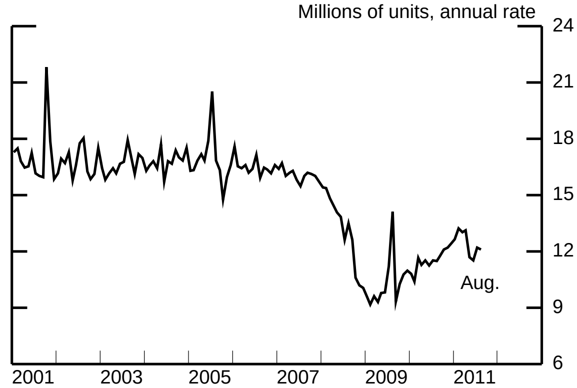
Billions of chained (2005) dollars



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

Sales of Light Motor Vehicles

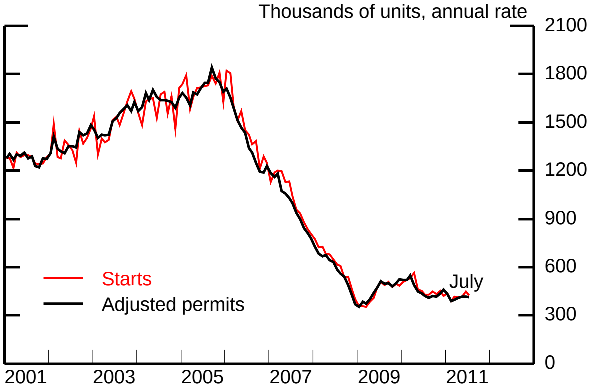
Millions of units, annual rate



Source: Ward's Auto Infobank.

Single-Family Housing Starts

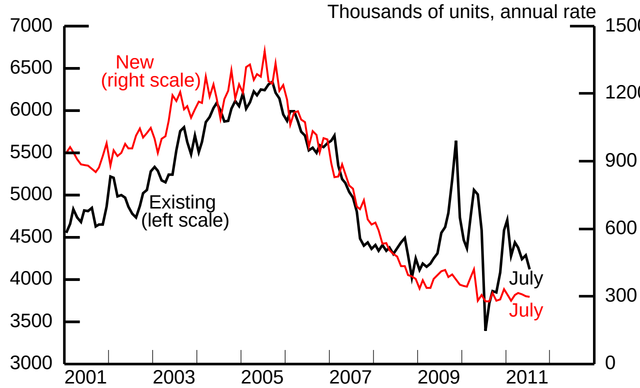
Thousands of units, annual rate



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

Single-Family Home Sales

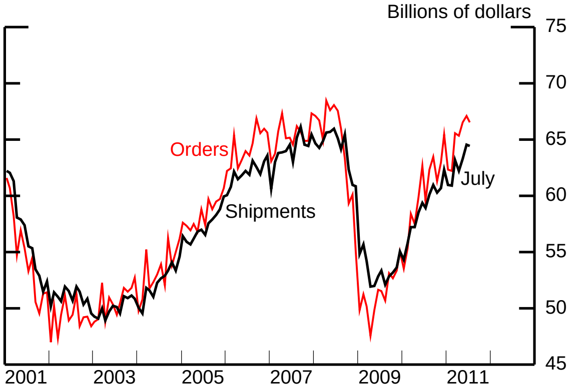
Thousands of units, annual rate



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

Nondefense Capital Goods ex. Aircraft

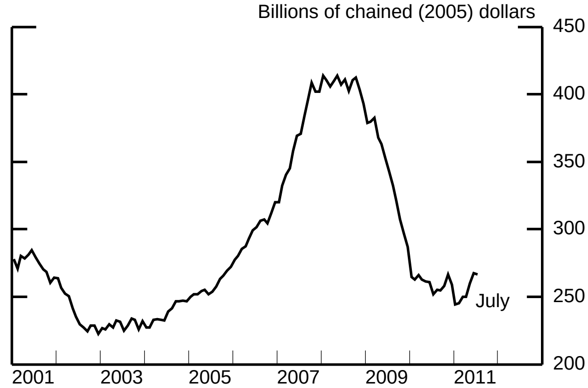
Billions of dollars



Source: U.S. Census Bureau.

Nonresidential Construction Put in Place

Billions of chained (2005) dollars



Source: U.S. Census Bureau.

these factors, we expect single-family housing starts to be essentially flat over the second half of the year at an annual rate of 420,000 units, a level similar to our projection in the August Tealbook. In contrast, starts in the multifamily sector are expected to continue to move up as rising demand for apartments has pushed down vacancy rates and put some upward pressure on rents.

Business Investment

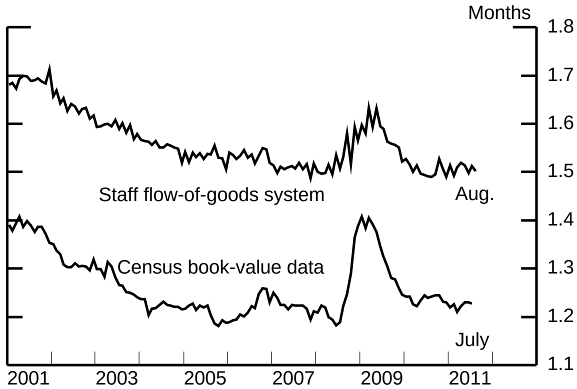
Real investment in equipment and software (E&S) is projected to rise at an annual rate of 6 percent in the current quarter as businesses continue to replace aging capital and resume investment projects postponed during the recession. Although business purchases of transportation equipment seem to be increasing less rapidly than they did over the first half of the year, the incoming data on orders and shipments of nondefense capital goods point to a solid gain in spending on other types of business equipment this quarter. That said, other indicators imply a somewhat softer investment picture before long: Output growth is sluggish, the latest readings on business sentiment have been dismal, and risk spreads on corporate bonds have widened markedly. In addition, analysts' expectations for earnings of producers of capital goods have generally turned softer. Putting these pieces together, we expect the pace of growth in real E&S outlays to slow to around 4 percent in the fourth quarter.

After factoring in the latest monthly construction data, we estimate that real investment in nonresidential structures (other than those for drilling and mining) rose at an annual rate of 18 percent in the second quarter—the first widespread increase since 2007. However, given the ongoing restraint from high vacancy rates, low prices of commercial real estate, and difficult financing conditions, we do not expect the recent upturn to continue. Indeed, the architectural billings index, which is a useful leading indicator of building activity, points to a decline in outlays over the remainder of this year. Meanwhile, investment in drilling and mining structures should continue to move up over the near term, boosted by the expansion of profitable drilling sites made possible by new technologies; however, because oil prices have fallen somewhat, the increases we are projecting for the second half of the year are smaller than those realized over the first half.

Inventory investment in the motor vehicle sector seems to be picking up as auto dealers rebuild stocks that were drawn down by production shortfalls in the aftermath of the Japan earthquake. Outside of motor vehicles, however, we expect the pace of

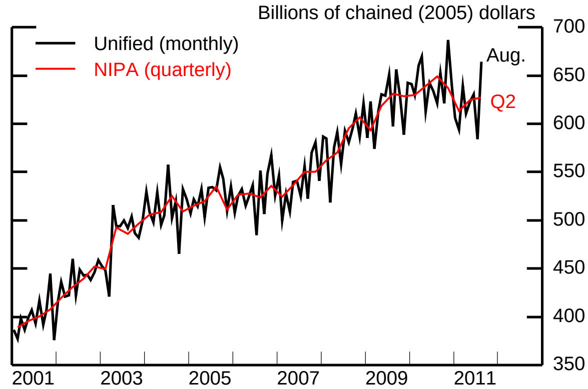
Recent Nonfinancial Developments (3)

Inventory Ratios ex. Motor Vehicles



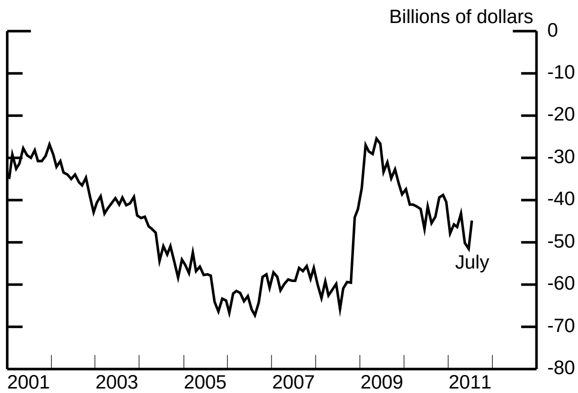
Note: Flow-of-goods system covers total industry ex. motor vehicles and parts, and inventories are relative to consumption. Census data cover manufacturing and trade ex. motor vehicles and parts, and inventories are relative to sales.
Source: U.S. Census Bureau; staff calculation.

Defense Spending



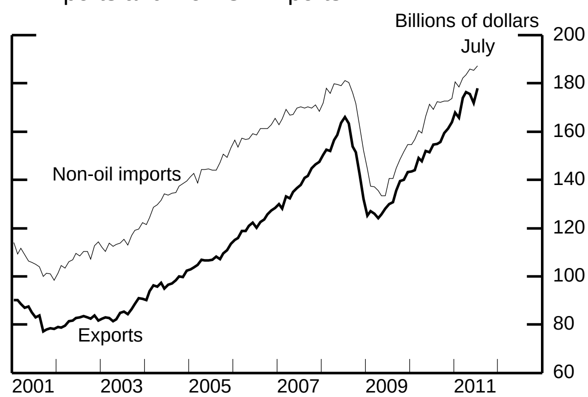
Note: The unified series is seasonally adjusted and deflated by BEA prices. The NIPA series excludes the consumption of fixed capital.
Source: *Monthly Treasury Statement*; U.S. Dept. of Commerce, Bureau of Economic Analysis.

Trade Balance



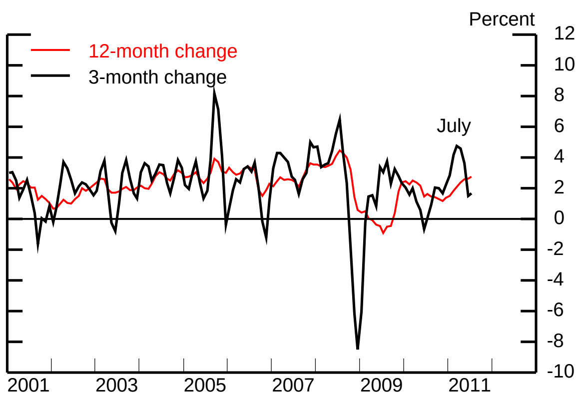
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; U.S. Census Bureau.

Exports and Non-Oil Imports



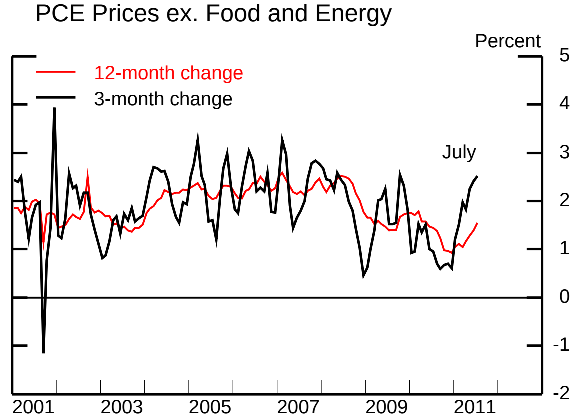
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; U.S. Census Bureau.

Total PCE Prices



Note: 3-month changes are at an annual rate.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

PCE Prices ex. Food and Energy



Note: 3-month changes are at an annual rate.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

accumulation to slow noticeably this quarter and next. By most benchmarks, non-auto stocks appear reasonably well aligned with sales—for example, book-value inventory-to-sales ratios in July were close to their pre-recession norms; we assume that firms will adjust production as necessary in coming quarters to forestall the emergence of stock imbalances.

Government

Real federal purchases are projected to increase at an average annual rate of 1½ percent in the second half of this year. The increase is expected to be concentrated in defense spending, which was running low relative to appropriations at midyear and is expected to move into closer alignment with those funding levels over the course of the second half. Meanwhile, state and local governments have made large cuts in payrolls and reduced construction expenditures in recent months; we expect these adjustments to continue over the remainder of the year. In all, we now project real state and local purchases to contract at an annual rate of 2 percent on average over the third and fourth quarters, a decline that is ½ percentage point greater than we anticipated in the August Tealbook.

Foreign Trade

We expect the external sector to contribute ½ percentage point to real GDP growth in the second half of 2011; this contribution is a bit smaller than in the previous Tealbook because of the higher dollar and weaker outlook for foreign GDP. After increasing at an annual rate of just 3¾ percent in the second quarter, exports rebounded strongly in July; over the second half as a whole, they are expected to rise at an annual rate of 9 percent, supported by the previous depreciation of the dollar and continued foreign growth. Meanwhile, despite a boost from the end of earthquake-related disruptions to automotive imports, real imports of goods and services are projected to increase at only about a 4 percent rate on average over the second half; this subdued pace reflects the sluggishness in U.S. economic activity and previous declines in the dollar.

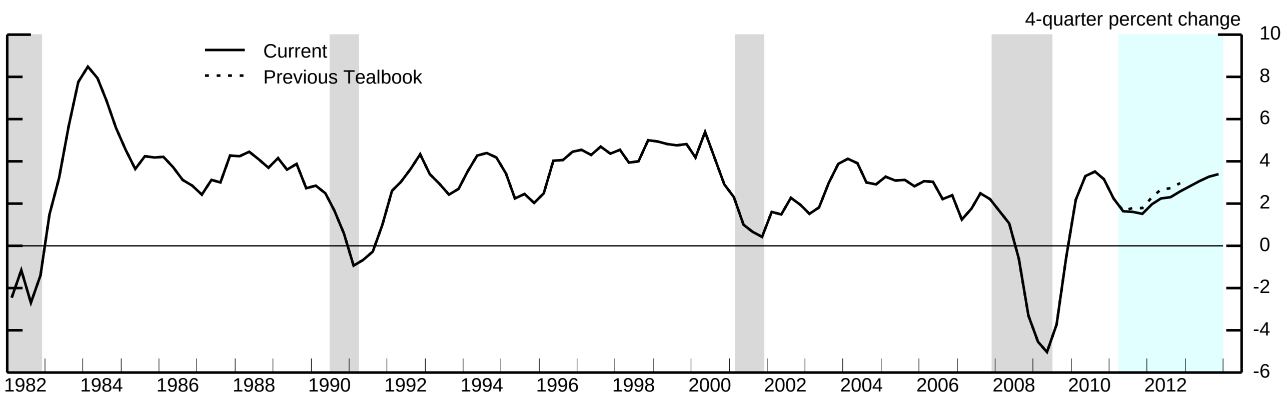
Prices and Wages

Core PCE inflation picked up to an annual rate of 2¼ percent in the second quarter, and the 0.2 percent reading for this measure in July sets the stage for a similar increase in the current quarter. We continue to think that the recent higher pace of core inflation largely reflects transitory factors, including an upturn in motor vehicle prices stemming from post-earthquake supply shortages and the pass-through of the first-half

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

Measure	2011 H1	2011 H2	2012	2013
Real GDP	**.8**	**2.2**	**2.6**	**3.4**
Previous Tealbook	.9	2.7	3.0	
Final sales	.7	1.7	2.4	2.9
Previous Tealbook	.7	2.3	2.9	
Personal consumption expenditures	1.2	1.4	2.3	3.1
Previous Tealbook	1.1	1.8	2.5	
Residential investment	.6	-1.0	7.2	9.6
Previous Tealbook	.5	1.8	6.1	
Nonresidential structures	2.5	1.0	-3.4	.6
Previous Tealbook	-.7	-1.1	-1.3	
Equipment and software	7.7	5.1	5.3	6.7
Previous Tealbook	7.1	6.3	5.6	
Federal purchases	-3.9	1.5	-.7	-4.0
Previous Tealbook	-3.8	1.6	-.9	
State and local purchases	-3.1	-1.9	-.4	.8
Previous Tealbook	-3.1	-1.3	-.2	
Exports	5.7	8.8	7.4	7.1
Previous Tealbook	6.9	10.0	9.0	
Imports	4.8	4.1	3.4	4.9
Previous Tealbook	4.7	4.4	3.3	
	Contributions to change in real GDP (percentage points)			
Inventory change	.1	.5	.2	.5
Previous Tealbook	.2	.4	.0	
Net exports	.0	.5	.5	.2
Previous Tealbook	.1	.6	.7	

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.

upswing in commodity and import prices. Accordingly, we expect core inflation to step down in coming months as these transitory factors recede. Indeed, prices of motor vehicles barely rose in July as supplies improved, and the recent slackening in commodity and import prices points to an easing of pressures from these sources. All told, we expect core PCE inflation to slow from an annual rate of about 2 percent in the current quarter to 1¾ percent in the fourth quarter.

With consumer food and energy prices running to the high side of our expectations, we revised up our near-term forecast for total PCE inflation. However, the story is essentially the same as that in the August Tealbook: Total PCE inflation is projected to slow from an annual rate of about 3½ percent over the first half of the year to 1¾ percent in the second half as energy prices turn down after their first-half surge and food prices decelerate in response to the leveling off of food commodity prices over the past several months.

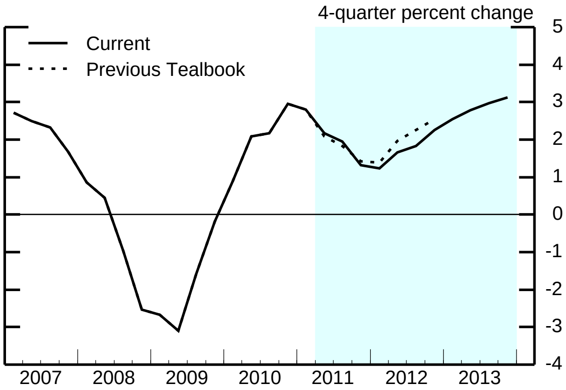
The incoming data on labor compensation have been mixed. The increase in hourly compensation in the first half of the year was revised up to an annual rate of 4 percent, in part reflecting the BEA's incorporation of first-quarter data from unemployment insurance tax records. However, this outsized increase appears to have been due, at least in part, to an elevated level of nonproduction bonus payments, which we do not expect to be repeated. Based on monthly data for average hourly earnings through August and the considerable slack in labor markets, we expect the rate of increase in compensation per hour to slow to about 1½ percent over the second half. Given our projections for compensation and productivity, unit labor costs are expected to edge down on net over the third and fourth quarters.

THE MEDIUM-TERM OUTLOOK

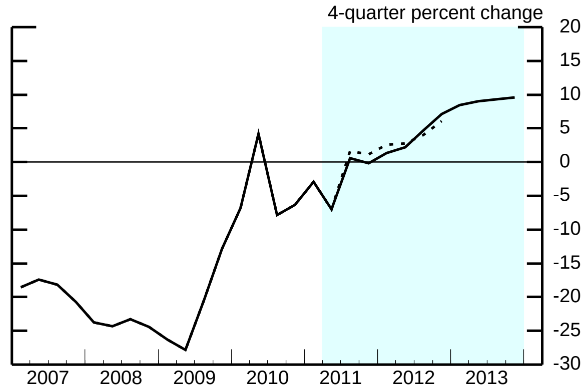
Although our current projection puts economic activity on a lower trajectory than we anticipated in the August Tealbook, we have not gone so far as to project another recession (although we explore the possibility in the Risks and Uncertainty section). Rather, we continue to think the more likely outcome is that the pace of activity will gradually firm over the next two years, with the basic contour of the medium-term projection similar to our previous forecast. One reason for this judgment is that, as best we can tell, some of the headwinds that have restrained the recovery to date have already begun to diminish, and we expect them to ease further over the projection period. Moreover, we anticipate that the economy's usual self-correcting mechanisms, which

Components of Final Demand

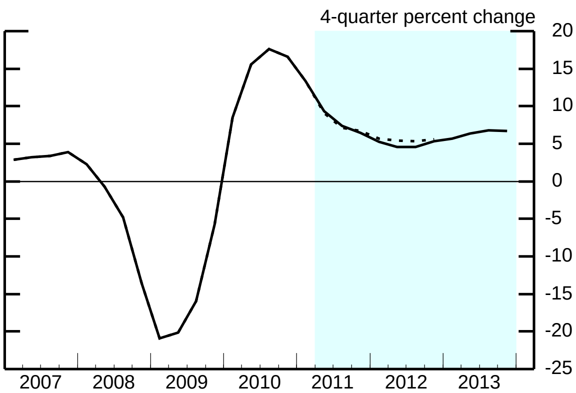
Personal Consumption Expenditures



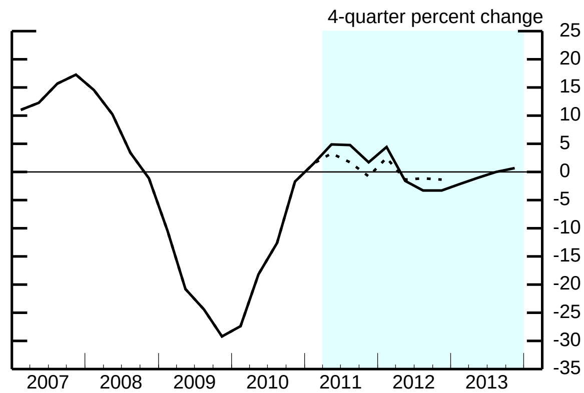
Residential Investment



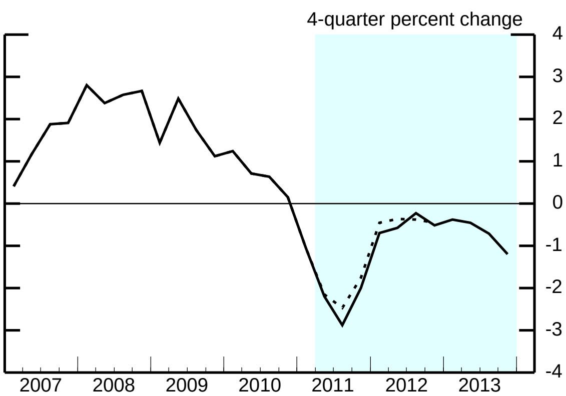
Equipment and Software



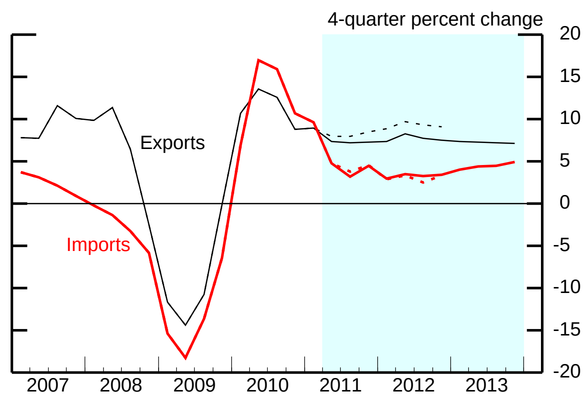
Nonresidential Structures



Government Consumption & Investment



Exports and Imports



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

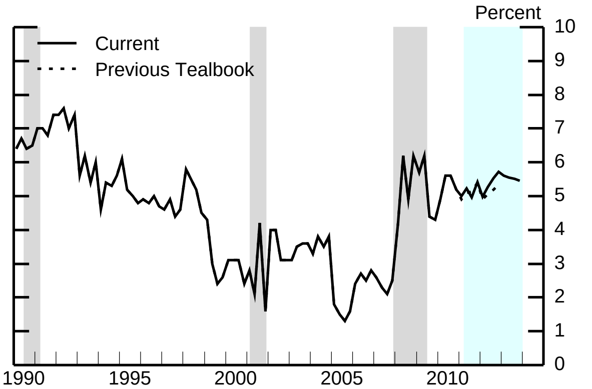
have likely been attenuated by the severity of the recession and financial crisis, will gain traction over the next two years, fostered by continued accommodative monetary policy. Indeed, many households and businesses are in better financial shape than they were a couple of years ago and thus should be positioned to raise their spending as uncertainties about the outlook lessen and confidence revives; pent-up demand for consumer durables and business equipment should also help support spending over the next couple of years. That said, we see little prospect of a meaningful upturn in homebuilding given the overhang of vacant properties and other stresses facing the sector, and nonresidential construction will probably remain in the doldrums as well. Fiscal restraint at the federal level and the budget problems of state and local governments will also likely continue to weigh on the outlook. As a result, the projected recovery in U.S. economic activity is modest by historical standards, and resource slack remains sizable throughout the medium term, with the level of real GDP still 4¾ percent below the level of potential output at the end of 2013.

This narrative of diminishing headwinds and the emergence of a self-sustaining recovery is evident in our forecast for consumer spending. For instance, access to credit has improved, the declines in home prices—if our forecast is correct—should be largely behind us, and households in the aggregate currently face lower debt service burdens than they did earlier. In addition, we assume that consumer sentiment will move up somewhat as the economic recovery proceeds. After factoring in these considerations, along with some pent-up demand for motor vehicles and other durables, we expect growth in real PCE to pick up to 2¼ percent in 2012 and to 3 percent in 2013. The personal saving rate is expected to hover around 5½ percent through the projection period, a little above its average for the first half of 2011.

In the business sector, firms generally seem well positioned to step up their capital expenditures once sales prospects improve and uncertainty lessens. Many corporations are flush with cash, and those with access to capital markets should not find it difficult to obtain financing at favorable terms; in addition, we expect credit availability for businesses more dependent on bank financing to improve. That said, it will likely take some time for firms to become confident enough about the economic outlook to undertake more substantial increases in their productive capacity. As a result, we expect growth in real E&S outlays to average only 4 percent at an annual rate over the first half of 2012 before moving up to 6½ percent in the second half of 2012 and in 2013.

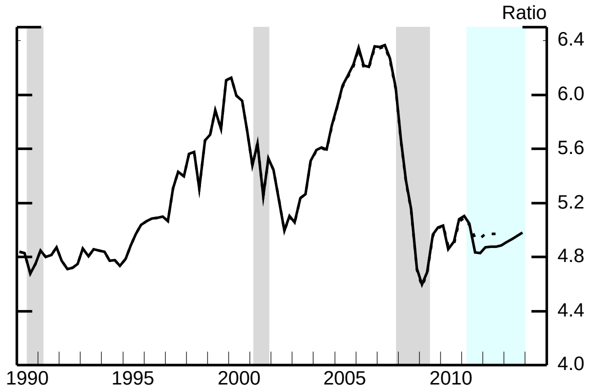
Aspects of the Medium-Term Projection

Personal Saving Rate



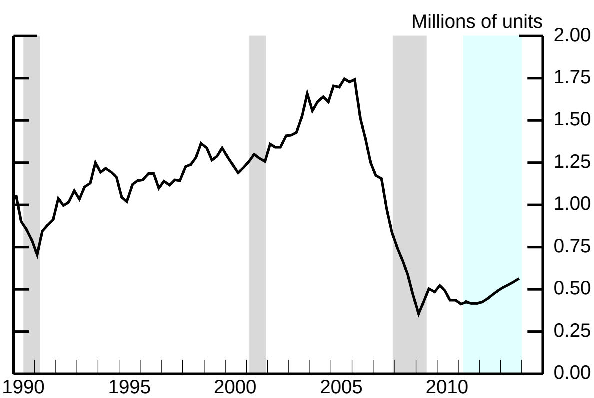
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Wealth-to-Income Ratio



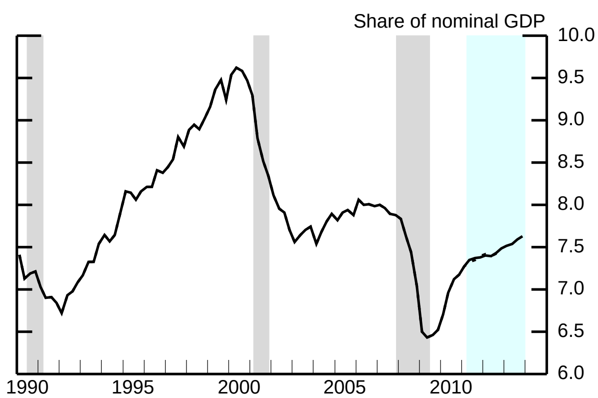
Note: Household net worth as a ratio to disposable personal income.
Source: For net worth, Federal Reserve Board, flow of funds data; for income, Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



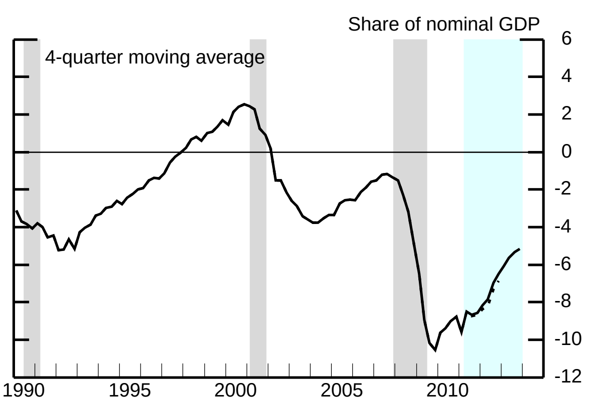
Source: U.S. Census Bureau.

Equipment and Software Spending



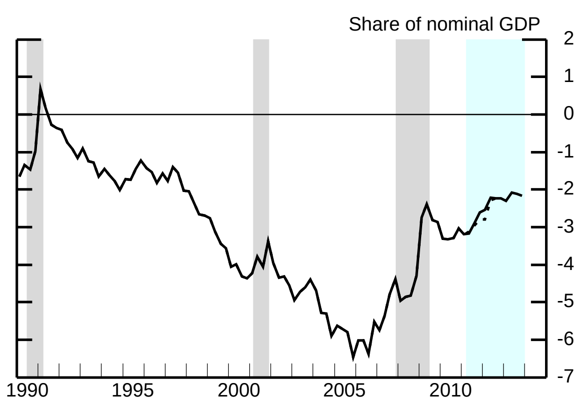
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

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.

However, even with this faster rate of E&S growth, the resulting level of net investment implies only a modest further rise in the E&S capital stock.

Although we revised down our forecast for U.S. exports because of the higher assumed path for the dollar and a weaker foreign outlook, we still expect exports to provide substantial support to domestic production over the medium term. Indeed, spurred by robust growth in the EMEs and the effect of past and prospective dollar depreciation, real exports are projected to increase 7¼ percent per year in 2012 and 2013. Real imports are projected to increase just 3½ percent in 2012, held back by sluggish activity in the United States and dollar depreciation; they accelerate a bit in 2013 in response to the faster pace of U.S. activity. Given these projections, we expect net exports to contribute ½ percentage point to U.S. real GDP growth in 2012 and ¼ percentage point in 2013.

In contrast, the construction sector is not likely to provide much impetus to growth over the next two years. Although the declines in house prices are projected to taper off and prospects for jobs and incomes to improve, many households will likely continue to find it difficult to finance home purchases, and the drag on homebuilding from the overhang of vacant homes will probably lessen only slowly. Thus, we project just a gradual resuscitation of new construction, with single-family housing starts reaching an annual rate of 490,000 units by the end of 2012 and 570,000 units by the end of 2013—150,000 units higher than recent readings but still far below the pace we believe is consistent with the longer-run demand for housing. Nonresidential construction is likely to remain depressed as well, constrained by high vacancy rates, low prices for commercial real estate, and lending conditions that will likely be tight for some time.

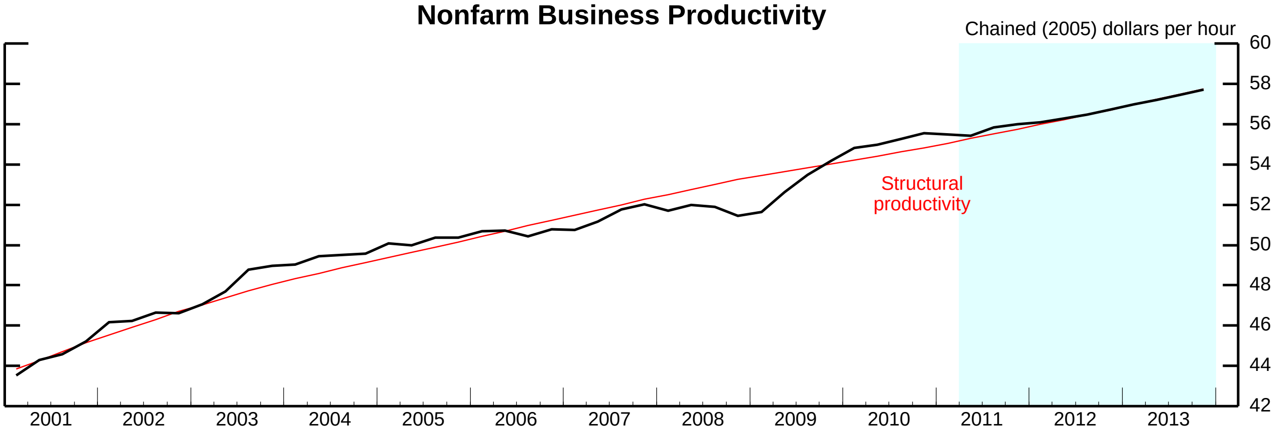
Finally, given our fiscal assumptions, we expect the government sector to be a drag on economic growth over the medium term. At the federal level, real purchases are projected to decline almost 1 percent in 2012 and 4 percent in 2013, as discretionary appropriations become subject to the caps imposed by the Budget Control Act and as outlays related to overseas military operations begin to wind down. Budgets at the state and local level are also expected to remain extremely tight over the medium term as stimulus-related federal payments are phased out, nonstimulus grants are held down by the restraints on federal spending, and increases in tax receipts are limited by the

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

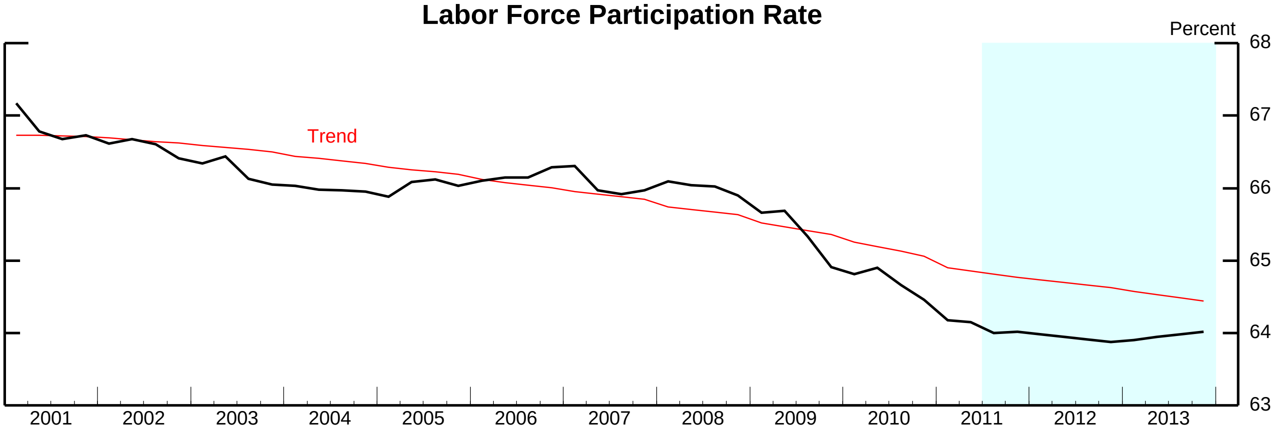
Measure	1974-1995	1996-2000	2001-2009	2010	2011	2012	2013
Potential GDP	3.0	3.5	2.5	1.7	2.1	2.1	2.2
Previous Tealbook	3.0	3.5	2.5	1.7	2.1	2.1	
Selected contributions[1]							
Structural labor productivity	1.5	2.7	2.4	1.5	1.7	1.7	1.9
Previous Tealbook	1.5	2.7	2.4	1.5	1.7	1.7	
Capital deepening	.7	1.5	.8	.4	.6	.6	.8
Previous Tealbook	.7	1.5	.8	.4	.6	.6	
Multifactor productivity	.5	.9	1.4	1.0	1.0	1.0	1.0
Previous Tealbook	.5	.9	1.4	1.0	1.0	1.0	
Trend hours	1.5	1.0	.6	.5	.6	.7	.6
Previous Tealbook	1.5	1.0	.6	.5	.6	.7	
Labor force participation	.4	.0	-.3	-.4	-.3	-.2	-.3
Previous Tealbook	.4	.0	-.3	-.4	-.3	-.2	

Note: Components may not sum to totals because of rounding. For multiyear periods, the percent change is the annual average from Q4 of the year preceding the first year shown to Q4 of the last year shown.
1. Percentage points.
Source: Staff assumptions.

Nonfarm Business Productivity



Labor Force Participation Rate



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

relatively subdued expansion in economic activity. As a result, we expect real state and local purchases to fall another ½ percent in 2012 and to rise less than 1 percent in 2013.

AGGREGATE SUPPLY, THE LABOR MARKET, AND INFLATION

Potential GDP and the NAIRU

We have made no material changes in this Tealbook to our estimates of aggregate supply in 2011 and 2012 and continue to estimate that potential GDP will increase about 2 percent in each year. Our projection has growth in potential output edging up to 2¼ percent in 2013, mainly because a faster pace of capital deepening is expected to boost structural labor productivity. We assume that the NAIRU will remain at 6 percent through 2013.[3]

Productivity and the Labor Market

After having fallen slightly over the first half of the year, labor productivity seems likely to post a solid increase in the current quarter, putting its level somewhat above our estimate of the level of its structural trend. We expect the gap between actual labor productivity and its structural level to narrow over the next few quarters as firms add workers to meet rising production needs. Thereafter, productivity growth is expected to settle at an annual rate of about 1¾ percent, roughly in line with its trend rate.

The trajectory of employment largely reflects the acceleration in real GDP. In particular, we expect private job gains to average 170,000 per month in 2012 and to pick up to 220,000 per month in 2013. In the state and local sector, job cuts are anticipated to lessen next year and be followed by small increases in 2013 as budget pressures ease a bit.

Reflecting the downward revision to our forecast for output growth, the projected gains in employment in 2012 are somewhat smaller than those in the August Tealbook. As a result, the unemployment rate is expected to still be in the area of 8¾ percent at the end of next year, ¼ percentage point above our previous forecast; this projection implies little improvement in joblessness next year apart from that attributable to the phasing out

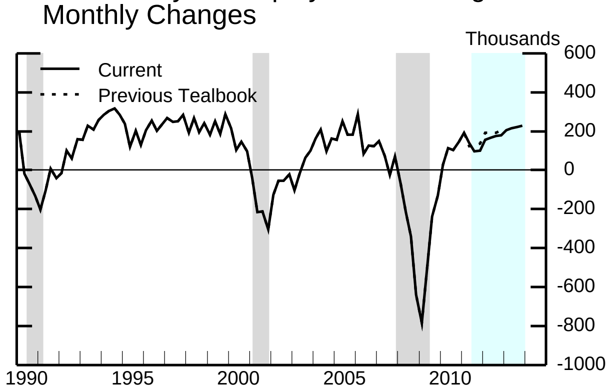
[3] Our estimate of the "effective" NAIRU, which includes the influence of extended and emergency unemployment benefits and is the level of the unemployment rate that we view as being consistent with no slack in resource utilization, is unrevised from the August projection and is about 6½ percent at present. We expect the gap between the effective NAIRU and the traditional NAIRU to essentially disappear by the end of 2012 when the extended and emergency unemployment benefit programs wind down.

The Outlook for the Labor Market
(Percent change, Q4 to Q4, except as noted)

Measure	2010	2011	2012	2013
Output per hour, nonfarm business	2.5	.8	1.3	1.8
Previous Tealbook	2.5	.5	1.7	
Nonfarm private employment	.9	1.5	1.8	2.3
Previous Tealbook	.9	1.6	2.1	
Labor force participation rate[1]	64.5	64.0	63.9	64.0
Previous Tealbook	64.5	64.2	64.3	
Civilian unemployment rate[1]	9.6	9.1	8.7	8.1
Previous Tealbook	9.6	9.2	8.5	
Memo:				
GDP gap[2]	-5.6	-6.2	-5.8	-4.7
Previous Tealbook	-5.6	-5.9	-5.2	

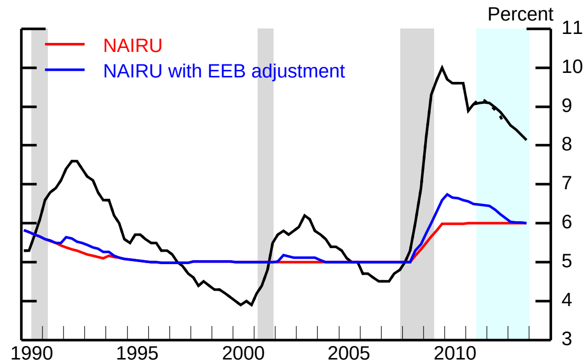
Note: A negative number indicates that the economy is operating below potential.
1. Percent, average for the fourth quarter.
2. Percent difference between actual and potential GDP in the fourth quarter of the year indicated.
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

Private Payroll Employment, Average Monthly Changes



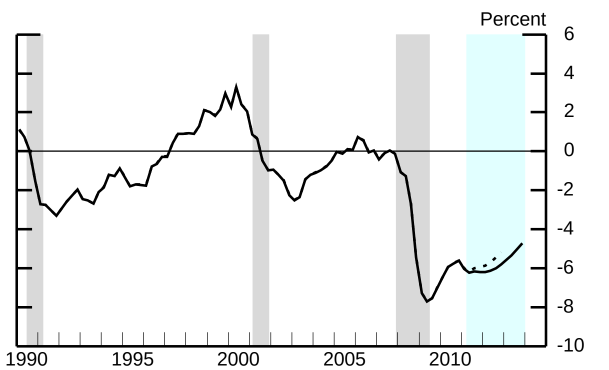
Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

Unemployment Rate



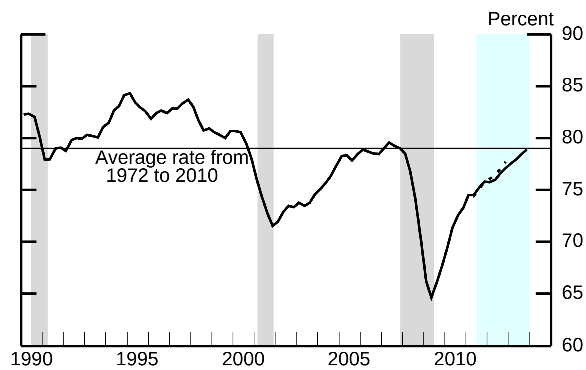
Note: The EEB adjustment is the staff estimate of the effect of extended and emergency unemployment compensation programs on the NAIRU.
Source: U.S. Dept. of Labor, Bureau of Labor Statistics; staff assumptions.

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, Bureau of Economic Analysis; 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.

of extended and emergency unemployment benefits. The unemployment rate is expected to decrease somewhat over the course of 2013 as the GDP gap narrows and job gains pick up, ending the year at about 8 percent.

Resource Utilization

We estimate the amount of economic slack to be sizable at present and expect it to remain so over the next 2½ years; in particular, the level of real GDP is projected to still be 5¾ percent below the level of potential output at the end of 2012 and 4¾ percent below potential at the end of 2013. Similarly, by our reckoning, the unemployment rate will be 2 percentage points above the effective NAIRU at the end of 2013, compared with an estimated unemployment gap of 2½ percentage points in the current quarter. This extended period of labor market slack is likely to be associated with other features of a weak labor market, including below-trend labor force participation, a high percentage of workers who are involuntarily on part-time schedules, and an unusually large concentration of workers experiencing long-duration unemployment spells.

The margin of unused plant capacity in the industrial sector should be taken up more rapidly than the slack in the economy as a whole, in part because manufacturing capacity is projected to rise just 1 percent in 2012 and 1½ percent in 2013, considerably below the rate of increase in potential GDP. As a result, at the end of 2013, our projection calls for the factory operating rate to be around its long-run average despite the still-sizable GDP gap prevailing at that time.

Compensation and Prices

Given the appreciable amount of labor market slack persisting in our forecast, as well as the low rates of price inflation, we expect labor costs to remain subdued over the projection period. In particular, both the Productivity and Cost measure of nonfarm hourly compensation and the employment cost index are projected to rise about 2¼ percent per year in 2012 and 2013. Combined with the moderate gains in productivity that we project, these increases in compensation imply only a small rise in unit labor costs.

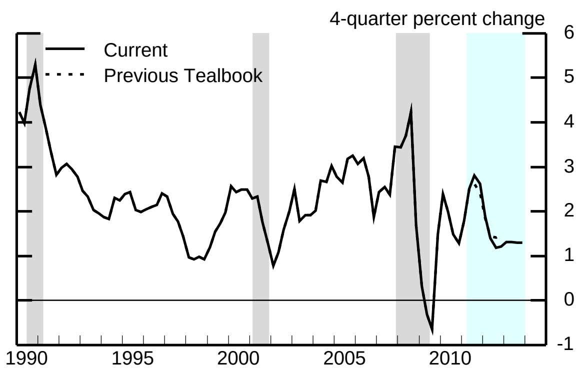
Prices for imported core goods (all goods excluding fuels, computers, and semiconductors) are projected to rise at an annual rate of 2¾ percent in the current quarter, a notable deceleration from the 7½ percent rate of increase recorded in the second quarter, as the effect of the run-up in non-fuel commodity prices that occurred

Inflation Projections
(Percent change, Q4 to Q4)

Measure	2010	2011	2012	2013
PCE chain-weighted price index	1.3	2.6	1.2	1.3
Previous Tealbook	1.3	2.4	1.5	
Food and beverages	1.3	4.6	1.4	1.4
Previous Tealbook	1.3	4.3	1.4	
Energy	6.2	11.6	-3.1	.6
Previous Tealbook	6.2	9.3	1.4	
Excluding food and energy	1.0	1.9	1.5	1.3
Previous Tealbook	1.0	1.8	1.5	
Prices of core goods imports[1]	2.6	4.8	1.4	1.5
Previous Tealbook	2.6	4.9	1.5	

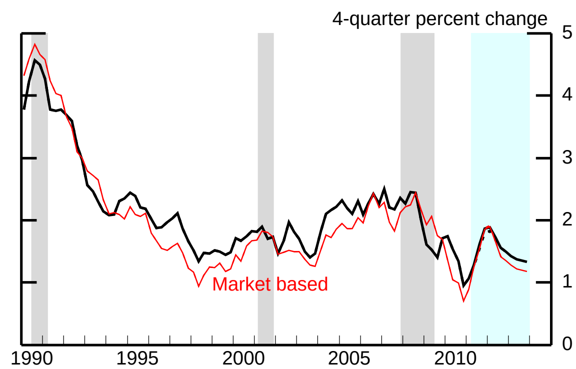
1. Core goods imports exclude computers, semiconductors, oil, and natural gas.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Total PCE Prices



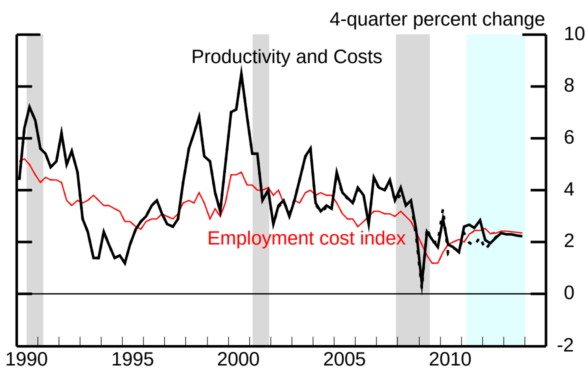
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

PCE Prices ex. Food and Energy



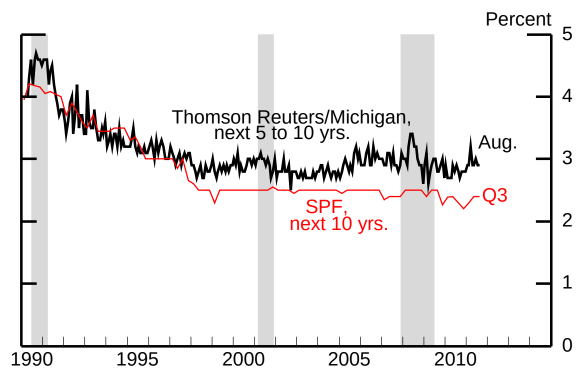
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Compensation per Hour



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

Long-Term Inflation Expectations



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

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

earlier this year fades. Over the remainder of the projection period, core import price inflation is expected to run at about a 1½ percent pace as commodity prices remain relatively flat and the dollar depreciates only modestly.

Recent readings on inflation expectations have been mixed but generally suggest that long-run expectations have remained stable. Median 5-to-10-year-ahead inflation expectations from the Michigan survey for August stood at 2.9 percent, the same as in July and within the narrow range that has prevailed over the past couple of years. Similarly, in the third-quarter reading from the Survey of Professional Forecasters, median expectations of PCE inflation over the next 10 years were 2.3 percent, the same as in the second quarter. In contrast, the TIPS-based measure of five-year inflation compensation has fallen nearly ½ percentage point since the time of the August Tealbook, and the five-year-forward measure has fallen a similar amount; however, much of the decline likely reflects safe-haven flows into nominal Treasury securities.

As in the August Tealbook, the contour of our medium-term projection for core inflation reflects the anticipated fading of the transitory pressures that have boosted inflation this year. We also continue to assume that inflation expectations will remain stable and that the unemployment rate gap will narrow only slightly. As a result, with pressures from commodity and import prices diminishing, core inflation is expected to drop from nearly 2 percent this year to 1½ percent in 2012 and to decrease a bit further, to 1¼ percent, in 2013. This slowing in core inflation occurs despite a modest expected increase in its rental component. (See the box “Rents and Inflation” for further discussion.) Given the anticipated paths for food and energy prices, total PCE inflation is expected to be a little below core inflation in 2012 and in line with core in 2013.

THE LONG-TERM OUTLOOK

We have extended the staff forecast to 2016 using the FRB/US model and staff assessments of long-run supply-side conditions, fiscal policy, and other factors. The contour of the long-run outlook depends on the following key assumptions:

- Monetary policy aims to stabilize PCE inflation at 2 percent in the long run, consistent with the majority of longer-term inflation projections provided by FOMC participants at the June meeting.

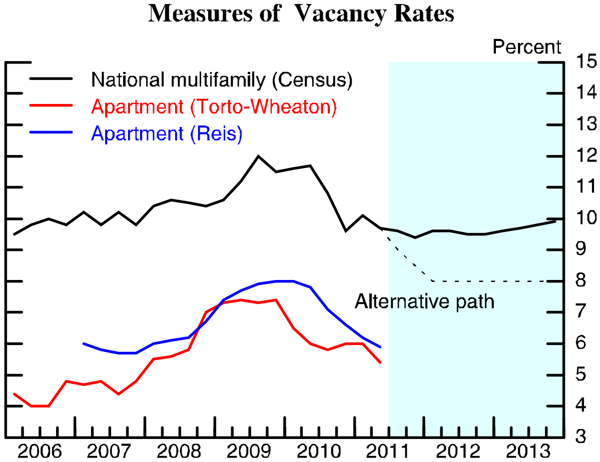
Rents and Inflation

Rental markets have tightened over the past year, as shown in the lower-left figure by the declines in several measures of rental vacancy rates. Over the same period, rental inflation (the black line in the lower-right figure, which includes owners' equivalent rent as well as tenants' rent) has picked up to a rate of 1¼ percent in the first half of this year, and it appears to have stepped up to above 2 percent in the current quarter.

Our models—which relate PCE rental inflation to the Census vacancy rate as well as to its own lags, changes in utilities prices, the unemployment rate, and measures of housing affordability—have tracked actual rental inflation reasonably well in recent quarters. In particular, as shown by the solid red line in the lower-right figure, a simulation from one of our models starting in 2006 captures the upturn in actual rental price inflation quite well. Over the projection period, this simulation projects rental inflation close to 2 percent, as does the Board staff forecast.

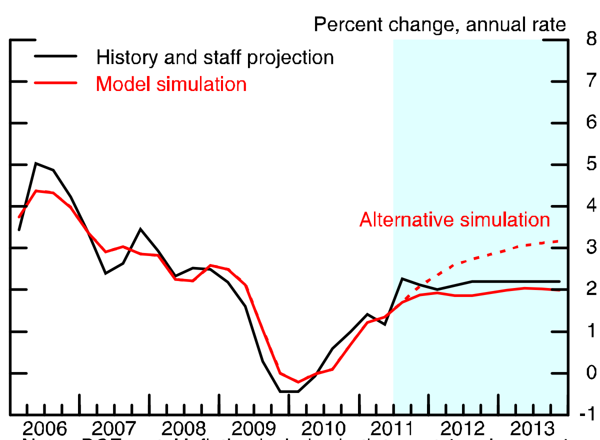
Of course, the projection from the model simulation depends on our forecasts of the model determinants—in particular, the vacancy rate. Based on lags of the unemployment rate, multifamily housing starts, and rental inflation, we project the vacancy rate to remain near current levels over the medium term. However, if rental demand proves much stronger than anticipated, vacancy rates likely would fall more sharply and rents would increase more than we project. For instance, if the Census vacancy rate were to fall to 8 percent in early 2012 (the dotted line in the lower-left figure), a rate last seen in the mid-1980s, the model predicts that rental inflation would move up to 3 percent by the end of next year (the dotted line in the lower-right figure), ¾ percentage point higher than the Tealbook projection. Still, because rents constitute only about 18 percent of the core PCE price index, an increase of this magnitude would add, all else being equal, only a little more than 0.1 percentage point to core PCE inflation in 2012. (The effect on the core CPI would be about twice as large, reflecting the larger weight of housing in the CPI.)

Measures of Vacancy Rates



Source: Census data are from the Housing Vacancy Survey.

PCE Rental Inflation



Note: PCE rental inflation includes both tenants' and owners' equivalent rent.
Source: Bureau of Economic Analysis and staff forecasts.

- The Federal Reserve's holdings of securities follow the baseline portfolio projections reported in Book B. The projected longer-run decline in the System's holdings is forecast to contribute about 30 basis points to the rise in the 10-year Treasury yield from 2013 to 2016.

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

- The federal government budget deficit (NIPA basis) narrows from 5¼ percent of GDP in 2013 to 3¾ percent of GDP in 2016. This narrowing reflects both the effects of the economic recovery on tax receipts and budgetary restraint consistent with the recently enacted Budget Control Act.

- The real foreign exchange value of the dollar is assumed to depreciate 1½ percent per year from 2014 to 2016. The price of WTI crude oil is roughly flat at around $95 per barrel during the extension period, consistent with futures prices adjusted for divergences between staff and market expectations for economic activity and exchange rates. Foreign real GDP expands, on average, 3½ percent per year from 2014 through 2016, slightly above its trend rate.

- The NAIRU declines from 6 percent in late 2013 to 5¼ percent in late 2016 as the functioning of the labor market gradually improves. Potential GDP expands 2½ percent per year on average from 2014 to 2016.

The economy enters 2014 with output still considerably below its potential, the unemployment rate well above the projected NAIRU, and inflation below the assumed objective. In the long-run forecast, improving confidence, diminishing uncertainty, and supportive financial conditions enable real GDP to rise at an average annual rate of almost 4 percent from 2014 to 2016. With actual output expanding appreciably faster than potential, labor market conditions improve considerably. Nevertheless, the unemployment rate does not fall below 6 percent until late 2016, when it still stands about ¾ percentage point above the assumed NAIRU. With downward pressures from slack on unit labor costs gradually abating after 2013, inflation edges up to 1.6 percent by 2016.

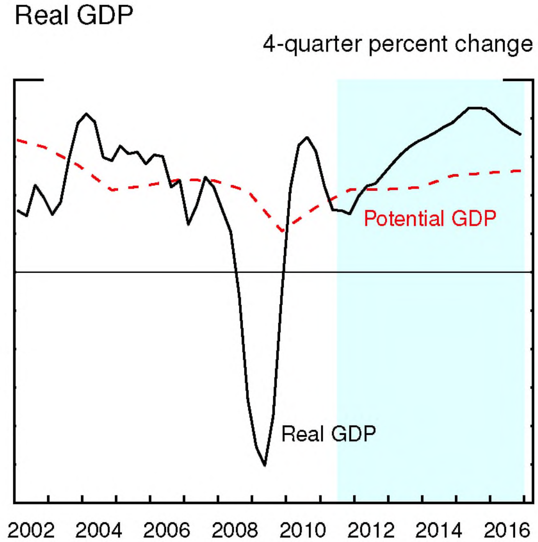
The Long-Term Outlook

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

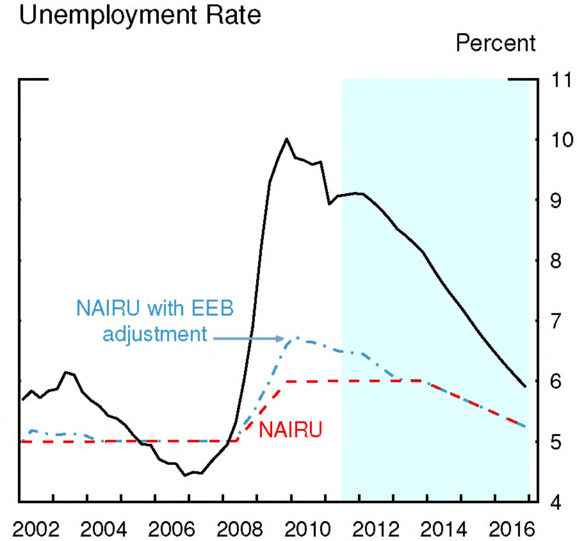
Item	2011	2012	2013	2014	2015	2016
Real GDP	1.5	2.6	3.4	3.9	4.2	3.6
Civilian unemployment rate[1]	9.1	8.7	8.1	7.3	6.6	5.9
PCE prices, total	2.6	1.2	1.3	1.4	1.5	1.6
Core PCE prices	1.9	1.5	1.3	1.4	1.5	1.6
Federal funds rate[1]	.1	.1	.1	.6	2.1	3.1
10-year Treasury yield[1]	2.2	3.2	3.8	3.9	4.1	4.3

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

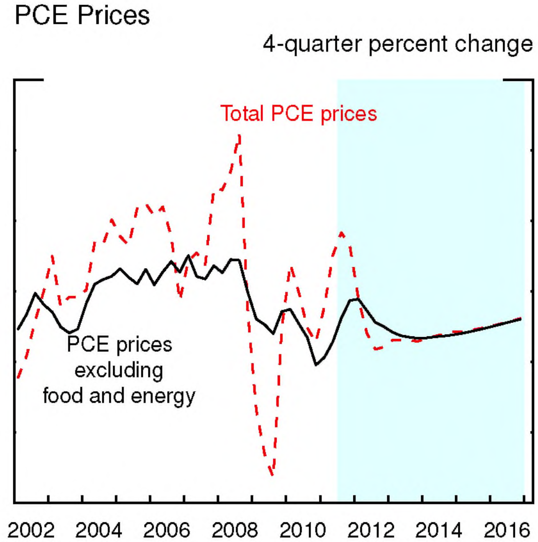
Real GDP



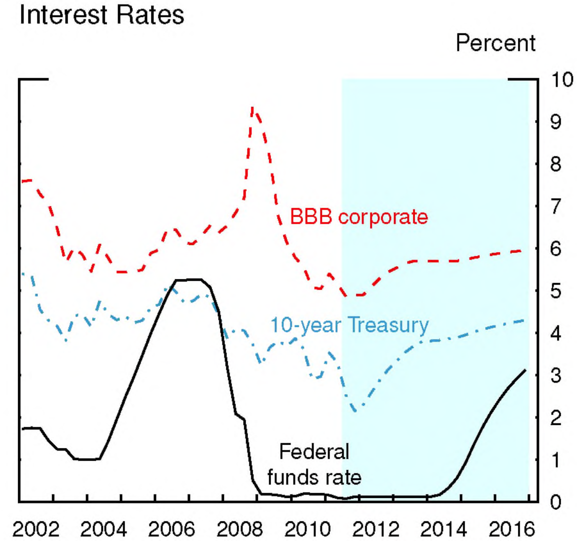
Unemployment Rate



PCE Prices



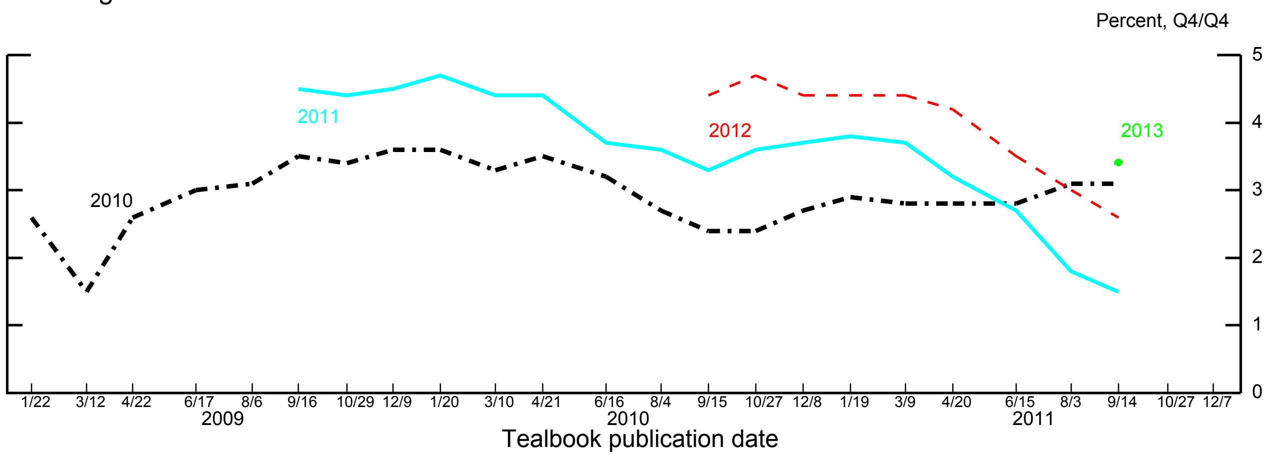
Interest Rates



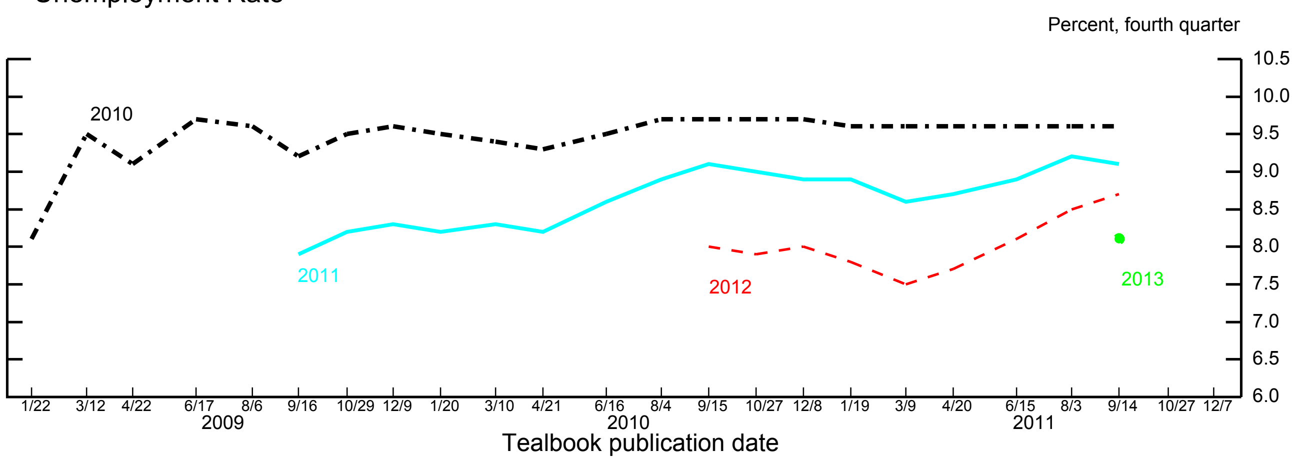
Note: In each panel, shading represents the projection period.

Evolution of the Staff Forecast

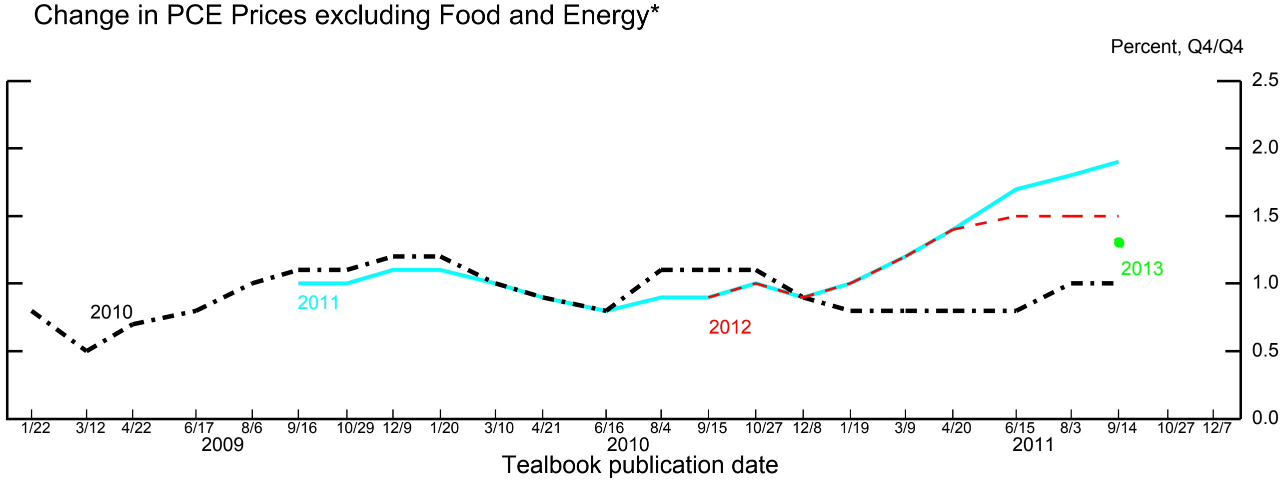
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy*



*Because the core PCE price index was redefined as part of the comprehensive revisions to the NIPA, projections prior to the August 2009 Tealbook are not strictly comparable with more recent projections.

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International Economic Developments and Outlook

Our forecast for the foreign economies is one of continuing recovery but with less vigor and more uncertainty than we foresaw in August. The inability of European policymakers to get ahead of the ongoing fiscal and banking turmoil has raised the odds of a severe financial crisis. In our baseline outlook, the euro area avoids such an extreme outcome, but intensified financial stresses and increased pressure for fiscal austerity have led us to mark down our projections for euro-area growth. And even this lackluster outcome will require that European authorities provide substantial additional support to vulnerable countries and institutions. With the situation in Europe evolving rapidly, we see a substantial risk that the outlook could deteriorate sharply.

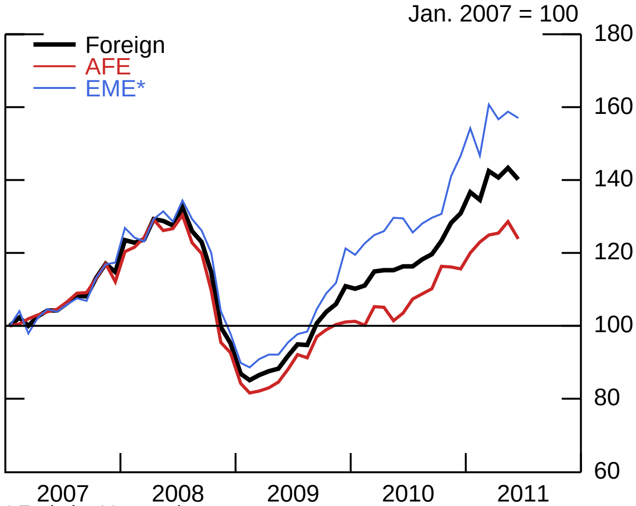
In other foreign economies, recent data on activity have also suggested a somewhat slower pace of expansion than we had anticipated. Canadian real GDP unexpectedly contracted in the second quarter because of a notable fall in exports. For many emerging market economies (EMEs), the recent softness also has been concentrated in the external sector—likely reflecting less demand from Europe and the United States—and raises concerns that domestic demand will begin to stumble as well, especially in the more export-dependent economies.

We now expect aggregate foreign real GDP growth to pick up to 3½ percent in the current quarter from the meager 2¼ percent second-quarter pace, largely reflecting the unwinding of supply chain disruptions caused by the Japanese earthquake. As these effects wear off, GDP growth should step back down to 3 percent later this year and then move up to 3½ percent by 2013, as private demand strengthens, the pace of U.S. economic activity picks up, and the euro-area economy improves. Compared with the August projection, we marked down our foreign growth projection ¼ percentage point in the second half of this year and in 2012.

We estimate that inflation in the advanced foreign economies (AFEs) is falling to an annual rate of ¾ percent in the third quarter, down from 2 percent in the second quarter. This decline is partly the result of the recent drop in oil and other commodity prices. With resource slack in the AFEs dwindling only slowly, inflation should remain subdued at around 1¼ percent over the remainder of the forecast period. Inflation in the EMEs is running higher than in the AFEs, at an estimated 4½ percent in the current

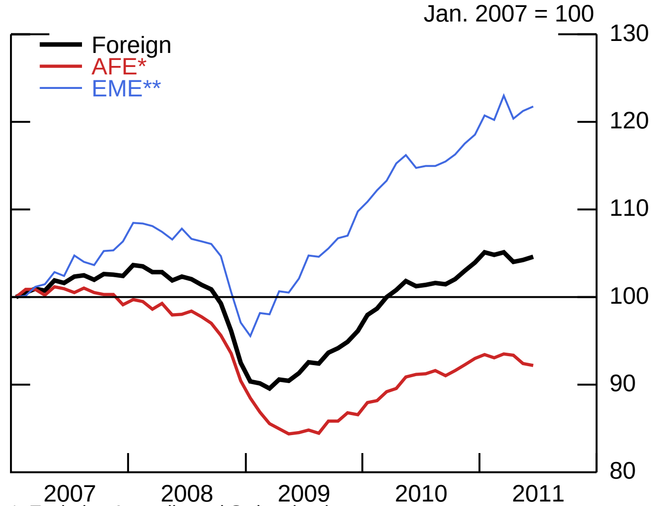
Recent Foreign Indicators

Nominal Exports



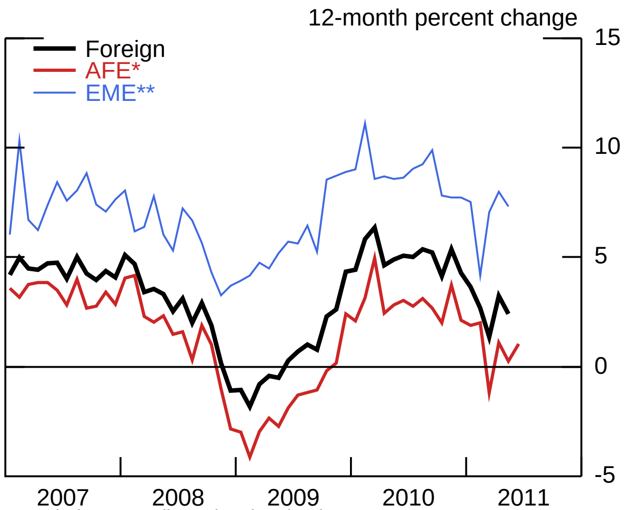
* Excludes Venezuela.

Industrial Production



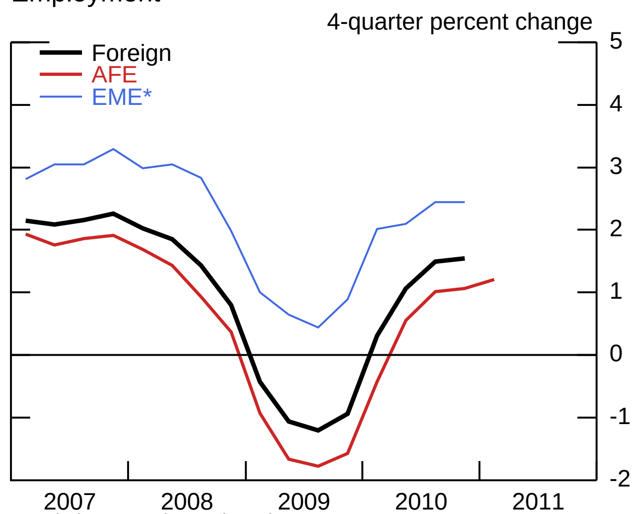
* Excludes Australia and Switzerland.
** Excludes Colombia, Hong Kong, Philippines, and Venezuela.

Retail Sales



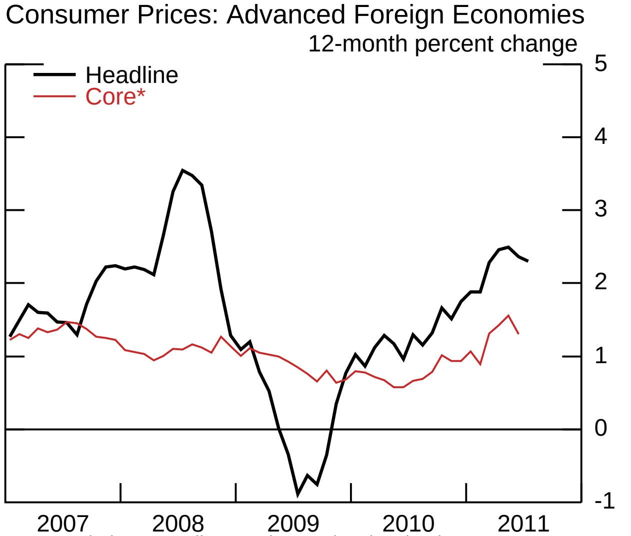
* Excludes Australia and Switzerland.
** Includes Brazil, China, Israel, Korea, Singapore, and Taiwan.

Employment



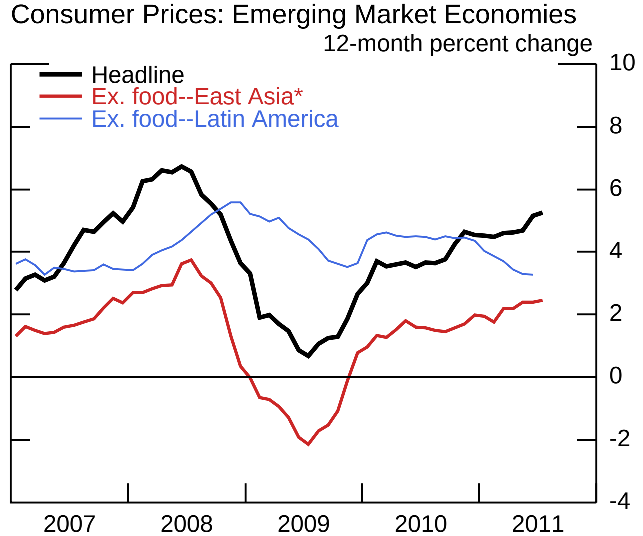
* Excludes Argentina and Mexico.

Consumer Prices: Advanced Foreign Economies



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

Consumer Prices: Emerging Market Economies



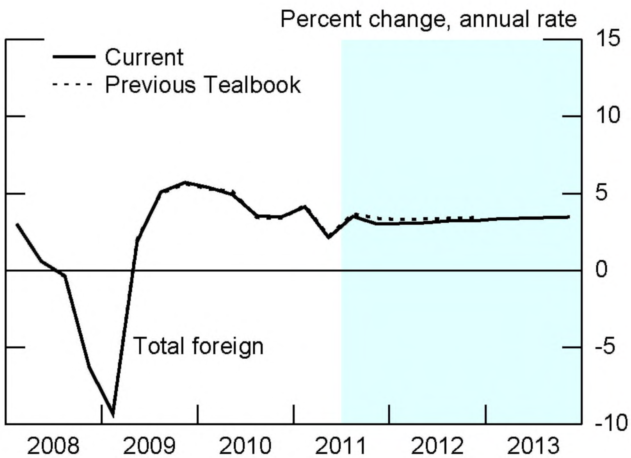
The Foreign Outlook

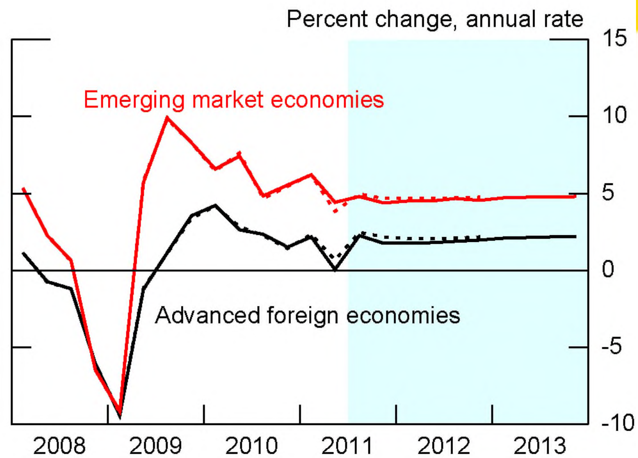
(Percent change, annual rate)

	2010	2011 Q1	2011 Q2	2011 Q3	2011 Q4	2012	2013
Real GDP							
Total foreign	4.3	4.1	2.2	3.5	3.0	3.2	3.4
Previous Tealbook	4.3	4.2	2.2	3.7	3.4	3.4	n.a.
Advanced foreign economies	2.7	2.2	.1	2.3	1.8	1.9	2.2
Previous Tealbook	2.7	2.4	.7	2.5	2.2	2.1	n.a.
Emerging market economies	6.1	6.2	4.4	4.8	4.4	4.6	4.8
Previous Tealbook	6.1	6.2	3.9	5.0	4.7	4.7	n.a.
Consumer Prices							
Total foreign	3.2	4.3	3.2	2.9	2.2	2.3	2.4
Previous Tealbook	3.2	4.3	3.2	2.5	2.2	2.4	n.a.
Advanced foreign economies	1.7	3.3	2.1	.8	1.3	1.3	1.4
Previous Tealbook	1.8	3.3	2.2	.5	1.5	1.4	n.a.
Emerging market economies	4.4	5.1	4.0	4.6	2.8	3.2	3.1
Previous Tealbook	4.4	5.1	4.0	4.0	2.8	3.2	n.a.

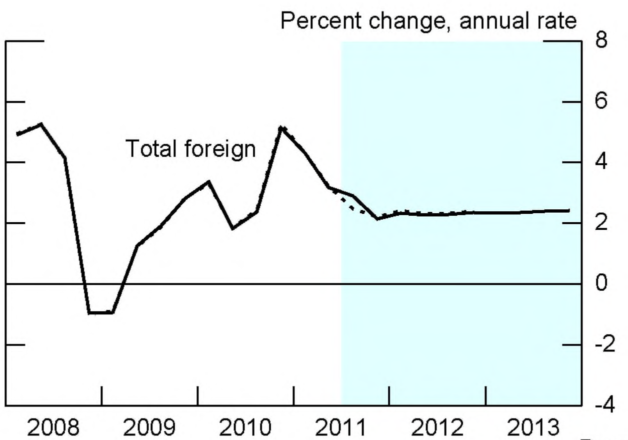
n.a. Not available.
Note: Annualized percent change from final quarter of preceding period to final quarter of period indicated.

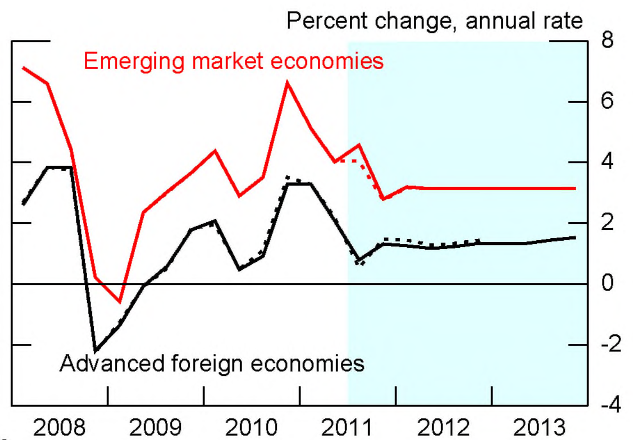
Real GDP





Consumer Prices





quarter, but has also moved down since early this year with the decline in commodity prices and is projected to average 3¼ percent during 2012 and 2013. With diminishing inflationary pressures and a less favorable growth outlook, we expect monetary policy abroad to be more accommodative than in the previous Tealbook.

ADVANCED FOREIGN ECONOMIES

Real GDP growth in the AFEs stalled in the second quarter following a 2¼ percent expansion in the previous quarter. The slowdown was more pronounced than anticipated in the August Tealbook, mainly in Canada and the euro area. Indicators for the third quarter have been on the soft side, with recent readings of the manufacturing PMIs in Europe falling into contractionary territory for the first time since mid-2009. That said, with supply chain disruptions resulting from the Japanese earthquake largely resolved and as other temporary factors abate, AFE growth should rebound to 2¼ percent in the current quarter.

Going forward, AFE growth is projected to languish below 2 percent through 2012 before picking up to 2¼ percent in 2013. This forecast is lower than that in the previous Tealbook, reflecting a bleaker assessment of the euro-area debt crisis, negative wealth effects from the significant drop in global equity prices, and the weaker U.S. outlook. Although we have stopped shy of projecting outright recession in the euro area, we now expect that heightened financial tensions in the region will weigh on growth for longer than previously anticipated.

We project that AFE inflation will fall from 2 percent in the second quarter to ¾ percent in the third quarter, owing in part to declines in energy prices. Over the rest of the forecast period, we expect inflation to hover around 1¼ percent amid persistent resource slack. Given the weaker growth outlook and increased downside risks, we now anticipate that all major foreign central banks will keep policy rates on hold until 2013.

Euro Area

The fiscal and financial turmoil in the euro area has intensified further. The risk of a disorderly Greek default has risen, and market participants have become increasingly doubtful about the ability of policymakers to contain the spread of the region's debt crisis. Although we expect financial conditions to remain strained for quite some time, we continue to assume—albeit with diminishing confidence—that European policymakers will avert a major financial crisis. For this relatively benign scenario to materialize, however, policymakers must implement the measures agreed to at their July 21 summit (see the box "Recent Policy Developments in the Euro Area"). Even with these actions, there is a significant risk that Greece will experience a disorderly default as its failure to meet its fiscal targets is putting official financing disbursements in jeopardy and as private-sector interest in its voluntary restructuring plan is falling short of expectations. Accordingly, policymakers also need to take further actions to provide a credible backstop for Italy and Spain as well as the entire region's banks, perhaps through a considerable expansion of the European Financial Stability Facility. In any case, the ECB will have to play a central role in preserving financial stability in the euro area, such as through purchases of sovereign bonds and provision of liquidity to banks.

In part because of the difficult financial conditions, real GDP grew a meager 0.6 percent in the second quarter, nearly 1 percentage point below our expectations, as private consumption contracted for the first time since mid-2009. France and Germany saw their growth come to a halt, partly reflecting a step-down from a rapid first-quarter pace. For the current quarter, data point to continued weak growth: In August, the manufacturing PMI fell below 50 for the first time in two years, business confidence declined further, and consumer confidence plummeted. In addition, funding pressures for some euro-area banks are likely restraining credit availability. Against this backdrop of disappointing economic indicators, elevated financial stress, and tight fiscal policy, we marked down the euro-area growth outlook almost ½ percentage point. We now expect GDP growth to remain around ¾ percent in the second half of 2011, to barely break 1 percent in 2012, and then to rise to a modest 1¾ percent by 2013.

Euro-area inflation is projected to fall from 2¾ percent in the second quarter to less than 1 percent in the third quarter, largely reflecting the decline in energy prices. Amid persistent resource slack, we expect inflation to remain around 1½ percent in 2012 and 2013. This forecast is a touch lower in 2012 than in the August Tealbook. At its September meeting, the ECB kept its main policy rate unchanged but signaled that downside risks to economic growth had increased and that inflation risks had eased somewhat. Given the weaker outlook for growth and inflation, we no longer expect the ECB to raise its policy rate over the forecast period.

Japan

Real GDP declined 2.1 percent in the second quarter amid the devastation wrought by the March earthquake and tsunami. This outturn is ¾ percentage point

Recent Policy Developments in the Euro Area

In response to the ongoing European fiscal crisis, euro-area leaders agreed on July 21 to significantly increase financing for Greece—conditional on some voluntary restructuring of private-sector debt—and to increase the scope and flexibility of the European Financial Stability Facility (EFSF), the financial backstop for the euro area. Unfortunately, progress on implementing these measures has lagged, Greece is scheduled to run out of cash shortly without another disbursement by the European Union (EU) and the International Monetary Fund (IMF), and financial conditions for European sovereigns and banks have worsened dramatically. As a result, the European Central Bank (ECB) has had to take a more active role in supporting sovereign debt markets and providing liquidity to European banks.

Beginning with Greece, delays in disbursing funds under the existing aid program and in negotiating a new rescue package have pushed the probability of disorderly default uncomfortably high and have sent Greek sovereign spreads soaring (see lower-left figure on facing page).

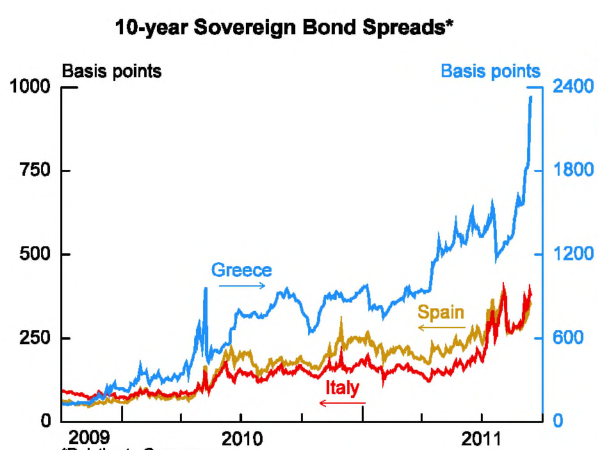
The delays reflect three key stumbling blocks. First, the Greek government is falling well short of this year's fiscal targets, reflecting poor implementation of agreed reforms and a deeper-than-expected recession. As a precondition for the next disbursement and any new assistance, European leaders and the IMF are seeking much stronger execution of existing commitments as well as additional austerity measures. However, the Greek government has reportedly been reluctant to undertake additional consolidation. As a result, negotiations between Greece, the EU, and the IMF were suspended in early September. Subsequently, the Greek government announced plans to revive key reforms, levy a special tax on real estate, cut public wages, and accelerate approval of the 2012 budget. It is not yet clear whether these steps will suffice; negotiations are expected to resume in mid-September.

Second, several smaller euro-area members, particularly Finland, are requiring collateral to secure any new commitments to Greece, a demand that is opposed by other countries and the IMF. Despite weeks of discussions, euro-area officials have yet to reach a compromise that would allow negotiations on a new Greek aid package to proceed.

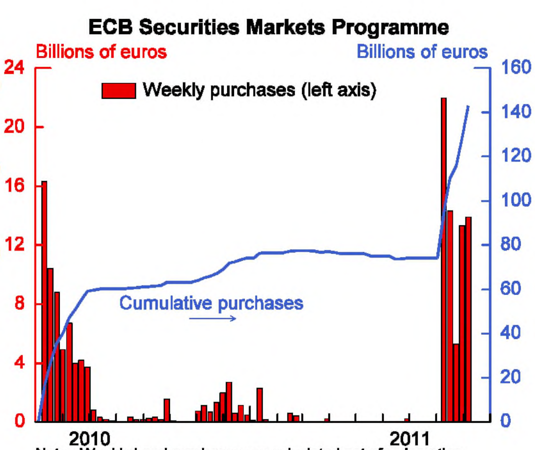
Third, it appears that private creditor participation in the proposed debt restructuring will fall short of its 90 percent target. Such a shortfall would likely force the EU and the IMF to choose between providing even more official financing or moving toward a more coercive restructuring. Uncertainty over the success of this debt exchange is unlikely to be resolved before October.

The precarious situation in Greece has made the need for a euro-area financial backstop to stem contagion to other vulnerable economies all the more crucial. However, efforts on this score have also fallen short. This month, euro-area parliaments were expected to ratify both the July agreement making the EFSF more flexible and a March agreement increasing its effective lending capacity to €440 billion. But the timetable for passage may slip because of pockets of resistance in various countries. In addition, although Germany's Constitutional Court recently approved Germany's participation in the EFSF, it required that the government obtain parliamentary approval for future commitments, reducing the potential effectiveness of the EFSF. The court also ruled out German participation in some other types of support, such as Eurobonds. Finally, and most worrisome, many observers now believe that, even with the proposed changes, the EFSF would be too small to serve as the primary backstop for Italy and Spain.

Indeed, the lack of an effective backstop has led to an intensification of financial market stresses, notably for Italy and Spain (see lower-left figure) and for euro-area banks. In response, the ECB re-activated its Securities Markets Programme to buy Italian and Spanish government debt as well as that of Greece, Ireland, and Portugal. The ECB partly conditioned this action on greater commitment to fiscal discipline by the Italian and Spanish governments. Since restarting purchases in early August, the ECB has bought about €70 billion through the week of September 9 (see lower-right figure). In addition, the ECB has significantly increased liquidity to euro-area banks through its repurchase facilities and by extending its fixed-rate tenders to the end of 2011. Italian and Spanish 10-year sovereign spreads initially dropped almost 125 basis points but have recently retraced much of these declines, and conditions for banks continue to worsen, indicating that more dramatic policy measures by euro-area leaders will likely be needed to resolve the fiscal crisis.



*Relative to Germany.
Source: Bloomberg.



Note: Weekly bond purchases are calculated net of redemption.
Source: European Central Bank.

stronger than we estimated in the August Tealbook, as the supply-side constraints caused by the disaster were resolved faster than we had anticipated. Indeed, by July, industrial production had recovered most of its losses. Other indicators, by contrast, have been somewhat disappointing: Real exports and consumption spending stalled in July, and the composite PMI fell in August. The less-than-expected decline in second-quarter output combined with sluggish incoming data have led us to revise down our estimates for the bounceback in growth in the second half of this year to 4 percent. Thereafter, we see growth slowing to 2¼ percent in 2012 and to 1½ percent in 2013. This outlook is weaker than that in the August Tealbook, given the markdown to global growth and the sharp decline in equity prices.

On September 2, Yoshihiko Noda became Japan's new prime minister, replacing Naoto Kan, who came under attack for his government's handling of the nuclear accident at the Fukushima power plant. We do not expect the new government to change fiscal policy, which is expected to add nearly 1 percentage point to growth this year before gradually turning contractionary over the remainder of the forecast period.

Statistical revisions to the CPI lowered second-quarter inflation ½ percentage point to negative ¾ percent. However, led by a surge in food prices, the new CPI rose sharply in July, prompting us to raise our forecast of third-quarter inflation to nearly 1 percent. As food price inflation moderates, we expect deflation to resume over the rest of the forecast period. We do not expect the Bank of Japan to change its policy rate or the size of its asset purchase program through 2013.

Canada

Contrary to our expectations for a small increase, Canadian real GDP declined 0.4 percent in the second quarter because of a drop in exports related in part to production disruptions at automobile plants and temporary shutdowns at oil extraction sites. In contrast, final domestic demand expanded briskly, led by investment spending. We expect GDP growth to pick up to 2¾ percent in the third quarter, as production of automobiles and oil recovers. GDP growth is then projected to hover around 2 percent through 2012 before rising to about 2½ percent by the end of the forecast period. Relative to the August Tealbook, our forecast is down ¼ percentage point in the second half of this year and in 2012 due to weaker external demand and lower equity prices.

Automobile price discounts and the decline in oil prices likely depressed inflation to just ¼ percent in the third quarter. Over the remainder of the forecast period, we expect inflation to average just under 2 percent, which is consistent with the stabilization of commodity prices and moderate resource slack. With inflation in check and a further weakening of external demand, we now expect the Bank of Canada to hold its target for the overnight rate at 1 percent through early 2013.

United Kingdom

Second-quarter GDP growth was a meager 0.7 percent, held down in part by the Royal Wedding holiday and parts shortages at automobile plants. With these temporary factors reversing, we estimate real GDP will expand 2¼ percent in the current quarter. But recent data have been soft: Unemployment claims rose through July, and the composite PMI dropped in August to a level consistent with very little growth. Given these weak indicators, the recent fall in equity prices, and the bleaker euro-area outlook, we trimmed our GDP growth forecast ½ percentage point for the second half of this year and a few tenths of a percentage point next year. We now expect GDP growth to average 2 percent through the end of 2012 and 2½ percent in 2013, leaving output well below potential.

Despite the fall in oil prices, we expect quarterly inflation to average 3 percent in the near term, as utility companies hike tariffs. Although current inflation is elevated, measures of medium- to long-term inflation expectations have declined, and we forecast that inflation will slow to nearly 2 percent by 2013, weighed down by considerable resource slack. In light of the softer GDP outlook, we delayed the first policy rate hike to the second half of 2013 and see a greater chance that the Bank of England will expand its asset purchase program.

Emerging Market Economies

Economic activity in the emerging market economies rose at an annual pace of 4½ percent in the second quarter, a little stronger than in our August projection. In the current quarter, we expect EME growth to edge up, in part reflecting some bounceback from the effects of the Japanese earthquake. However, recent readings on industrial production, exports, and manufacturing PMIs reinforce our view that the underlying pace of growth is slowing in the EMEs, and we expect some deceleration of activity in the next couple of quarters. By the end of 2013, growth should return to nearly 5 percent, supported by the projected recovery in the advanced economies. Relative to the August

Tealbook, our growth projection is marked down ¼ percentage point for the second half of this year and for 2012, as the softer tone of the incoming EME data and the weaker U.S. outlook suggest more weakness in external demand than we anticipated. A key downside risk to this forecast is that softer exports induce a much more pronounced slowdown in domestic demand.

Even though headline inflation in EMEs has moved down relative to the levels seen early this year, we estimate that in the current quarter it edges up to an annual rate of 4½ percent, reflecting recent idiosyncratic increases in food prices in some economies. Thereafter, inflation should moderate to about 3¼ percent over most of the forecast period. Although inflation remains relatively elevated, downside risks to growth from the deteriorating external outlook prompted us to scale back our expectations of monetary policy tightening for a number of EMEs and to pencil in outright cuts in policy rates for Brazil and Mexico. Indeed, Brazil already lowered its policy rate 50 basis points in late August.

China

Economic activity in China appears to have remained robust in the third quarter, largely supported by domestic demand. Retail sales growth slowed in July and August but to a still strong 17 percent on a 12-month basis, and fixed-asset investment has maintained growth of 25 percent all year. The manufacturing PMI has stabilized at around 51 after declining earlier in the year, but the new export orders subindex indicates weakening external demand. We project Chinese real GDP to grow at an annual rate of around 8¼ percent over the forecast period, as Chinese authorities adjust the policy mix as necessary to prevent overheating but still maintain solid growth. This forecast is a bit lower than in the August Tealbook.

Chinese headline inflation edged down in August to 6¼ percent on a 12-month basis. We project inflation will continue to move down to a bit below 3 percent in 2012 and 2013, reflecting the waning effects of previous increases in pork and other food prices. In the face of elevated inflation and continued high credit growth, the People's Bank of China broadened the range of deposits subject to reserve requirements; when fully phased in, the broadening will be roughly equivalent to an increase in reserve requirements under the old standard of about 1¼ percentage points.

Other Emerging Asia

Elsewhere in emerging Asia, data for July and August indicate that exports and industrial production declined in most of the region. The PMI readings fell abruptly below the 50 benchmark for a number of economies, led by declines in the subindexes for new export orders. We expect real GDP growth in the region to rise to 4½ percent in the current quarter, helped by the temporary boost from Japan's recovery. Thereafter, we estimate that real GDP growth will slow again toward year-end before rising to 5 percent by late 2013. Based on the weaker recent data on manufacturing activity, the growth forecast for the region is down a bit relative to the August Tealbook.

Headline inflation in the region is projected to rise to an annual rate of 3½ percent in the current quarter. Concerns about heightened inflationary pressures prompted the Bank of Thailand to raise its policy rate again in August. However, the central banks in Korea, Malaysia, and the Philippines refrained from tightening in recent months, citing the heightened risk from the global slowdown.

Latin America

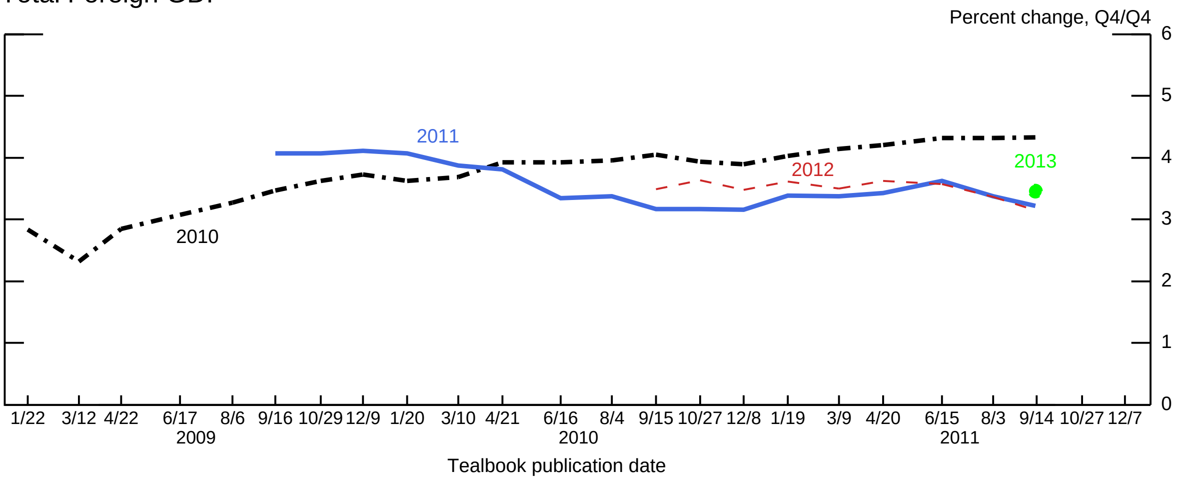
In Mexico, real GDP expanded at an annual rate of 4½ percent in the second quarter, about 2 percentage points faster than we estimated in the August Tealbook. Economic growth was supported in part by a strong expansion of industrial output. We expect GDP growth in Mexico to remain robust at 4¼ percent in the current quarter before slowing to roughly 3¼ percent over the remainder of the forecast period. On average, our projection for the next few quarters is marked down about ¼ percentage point, reflecting downward revisions to the outlook for U.S. manufacturing.

In contrast, GDP growth in South America slowed to 3¼ percent in the second quarter, almost 1 percentage point below our August Tealbook projection, largely reflecting a moderation of growth in Brazil. In recent months, the PMI readings for Brazilian manufacturing have moved down sharply to below the 50 benchmark, and the labor market has cooled somewhat, although the services sector remains resilient. We project that growth in Brazil will persist at around 3¼ percent in the second half of 2011 and next year, as the country's commodity export and manufacturing sectors are held back by the weakness in advanced economies. We then expect that output growth will improve to 4 percent by late 2013.

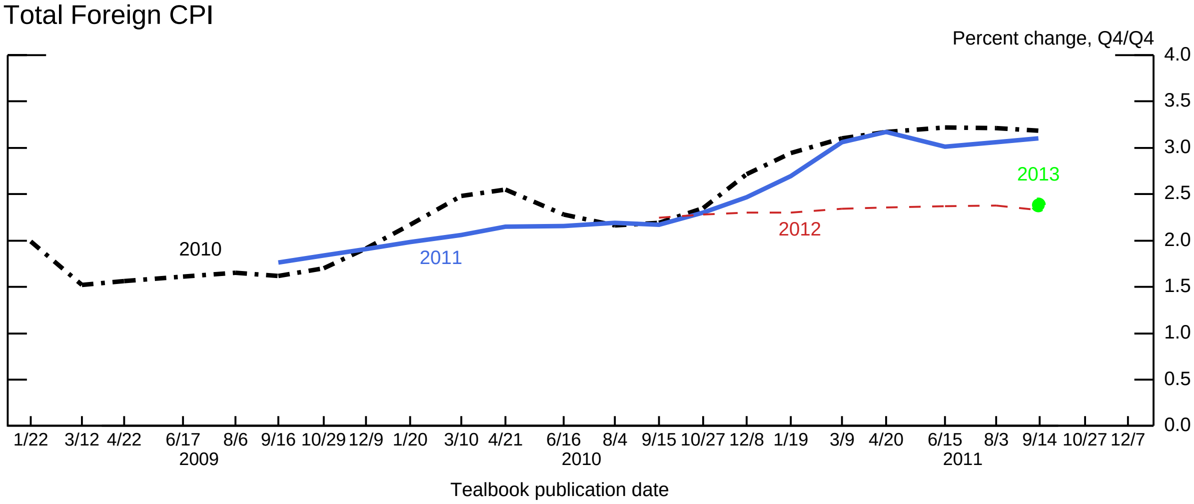
Headline inflation in Mexico is projected to pick up to an annual rate of about 3½ percent in the second half of this year from 1¾ percent in the second quarter, reflecting the reversal of a temporary energy subsidy implemented in late spring. In contrast, we expect quarterly inflation in Brazil to moderate to an annual pace of roughly 5 percent in the second half, down from 7½ percent in the second quarter. Although 12-month inflation is likely to persist above the central bank's target range for the rest of the year, the bank lowered its policy rate 50 basis points to 12 percent in late August in the face of the weaker outlook for external demand.

Evolution of Staff's International Forecast

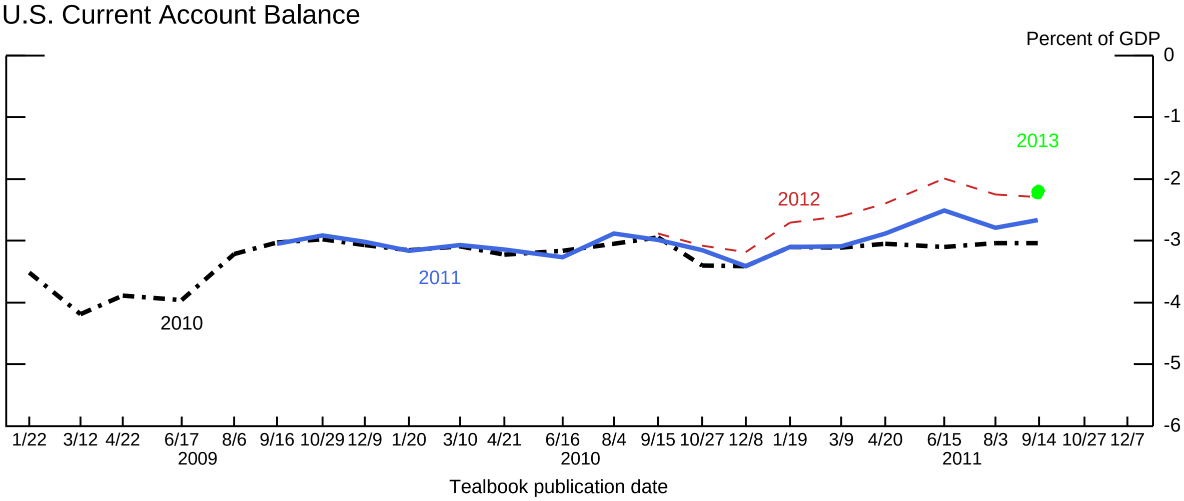
Total Foreign GDP



Total Foreign CPI



U.S. Current Account Balance



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Int'l Econ Devel & Outlook

Financial Developments

Over the intermeeting period, investors continued to pull back from riskier assets on an intensification of concerns about the sovereign debt crisis in Europe and in response to weaker-than-expected incoming data on economic activity in the United States and abroad. Safe-haven flows and mounting expectations for additional nonconventional monetary policy stimulus by the FOMC contributed to an appreciable fall in intermediate- and longer-term nominal Treasury yields. The expected path of the federal funds rate moved down, largely in response to the FOMC's August statement that included firmer forward guidance. Partly in reaction to the deterioration in the economic outlook, investors priced in somewhat lower inflation compensation. Yield spreads on U.S. corporate bonds increased significantly, and broad indexes of U.S. equity prices fluctuated widely, although they ended the period higher on net. In the euro area, stock prices declined and spreads on most peripheral sovereign bonds widened further because of investors' worries about a default by Greece and the possible knock-on effects for other euro-area sovereigns and financial institutions. In unsecured dollar funding markets, many European banks faced strained conditions, as funding costs climbed and term funding became even harder to obtain.

The most recent data on credit flows in the United States were mixed. In the nonfinancial corporate sector, issuance of investment-grade bonds was solid in August, as highly rated companies continued to find historically low yields attractive. In contrast, issuance of high-yield bonds last month was the weakest since December 2008, and issuance of leveraged loans to institutional investors appears to have fallen in August. In the household sector, consumer credit expanded in July despite a decline in revolving credit, while measures of consumer credit quality generally continued to improve. Interest rates on conforming home mortgages decreased a little since early August but appeared to elicit only modest refinancing activity; meanwhile, the volume of mortgage applications for home purchases remained very low. Bank credit expanded moderately in August, reflecting increases in both loans and securities holdings. In August, M2 surged again, as investors and money fund managers sought the safety of insured deposits.

POLICY EXPECTATIONS AND TREASURY YIELDS

Rates on money market futures maturing beyond the third quarter of 2012 and nominal Treasury yields declined significantly following the release of the August FOMC statement; market participants focused on the revision to the statement's forward guidance indicating that the Committee anticipated that economic conditions are likely to warrant exceptionally low levels of the federal funds rate at least through mid-2013.[1] Investors also took note of the FOMC's downbeat assessment of recent economic developments and its recognition of heightened downside risks to the outlook. Over the following weeks, weaker data here and abroad reinforced investors' perceptions of increasing risks to the global economic outlook, and investors marked up their expectations for additional monetary accommodation. Chairman Bernanke's speech at the Federal Reserve Bank of Kansas City Economic Policy Symposium in Jackson Hole and the August FOMC minutes were seen by market participants as consistent with their views that additional monetary policy stimulus was likely. Subsequently, the much weaker-than-expected employment report for August reportedly further raised the perceived odds of an easing of policy at the September FOMC meeting.

Over the intermeeting period as a whole, the mean path of the expected federal funds rate over the next two years moved down appreciably.[2] This path, which is estimated from OIS rates, indicates that market participants expect the federal funds rate to first rise marginally above the current target range in the second quarter of 2013, one quarter later than had been expected at the time of the August FOMC meeting. (See the box "Policy Rate Expectations and Term Premiums.") The modal path for the federal funds rate derived from interest rate caps remained extremely flat and indicates that market participants expect the federal funds rate is most likely to stay within the current target range beyond the end of 2014. The firming of the FOMC's forward guidance in its August statement contributed to a drop in market-based measures of policy uncertainty over the next few years.

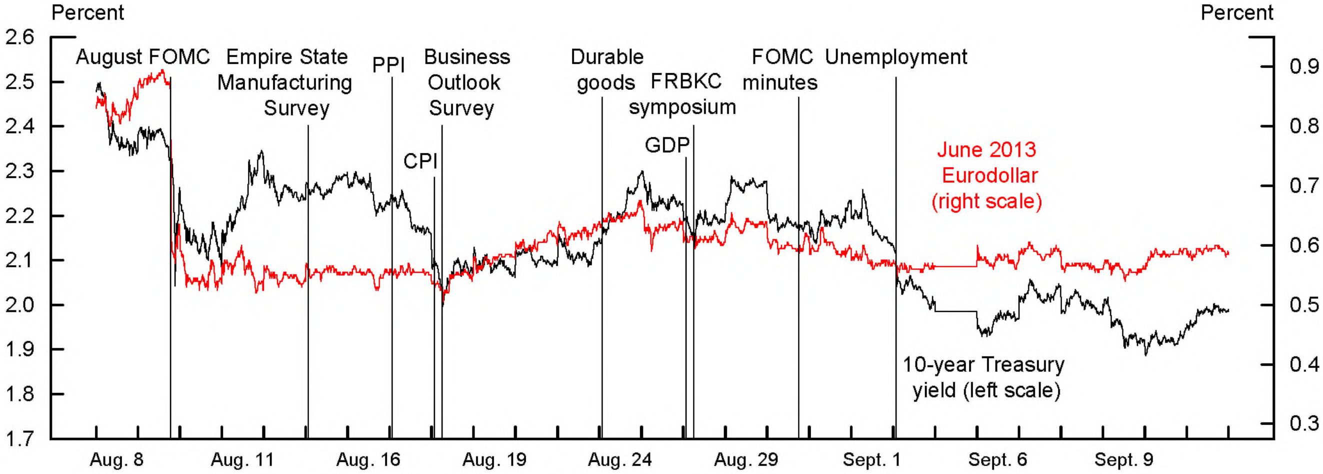
[1] The effective federal funds rate averaged 9 basis points over the intermeeting period, with the intraday standard deviation averaging about 4 basis points. European banks continued to experience higher borrowing costs than their peers. The Open Market Desk purchased a total of $14 billion of longer-term Treasury securities during the intermeeting period, consistent with the policy to reinvest principal payments from its securities holdings.

[2] As noted in the box "Policy Rate Expectations and Term Premiums," the estimated federal funds rate paths now assume that there is no term premium in the OIS rate curve. Term premiums currently appear to be unusually low, reflecting investors' confidence that policy will remain on hold for quite some time.

Financial Developments

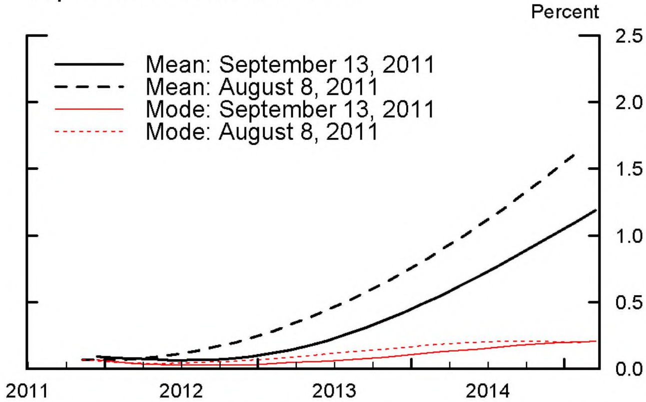
Policy Expectations and Treasury Yields

Selected Interest Rates



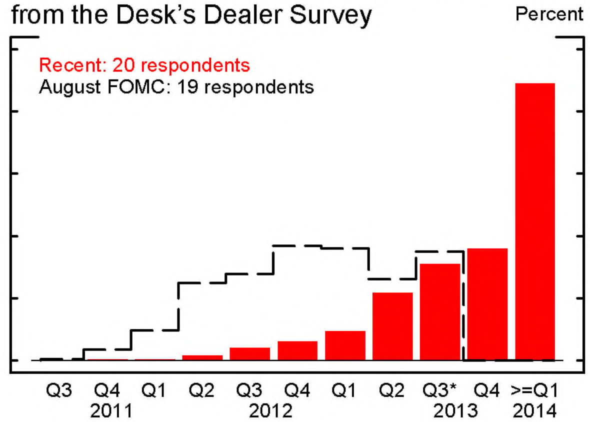
Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m. No adjustments for term premiums.
Source: Bloomberg.

Implied Federal Funds Rate



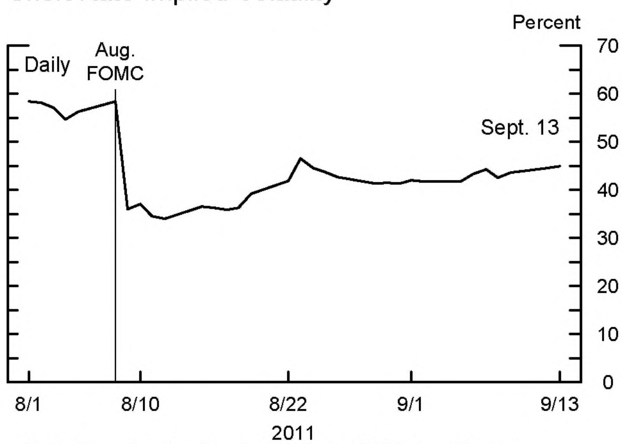
Note: Mean is estimated using OIS quotes. Mode is estimated from the distribution of federal funds rate implied by interest rate caps. Both include a term premium of zero basis points per month.
Source: Bloomberg and CME Group.

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



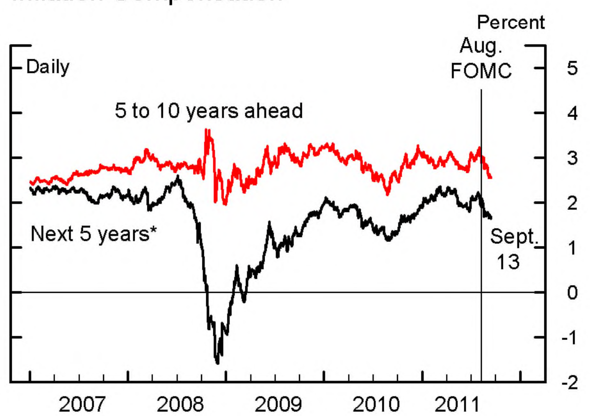
*For the August FOMC, the probability reported in the 2013:Q3 bin corresponds to the probability that the first policy rate hike will occur in 2013:Q3 or later.
Source: Desk Dealer Survey from September 12, 2011.

Short Rate Implied Volatility



Note: Based on basis point implied volatility from 1-year swaptions 1 year ahead.
Source. Bloomberg.

Inflation Compensation



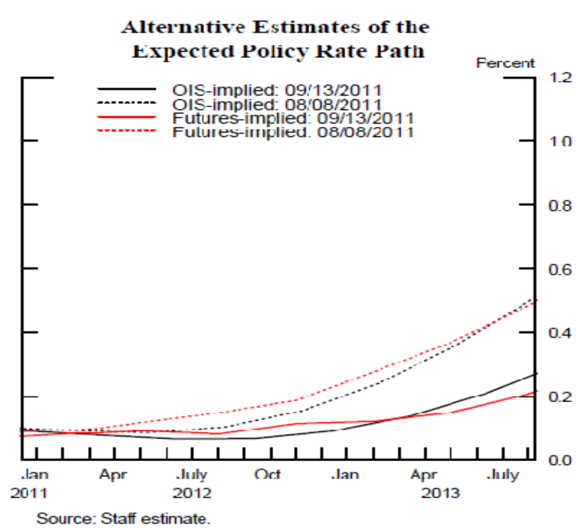
Note: Estimates based on smoothed nominal and inflation-indexed Treasury yield curves.
*Adjusted for the indexation-lag (carry) effect.
Source: Barclays PLC and staff estimates.

Policy Rate Expectations and Term Premiums

The Board staff recently implemented some modest changes in its computations of the expected federal funds rate path.

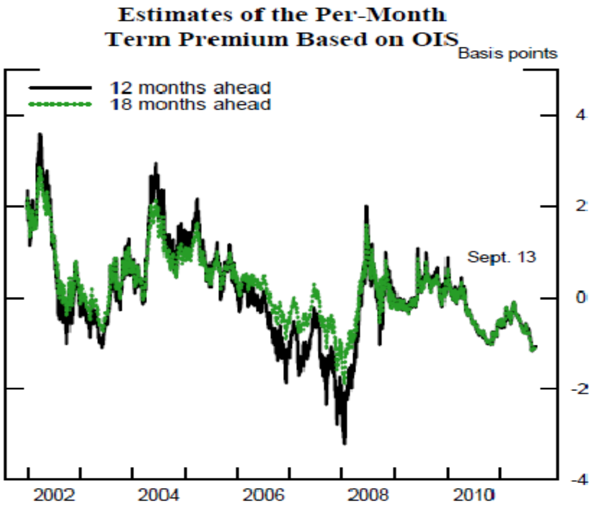
Traditionally, the staff used federal funds and Eurodollar futures to derive the expected federal funds rate path for horizons of up to two years; these contracts are quite liquid and widely used by market participants as indicators of policy expectations. Two transformations were applied to raw futures rates. First, federal funds versus Libor basis swap spreads were subtracted from the Eurodollar futures rates to make them comparable to federal funds futures rates. Second, federal funds futures rates were converted into expected federal funds rates by subtracting a judgmental estimate of the term premium priced into the futures rates. For most of the last few years, the staff assumed a term premium of 1 basis point per month. But that assumption recently generated estimates of expected federal funds rates that were negative. As a result, since August 7, the staff has been assuming a term premium of zero basis points per month in this calculation.

Another problem that the staff encountered with the traditional methodology was that the use of federal funds and Eurodollar futures rates sometimes generated kinks in the estimated expected federal funds rate path on the date of the shift from federal funds to Eurodollar futures. To avoid such problems, the staff recently shifted to using the overnight index swap (OIS) curve as the basis for its expected funds rate calculations. OIS rates are analogous to federal funds futures rates, and the OIS market has become increasingly liquid over time. By using a single data source, policy rate expectations based on the OIS curve are less subject to the data problems present under our previous procedure. Under the new procedure, the staff uses the raw OIS data to estimate forward OIS rates and then subtracts a term premium estimate from these forward rates to obtain the expected funds rate path. As previously noted, the currently assumed monthly term premium is zero basis points per month. The figure below shows that the expected funds rate paths calculated under the old and the new method are quite similar.

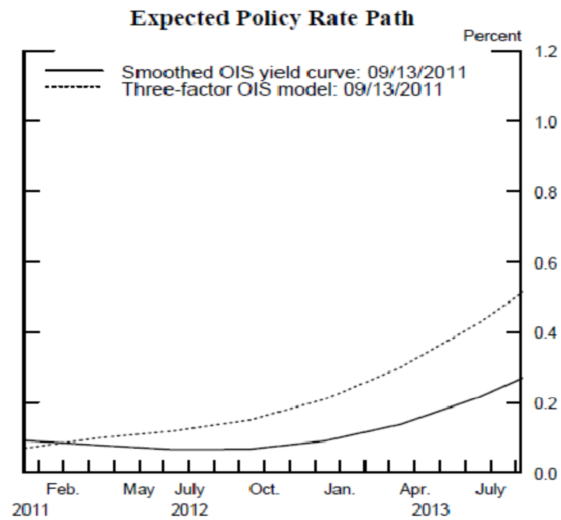


Financial Developments

The assumption of a constant term premium is a strong one. Indeed, research has generally shown that term premiums are time varying.[1] To estimate a time-varying term premium directly, the staff is developing a three-factor no-arbitrage term structure model for OIS rates.[2] As illustrated in the lower-left figure, a preliminary version of this model suggests that the term premium has varied significantly over time and currently stands at about negative 1 basis point per month at the 12-month horizon. With a negative term premium, the model-based expected funds rate path is somewhat above the path calculated with the assumed term premium of zero basis points and implies that the federal fund rate will first rise above the current target range in the first quarter of 2013 (lower-right figure). For now, the staff will employ its judgmental term premium assumption along with OIS rates to calculate the expected funds rate path but will continue to refine work on the term structure modeling of the OIS curve with the goal of developing reliable joint estimates of the expected funds rate path and a time-varying term premium. This work and past efforts to identify a time-varying term premium point to the uncertainties associated with market-based estimates of the expected trajectory of the federal funds rate.



Source: Staff estimate.



Source: Staff estimate.

[1] See, for example, an article by Monika Piazzesi and Eric Swanson (2008), "Futures Prices as Risk-Adjusted Forecasts of Monetary Policy," *Journal of Monetary Economics,* vol. 55, pp. 677-91.

[2] See memorandums by Benson Durham (2007), "Another Estimate of the Term Premium at the Short End of the Yield Curve," memorandum, Board of Governors of the Federal Reserve System, Division of Monetary Affairs, February 13; and Canlin Li and Min Wei (2011), "An Affine Term Structure Model of Overnight Index Swaps (OIS) with Survey Forecasts," memorandum, Board of Governors of the Federal Reserve System, Division of Monetary Affairs, April 6.

Results from the Open Market Desk's latest survey of primary dealers also suggested a marked downward shift in the anticipated path of the federal funds rate. Respondents pushed out the most likely timing for liftoff of the federal funds rate target to the end of 2013, slightly more than one year later than at the time of the August survey. Additionally, in response to questions about possible easing options, dealers assigned greater probabilities that each of five possible tools—reducing the IOER rate, purchasing securities, increasing the duration of SOMA holdings, changing the federal funds rate guidance, and providing guidance on the size of the SOMA portfolio—would be used within one year. The rise in the probability that dealers put on an increase in the average duration of SOMA holdings (from a probability of 25 percent before the August meeting to a probability of 75 percent currently) was particularly notable and made this easing tool the one seen as most likely to be used within one year. Dealers revised down their forecasts of real GDP growth in 2011—to an average of 1¼ percent from 1¾ percent at the time of the August survey. They also revised down their growth forecasts for 2012 and 2013, although to a somewhat lesser degree, and they marked up their forecasts for the unemployment rate for each of the next three years. Dealers' forecasts for core and headline PCE inflation from 2011 through 2013 were revised down a touch, on balance, while their estimates of longer-term CPI inflation were little changed. The reported degree of uncertainty about their inflation forecasts was about the same as in August.

Yields on intermediate-term nominal Treasury securities have decreased further, on net, since the August FOMC meeting, reaching levels not seen since the 1940s. Over the intermeeting period, yields on 2-year nominal securities edged down 5 basis points, consistent with the decrease in money market futures rates. However, 5-year nominal yields fell about 20 basis points, and 10- to 30-year yields dropped around 40 basis points, with the 10-year yield standing a touch above 2 percent at the end of the period. The larger declines in longer-dated yields were consistent with heightened concerns about slower global economic growth and investors' growing expectations that the FOMC would provide further monetary policy accommodation at the September meeting by extending the duration of the SOMA portfolio's securities holdings. Indeed, on the day of the August employment report, Treasury yields at maturities of 10 years and longer fell 15 basis points or more while shorter-term yields edged up, reportedly on the view that the Federal Reserve would extend duration by purchasing long-term securities and selling short-term securities from the SOMA portfolio. The downgrade of the long-term sovereign credit rating of the United States from AAA to AA+ by Standard &

Poor's (S&P) just before the August FOMC meeting did not appear to reduce market participants' preferences for the relative safety and liquidity of Treasury securities over the intermeeting period. In September, respondents to the Senior Credit Officer Opinion Survey on Dealer Financing Terms reported little change in funding terms for U.S. Treasury securities following the downgrade. (See the appendix on the survey at the end of this section.)

TIPS-based inflation compensation over the next 5 years and 5 to 10 years ahead fell about 35 basis points and 45 basis points, respectively, reaching the low ends of their ranges this year. Safe-haven flows and increased speculation about a maturity extension program for the SOMA portfolio likely pushed down longer-dated nominal Treasury yields, amplifying the drop in measured inflation compensation. That said, staff models suggest that the intermeeting decrease in TIPS-based inflation compensation reflected importantly a combination of lower expected inflation and lower inflation risk premiums. Swaps-based measures of inflation compensation—which were probably less affected by the relative liquidity of nominal Treasury securities—also decreased considerably over the period. Meanwhile, measures of short- and long-term inflation expectations from the Michigan survey were about unchanged last month.

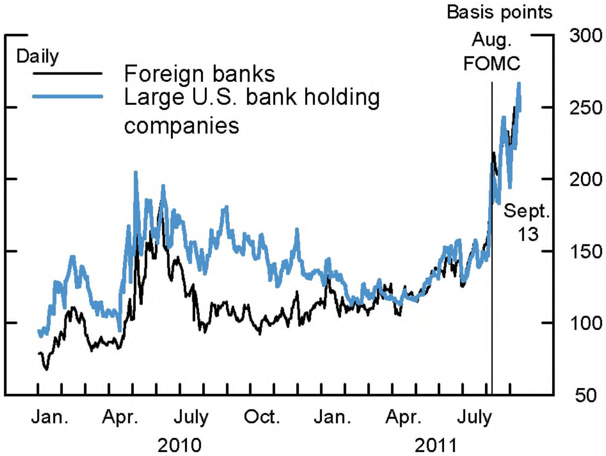
Financial Institutions and Short-Term Funding Markets

Investor sentiment toward large banking organizations has deteriorated considerably since the beginning of August. Fears of a slowdown in global growth, legal risks related to the marketing of private-label residential mortgage-backed securities at the height of the housing boom, and concerns about spillovers of stress related to the fiscal crisis in Europe have all led investors to pull back from the equity and debt of U.S. financial firms. Since early August, equity prices for large U.S. banking firms have fallen 13 percent, significantly underperforming the broader market, and CDS spreads for large U.S. financial institutions have increased sharply. More pronounced declines in equity prices and sharp increases in CDS spreads occurred for European financial institutions, and European authorities in several countries reacted by banning short sales of financial stocks. For U.S. banks, equity prices and CDS spreads are near the levels seen in the middle of 2009, while for European banks, CDS spreads are higher than at any point in the global financial crisis and equity prices are near their crisis lows.

Pressures in unsecured dollar funding markets have increased in recent weeks for European banks. Since the beginning of August, Libor–OIS spreads have moved up

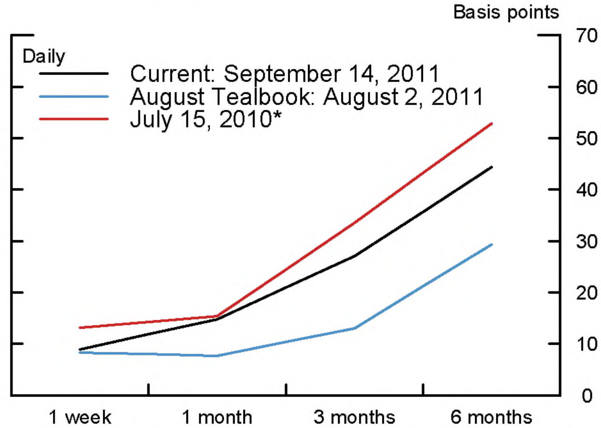
Financial Institutions and Short-Term Funding Markets

CDS Spreads



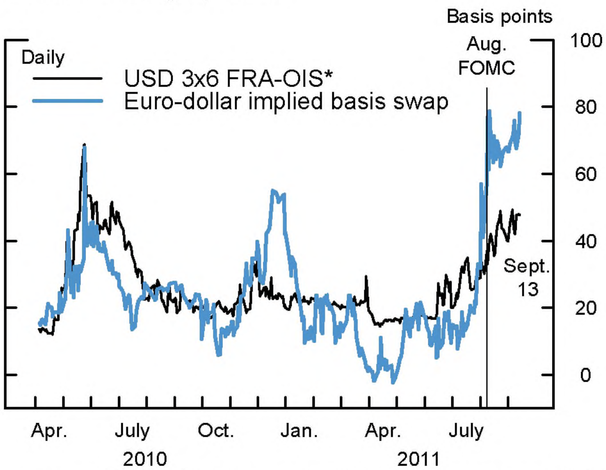
Source: Markit.

Libor-OIS Term Structure



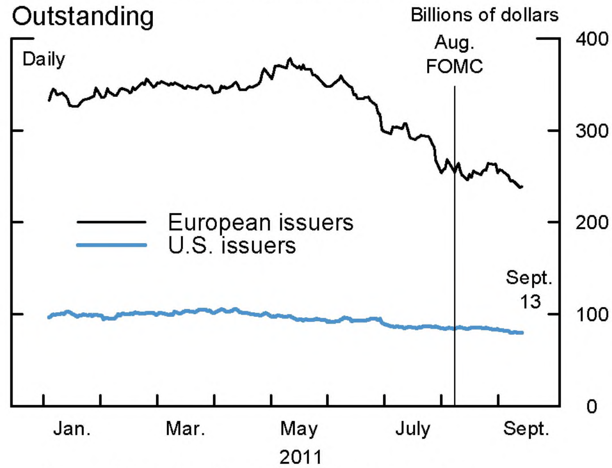
*July 15, 2010, represents the peak of the 3-month OIS spread just before the release of the 2010 European bank stress test results.
Source: Bloomberg.

Dollar Funding Spreads



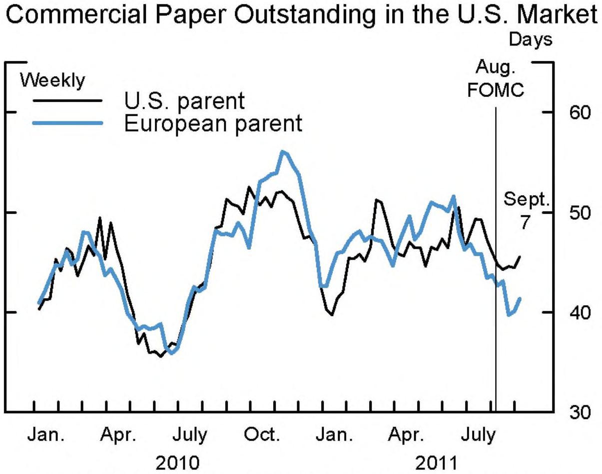
*Spread is calculated from a Libor forward rate agreement (FRA) 3 to 6 months in the future and the implied forward overnight index swap (OIS) rate for the same period.
Source: Bloomberg; Federal Reserve Bank New York.

Unsecured Dollar Financial Commercial Paper Outstanding



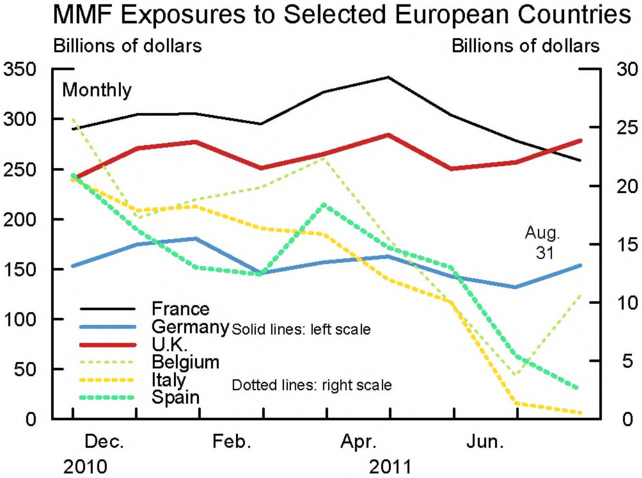
Source: Depository Trust & Clearing Corporation.

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



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

MMF Exposures to Selected European Countries



Note: MMF is U.S. money market fund.
Source: Securities and Exchange Commission.

Financial Developments

significantly, particularly at horizons beyond one month. In addition, there has been considerable tiering in funding costs based on investors' perceptions of the exposures of European financial institutions. More forward-looking measures of interbank funding costs—such as the spread between a forward rate agreement and the rate on an OIS three to six months ahead—also rose, suggesting that market participants may expect conditions in unsecured funding markets to deteriorate somewhat further. The three-month euro–dollar implied basis swap spread—an alternative measure of dollar funding costs facing European institutions—jumped to levels last seen in late 2008. Market participants indicated that European financial firms have found it increasingly difficult to obtain unsecured dollar funding for maturities beyond one week, increasing their rollover risk. Pressures were most acute for French banks based on investors' perceptions of their outsized exposures to vulnerable euro-area countries and their heavy use of wholesale dollar funding and relatively thin capital cushions.

In contrast, conditions facing United States-chartered financial institutions in unsecured term dollar funding markets have changed relatively little. Given domestic institutions' ample deposits and reserves, their need for unsecured short-term funding has likely been limited of late.

The problems that European banks had obtaining unsecured dollar funding were evident in the balance sheets of their U.S branches. Large time deposits at their U.S. branches have been steadily dropping since early June, while other deposits have grown only slightly. However, these institutions have offset a sizable portion of the decline in large time deposits with increased net borrowing from their parent offices and other related institutions. This compositional shift in managed liabilities was disproportionately seen on the books of U.S. branches with French parents.

U.S. money market funds and other investors continued to cut their exposures to French, Italian, and Spanish entities over the intermeeting period, particularly in terms of unsecured funding.[3] Outstanding unsecured financial commercial paper (CP) for all European issuers decreased, on net, and CP issued by firms with parents in France contracted sharply further. In addition, the fraction of CP issued with very short maturities—one to four days—has remained extremely high for European financial firms (over 80 percent). Similarly, the amount of negotiable certificates of deposit (CDs) issued in dollars by institutions with European parents continued to decline, and the

[3] Money fund exposures to Greece, Portugal, and Ireland are essentially zero.

average maturity of these CDs continued to shorten. At the end of August, almost 60 percent of the funding provided by U.S. money market funds to European banks had a maturity of one week or less—a fraction that is up from 45 percent in June.

With regard to secured funding, the repo market for Treasury and agency collateral is reported to have functioned well in recent weeks for both domestic and European financial institutions. However, some strains began to emerge late in the intermeeting period in the market for repos backed by lower-quality, nontraditional collateral. Spreads of AA-rated asset-backed commercial paper (ABCP) climbed notably in recent weeks, likely reflecting uncertainty about the health of the European sponsors of ABCP programs.

FOREIGN DEVELOPMENTS

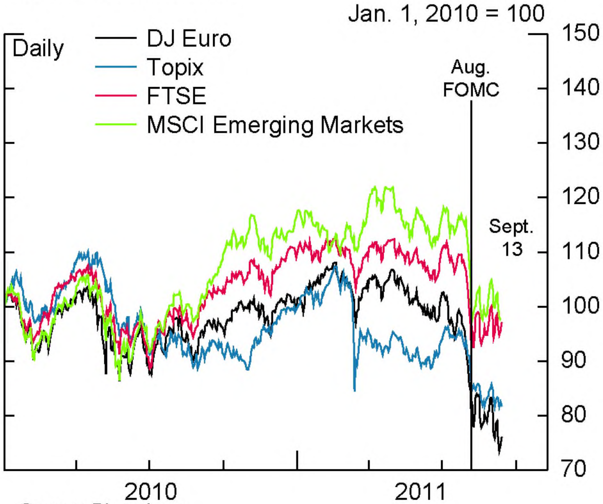
Investors' concerns about the deepening of the European sovereign debt crisis and generally weaker-than-expected incoming economic data kept foreign financial markets under pressure over the intermeeting period. Foreign equity prices and benchmark sovereign yields declined, while the broad index of the foreign exchange value of the dollar rose.

Investors continued to demand greater compensation for exposure to peripheral euro-area sovereign debt over the period. The yield on two-year Greek sovereign bonds soared to 75 percent amid a growing perception that euro-area leaders will not reach a solution to Greece's debt problems in time to avoid a unilateral default. In response to a spike in European sovereign bond yields, the ECB announced on August 7 a resumption of its Securities Markets Programme, which was extended to include purchases of Italian and Spanish bonds. Since resumption, the ECB purchased about €70 billion in securities through September 9, and yields on Italian and Spanish securities declined even as CDS premiums on those securities continued to move higher. French CDS premiums also rose, reaching 190 basis points, well above the levels normally associated with a rating of AAA. (For additional discussion of intermeeting developments, see the box "Recent Policy Developments in the Euro Area" in the International Economic Developments and Outlook section.)

Equity prices in the euro area decreased 8 percent over the intermeeting period following sharp declines in early August. Spreads on European nonfinancial investment-

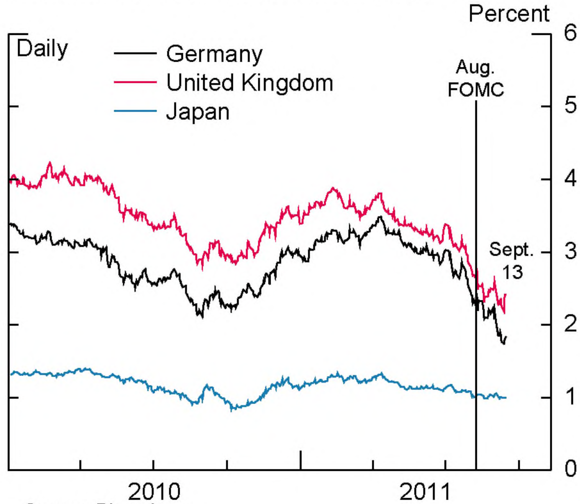
Foreign Developments

Stock Price Indexes



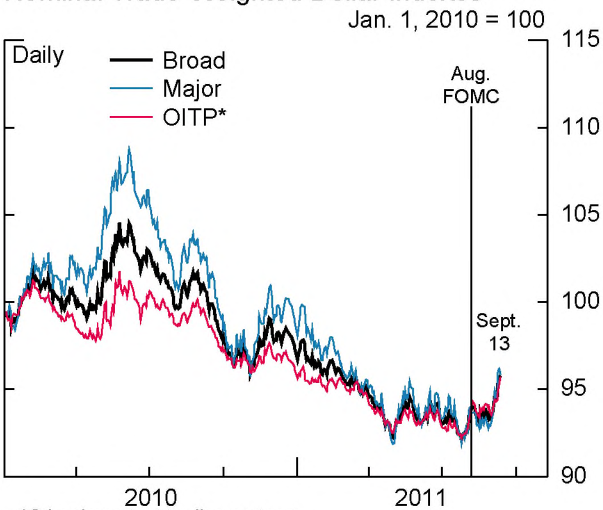
Source: Bloomberg.

Nominal 10-Year Government Bond Yields



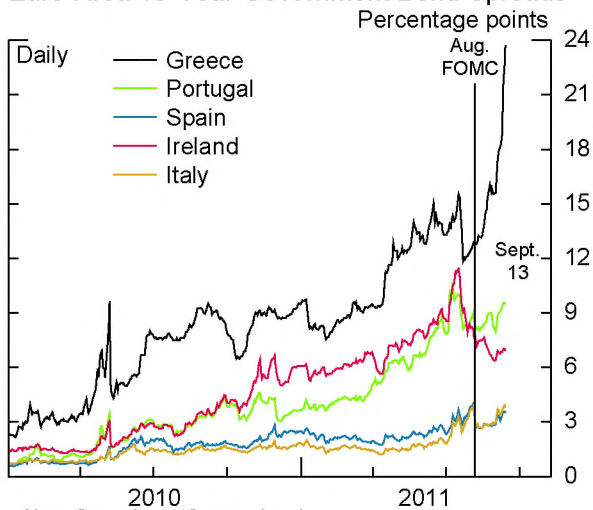
Source: Bloomberg.

Nominal Trade-Weighted Dollar Indexes



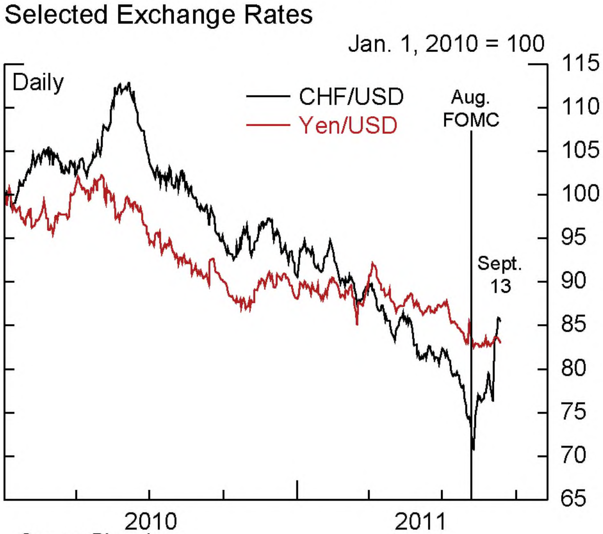
*Other important trading partners.
Source: Federal Reserve Board; Bloomberg.

Euro-Area 10-Year Government Bond Spreads



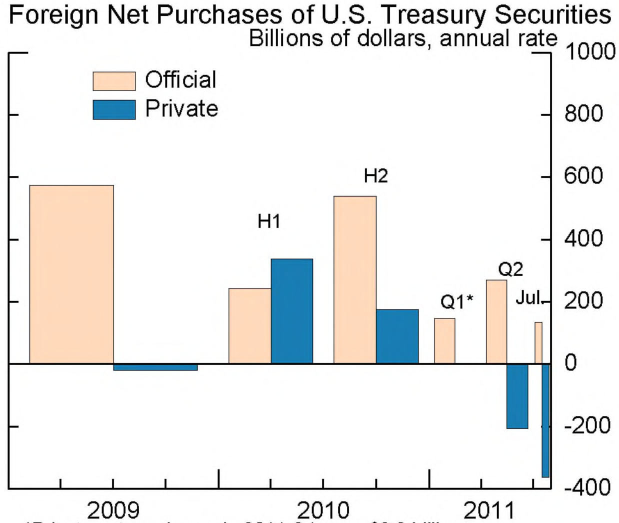
Note: Spread over German bunds.
Source: Bloomberg.

Selected Exchange Rates



Source: Bloomberg.

Foreign Net Purchases of U.S. Treasury Securities



*Private net purchases in 2011:Q1 were $3.2 billion.
Source: Treasury International Capital data adjusted for staff estimates.

Financial Developments

grade corporate bonds relative to comparable-maturity sovereign securities continued to rise in August, reaching elevated levels.

Concerns over the global growth outlook and the European fiscal crisis prompted a drop in Canadian, German, and U.K. 10-year benchmark sovereign yields over the period; yields in all three countries fell more than 30 basis points to reach their lowest levels in decades. For the euro area and United Kingdom, expected overnight rates derived from OIS rates for late 2013 fell more than 25 basis points. Expected policy rates for the Bank of Canada are little changed since the August FOMC meeting but remain considerably lower than their levels in early August.

On net, the broad nominal foreign exchange value of the dollar increased over the period as the demand for safe-haven assets increased. Safe-haven flows also continued to buoy the yen and the Swiss franc, and the Bank of Japan and Swiss National Bank (SNB) separately intervened to counter further appreciation of their currencies. On August 4, Japanese authorities intervened in foreign exchange markets, purchasing $58 billion, more than double their previous one-day record. Although the yen immediately dropped, the currency more than retraced that move in subsequent weeks. On September 6, the SNB announced it would establish an exchange rate floor of 1.2 Swiss francs per euro, pledging to buy unlimited quantities of foreign currency to prevent a breach of this level. The SNB's exchange rate announcement followed large-scale injections of Swiss-franc liquidity, which raised sight deposits from 30 billion to 200 billion Swiss francs over the course of August.

After having fallen steeply in the weeks before the August FOMC meeting, emerging market equity prices moved little, on net, over the intermeeting period, although emerging market equity funds experienced sharp outflows throughout August. Citing concerns over the global outlook, the central bank of Brazil unexpectedly reversed some of its recent tightening and cut its policy rate 50 basis points to 12 percent on August 31. In contrast, China continued to tighten its monetary policy stance, extending reserve requirements to a wider range of bank liabilities as it attempted to rein in off-balance-sheet lending by its banks.

In a continuation of the trend seen over the first half of the year, foreign private investors sold Treasury securities, on net, in July and showed limited appetite for other U.S. securities. Foreign official investors sold Treasury bills in July, when debt ceiling anxiety about near-term Treasury payments was at a peak, but maintained demand for long-term Treasury securities. FRBNY custody data suggest that, on balance, official holdings of all Treasury securities declined slightly in August, also continuing the trend of slower official net purchases.

Domestic Asset Market Developments

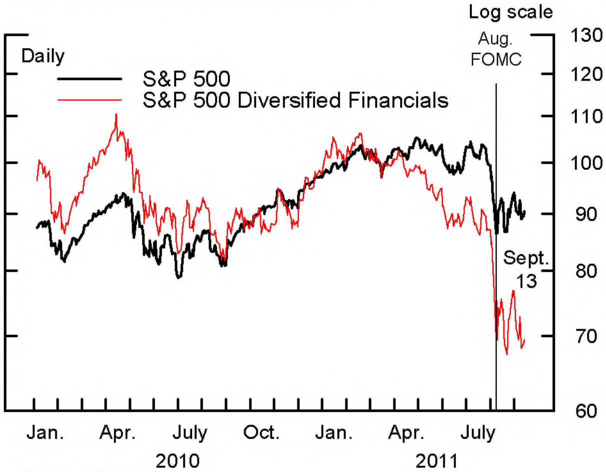
On net since the August FOMC meeting, broad stock price indexes increased almost 5 percent. However, the increase over the intermeeting period followed sharp declines in equity prices in the days just preceding the meeting, and since the publication of the August Tealbook, broad equity price indexes have fallen more than 6 percent, on net. Moreover, the intermeeting period has been punctuated by episodes of heightened volatility, with the VIX, an index of implied volatility, rising to around 40 percentage points at times. Since early August, news about faltering negotiations around solutions to the European sovereign debt crisis and weaker-than-expected economic data releases appear to have contributed to a broad pullback in investors' desire to hold riskier assets. The staff's estimate of the equity risk premium for shares in the S&P 500—measured as the spread between the expected real equity return for the S&P 500 index and the real 10-year Treasury yield—widened substantially, on net, in August and early September to a level not seen since 2009.

Since early August, the pricing of a range of business debt instruments has generally reflected an increase in compensation for credit risk. Most prominently, spreads of yields on investment- and speculative-grade corporate bonds over those on comparable-maturity Treasury securities increased sharply, reaching levels last registered in late 2009. In addition, average bid prices in the secondary market for syndicated leveraged loans dropped in recent weeks, and bid-asked spreads in that market jumped. The most recent Survey of Terms of Business Lending, conducted the week of August 1, showed that, adjusted for changes in composition, spreads of rates on C&I loans of less than $25 million over banks' cost of funds stopped their recent declines and remained at very high levels. Spreads of yields on A2/P2-rated unsecured CP issued by nonfinancial firms over yields on A1/P1-rated issues edged up on net.

Overall, respondents to the September 2011 Senior Credit Officer Opinion Survey on Dealer Financing Terms pointed to small mixed changes in credit terms across major classes of counterparties over the past three months; this contrasts with the broad-based easing that had been seen since the inaugural survey in June 2010. In addition, a significant majority of dealers indicated that the amount of resources and attention

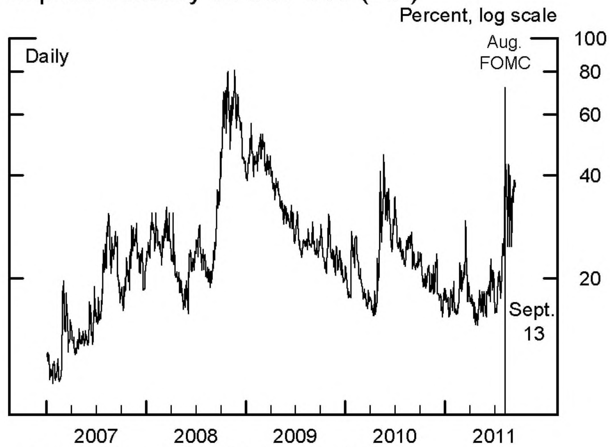
Domestic Asset Market Developments

Selected Stock Price Indexes



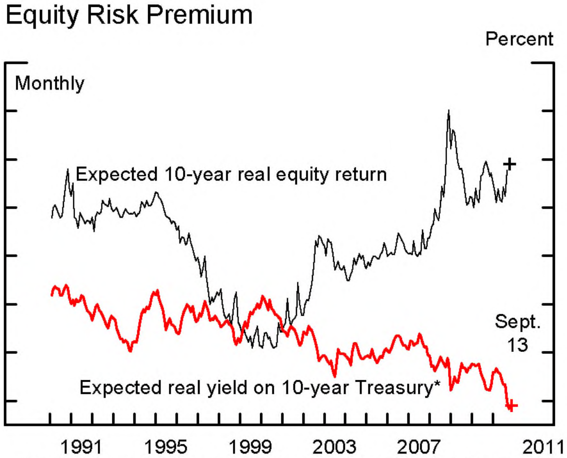
Source: Bloomberg.

Implied Volatility on S&P 500 (VIX)



Source: Chicago Board Options Exchange.

Equity Risk Premium

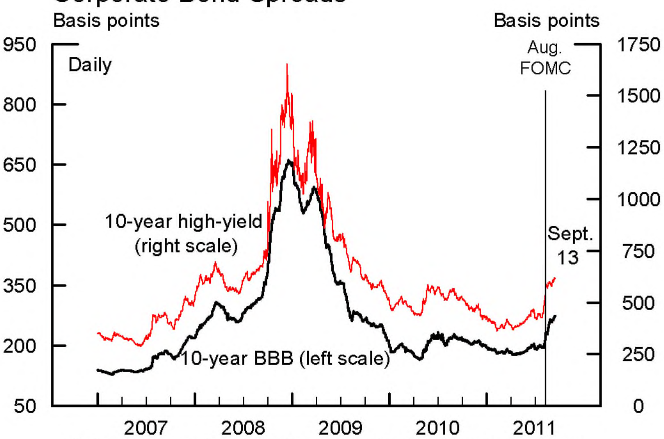


* Off-the-run 10-year Treasury yield less Philadelphia Fed 10-year expected inflation.

+ Denotes the latest observation using daily interest rates and stock prices and latest earnings data from I/B/E/S.

Source: Thomson Financial.

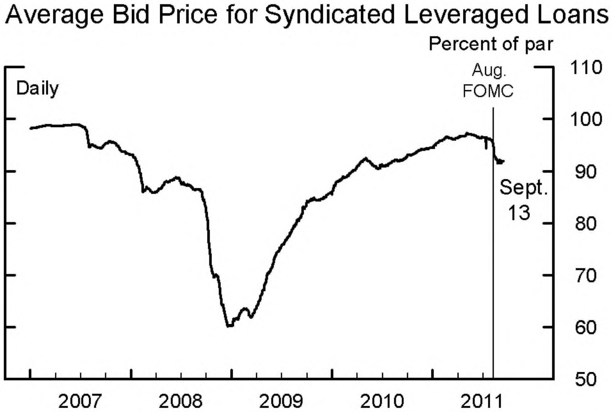
Corporate Bond Spreads



Note: Measured relative to a smoothed nominal off-the-run Treasury yield curve.

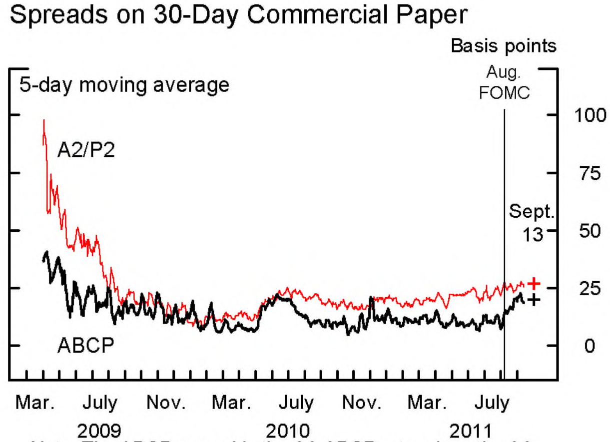
Source: Merrill Lynch and staff estimates.

Average Bid Price for Syndicated Leveraged Loans



Source: LSTA/LPC Mark-to-Market Pricing.

Spreads on 30-Day Commercial Paper



Note: The ABCP spread is the AA ABCP rate minus the AA nonfinancial rate. The A2/P2 spread is the A2/P2 nonfinancial rate minus the AA nonfinancial rate.

+ Denotes the latest available single-day observation.

Source: Depository Trust & Clearing Corporation.

Financial Developments

devoted to management of concentrated exposures to central counterparties and other financial intermediaries had increased, likely reflecting concerns about exposures to European financial institutions and markets. Dealers further noted that the use of financial leverage by hedge funds had decreased somewhat over the past three months. In response to a special question, dealers indicated that their clients' appetite to bear investment risk had generally declined somewhat over the past three months for all types of clients, and the pullback from risk was more pronounced among hedge funds.

Business Finance

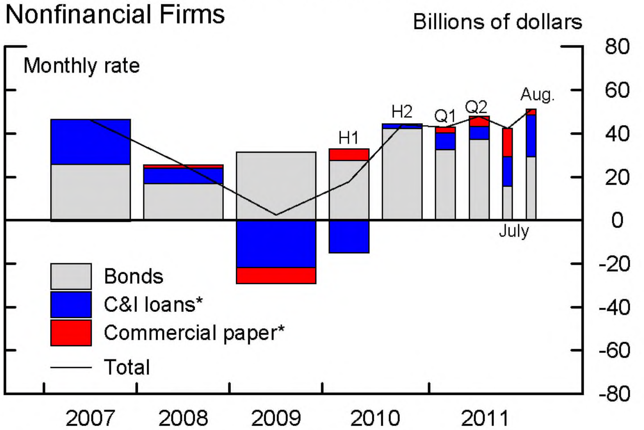
Credit flows for nonfinancial firms were mixed in August, with some evidence of strains for lower-rated firms. Net bond issuance remained robust for investment-grade nonfinancial companies despite wider spreads, but issuance by speculative-grade firms nearly came to a halt amid sharply higher yields in that segment of the market. In August, nonfinancial CP outstanding increased slightly and C&I loans outstanding expanded again. In the leveraged loan market, issuance financed by institutional investors slowed in July and appears to have dropped sharply in August.

Gross public equity issuance by nonfinancial firms weakened substantially in recent weeks, with a large number of firms shelving planned IPOs amid substantial equity market volatility. Net equity issuance is projected to have remained negative in the second quarter, reflecting the continued strength of share repurchases and cash-financed mergers by nonfinancial firms, which are, on average, flush with cash and generating substantial profits. Preliminary data on merger activity and announcements of new share repurchase programs suggest that net equity issuance will likely remain deeply negative in the third quarter.

With virtually all firms in the S&P 500 having now reported, operating earnings per share are estimated to have decreased slightly in the second quarter. However, that decline reflects a substantial drop in profits at a single large banking institution that reported a costly mortgage-related legal settlement. In contrast, earnings per share for nonfinancial firms grew at a torrid 10 percent quarterly rate, with gains widespread across industries. Looking forward, analysts are currently forecasting solid earnings growth in the coming year for firms in the S&P 500, and those forecasts for year-ahead earnings were little revised, in the aggregate, over the four weeks ending in mid-August.

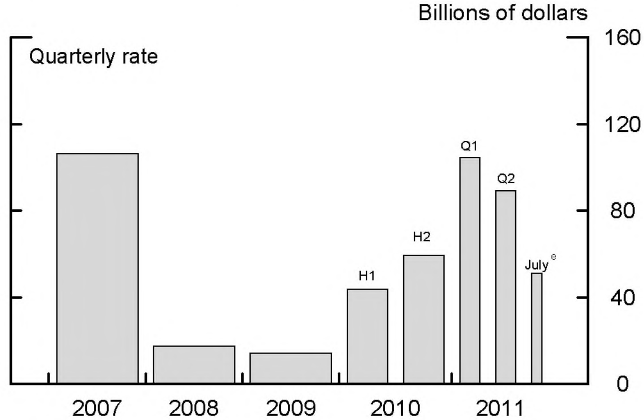
Business Finance

Selected Components of Net Debt Financing, Nonfinancial Firms



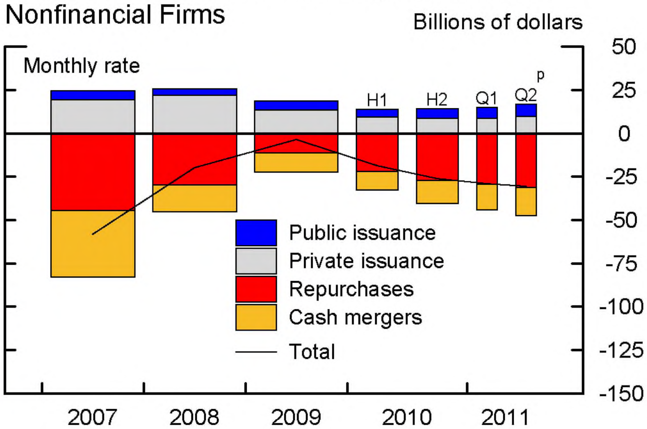
* Period-end basis, seasonally adjusted.
Source: Depository Trust & Clearing Corporation; Thomson Financial; Federal Reserve Board.

Institutional Leveraged Loan Issuance



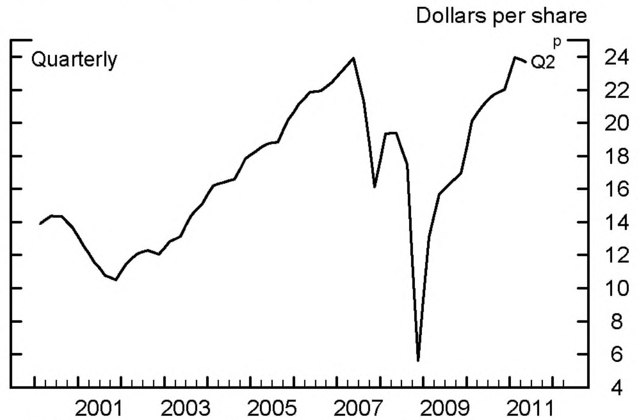
e Estimate.
Source: Reuters Loan Pricing Corporation.

Selected Components of Net Equity Issuance, Nonfinancial Firms



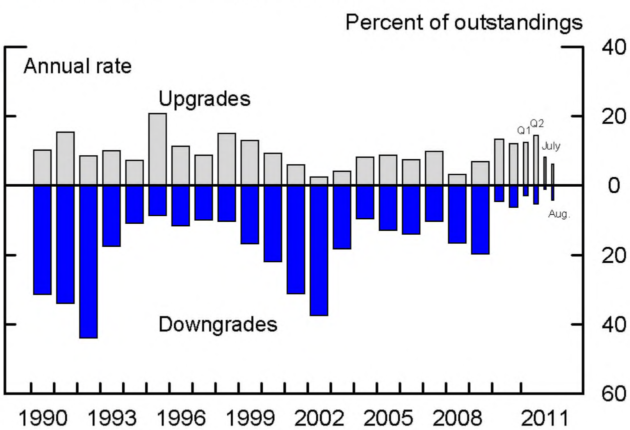
p Preliminary.
Source: Thomson Financial, Investment Benchmark Report; Money Tree Report by PricewaterhouseCoopers, National Venture Capital Association, and Venture Economics.

S&P 500 Earnings Per Share



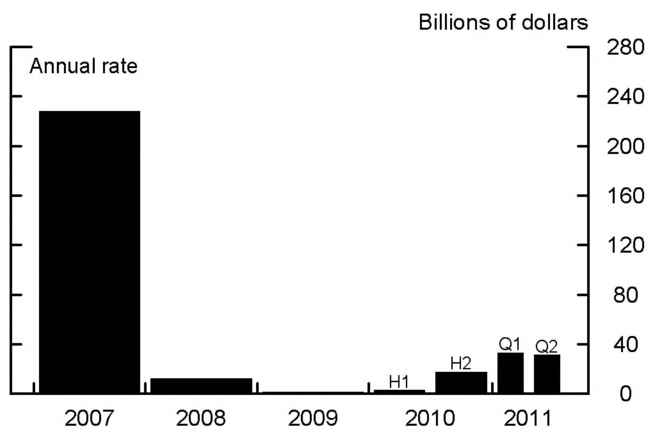
Note: Data are seasonally adjusted by Board staff.
p Preliminary.
Source: Thomson Financial.

Bond Ratings Changes of Nonfinancial Firms



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

CMBS Issuance



Source: Commercial Mortgage Alert.

Indicators of the credit quality of nonfinancial corporations have continued to be quite solid. The aggregate ratio of debt to assets stayed low in the second quarter, and the liquid asset ratio ticked down but remained near its highest level in over 20 years. Delinquency rates on C&I loans held by banks decreased further last quarter and are in the range last registered in the second half of 2008. The volume of corporate bonds that Moody’s Investors Service upgraded in July and August substantially outpaced the volume that it downgraded, and the six-month trailing bond default rate for nonfinancial firms inched down a bit closer to zero last month. Nonetheless, the expected year-ahead default rate for nonfinancial firms from the Moody’s KMV model remained somewhat elevated in August, reflecting low equity valuations and high stock price volatility.

Financing conditions for commercial real estate markets remained weak overall, and conditions appeared to have deteriorated in some respects over the summer. Issuance of commercial mortgage-backed securities (CMBS) slowed further in July and August, and investors appeared to demand greater compensation for risk, as implied by a further widening of spreads on CMBS index prices in August. Prices of most types of commercial properties remained depressed despite a slight decline in aggregate vacancy rates for commercial properties last quarter. Delinquency rates on loans in CMBS pools hovered at an elevated level in August, while delinquency rates on commercial real estate loans held by banks decreased in the second quarter.

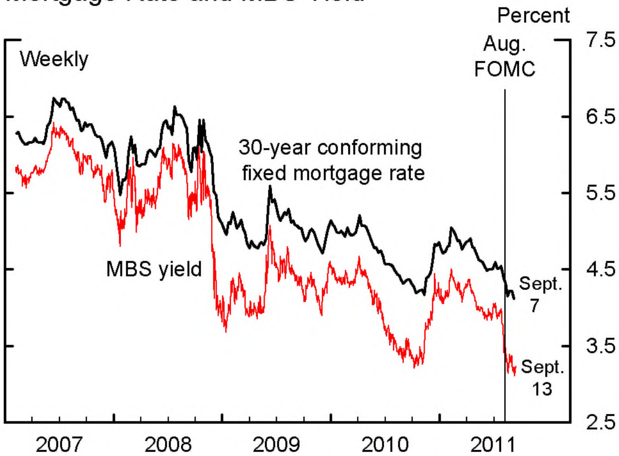
Household Finance

Residential mortgage interest rates and yields on current-coupon agency MBS declined, on net, over the intermeeting period to historically low levels even as their spreads to Treasury yields increased. The low rates did not spur much mortgage refinancing activity, in part because tight underwriting and low levels of home equity continued to limit many households’ access to the mortgage market. Residential mortgage debt contracted further in the second quarter, and the volume of mortgage applications to purchase a home has moved down, on net, this quarter.

Amid a large inventory of unsold properties and weak demand for homes, the seasonally adjusted repeat-sales house price index from CoreLogic inched down in July, although the rate of decline has slowed significantly in recent months. Rates of serious mortgage delinquency—defined as the percentage of mortgage loans that are 90 days past due or in foreclosure—continued to moderate but remained high, in part reflecting persistent delays in the foreclosure process. The rate at which prime mortgages are

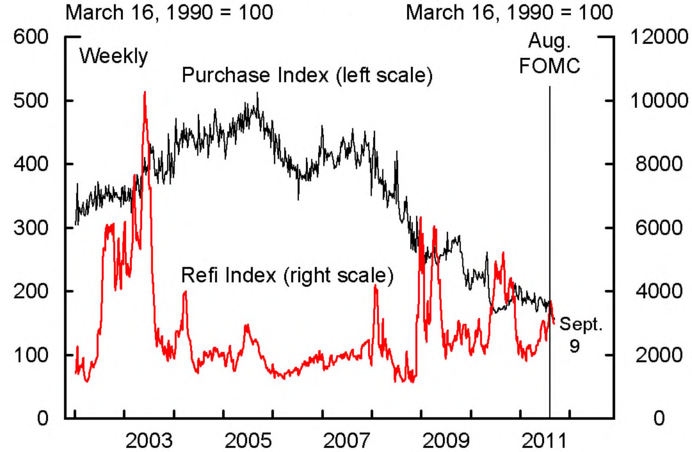
Household Finance

Mortgage Rate and MBS Yield



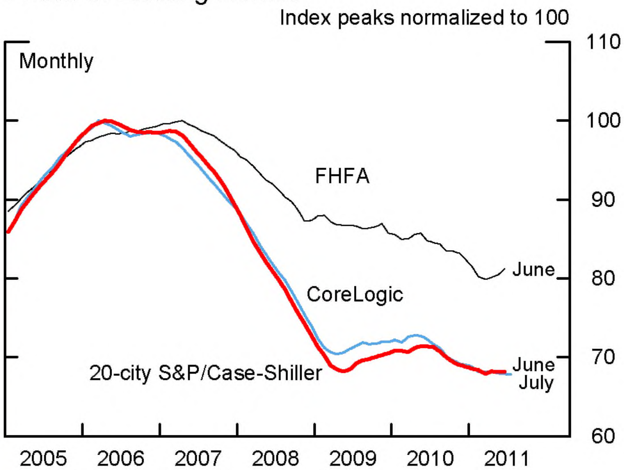
Note: For mortgage-backed securities (MBS) yield, Fannie Mae 30-year current coupon rate.
Source: For mortgage rate, Freddie Mac; for MBS yield, Bloomberg.

Purchase and Refinance Activity



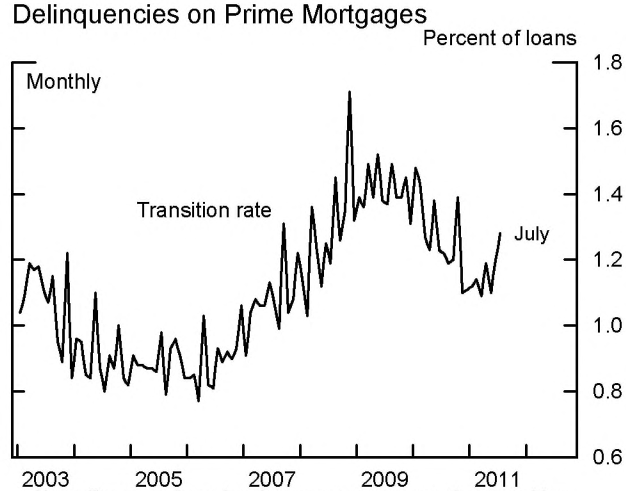
Note: Seasonally adjusted by FRB staff.
Source: Mortgage Bankers Association.

Prices of Existing Homes



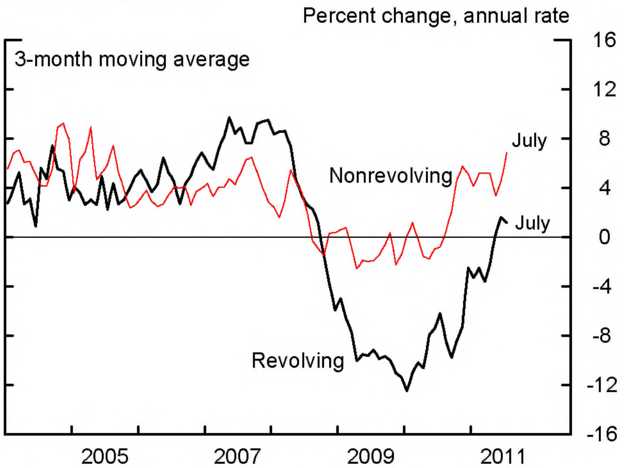
Source: For FHFA, Federal Housing Finance Agency; for CoreLogic, CoreLogic; for S&P/Case-Shiller, Standard & Poor's.

Delinquencies on Prime Mortgages



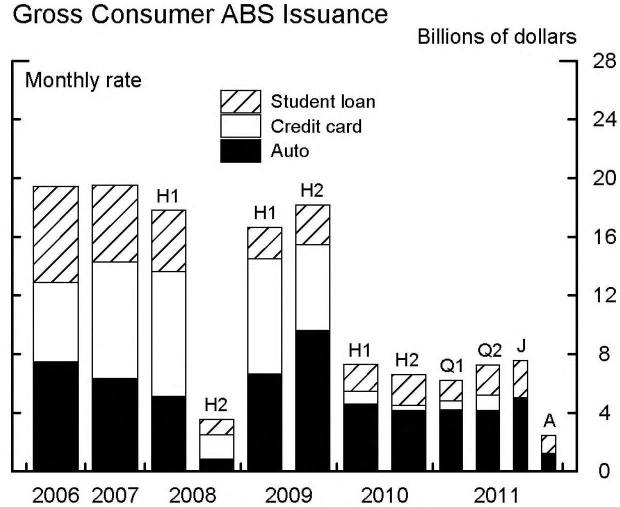
Note: Percent of previously current mortgages that transition to being at least 30 days delinquent each month.
Source: LPS Applied Analytics.

Consumer Credit



Source: Federal Reserve Board.

Gross Consumer ABS Issuance



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

transitioning from "current" to delinquent, which had flattened out earlier in the year at an elevated level, has moved up, on balance, in recent months—a trend that could reflect the effects of the weaker labor market and deeper negative equity positions for many homeowners.

Consumer credit increased at an annual rate of 6 percent in July, a touch faster than in June. In July, a sizable increase in nonrevolving credit—driven by a surge in federally funded student loans—more than offset a decrease in revolving credit. Weekly data on bank credit suggest that revolving credit remained weak in August. Issuance of consumer credit ABS moved down in August, but spreads remain low and the securities have generally performed well during the recent market volatility. Delinquency rates for several categories of consumer loans moved down further in recent months, and some reached levels not seen since the recession began; the delinquency rate on credit card loans in securitized pools has fallen to an all-time low. However, the decline in delinquency rates partly reflects tighter underwriting, which has shifted the composition of borrowers toward those with stronger credit histories.

Government Finance

Over the intermeeting period, the Treasury Department issued about $237 billion of nominal coupon securities across the maturity spectrum and $12 billion of TIPS. The auctions were generally well received despite S&P's downgrade of the U.S. sovereign credit rating on August 5. However, the 30-year bond auction on August 11, which took place following a sudden and steep decline in longer-term Treasury yields and amid pronounced volatility, experienced weak demand, as evidenced by a low bid-to-cover ratio, a relatively small share of indirect bidding, and lower-than-expected pricing.

Market participants remain concerned about the finances of state and local governments. In particular, S&P downgraded some state and local credits in the wake of its downgrade of long-term Treasury debt. Long-term issuance of municipal bonds remained quite sluggish by historical standards in August but picked up slightly from July's low level. CDS spreads for states increased somewhat over the intermeeting period, and yields on long-term general obligation (GO) municipal bonds decreased less than Treasury yields. As a consequence, the ratio of GO bond yields to yields on comparable-maturity Treasury securities—a gauge of the risk priced into municipal bonds—increased to levels last seen in early 2009.

COMMERCIAL BANKING AND MONEY

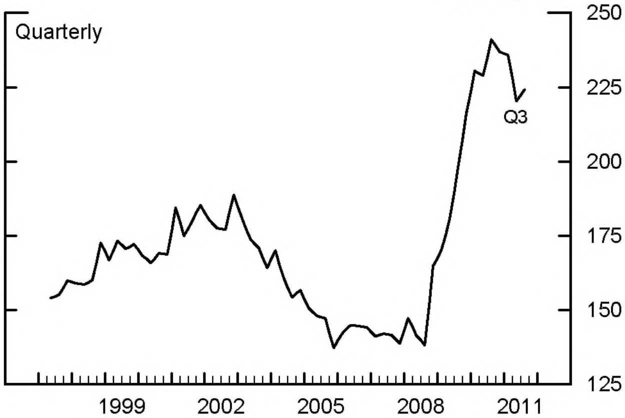
The profitability of bank holding companies (BHCs) edged down in the second quarter of 2011 and remained significantly lower than the average levels seen before 2007. In the aggregate, profitability of the largest five BHCs declined, primarily because of mortgage-related losses at one large bank and disappointing trading results at another; profitability continued to trend higher among institutions outside the largest five. For the industry as a whole, net income continued to be supported in the first half of this year by a lower level of loan loss provisions amid continued improvement in credit quality across most asset classes. Net charge-offs again exceeded provisions last quarter, and the stock of loan loss reserves declined to its lowest level since the first quarter of 2009. Although the industry Tier 1 leverage ratio ticked down slightly, partially as a result of balance sheet expansion related to the surge in deposits at commercial bank subsidiaries, regulatory capital ratios in the second quarter remained toward the high ends of their historical ranges.

After falling slightly during the first half of the year, bank credit grew at an average annual rate of about 6 percent in July and August, reflecting both an expansion of loans and a resumption of securities purchases. Core loans expanded slightly, with the upturn in lending concentrated at large domestic and foreign institutions. At smaller banks, core loans declined in July and August at about the same pace as in recent quarters. Strong increases in C&I loans were fairly evenly distributed across most large domestic banks and many foreign-related institutions. In contrast, growth of C&I loans at small banks—a rough proxy for lending to small businesses—remained sluggish. Commercial real estate loans continued to contract in July and August at about the same rate as earlier in the year. Banks' holdings of closed-end residential loans, which had declined steeply over the first five months of 2011, rebounded slightly in June and grew at an average annual rate of about 4 percent in July and August, an increase perhaps related to the small rise in refinancing activity in response to historically low mortgage rates. However, home equity loans funded by banks declined further. Consumer loans at banks were roughly flat, on balance, in July and August after accounting for purchases of loans from nonbanks.

Substantial increases in banks' holdings of noncore loans accounted for much of the growth in total loans in July and August. In particular, reverse repurchase agreements with nonbank counterparties expanded, as did the "all other loans" component, which

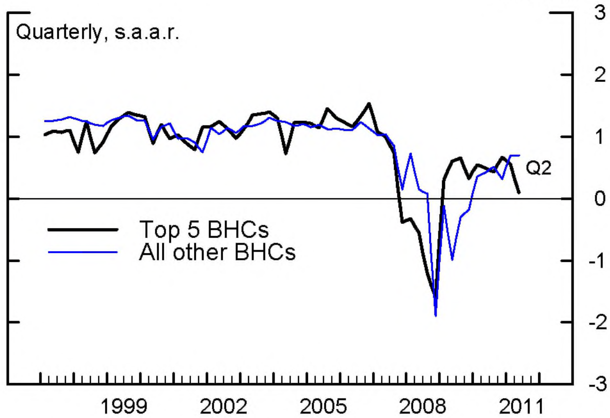
Commercial Banking and Money

Weighted-Average C&I Loan Rate Spread



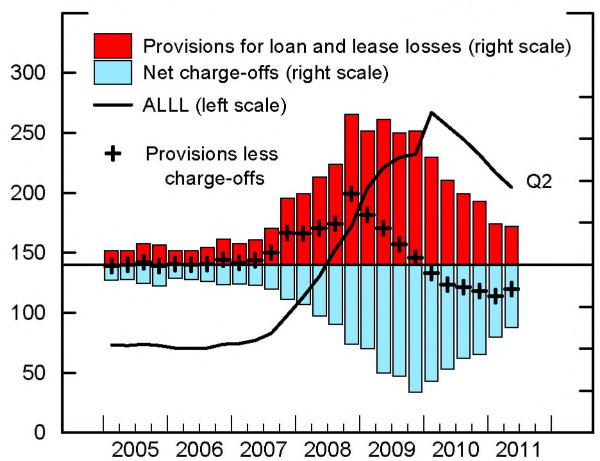
Note: The rate on C&I loans of less than $25 million over a market interest rate on an instrument of comparable maturity, adjusted for changes in nonprice loan characteristics.
Source: Survey of Terms of Business Lending.

Return on Assets, by BHC Size



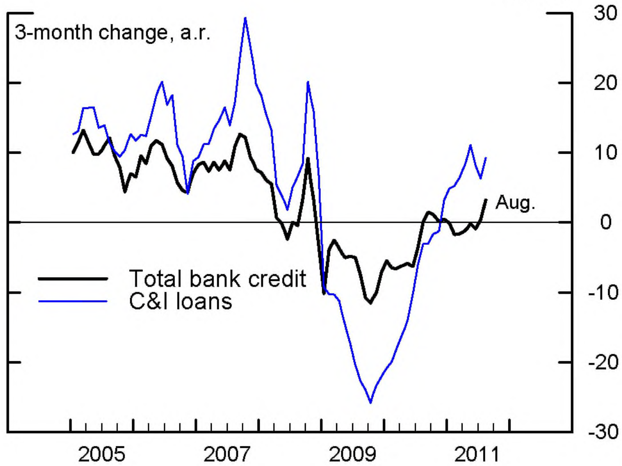
Note: BHC is a bank holding company.
Source: Federal Reserve Board.

Provisions and Charge-Offs



Note: ALLL is the allowance for loan and lease losses.
Source: Federal Reserve Board.

Changes in Bank Credit



Source: Federal Reserve Board.

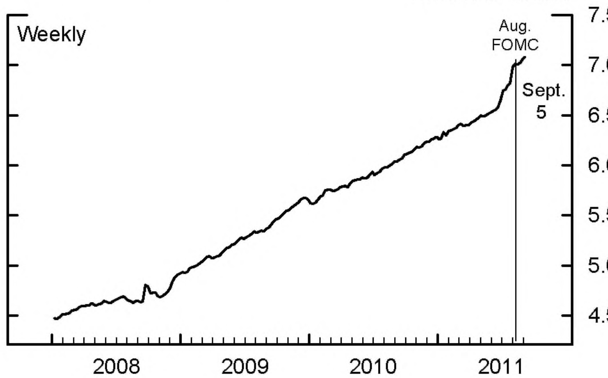
Growth of M2 and Its Components

Percent, s.a.a.r.

	M2	Liquid deposits	Small time deposits	Retail MMMFs	Curr.
2010	3.2	10.9	-21.5	-15.6	5.9
2011:Q1	5.0	10.3	-22.0	-9.0	7.7
2011:Q2	6.4	10.1	-16.9	-4.6	12.3
July	26.6	38.2	-21.5	2.9	6.6
Aug.	29.8	38.9	-23.1	33.6	8.2

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

Level of Liquid Deposits



Note: Seasonally adjusted.
Source: Federal Reserve Board.

includes overdrafts and loans to municipalities, foreign banks, and nonbank financial institutions. However, banks' holdings of noncore loans tend to be volatile, and they appear to have declined some since peaking in mid-August. Banks' holdings of securities grew at a moderate pace during the two months as a decrease in Treasury securities was more than offset by a large increase in their holdings of agency MBS and other securities.

Core deposits at domestic banks have surged in recent months, primarily reflecting large inflows of demand deposits at many large banks.[4] On balance, these flows have been mostly offset by declines in nondeposit liabilities, particularly borrowings from foreign affiliates as well as from nonbanks (the latter constituting a category that includes borrowings from Federal Home Loan Banks).[5] The staff estimates that the influx of core deposits over the summer has left a few domestic banks near the regulatory threshold for their leverage ratio (5 percent of total average assets).[6]

M2 expanded at an annual rate of 29 percent, on average, in July and August—the fastest pace since the fall of 2008—as investors and asset managers sought the relative safety and liquidity of M2 assets. Spooked by developments in Europe and wary of prime money funds' exposures to European financial institutions, institutional investors shifted from prime money funds to bank deposits, while money fund managers accumulated sizable bank deposits in anticipation of potential large redemptions by investors. In addition, retail investors evidently placed their redemptions from equity and bond mutual funds into bank deposits and retail money market funds. All told, demand deposits—which are fully insured by the FDIC—surged at an annual rate of 140 percent over July and August.[7] The monetary base contracted slightly as reserve balances of depository institutions decreased. (See the box "Balance Sheet Developments over the Intermeeting Period.")

[4] Core deposits are defined as total deposits minus large time deposits.

[5] A large share of the recent increases in deposits reflected the decision of one large domestic bank to book some deposits at its head office rather than at a foreign branch; those increases were about offset by reductions in borrowings from that branch, leaving little overall imprint on the balance sheet of that institution.

[6] Based on Call Report data and weekly balance sheet data, the staff estimates that one large custodian bank is likely very near the threshold, while one other large commercial bank and two relatively small banks are estimated to be fairly close to the threshold.

[7] Noninterest-bearing demand deposits are fully insured by the FDIC until the end of 2012.

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Balance Sheet Developments over the Intermeeting Period

Over the intermeeting period, total assets of the Federal Reserve edged down to $2,866 billion (see table on facing page). Since the August FOMC meeting, the Open Market Desk at the Federal Reserve Bank of New York (FRBNY) conducted seven permanent operations, purchasing $14 billion in longer-term Treasury securities as part of the policy of reinvesting principal payments from agency debt and agency MBS.[1]

The net portfolio holdings of Maiden Lane LLC declined $3 billion, reflecting asset sales; the proceeds from these sales were applied in mid-August toward the repayment of the FRBNY's senior loan to that LLC. The net portfolio holdings of Maiden Lane II and Maiden Lane III LLCs were nearly unchanged. Loans outstanding under the Term Asset-Backed Securities Loan Facility remained around $12 billion. Foreign central banks' use of liquidity swap lines remained modest; two draws under swap arrangements occurred in August, one by the Swiss National Bank for roughly $200 million and the other by the European Central Bank for about $500 million. Accrued interest (not shown) also stepped down with the receipt of payments of interest on the Federal Reserve's total securities holdings.

On the liability side of the Federal Reserve's balance sheet, Federal Reserve notes in circulation increased $7 billion over the period. The Treasury's General Account, which is highly volatile from month to month, decreased $15 billion. Reverse repurchase transactions with foreign official and international accounts increased $22 billion over the period. Reserve balances of depository institutions typically reflect the changes in various asset and liability categories, and declined $25 billion over the period.

On August 12, 2011, the FRBNY announced that it would conduct another series of small-scale reverse repurchase transactions involving all eligible collateral types and counterparties. Over the intermeeting period, the FRBNY conducted two reverse repurchase transactions that included, for the first time, Fannie Mae and Freddie Mac. The application process for banks and savings associations to serve as counterparties for reverse repurchase agreement transactions ended on September 9, 2011. About a dozen applications were received and are currently under review.

[1] These operations include purchases in a range of maturities for nominal securities as well as one TIPS operation conducted between August 9 and September 12, 2011. During this period, $15 billion in Treasury securities purchases settled on the balance sheet and agency debt and MBS holdings declined $15 billion.

Federal Reserve Balance Sheet
Billions of dollars

	Change since last FOMC	Current (09/12/11)
Total assets	**-9**	**2,866**
Selected assets:		
Liquidity programs for financial firms	-0	+0
Primary, secondary, and seasonal credit	-0	+0
Foreign central bank liquidity swaps	0	0
Term Asset-Backed Securities Loan Facility (TALF)	-0	12
Net portfolio holdings of Maiden Lane LLCs	-3	50
Maiden Lane	-3	18
Maiden Lane II	-0	10
Maiden Lane III	-0	21
Securities held outright*	-0	2,654
U.S. Treasury securities	15	1,659
Agency debt securities	-3	110
Agency mortgage-backed securities	-12	885
Total liabilities	**-9**	**2,814**
Selected liabilities:		
Federal Reserve notes in circulation	7	999
Reverse repurchase agreements	22	99
Foreign official and international accounts	22	99
Others	0	0
Reserve balances of depository institutions**	-25	1,620
Term deposits held by depository institutions	-5	0
U.S. Treasury, General Account	-15	14
U.S. Treasury, Supplementary Financing Account	0	0
Other deposits	7	62
Total capital	**+0**	**52**

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

Financial Developments

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Appendix

Senior Credit Officer Opinion Survey on Dealer Financing Terms

Responses to the September 2011 Senior Credit Officer Opinion Survey on Dealer Financing Terms pointed to small mixed changes in credit terms across major classes of counterparties, in contrast to the broad-based easing that had been seen since the inaugural survey in June 2010.[1] On balance, credit terms offered to most major counterparty types were little changed over the past three months. However, nonprice terms applied to hedge funds continued to ease further while terms applicable to trading real estate investment trusts (trading REITs) and nonfinancial firms tightened a bit.[2] A significant majority of dealers reported an increase in the amount of resources and attention their firm is devoting to the management of concentrated exposures to dealers and other financial intermediaries, as well as to central counterparties and other financial utilities, over the past three months.

Regarding over-the-counter (OTC) derivatives, respondents to the September survey indicated that nonprice terms incorporated in new or renegotiated OTC derivatives master agreements were little changed over the past three months. Initial margin requirements, which fall outside the scope of the master agreements and are set individually for transactions of differing types, were also little changed across most underlying collateral types (underlyings), both for average customers and for most-favored customers.

Responses to questions on securities financing pointed to a tightening of some of the terms under which a broad spectrum of securities were financed, although terms on equities financing were little changed. These responses stood in contrast to prior surveys in which responses had generally indicated an easing of terms. The reported tightening of terms over the past three months was generally evident for both average and most-favored clients. Dealers further noted that demand for funding corporate bonds and agency and non-agency residential mortgage-backed securities (RMBS) increased over the past three months. Demand for term funding with a maturity in excess of 30 days also increased for these asset categories. In contrast with prior surveys, respondents indicated that the liquidity and functioning of markets in which

Financial Developments

[1] The September survey collected qualitative information on changes over the previous three months in credit terms and conditions in securities financing and over-the-counter (OTC) derivatives markets. In addition to the core set of questions, this survey included a set of special questions about conditions in funding markets for U.S. Treasury securities; in addition, a second set of special questions focused on changes in risk appetite for different client types over the past three months and since the beginning of the year, and a final set of special questions asked about changes in the use of leverage and in the financing of different asset types by trading REITs since the beginning of the year. The 21 institutions participating in the survey account for almost all of the dealer financing of dollar-denominated securities for nondealers and are the most active intermediaries in OTC derivatives markets. The survey was conducted during the period from August 22, 2011, to September 2, 2011. The core questions ask about changes between June 2011 and August 2011.

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

the collateral types covered by the survey (with the exception of the equity market) trade had deteriorated over the past three months.

In response to special questions focused on the funding of U.S. Treasury securities, dealers reported little change in funding terms over the past three months despite uncertainties surrounding the debt ceiling negotiations and the downgrade of the U.S. long-term credit rating by Standard & Poor's (S&P). However, respondents did note some increase in demand for the funding of Treasury securities as well as some deterioration in the liquidity and functioning of the funding market. In response to another set of special questions on risk appetite, respondents indicated that their clients' willingness to bear risk had decreased somewhat, on net, over the past three months. By contrast, risk appetite was little changed since the start of 2011 for most client types except hedge funds, which exhibited a more pronounced decline. A final set of special questions found that the use of leverage by trading REITs had increased somewhat since the beginning of the year.

Although the overall structure of the survey was not altered, the September survey reflected several enhancements introduced in response to feedback from respondents and survey users. For example, additional detail was added with respect to the coverage by counterparty and collateral type.[3] At the same time, the number of questions focused on OTC derivatives was reduced to better reflect the current market practice of relying upon master agreements, which specify many of the material credit terms and apply across multiple transaction types.

COUNTERPARTY TYPES

Dealers and Other Financial Intermediaries

In the September survey, three-fourths of respondents reported that the amount of resources and attention devoted to management of concentrated exposures to dealers and other financial intermediaries had increased over the past three months. Some survey participants suggested that these responses largely reflect increased concern about exposures—whether direct or indirect—to European financial institutions and markets.

[3] Prior surveys asked about four types of counterparties: dealers and other financial intermediaries; hedge funds, private equity firms, and other similar private pools of capital; insurance companies, pension funds, and other institutional investors; and nonfinancial corporations. Beginning in September 2011, the survey includes questions regarding eight categories of counterparties: dealers and other financial intermediaries; central counterparties and other financial utilities; hedge funds; trading REITs; mutual funds, exchange-traded funds, pension plans, and endowments; insurance companies; separately managed accounts established with investment advisors; and nonfinancial corporations. Similarly, prior surveys considered lending collateralized by four distinct classes of assets: high-grade corporate bonds, equities, agency RMBS, and other asset-backed securities (ABS). Starting in September 2011, the survey has been expanded through the addition of high-yield corporate bonds. In addition, other ABS has been replaced with three narrower categories: non-agency RMBS, commercial mortgage-backed securities, and consumer ABS.

Central Counterparties and Other Financial Utilities

More than one-half of respondents indicated that the amount of resources and attention devoted to management of concentrated exposures to central counterparties and other financial utilities had increased over the past three months. Several of these entities were downgraded as a direct consequence of the U.S. sovereign downgrade by S&P, likely contributing to the increase in resources and attention reportedly brought to bear. In addition, U.S. Treasury collateral is relied upon for operational purposes by some clearing organizations, and concerns about a possible deterioration in the functioning of the Treasury market may also have contributed to increased scrutiny of these organizations by dealers.

Hedge Funds

The survey responses reflect, on balance, a slowing over the past three months in the easing of credit terms offered to hedge funds that has been evident since the inaugural survey in June 2010. In contrast to previous surveys (in which hedge funds were grouped together with private equity firms and "other similar private pools of capital"), responses did not indicate any net easing of price terms.[4] However, on net, almost one-fourth of respondents, a significantly smaller share than in the June 2011 survey, reported having eased nonprice terms offered to hedge funds (including haircuts, maximum maturity, covenants, cure periods, cross-default provisions, or other documentation features) across all types of transactions covered in the survey. The institutions that reported an easing of terms pointed to more-aggressive competition from other institutions as the main reason for the changes. About one-half of respondents to the survey continued to note an increase in the intensity of efforts by hedge funds to negotiate more-favorable price and nonprice terms over the past three months. Forty percent of respondents, on net, reported that the use of financial leverage by hedge funds, considering the entire range of transactions facilitated, had decreased somewhat over the past three months. The decline was largely evident in the responses of the broadly active firms with a significant presence in most of the business areas covered in the survey (broad-scope dealers).[5] Respondents also reported that the availability of additional unutilized financial leverage under agreements currently in place with hedge funds was little changed over the past three months. This response stands in contrast to the June survey, which indicated that hedge funds' unused financing capacity had increased since the beginning of 2011.

Trading Real Estate Investment Trusts

The survey responses indicated that, on balance, credit terms offered to trading REITs were little changed, although a small net fraction of respondents indicated that they had tightened

[4] For questions that ask about credit terms, reported net percentages equal the percentage of institutions that reported tightening terms ("tightened considerably" or "tightened somewhat") minus the percentage of institutions that reported easing terms ("eased considerably" or "eased somewhat"). For questions that ask about demand, reported net fractions equal the percentage of institutions that reported increased demand ("increased considerably" or "increased somewhat") minus the percentage of institutions that reported decreased demand ("decreased considerably" or "decreased somewhat").

[5] Nine of the 21 respondents to the survey are classified as broad-scope dealers.

price terms for such counterparties over the past three months, citing worsening market liquidity and functioning as the most important reason for the change.

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

The survey responses showed that, on balance, there had been little change in the price and nonprice credit terms provided to mutual funds, exchange-traded funds, pension plans, and endowments over the past three months, as well as the use of leverage by such clients.

Insurance Companies

The survey responses indicated that, on balance, price and nonprice credit terms provided to insurance companies were basically unchanged over the past three months despite a continued increase in the intensity of the efforts of such clients to negotiate more-favorable terms. A small fraction of dealers, on net, noted that the use of financial leverage by insurance companies had increased somewhat.

Investment Advisors to Separately Managed Accounts

The survey responses indicated that, on balance, price and nonprice credit terms negotiated by investment advisors on behalf of separately managed accounts were little changed, on net, over the past three months. Although a small net fraction of respondents indicated that the intensity of efforts by these accounts to negotiate more-favorable price and nonprice terms had increased during the survey period, dealers reported that their use of financial leverage was basically unchanged.

Nonfinancial Corporations

Contrary to most other categories of counterparties, a small net fraction of respondents indicated that, on balance, credit terms offered to nonfinancial corporations had tightened somewhat over the past three months despite continued efforts by these clients to negotiate more-favorable terms. The tightening was mostly reflected in price terms. Dealers cited a worsening in market liquidity and functioning as the most important explanation for the change in lending posture.

Mark and Collateral Disputes

One-fifth of dealers reported that the volume of mark and collateral disputes with other dealers and hedge funds increased somewhat over the past three months, perhaps reflecting an environment of increased market volatility and heightened concerns about developments in Europe and the health of financial institutions. Those respondents reporting an increase in mark and collateral disputes, which are often viewed as a leading indicator of market stress, were all broad-scope dealers. A similar fraction of respondents also indicated an increase in the duration and persistence of such disputes with other dealers. For all other counterparty types covered by the survey, the volume, duration, and persistence of mark and collateral disputes were reportedly little changed.

OVER-THE-COUNTER DERIVATIVES

Over the past three months, nonprice terms incorporated in new or renegotiated OTC derivatives master agreements (such as requirements for posting additional margins, acceptable collateral, recognition of portfolio or diversification benefits, triggers and covenants, and other documentation features including cure periods and cross-default provisions) were little changed. Initial margin requirements across most underlying collateral types were also little changed, although small net fractions of respondents indicated that initial margin requirements for average clients had increased somewhat for foreign exchange and equity derivatives. Nearly one-third of dealers active in those markets reported that the volume of mark and collateral disputes relating to credit derivatives, referencing both corporate and securitized products, increased somewhat.

SECURITIES FINANCING

In contrast with previous surveys, responses to questions focused on securities financing pointed to a tightening of some of the terms under which all specified types of securities except equities were financed. The reported tightening of terms over the past three months was generally evident for both average and most-favored clients and was concentrated in higher haircuts and wider financing spreads over benchmark rates.

Modest net fractions of survey respondents indicated that demand for funding of corporate bonds (high grade and high yield) as well as RMBS (agency and non-agency) had increased over the past three months. Indeed, notable net fractions ranging from one-fourth to nearly one-half of dealers reported an increase in demand for term funding with a maturity of greater than 30 days for high-grade corporate bonds and agency and non-agency RMBS. A smaller net fraction indicated an increase in demand for term funding for high-yield corporate bonds. By contrast, a small share of respondents pointed to a decline in demand for funding of commercial mortgage-backed securities (CMBS).

In contrast with recent surveys, respondents indicated that liquidity and functioning of all underlying asset markets covered by the survey (with the exception of equities) had deteriorated over the past three months.[6] Nearly two-thirds of respondents indicated a deterioration in markets trading high-yield corporate bonds and CMBS, while around one-third of dealers reported a decline in market liquidity and functioning with respect to high-grade corporate bonds, RMBS, and consumer asset-backed securities. Modest portions of survey respondents reported an increase in the volume of mark and collateral disputes related to non-agency RMBS and CMBS.

[6] Note that survey respondents are instructed to report changes in liquidity and functioning in the market for the underlying collateral to be funded through repurchase agreements and similar secured financing transactions, not changes in the funding market itself.

SPECIAL QUESTIONS ON FUNDING OF U.S. TREASURY SECURITIES

To investigate the possible ramifications of the debt ceiling debate and the subsequent U.S. sovereign downgrade by S&P, a set of special questions asked survey participants about conditions in the market for financing U.S. Treasury securities. Despite the uncertainties surrounding these events, dealers reported little change, over the past three months, in terms under which U.S. Treasury securities were funded for both average and most-favored clients. About 15 percent of respondents, on net, including two broad-scope dealers, reported an increase in demand for funding of U.S. Treasury securities. A similar net percentage reported a deterioration in the liquidity and functioning of the market for funding those securities.

SPECIAL QUESTIONS ON CLIENT RISK APPETITE

In light of the increase in volatility and concurrent decline in liquidity in some markets since June, a second set of special questions asked respondents to assess the current risk appetite of their clients of various types, relative both to three months earlier and to the start of 2011, considering activities across the entire range of transactions included in the survey. Respondents indicated that their clients' appetite to bear risk had generally declined somewhat over the past three months for all types of clients. The most pronounced decreases were reported with respect to most-favored hedge funds and other hedge funds, with nearly 40 percent and 50 percent of dealers, respectively, pointing to such a decline. Of note, a number of the broad-scope dealers reported a decreased risk appetite for such clients. For other client types, while a small net fraction of dealers reported a decrease, the vast majority of respondents noted that risk appetite had remained basically unchanged over the past three months. A similar trend in risk appetite is visible over the longer horizon. One-fifth of dealers, with respect to most-favored hedge fund clients, and one-third of dealers, with respect to other hedge fund clients, reported a decrease in risk appetite since the beginning of 2011. Small net fractions of respondents indicated that, for other client types, risk appetite had declined, although most dealers pointed to no change.

SPECIAL QUESTIONS ON USE OF LEVERAGE BY TRADING REITS

Given that trading REITs have raised significant amounts of equity capital in recent quarters and apparently represent an important source of demand for real estate–related assets, the final set of special questions sought information on changes in such REITs' use of leverage, both in the amounts deployed and the types of assets being financed, since the beginning of the year. About one-fourth of survey respondents, on net, reported that use of leverage by trading REITs had increased somewhat since the beginning of 2011. Net fractions of respondents ranging from 30 to 45 percent noted that additional funding capacity was used primarily to finance purchases of agency pass-through securities and agency collateralized mortgage obligations. Despite anecdotal reports that some trading REITs had reportedly begun warehousing whole loans for eventual securitization, survey responses did not indicate any increase in this sort of activity since the beginning of the year.

Risks and Uncertainty

ALTERNATIVE SCENARIOS

In this section, we consider several alternatives to our baseline projection using simulations of staff models. In the first scenario, we assume that the economy is slipping into a recession, and the limited capacity of policymakers and the private sector to buffer the downturn in spending cause what would otherwise be a modest retrenchment in activity to escalate into a major recession. In the second scenario, the negative shocks that hit the economy in late 2010 and the first half of 2011 are assumed to dissipate more rapidly than in the baseline; as a result, real activity snaps back more vigorously. In the third scenario, we reinterpret the weakness in real activity this year as evidence that we have underestimated the amount of damage that has occurred to the supply side of the economy, implying that there is currently less slack than assumed in the baseline forecast—something that policymakers are assumed to recognize only gradually. The fourth scenario builds on the previous one by assuming that this recognition lag and the resulting delay in adjusting monetary policy cause longer-run inflation expectations to increase appreciably. The final scenario considers the risk of a very severe recession in Europe, including significant financial spillover effects to the United States. We generate the first four scenarios using the FRB/US model and an estimated policy rule. The last scenario is generated using the multicountry SIGMA model, which uses a different policy rule for the federal funds rate that employs an alternative concept of resource utilization.[1]

Recession

Some of the staff's statistical models based on high frequency data suggest that the economy may be in the process of slipping into recession. However, we assume that the downturn is deeper and more protracted than these models would predict because we believe that the economy is more fragile than these models judge. In particular, we assume that some factors not adequately captured by these models, such as the impaired balance sheets of many households and financial institutions and the current constraint on

[1] In the simulations using the FRB/US model, the federal funds rate follows the outcome-based rule described in the appendix on policy rules in Book B. In the simulation using the SIGMA model, the policy rule is broadly similar, but it uses a measure of slack equal to the difference between actual output and the model's estimate of the level of output that would occur in the absence of a slow adjustment in wages and prices. In all the simulations, the Federal Reserve's portfolio is assumed to follow the baseline path.

Alternative Scenarios

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

Measure and scenario	2011 H1	2011 H2	2012	2013	2014	2015-16
Real GDP						
Extended Tealbook baseline	.8	2.2	2.6	3.4	3.9	3.9
Recession	.8	-2.8	-1.5	3.9	4.6	5.6
Faster snapback	.8	2.8	3.4	3.7	3.6	3.2
Greater supply-side damage	.8	1.9	2.0	2.6	2.8	3.2
with higher inflation expectations	.8	1.9	2.0	2.5	2.5	3.1
Very severe financial stress in Europe	.8	.3	-1.2	2.2	4.6	4.8
Unemployment rate[1]						
Extended Tealbook baseline	9.1	9.1	8.7	8.1	7.3	5.9
Recession	9.1	9.6	11.6	11.4	10.2	7.1
Faster snapback	9.1	9.0	8.2	7.3	6.5	5.9
Greater supply-side damage	9.1	9.0	8.5	8.0	7.6	6.9
with higher inflation expectations	9.1	9.0	8.5	8.1	7.8	7.2
Very severe financial stress in Europe	9.1	9.3	10.4	10.4	9.4	7.2
Total PCE prices						
Extended Tealbook baseline	3.6	1.7	1.2	1.3	1.4	1.6
Recession	3.6	1.7	.8	.2	-.2	.0
Faster snapback	3.6	1.7	1.2	1.4	1.7	2.0
Greater supply-side damage	3.6	1.8	1.4	1.6	1.7	1.8
with higher inflation expectations	3.6	1.8	2.0	2.6	2.6	2.5
Very severe financial stress in Europe	3.6	-.1	-.8	.5	1.3	2.0
Core PCE prices						
Extended Tealbook baseline	1.9	1.9	1.5	1.3	1.4	1.5
Recession	1.9	1.9	1.1	.2	-.2	-.1
Faster snapback	1.9	1.9	1.5	1.4	1.7	1.9
Greater supply-side damage	1.9	2.0	1.7	1.6	1.7	1.7
with higher inflation expectations	1.9	2.0	2.3	2.6	2.6	2.4
Very severe financial stress in Europe	1.9	1.1	.1	.6	1.2	1.8
Federal funds rate[1]						
Extended Tealbook baseline	.1	.1	.1	.1	.6	3.1
Recession	.1	.1	.1	.1	.1	.6
Faster snapback	.1	.3	1.1	1.3	1.4	3.0
Greater supply-side damage	.1	.1	.1	.8	1.5	3.2
with higher inflation expectations	.1	.1	.5	2.0	2.6	3.9
Very severe financial stress in Europe	.1	.1	.1	.1	.1	2.6

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

fiscal and monetary policy, have made the economy especially vulnerable to a vicious cycle in which falling confidence, spending, and employment reinforce one another. For these reasons, real GDP contracts at an average annual rate of 2 percent through the end of next year and the unemployment rate rises to 11½ percent, considerably more than the statistical models predict. Beyond 2012, the economy gradually recovers but the unemployment rate still stands at 7 percent in late 2016. The greater economic slack in this scenario exerts substantial downward pressure on inflation, leading to a modest decline in consumer prices in 2014 and 2015. Under these conditions, the federal funds rate remains near zero through mid-2016.

Faster Snapback

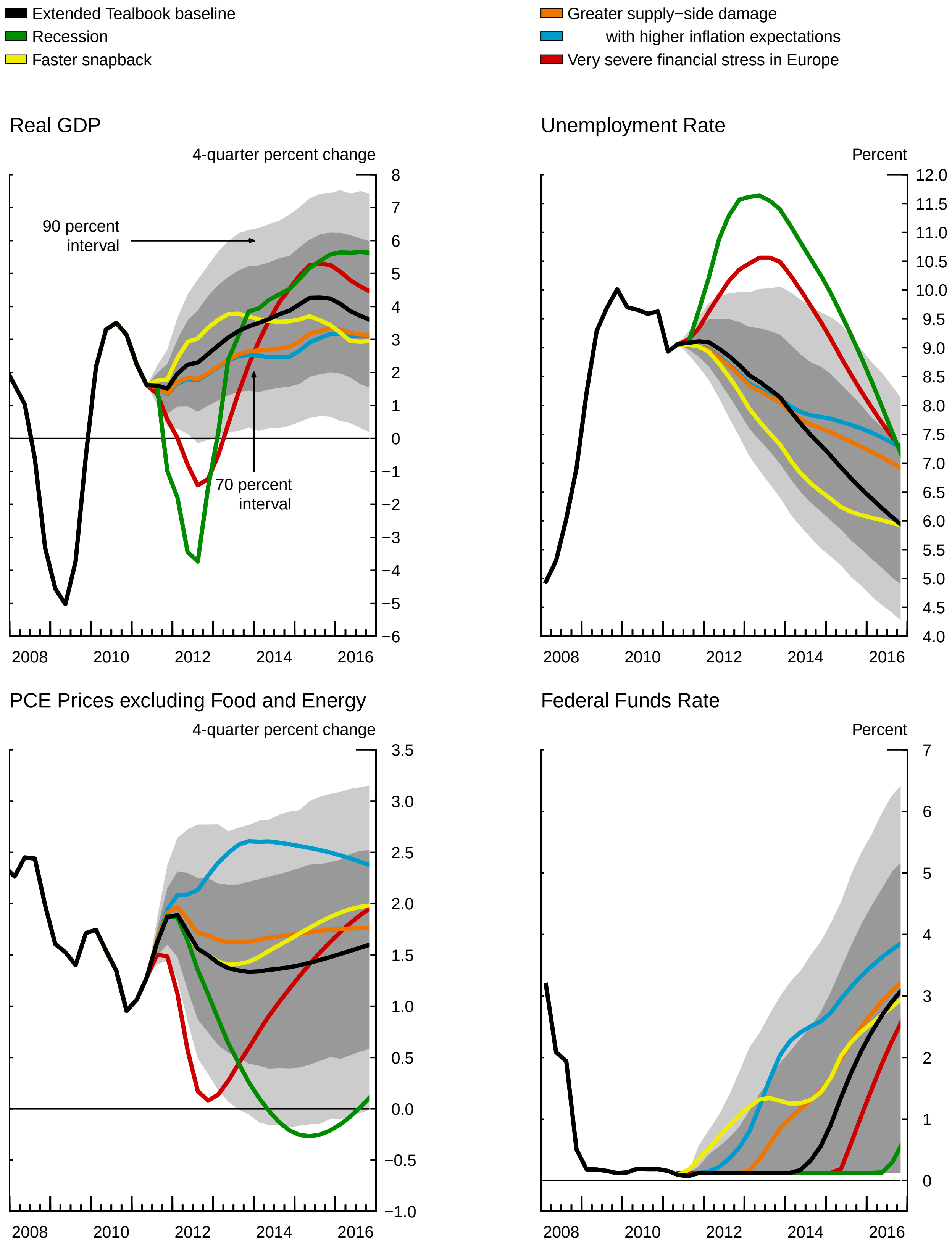
In this scenario, the restraining effects of the adverse shocks that have hit the economy recently dissipate more rapidly than in the baseline, leading to a more robust recovery that is more in line with those that typically follow other deep recessions. Real GDP rises at an annual rate of about 2¾ percent in the second half of this year and 3½ percent on average in 2012 and 2013, enough to bring the unemployment rate down to 7¼ percent by the end of 2013. Initially, the stronger pace of the recovery has little effect on inflation because higher investment increases labor productivity (thereby holding down unit labor costs) and because long-run inflation expectations are well anchored. In time, however, tighter labor and product markets cause inflation to move up more than in the baseline. Largely in response to the stronger pace of real activity, the federal funds rate begins to rise late this year.

Greater Supply-Side Damage

A possible explanation for the disappointing pace of the recovery this year is that the supply side of the economy may have suffered greater damage over the past several years than we have estimated. For example, the NAIRU may have increased more because of problems related to mismatch in the labor market, trend labor force participation may have declined more as the weak job market led individuals to withdraw permanently from the labor force, and gains in structural multifactor productivity may have been slower than we think. Because of these forces, the current output gap in this scenario is only half as large as in the baseline. These conditions imply lower long-run levels of household income and corporate earnings, and hence point to weaker consumption and investment, than in the baseline. Accordingly, real GDP expands about ¾ percentage point less rapidly per year, on average, through 2016 than in the baseline

Forecast Confidence Intervals and Alternative Scenarios

Confidence Intervals Based on FRB/US Stochastic Simulations



forecast, while inflation is higher because of both the direct effects of lower productivity on firms' costs and a smaller margin of slack. Although policymakers are assumed to recognize only gradually the less favorable supply-side conditions, the stability of long-run inflation expectations helps to keep inflation from rising above the assumed 2 percent objective.

Greater Supply-Side Damage with Higher Inflation Expectations

In the previous scenario, we assumed that inflation expectations remained well anchored despite the fact that policymakers are slow to recognize the full extent of the smaller margin of economic slack and so keep monetary policy more accommodative than they would otherwise. This scenario builds on the previous one by instead assuming that this delay in adjusting policy reduces the Federal Reserve's credibility and causes long-run inflation expectations to move up to 3 percent by the end of next year. Consequently, actual inflation rises considerably more and remains persistently higher than in the preceding scenario; specifically, core PCE inflation moves above 2½ percent in 2013 and stays near that level through 2016. In response to these more-inflationary conditions, monetary policy begins to firm in mid-2012. The tighter stance of monetary policy in turn causes real GDP to expand somewhat more slowly than in the previous scenario, and the unemployment rate stays above 7 percent through 2016.

Very Severe Financial Stress in Europe

In the baseline forecast, we project that the European economies will expand at a subdued pace over the next two years as financial stresses remain elevated but generally contained. In this scenario, we instead assume that financial difficulties intensify markedly in Spain and Italy, and that spillovers through trade, financial, and confidence channels are substantial both in the core economies of Europe and in the United States. Specifically, we assume that a worsening in investor sentiment causes European sovereign and private borrowing costs to soar, with European corporate bond spreads rising 400 basis points above baseline. As a result, European real GDP declines about 8 percent relative to baseline by the second half of 2012, notwithstanding a nearly 20 percent depreciation of the euro. Weaker foreign activity and the stronger dollar, in turn, depress U.S. net exports. In addition, our simulation assumes that U.S. corporate risk spreads rise about 200 basis points above baseline. Consequently, higher borrowing costs and declining stock prices restrain U.S. domestic demand. All told, U.S. GDP contracts 1¼ percent in 2012, and the unemployment rate rises above 10 percent. Greater

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

Measure	2011	2012	2013	2014	2015	2016
Real GDP						
(percent change, Q4 to Q4)						
Projection	1.5	2.6	3.4	3.9	4.2	3.6
Confidence interval						
Tealbook forecast errors	.7–2.4	.7–4.4	1.6–5.2	. . .	. . .	. . .
FRB/US stochastic simulations	.7–2.3	1.0–4.3	1.4–5.2	1.6–5.5	2.0–6.2	1.5–6.0
Civilian unemployment rate						
(percent, Q4)						
Projection	9.1	8.7	8.1	7.3	6.6	5.9
Confidence interval						
Tealbook forecast errors	8.8–9.5	7.9–9.5	6.7–9.6	. . .	. . .	. . .
FRB/US stochastic simulations	8.8–9.4	7.9–9.4	7.0–9.2	6.2–8.7	5.5–8.0	4.9–7.3
PCE prices, total						
(percent change, Q4 to Q4)						
Projection	2.6	1.2	1.3	1.4	1.5	1.6
Confidence interval						
Tealbook forecast errors	2.2–3.1	.1–2.3	.1–2.5	. . .	. . .	. . .
FRB/US stochastic simulations	2.2–3.2	.2–2.3	.1–2.5	.1–2.7	.1–2.7	.3–2.9
PCE prices excluding food and energy						
(percent change, Q4 to Q4)						
Projection	1.9	1.5	1.3	1.4	1.5	1.6
Confidence interval						
Tealbook forecast errors	1.6–2.2	.8–2.2	.3–2.4	. . .	. . .	. . .
FRB/US stochastic simulations	1.6–2.1	.7–2.2	.4–2.2	.4–2.3	.5–2.4	.6–2.5
Federal funds rate						
(percent, Q4)						
Projection	.1	.1	.1	.6	2.1	3.1
Confidence interval						
FRB/US stochastic simulations	.1–.2	.1–.9	.1–1.9	.1–2.7	.3–4.2	1.1–5.2

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

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

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

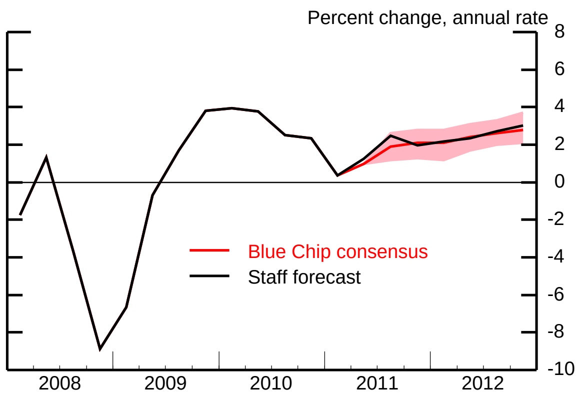
resource slack, coupled with lower import prices, pushes core PCE inflation below ¼ percent in 2012. The federal funds rate remains near zero until mid-2015.

OUTSIDE FORECASTS

In the September 10 survey, the Blue Chip consensus forecast for the increase in real GDP in the second half of this year is about 2 percent at an annual rate, slightly below the current staff projection. The consensus projection shows real GDP rising 2½ percent in 2012, in line with the staff projection. The Blue Chip forecast for the unemployment rate at the end of 2012 is 8¾ percent, the same as the staff's projection. Regarding inflation, the Blue Chip panelists anticipate that the overall CPI will increase 3¼ percent over the four quarters of 2011 and 2 percent in 2012, in line with the staff projection in 2011, but almost 1 percentage point higher in 2012.

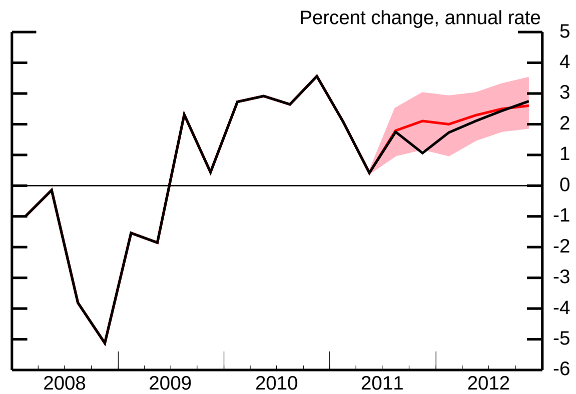
Tealbook Forecast Compared with Blue Chip
(Blue Chip survey released September 10, 2011)

Real GDP

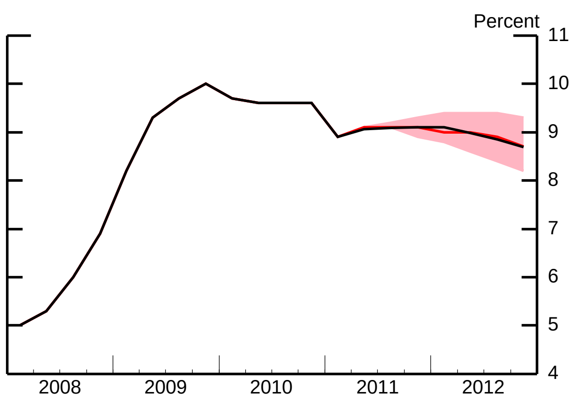


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

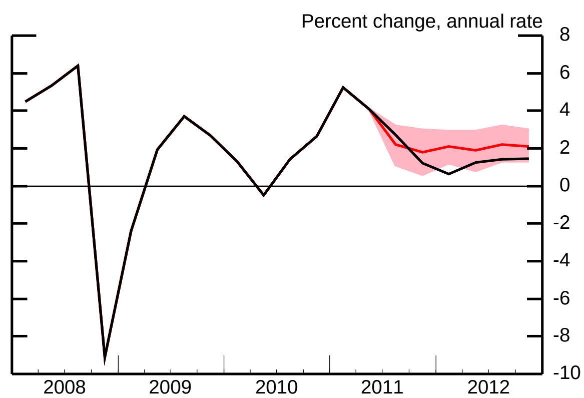
Real PCE



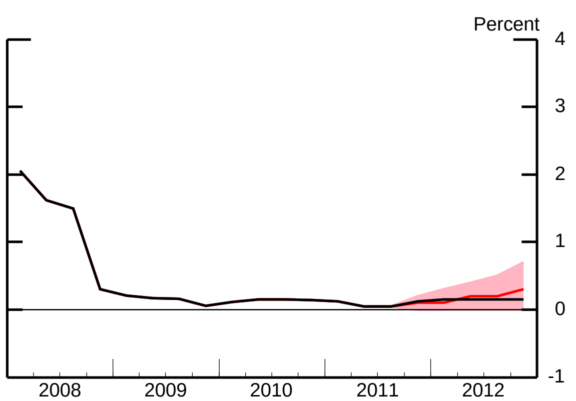
Unemployment Rate



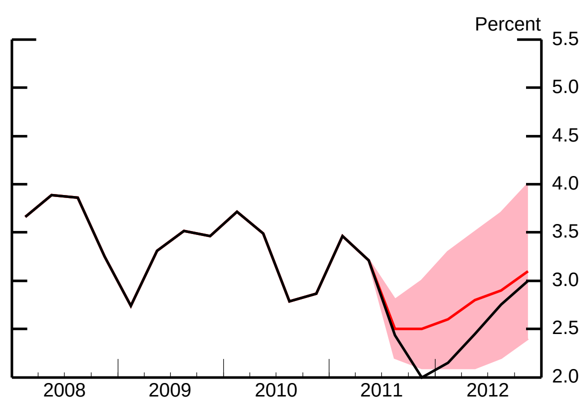
Consumer Price Index



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.

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]	
	08/03/11	09/14/11	08/03/11	09/14/11	08/03/11	09/14/11	08/03/11	09/14/11	08/03/11	09/14/11
Quarterly										
2011:Q1	3.1	3.1	.4	.4	3.9	3.9	1.6	1.6	8.9	8.9
Q2	3.9	3.8	1.4	1.2	3.1	3.2	2.1	2.2	9.1	9.1
Q3	5.1	5.3	2.9	2.5	1.5	2.2	1.9	2.1	9.2	9.1
Q4	3.6	3.9	2.4	2.0	1.1	1.2	1.7	1.7	9.2	9.1
2012:Q1	3.2	2.9	2.4	2.2	1.6	.9	1.6	1.6	9.1	9.1
Q2	5.9	4.5	2.9	2.3	1.5	1.3	1.5	1.5	8.9	9.0
Q3	4.6	4.0	3.2	2.7	1.4	1.3	1.4	1.4	8.7	8.9
Q4	4.6	4.2	3.4	3.0	1.4	1.3	1.4	1.4	8.5	8.7
2013:Q1	...	4.1	...	3.2	...	1.3	...	1.3	...	8.5
Q2	...	5.5	...	3.3	...	1.3	...	1.3	...	8.4
Q3	...	4.9	...	3.5	...	1.3	...	1.3	...	8.3
Q4	...	4.8	...	3.6	...	1.3	...	1.4	...	8.1
Two-quarter[2]										
2011:Q2	3.5	3.5	.9	.8	3.5	3.6	1.8	1.9	-.5	-.5
Q4	4.4	4.6	2.7	2.2	1.3	1.7	1.8	1.9	.1	.0
2012:Q2	4.5	3.7	2.6	2.3	1.5	1.1	1.6	1.6	-.3	-.1
Q4	4.6	4.1	3.3	2.9	1.4	1.3	1.4	1.4	-.4	-.3
2013:Q2	...	4.8	...	3.2	...	1.3	...	1.3	...	-.3
Q4	...	4.9	...	3.5	...	1.3	...	1.3	...	-.3
Four-quarter[3]										
2010:Q4	4.7	4.7	3.1	3.1	1.3	1.3	1.0	1.0	-.4	-.4
2011:Q4	3.9	4.0	1.8	1.5	2.4	2.6	1.8	1.9	-.4	-.5
2012:Q4	4.5	3.9	3.0	2.6	1.5	1.2	1.5	1.5	-.7	-.4
2013:Q4	...	4.8	...	3.4	...	1.3	...	1.3	...	-.6
Annual										
2010	4.2	4.2	3.0	3.0	1.8	1.8	1.4	1.4	9.6	9.6
2011	4.0	4.0	1.9	1.7	2.3	2.4	1.4	1.5	9.1	9.0
2012	4.3	3.9	2.7	2.3	1.5	1.4	1.6	1.7	8.8	8.9
2013	...	4.6	...	3.1	...	1.3	...	1.4	...	8.3

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

Greensheets

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

Item	2011 Q1	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2011[1]	2012[1]	2013[1]
Real GDP	.4	1.2	2.5	2.0	2.2	2.3	2.7	3.0	3.2	3.3	3.5	3.6	1.5	2.6	3.4
Previous Tealbook	.4	1.4	2.9	2.4	2.4	2.9	3.2	3.4	...	...	...	...	1.8	3.0	...
Final sales	.0	1.5	1.7	1.8	2.0	2.2	2.4	3.0	2.8	3.0	3.0	2.8	1.2	2.4	2.9
Previous Tealbook	.0	1.3	1.5	3.1	2.6	2.8	3.0	3.3	...	...	...	...	1.5	2.9	...
Priv. dom. final purch.	2.0	1.7	2.1	1.2	1.8	2.2	2.7	3.2	3.2	3.5	3.7	3.8	1.7	2.5	3.5
Previous Tealbook	2.0	1.1	1.9	2.2	2.0	2.6	3.1	3.4	...	...	...	...	1.8	2.8	...
Personal cons. expend.	2.1	.4	1.7	1.1	1.7	2.1	2.4	2.7	2.9	3.1	3.2	3.4	1.3	2.3	3.1
Previous Tealbook	2.1	.1	1.6	1.9	1.9	2.4	2.8	3.0	...	...	...	...	1.4	2.5	...
Durables	11.7	-5.2	4.8	3.7	5.0	5.8	7.2	8.2	7.7	8.8	8.8	8.5	3.6	6.5	8.4
Nondurables	1.6	.4	-.3	.9	.9	1.3	1.4	1.6	1.8	2.0	2.2	2.5	.6	1.3	2.1
Services	.8	1.4	2.0	.7	1.5	1.8	2.0	2.3	2.5	2.5	2.6	2.8	1.2	1.9	2.6
Residential investment	-2.4	3.8	-1.3	-.8	3.8	7.2	8.7	9.1	8.8	9.7	9.7	10.3	-.2	7.2	9.6
Previous Tealbook	-2.4	3.5	3.1	.5	3.1	4.2	8.4	8.8	...	...	...	...	1.1	6.1	...
Business fixed invest.	2.1	10.7	5.4	2.6	1.6	1.9	3.6	4.7	4.0	5.2	5.9	5.4	5.1	2.9	5.1
Previous Tealbook	2.1	8.1	4.0	4.5	2.6	3.0	4.3	5.0	...	...	...	...	4.7	3.7	...
Equipment & software	8.7	6.7	6.0	4.2	4.0	3.9	6.1	7.1	5.5	6.7	7.7	7.0	6.4	5.3	6.7
Previous Tealbook	8.7	5.6	6.3	6.3	4.4	4.6	6.2	7.1	...	...	...	...	6.7	5.6	...
Nonres. structures	-14.3	22.6	3.7	-1.6	-4.8	-3.6	-3.2	-1.8	-.1	.8	.9	1.0	1.7	-3.4	.6
Previous Tealbook	-14.3	15.2	-2.0	-.2	-2.2	-1.2	-1.0	-1.0	...	...	...	...	-.9	-1.3	...
Net exports[2]	-424	-416	-405	-384	-361	-344	-337	-322	-313	-304	-297	-293	-407	-341	-302
Previous Tealbook[2]	-424	-406	-405	-366	-332	-307	-290	-271	...	...	...	...	-400	-300	...
Exports	7.9	3.7	9.5	8.2	7.9	7.5	7.3	7.1	7.3	7.3	7.1	6.8	7.3	7.4	7.1
Imports	8.3	1.3	5.5	2.8	2.2	3.2	4.7	3.4	4.7	4.6	5.0	5.3	4.4	3.4	4.9
Gov't. cons. & invest.	-5.9	-1.0	-1.8	.8	-.8	-.5	-.4	-.3	-.3	-.8	-1.5	-2.2	-2.0	-.5	-1.2
Previous Tealbook	-5.9	-.8	-.3	.1	-.7	-.5	-.4	-.2	...	...	...	...	-1.8	-.5	...
Federal	-9.4	1.9	-.7	3.7	-.7	-.6	-.8	-.8	-1.4	-2.9	-4.9	-6.8	-1.2	-.7	-4.0
Defense	-12.6	7.1	2.0	3.8	-.5	.2	.0	.1	-.8	-3.1	-6.0	-8.7	-.2	.0	-4.7
Nondefense	-2.7	-7.6	-6.2	3.6	-1.1	-2.2	-2.6	-2.6	-2.6	-2.7	-2.7	-2.7	-3.4	-2.2	-2.7
State & local	-3.4	-2.9	-2.6	-1.2	-.8	-.5	-.2	.0	.5	.7	.9	.9	-2.5	-.4	.8
Change in bus. inventories[2]	49	45	69	75	79	83	92	93	105	114	132	158	59	87	127
Previous Tealbook[2]	49	53	99	80	74	78	83	85	...	...	...	...	70	80	...
Nonfarm[2]	60	54	71	77	78	82	92	92	104	114	131	157	65	86	126
Farm[2]	-8	-9	-2	-2	1	1	1	1	1	1	1	1	-5	1	1

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

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

Item	2005	2006	2007	2008	2009	2010	2011	2012	2013
Real GDP	2.8	2.4	2.2	-3.3	-.5	3.1	1.5	2.6	3.4
Previous Tealbook	2.8	2.4	2.2	-3.3	-.5	3.1	1.8	3.0	. . .
Final sales	2.7	2.8	2.4	-2.6	-.8	2.4	1.2	2.4	2.9
Previous Tealbook	2.7	2.8	2.4	-2.6	-.8	2.4	1.5	2.9	. . .
Priv. dom. final purch.	3.2	2.4	1.2	-4.5	-2.5	3.6	1.7	2.5	3.5
Previous Tealbook	3.2	2.4	1.2	-4.5	-2.5	3.6	1.8	2.8	. . .
Personal cons. expend.	2.8	3.2	1.7	-2.5	-.2	3.0	1.3	2.3	3.1
Previous Tealbook	2.8	3.2	1.7	-2.5	-.2	3.0	1.4	2.5	. . .
Durables	2.8	7.0	4.6	-13.0	3.0	10.9	3.6	6.5	8.4
Nondurables	3.1	2.9	.8	-3.1	.6	3.5	.6	1.3	2.1
Services	2.7	2.6	1.4	-.5	-.9	1.6	1.2	1.9	2.6
Residential investment	5.3	-15.7	-20.7	-24.4	-12.9	-6.3	-.2	7.2	9.6
Previous Tealbook	5.3	-15.7	-20.7	-24.4	-12.9	-6.3	1.1	6.1	. . .
Business fixed invest.	4.5	7.8	7.9	-9.4	-14.4	11.1	5.1	2.9	5.1
Previous Tealbook	4.5	7.8	7.9	-9.4	-14.4	11.1	4.7	3.7	. . .
Equipment & software	6.2	6.0	3.9	-13.6	-5.8	16.6	6.4	5.3	6.7
Previous Tealbook	6.2	6.0	3.9	-13.6	-5.8	16.6	6.7	5.6	. . .
Nonres. structures	-.1	13.0	17.3	-1.2	-29.3	-1.8	1.7	-3.4	.6
Previous Tealbook	-.1	13.0	17.3	-1.2	-29.3	-1.8	-.9	-1.3	. . .
Net exports[1]	-723	-729	-649	-495	-359	-422	-407	-341	-302
Previous Tealbook[1]	-723	-729	-649	-495	-359	-422	-400	-300	. . .
Exports	6.7	10.2	10.1	-2.5	-.1	8.8	7.3	7.4	7.1
Imports	5.2	4.1	.8	-5.9	-6.5	10.7	4.4	3.4	4.9
Gov't. cons. & invest.	.7	1.5	1.9	2.7	1.1	.1	-2.0	-.5	-1.2
Previous Tealbook	.7	1.5	1.9	2.7	1.1	.1	-1.8	-.5	. . .
Federal	1.2	2.2	3.1	8.8	4.6	2.9	-1.2	-.7	-4.0
Defense	.4	4.4	2.6	9.8	3.5	1.5	-.2	.0	-4.7
Nondefense	2.6	-2.3	4.2	6.8	6.9	5.7	-3.4	-2.2	-2.7
State & local	.4	1.2	1.2	-.9	-1.1	-1.7	-2.5	-.4	.8
Change in bus. inventories[1]	50	59	28	-36	-145	59	59	87	127
Previous Tealbook[1]	50	59	28	-36	-145	59	70	80	. . .
Nonfarm[1]	50	63	29	-38	-144	61	65	86	126
Farm[1]	0	-4	-1	1	-1	-1	-5	1	1

1. Billions of chained (2005) dollars.

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

Item	2011 Q1	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2011[1]	2012[1]	2013[1]
Real GDP	.4	1.2	2.5	2.0	2.2	2.3	2.7	3.0	3.2	3.3	3.5	3.6	1.5	2.6	3.4
Previous Tealbook	.4	1.4	2.9	2.4	2.4	2.9	3.2	3.4	...	...	...	...	1.8	3.0	...
Final sales	.0	1.5	1.7	1.8	2.0	2.2	2.4	3.0	2.8	3.0	2.9	2.8	1.2	2.4	2.9
Previous Tealbook	.0	1.3	1.5	3.0	2.6	2.8	3.0	3.3	...	...	...	...	1.5	2.9	...
Priv. dom. final purch.	1.6	1.4	1.8	1.0	1.5	1.8	2.3	2.6	2.6	2.9	3.0	3.1	1.4	2.0	2.9
Previous Tealbook	1.6	.9	1.6	1.8	1.7	2.1	2.6	2.8	...	...	...	...	1.5	2.3	...
Personal cons. expend.	1.5	.3	1.2	.8	1.2	1.5	1.7	1.9	2.0	2.2	2.2	2.4	.9	1.6	2.2
Previous Tealbook	1.5	.1	1.2	1.4	1.4	1.7	2.0	2.1	...	...	...	...	1.0	1.8	...
Durables	.9	-.4	.4	.3	.4	.4	.5	.6	.6	.7	.7	.6	.3	.5	.6
Nondurables	.3	.1	-.1	.2	.2	.2	.2	.3	.3	.3	.3	.4	.1	.2	.3
Services	.4	.6	.9	.3	.7	.9	.9	1.1	1.2	1.2	1.2	1.3	.6	.9	1.2
Residential investment	-.1	.1	.0	.0	.1	.2	.2	.2	.2	.2	.2	.2	.0	.2	.2
Previous Tealbook	-.1	.1	.1	.0	.1	.1	.2	.2	...	...	...	...	.0	.1	...
Business fixed invest.	.2	1.0	.5	.3	.2	.2	.4	.5	.4	.5	.6	.5	.5	.3	.5
Previous Tealbook	.2	.8	.4	.4	.3	.3	.4	.5	...	...	...	...	.5	.4	...
Equipment & software	.6	.5	.4	.3	.3	.3	.4	.5	.4	.5	.6	.5	.5	.4	.5
Previous Tealbook	.6	.4	.5	.5	.3	.3	.5	.5	...	...	...	...	.5	.4	...
Nonres. structures	-.4	.5	.1	.0	-.1	-.1	-.1	.0	.0	.0	.0	.0	.0	-.1	.0
Previous Tealbook	-.4	.4	-.1	.0	-.1	.0	.0	.0	...	...	...	...	.0	.0	...
Net exports	-.3	.3	.3	.6	.7	.5	.2	.4	.2	.3	.2	.1	.2	.5	.2
Previous Tealbook	-.3	.6	.0	1.2	1.1	.7	.5	.5	...	...	...	...	.4	.7	...
Exports	1.0	.5	1.3	1.1	1.1	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0	1.1	1.0
Imports	-1.4	-.2	-1.0	-.5	-.4	-.6	-.8	-.6	-.8	-.8	-.9	-.9	-.7	-.6	-.9
Gov't. cons. & invest.	-1.2	-.2	-.4	.2	-.2	-.1	-.1	-.1	.0	-.1	-.3	-.4	-.4	-.1	-.2
Previous Tealbook	-1.2	-.2	-.1	.0	-.1	-.1	-.1	.0	...	...	...	...	-.4	-.1	...
Federal	-.8	.2	-.1	.3	-.1	.0	-.1	-.1	-.1	-.2	-.4	-.5	-.1	-.1	-.3
Defense	-.7	.4	.1	.2	.0	.0	.0	.0	.0	-.2	-.3	-.5	.0	.0	-.3
Nondefense	-.1	-.2	-.2	.1	.0	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1
State & local	-.4	-.4	-.3	-.1	-.1	-.1	.0	.0	.1	.1	.1	.1	-.3	.0	.1
Change in bus. inventories	.3	-.2	.8	.2	.1	.1	.3	.0	.4	.3	.6	.8	.3	.2	.5
Previous Tealbook	.3	.1	1.4	-.6	-.2	.1	.2	.1	...	...	...	...	.3	.0	...
Nonfarm	.4	-.2	.6	.2	.1	.1	.3	.0	.4	.3	.5	.8	.3	.1	.5
Farm	-.1	.0	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

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

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

Item	2011 Q1	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2011[1]	2012[1]	2013[1]
GDP chain-wt. price index	2.5	2.4	2.8	1.8	.7	2.1	1.2	1.2	.9	2.2	1.3	1.2	2.4	1.3	1.4
Previous Tealbook	2.5	2.3	2.1	1.2	.7	2.9	1.3	1.2	. . .	. . .	. . .	. . .	2.0	1.5	. . .
PCE chain-wt. price index	3.9	3.2	2.2	1.2	.9	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6	1.2	1.3
Previous Tealbook	3.9	3.1	1.5	1.1	1.6	1.5	1.4	1.4	. . .	. . .	. . .	. . .	2.4	1.5	. . .
Energy	40.7	15.0	2.2	-6.1	-9.5	-2.6	-.3	.3	.7	.6	.4	.5	11.6	-3.1	.6
Previous Tealbook	40.7	14.9	-5.2	-7.0	.8	1.9	1.8	1.3	. . .	. . .	. . .	. . .	9.3	1.4	. . .
Food	6.5	6.4	3.3	2.2	1.4	1.3	1.4	1.4	1.4	1.4	1.3	1.4	4.6	1.4	1.4
Previous Tealbook	6.5	6.4	2.6	2.0	1.4	1.3	1.4	1.4	. . .	. . .	. . .	. . .	4.3	1.4	. . .
Ex. food & energy	1.6	2.2	2.1	1.7	1.6	1.5	1.4	1.4	1.3	1.3	1.3	1.4	1.9	1.5	1.3
Previous Tealbook	1.6	2.1	1.9	1.7	1.6	1.5	1.4	1.4	. . .	. . .	. . .	. . .	1.8	1.5	. . .
Ex. food & energy, market based	1.3	2.4	2.2	1.5	1.5	1.4	1.3	1.3	1.2	1.1	1.2	1.2	1.9	1.4	1.2
Previous Tealbook	1.3	2.4	2.2	1.5	1.5	1.4	1.3	1.3	. . .	. . .	. . .	. . .	1.9	1.4	. . .
CPI	5.2	4.1	2.7	1.2	.6	1.2	1.4	1.4	1.4	1.4	1.3	1.4	3.3	1.2	1.4
Previous Tealbook	5.2	4.1	1.8	1.0	1.6	1.6	1.6	1.5	. . .	. . .	. . .	. . .	3.0	1.6	. . .
Ex. food & energy	1.7	2.5	2.6	2.0	1.7	1.6	1.6	1.5	1.4	1.4	1.4	1.4	2.2	1.6	1.4
Previous Tealbook	1.7	2.5	2.6	1.8	1.7	1.6	1.6	1.6	. . .	. . .	. . .	. . .	2.2	1.6	. . .
ECI, hourly compensation[2]	2.1	3.2	2.3	2.1	2.4	2.4	2.5	2.5	2.3	2.3	2.3	2.4	2.5	2.4	2.3
Previous Tealbook[2]	2.1	3.2	2.2	2.2	2.4	2.4	2.5	2.5	. . .	. . .	. . .	. . .	2.5	2.5	. . .
Nonfarm business sector															
Output per hour	-.6	-.3	3.0	1.0	.8	1.2	1.6	1.7	1.7	1.6	1.8	1.8	.8	1.3	1.8
Previous Tealbook	-.5	-.9	2.3	.9	1.1	1.6	2.0	2.1	. . .	. . .	. . .	. . .	.5	1.7	. . .
Compensation per hour	5.6	2.7	1.4	1.7	2.4	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.8	2.3	2.2
Previous Tealbook	4.3	1.2	1.3	2.0	2.4	2.2	2.2	2.3	. . .	. . .	. . .	. . .	2.2	2.3	. . .
Unit labor costs	6.2	3.0	-1.6	.8	1.6	1.0	.8	.6	.5	.6	.4	.4	2.1	1.0	.5
Previous Tealbook	4.9	2.1	-1.0	1.1	1.2	.6	.3	.2	. . .	. . .	. . .	. . .	1.7	.6	. . .
Core goods imports chain-wt. price index[3]	8.3	7.4	2.6	1.0	.9	1.4	1.6	1.6	1.6	1.5	1.4	1.4	4.8	1.4	1.5
Previous Tealbook[3]	8.3	6.3	3.1	2.0	1.4	1.5	1.6	1.5	. . .	. . .	. . .	. . .	4.9	1.5	. . .

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

Greensheets

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

Item	2005	2006	2007	2008	2009	2010	2011	2012	2013
GDP chain-wt. price index	3.5	2.9	2.6	2.1	.7	1.6	2.4	1.3	1.4
Previous Tealbook	3.5	2.9	2.6	2.1	.7	1.6	2.0	1.5	. . .
PCE chain-wt. price index	3.2	1.9	3.5	1.7	1.5	1.3	2.6	1.2	1.3
Previous Tealbook	3.2	1.9	3.5	1.7	1.5	1.3	2.4	1.5	. . .
Energy	21.5	-3.7	19.3	-8.8	2.6	6.2	11.6	-3.1	.6
Previous Tealbook	21.5	-3.7	19.3	-8.8	2.6	6.2	9.3	1.4	. . .
Food	1.5	1.7	4.7	7.0	-1.7	1.3	4.6	1.4	1.4
Previous Tealbook	1.5	1.7	4.7	7.0	-1.7	1.3	4.3	1.4	. . .
Ex. food & energy	2.3	2.3	2.4	2.0	1.7	1.0	1.9	1.5	1.3
Previous Tealbook	2.3	2.3	2.4	2.0	1.7	1.0	1.8	1.5	. . .
Ex. food & energy, market based	2.0	2.2	2.1	2.2	1.7	.7	1.9	1.4	1.2
Previous Tealbook	2.0	2.2	2.1	2.2	1.7	.7	1.9	1.4	. . .
CPI	3.7	2.0	4.0	1.6	1.5	1.2	3.3	1.2	1.4
Previous Tealbook	3.7	2.0	4.0	1.6	1.5	1.2	3.0	1.6	. . .
Ex. food & energy	2.1	2.7	2.3	2.0	1.7	.6	2.2	1.6	1.4
Previous Tealbook	2.1	2.7	2.3	2.0	1.7	.6	2.2	1.6	. . .
ECI, hourly compensation[1]	2.9	3.2	3.0	2.4	1.2	2.1	2.5	2.4	2.3
Previous Tealbook[1]	2.9	3.2	3.0	2.4	1.2	2.1	2.5	2.5	. . .
Nonfarm business sector									
Output per hour	1.6	.8	2.5	-1.1	5.3	2.5	.8	1.3	1.8
Previous Tealbook	1.6	.8	2.5	-1.2	5.3	2.5	.5	1.7	. . .
Compensation per hour	3.5	4.5	3.6	2.5	1.8	1.6	2.8	2.3	2.2
Previous Tealbook	3.5	4.5	3.6	2.2	2.0	1.7	2.2	2.3	. . .
Unit labor costs	1.9	3.6	1.1	3.7	-3.3	-.9	2.1	1.0	.5
Previous Tealbook	1.9	3.6	1.1	3.4	-3.1	-.9	1.7	.6	. . .
Core goods imports chain-wt. price index[2]	2.2	2.5	2.9	3.7	-1.7	2.6	4.8	1.4	1.5
Previous Tealbook[2]	2.2	2.5	2.9	3.7	-1.7	2.6	4.9	1.5	. . .

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

Other Macroeconomic Indicators

Item	2011 Q1	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2011[1]	2012[1]	2013[1]
Employment and production															
Nonfarm payroll employment[2]	.4	.5	.1	.2	.3	.4	.5	.5	.6	.7	.7	.7	1.2	1.7	2.7
Unemployment rate[3]	8.9	9.1	9.1	9.1	9.1	9.0	8.9	8.7	8.5	8.4	8.3	8.1	9.1	8.7	8.1
Previous Tealbook[3]	8.9	9.1	9.2	9.2	9.1	8.9	8.7	8.5	. . .	. . .	. . .	. . .	9.2	8.5	. . .
NAIRU[3]	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Previous Tealbook[3]	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	. . .	. . .	. . .	. . .	6.0	6.0	. . .
GDP gap[4]	-6.0	-6.2	-6.2	-6.2	-6.2	-6.1	-6.0	-5.8	-5.6	-5.3	-5.0	-4.7	-6.2	-5.8	-4.7
Previous Tealbook[4]	-6.0	-6.2	-6.0	-5.9	-5.9	-5.7	-5.5	-5.2	. . .	. . .	. . .	. . .	-5.9	-5.2	. . .
Industrial production[5]	4.8	1.0	5.9	4.2	1.2	2.4	3.7	3.0	3.4	3.7	3.5	3.6	4.0	2.6	3.5
Previous Tealbook[5]	4.8	.8	5.9	4.1	2.3	2.9	3.8	4.1	. . .	. . .	. . .	. . .	3.9	3.3	. . .
Manufacturing industr. prod.[5]	7.1	1.0	5.1	4.0	.6	2.6	4.5	3.6	3.7	4.1	3.9	3.9	4.3	2.8	3.9
Previous Tealbook[5]	7.2	.2	4.9	4.7	2.7	3.4	4.2	4.8	. . .	. . .	. . .	. . .	4.2	3.8	. . .
Capacity utilization rate - mfg.[3]	74.5	74.5	75.3	75.8	75.7	76.0	76.6	77.1	77.5	78.0	78.4	78.9	75.8	77.1	78.9
Previous Tealbook[3]	74.5	74.4	75.1	75.8	76.1	76.5	77.1	77.7	. . .	. . .	. . .	. . .	75.8	77.7	. . .
Housing starts[6]	.6	.6	.6	.6	.7	.7	.8	.8	.9	.9	1.0	1.0	.6	.7	.9
Light motor vehicle sales[6]	13.0	12.1	12.4	12.9	13.2	13.2	13.5	13.8	14.0	14.3	14.5	14.7	12.6	13.4	14.4
Income and saving															
Nominal GDP[5]	3.1	3.8	5.3	3.9	2.9	4.5	4.0	4.2	4.1	5.5	4.9	4.8	4.0	3.9	4.8
Real disposable pers. income[5]	1.2	.9	.4	3.2	-.1	3.4	3.8	3.7	2.4	2.9	3.0	3.1	1.4	2.7	2.9
Previous Tealbook[5]	.7	.7	1.8	3.1	-.1	3.3	3.4	3.8	. . .	. . .	. . .	. . .	1.6	2.6	. . .
Personal saving rate[3]	5.0	5.2	5.0	5.4	5.0	5.3	5.5	5.7	5.6	5.6	5.5	5.5	5.4	5.7	5.5
Previous Tealbook[3]	4.9	5.1	5.1	5.4	4.9	5.1	5.2	5.3	. . .	. . .	. . .	. . .	5.4	5.3	. . .
Corporate profits[7]	4.2	13.1	7.6	3.6	-6.8	2.7	-3.1	-1.4	2.7	12.7	8.6	6.9	7.1	-2.2	7.7
Profit share of GNP[3]	12.4	12.7	12.8	12.8	12.4	12.4	12.2	12.0	12.0	12.2	12.3	12.4	12.8	12.0	12.4
Net federal saving[8]	-1,201	-1,266	-1,196	-1,211	-1,024	-1,000	-986	-970	-897	-866	-839	-805	-1,218	-995	-852
Net state & local saving[8]	-57	-48	-50	-66	-63	-51	-49	-45	-45	-34	-36	-36	-55	-52	-38
Gross national saving rate[3]	12.6	12.7	13.0	13.2	13.4	13.7	13.8	13.8	13.9	14.2	14.4	14.6	13.2	13.8	14.6
Net national saving rate[3]	-.1	.1	.5	.8	1.0	1.4	1.4	1.4	1.5	1.9	2.1	2.3	.8	1.4	2.3

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

Greensheets

Other Macroeconomic Indicators

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

Item	2005	2006	2007	2008	2009	2010	2011	2012	2013
Employment and production									
Nonfarm payroll employment[1]	2.4	2.1	1.2	-2.8	-5.6	.7	1.2	1.7	2.7
Unemployment rate[2]	5.0	4.5	4.8	6.9	10.0	9.6	9.1	8.7	8.1
Previous Tealbook[2]	5.0	4.5	4.8	6.9	10.0	9.6	9.2	8.5	. . .
NAIRU[2]	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0	6.0
Previous Tealbook[2]	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0	. . .
GDP gap[3]	.1	.0	-.1	-5.4	-6.9	-5.6	-6.2	-5.8	-4.7
Previous Tealbook[3]	.1	.1	-.1	-5.4	-6.9	-5.6	-5.9	-5.2	. . .
Industrial production[4]	2.3	2.3	2.5	-9.1	-5.5	6.2	4.0	2.6	3.5
Previous Tealbook[4]	2.3	2.3	2.5	-9.1	-5.5	6.2	3.9	3.3	. . .
Manufacturing industr. prod.[4]	3.4	2.0	2.8	-11.8	-6.1	6.1	4.3	2.8	3.9
Previous Tealbook[4]	3.4	2.0	2.8	-11.8	-6.1	6.1	4.2	3.8	. . .
Capacity utilization rate - mfg.[2]	78.5	78.4	79.0	70.1	67.7	73.3	75.8	77.1	78.9
Previous Tealbook[2]	78.5	78.4	79.0	70.1	67.7	73.3	75.8	77.7	. . .
Housing starts[5]	2.1	1.8	1.4	.9	.6	.6	.6	.7	.9
Light motor vehicle sales[5]	16.9	16.5	16.1	13.1	10.3	11.5	12.6	13.4	14.4
Income and saving									
Nominal GDP[4]	6.4	5.3	4.9	-1.2	.0	4.7	4.0	3.9	4.8
Real disposable pers. income[4]	.6	4.6	1.6	1.0	-2.4	3.5	1.4	2.7	2.9
Previous Tealbook[4]	.6	4.6	1.6	1.0	-2.4	3.5	1.6	2.6	. . .
Personal saving rate[2]	1.6	2.8	2.5	6.2	4.3	5.2	5.4	5.7	5.5
Previous Tealbook[2]	1.6	2.8	2.5	6.2	4.3	5.2	5.4	5.3	. . .
Corporate profits[6]	19.6	3.7	-8.1	-33.5	61.8	18.2	7.1	-2.2	7.7
Profit share of GNP[2]	11.8	11.6	10.1	6.8	11.0	12.4	12.8	12.0	12.4
Net federal saving[7]	-283	-204	-245	-613	-1218	-1274	-1218	-995	-852
Net state & local saving[7]	26	51	12	-72	-78	-25	-55	-52	-38
Gross national saving rate[2]	15.6	16.5	13.9	12.6	11.3	12.3	13.2	13.8	14.6
Net national saving rate[2]	3.6	4.4	1.7	-.6	-1.9	-.4	.8	1.4	2.3

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 2010[a]	2011	2012	2013	2011 Q1[a]	2011 Q2[a]	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4
Unified budget					Not seasonally adjusted											
Receipts[1]	2163	2320	2549	2768	488	714	586	553	551	788	656	637	574	848	709	665
Outlays[1]	3456	3616	3632	3633	949	855	911	922	960	896	854	939	932	895	867	950
Surplus/deficit[1]	-1293	-1296	-1083	-865	-460	-141	-325	-369	-409	-108	-198	-302	-358	-47	-157	-286
Previous Tealbook	*-1293*	*-1306*	*-1138*	*-944*	*-460*	*-141*	*-336*	*-373*	*-425*	*-135*	*-206*	*-318*	*-378*	*-76*	*-172*	*-310*
On-budget	-1370	-1349	-1120	-914	-451	-202	-306	-386	-398	-162	-175	-336	-344	-100	-135	-317
Off-budget	77	54	37	49	-10	61	-19	17	-11	54	-23	34	-15	53	-22	32
Means of financing																
Borrowing	1474	1128	1054	945	260	93	407	329	393	113	218	322	378	67	177	306
Cash decrease	-35	200	60	0	225	-19	27	19	26	15	0	0	0	0	0	0
Other[2]	-146	-32	-30	-80	-24	67	-109	20	-10	-20	-20	-20	-20	-20	-20	-20
Cash operating balance, end of period	310	110	50	50	118	137	110	90	65	50	50	50	50	50	50	50
NIPA federal sector					Seasonally adjusted annual rates											
Receipts	2379	2537	2785	2999	2528	2563	2585	2614	2807	2843	2875	2909	2983	3031	3074	3117
Expenditures	3648	3774	3840	3892	3729	3829	3780	3824	3831	3843	3861	3879	3880	3896	3914	3922
Consumption expenditures	1042	1069	1100	1105	1059	1077	1079	1093	1100	1102	1104	1106	1110	1107	1099	1086
Defense	697	714	745	754	701	723	729	738	744	747	750	753	758	756	749	738
Nondefense	346	355	355	351	358	354	349	355	356	356	354	353	352	351	350	348
Other spending	2606	2706	2740	2787	2670	2752	2702	2732	2731	2741	2757	2773	2770	2790	2815	2836
Current account surplus	-1269	-1237	-1055	-893	-1201	-1266	-1196	-1211	-1024	-1000	-986	-970	-897	-866	-839	-805
Gross investment	165	164	163	162	161	160	161	163	163	163	163	164	163	162	159	154
Gross saving less gross investment[3]	-1305	-1266	-1074	-903	-1227	-1289	-1218	-1233	-1044	-1018	-1002	-985	-909	-874	-843	-802
Fiscal indicators[4]																
High-employment (HEB) surplus/deficit	-938	-920	-700	-553	-893	-933	-862	-864	-666	-640	-628	-619	-550	-528	-514	-493
Change in HEB, percent of potential GDP	1.1	-.3	-1.6	-1.0	-.7	.2	-.5	.0	-1.2	-.2	-.1	-.1	-.4	-.2	-.1	-.1
Fiscal impetus (FI), percent of GDP	0.5	-0.1	-1.0	-0.8	-0.6	0.4	-0.1	0.1	-1.4	-0.9	-0.8	-0.7	-0.8	-0.6	-0.8	-0.8
Previous Tealbook	*0.5*	*-0.1*	*-1.1*	*-0.6*	*-0.5*	*0.3*	*0.1*	*-0.2*	*-1.5*	*-1.0*	*-1.0*	*-0.8*	*-0.5*	*-0.5*	*-0.7*	*-0.8*

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

Change in Debt of the Domestic Nonfinancial Sectors
(Percent)

Period[1]	Total	Households			Business	State and local governments	Federal government	Memo: Nominal GDP
		Total	Home mortgages	Consumer credit				
Year								
2006	9.0	10.0	11.1	4.1	10.6	8.3	3.9	5.3
2007	8.6	6.7	6.8	5.8	13.1	9.5	4.9	4.9
2008	6.0	.2	-.5	1.5	5.5	2.3	24.2	-1.2
2009	3.1	-1.6	-1.4	-4.4	-2.7	4.9	22.7	.0
2010	4.2	-2.0	-2.9	-1.8	.4	4.5	20.2	4.7
2011	3.8	-.5	-1.8	3.5	3.2	-.1	11.6	4.0
2012	4.6	1.4	-.2	6.1	3.5	3.8	10.0	3.9
2013	4.5	1.9	.1	7.3	4.3	3.6	8.1	4.8
Quarter								
2010:1	3.5	-3.1	-4.9	-4.1	-.5	4.5	20.6	5.5
2	3.9	-2.1	-2.5	-3.1	-1.7	-.3	22.5	5.4
3	3.9	-2.1	-2.5	-1.9	1.4	4.8	16.0	3.9
4	5.1	-.8	-1.8	2.0	2.2	8.9	16.4	4.2
2011:1	1.9	-2.0	-2.7	2.2	2.8	-4.2	7.9	3.1
2	3.0	-.6	-2.4	3.4	4.0	-3.2	8.6	3.8
3	5.1	.1	-1.2	3.7	3.2	1.6	14.9	5.3
4	4.9	.4	-1.0	4.4	2.7	5.7	13.2	3.9
2012:1	4.8	.9	-.5	5.1	2.9	3.8	12.2	2.9
2	4.1	1.2	-.2	5.5	3.4	3.8	8.4	4.5
3	3.7	1.5	-.0	6.2	3.6	3.7	6.3	4.0
4	5.4	1.8	.1	6.9	4.0	3.6	11.7	4.2
2013:1	5.2	1.8	.1	7.0	4.1	3.6	10.5	4.1
2	3.9	1.8	.1	7.0	4.1	3.6	6.1	5.5
3	3.5	1.9	.1	7.2	4.3	3.5	4.5	4.9
4	5.2	1.9	.1	7.2	4.3	3.5	10.2	4.8

Note: Quarterly data are at seasonally adjusted annual rates.
1. Data after 2011:Q2 are staff projections. Changes are measured from end of the preceding period to end of period indicated except for annual nominal GDP growth, which is calculated from Q4 to Q4.

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

Category	2010	2011	2012	2013	2011		2012				2013			
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Domestic nonfinancial sectors														
Net funds raised														
Total	1173.2	942.3	1332.6	1425.7	1399.0	1399.8	1453.0	1188.0	998.8	1690.6	1702.4	1227.2	1029.1	1744.2
Net equity issuance	-277.9	-420.5	-380.0	-340.0	-460.0	-420.0	-360.0	-360.0	-400.0	-400.0	-320.0	-320.0	-360.0	-360.0
Net debt issuance	1451.1	1362.9	1712.6	1765.7	1859.0	1819.8	1813.0	1548.0	1398.8	2090.6	2022.4	1547.2	1389.1	2104.2
Borrowing indicators														
Debt (percent of GDP)[1]	243.4	243.3	243.8	243.8	241.7	242.4	243.7	243.7	243.6	243.9	244.6	244.0	243.4	243.1
Borrowing (percent of GDP)	10.0	9.0	10.9	10.8	12.2	11.9	11.7	9.9	8.9	13.1	12.6	9.5	8.4	12.6
Households														
Net borrowing[2]	-275.5	-70.9	182.0	253.7	11.6	51.1	118.8	165.1	205.7	238.3	244.3	248.6	258.6	263.2
Home mortgages	-298.3	-183.4	-14.8	9.9	-119.1	-99.0	-49.4	-19.7	-0.0	9.9	9.9	9.9	9.9	9.9
Consumer credit	-44.2	84.8	152.7	194.7	92.0	110.3	127.5	141.1	160.5	181.8	186.8	190.1	199.1	202.7
Debt/DPI (percent)[3]	120.7	114.7	111.3	108.3	113.9	112.7	112.7	111.7	110.7	109.8	109.2	108.6	108.0	107.3
Business														
Financing gap[4]	-197.3	-202.7	-107.7	15.5	-210.2	-227.7	-153.6	-141.1	-88.2	-47.9	10.9	-2.9	11.2	43.0
Net equity issuance	-277.9	-420.5	-380.0	-340.0	-460.0	-420.0	-360.0	-360.0	-400.0	-400.0	-320.0	-320.0	-360.0	-360.0
Credit market borrowing	39.6	346.5	391.2	492.2	356.3	296.1	325.9	381.0	404.1	453.8	472.8	483.8	502.7	509.5
State and local governments														
Net borrowing	106.9	-1.7	92.8	91.8	37.8	137.8	93.8	93.8	91.8	91.8	91.8	91.8	91.8	91.8
Current surplus[5]	257.0	196.4	197.9	219.9	193.5	179.0	184.0	198.2	201.4	207.8	209.6	222.9	222.5	224.4
Federal government														
Net borrowing	1580.2	1089.0	1046.6	928.0	1453.3	1334.9	1274.5	908.1	697.2	1306.7	1213.4	723.0	536.0	1239.7
Net borrowing (n.s.a.)	1580.2	1089.0	1046.6	928.0	406.7	329.4	393.4	113.1	217.7	322.3	378.2	66.9	177.4	305.6
Unified deficit (n.s.a.)	1275.1	1295.5	1017.0	848.0	325.3	368.7	409.2	107.7	197.7	302.3	358.2	46.9	157.4	285.6
Depository institutions														
Funds supplied	-191.1	97.6	330.2	392.0	248.4	365.9	311.5	352.4	323.9	332.9	342.6	373.4	412.6	439.3

Note: Data after 2011:Q2 are staff projections.
1. Average debt levels in the period (computed as the average of period-end debt positions) divided by nominal GDP.
2. Includes change in liabilities not shown in home mortgages and consumer credit.
3. Average debt levels in the period (computed as the average of period-end debt positions) divided by disposable personal income.
4. For corporations, excess of capital expenditures over U.S. internal funds.
5. NIPA state and local government saving plus consumption of fixed capital and net capital transfers.
n.s.a. Not seasonally adjusted.

Greensheets

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

Measure and country	2011 Q1	2011 Q2	2011 Q3 (Projected)	2011 Q4 (Projected)	2012 Q1 (Projected)	2012 Q2 (Projected)	2012 Q3 (Projected)	2012 Q4 (Projected)	2013 Q1 (Projected)	2013 Q2 (Projected)	2013 Q3 (Projected)	2013 Q4 (Projected)
Real GDP [1]												
Total foreign	4.1	2.2	3.5	3.0	3.1	3.1	3.2	3.2	3.4	3.4	3.4	3.5
Previous Tealbook	*4.2*	*2.2*	*3.7*	*3.4*	*3.3*	*3.3*	*3.4*	*3.4*	...	...	...	...
Advanced foreign economies	2.2	.1	2.3	1.8	1.8	1.8	1.9	2.0	2.1	2.2	2.2	2.2
Canada	3.6	-.4	2.7	2.0	2.0	2.0	2.1	2.2	2.4	2.4	2.5	2.5
Japan	-3.7	-2.1	4.7	3.3	2.8	2.3	2.1	1.9	1.7	1.6	1.5	1.5
United Kingdom	1.9	.7	2.2	1.7	1.9	2.0	2.1	2.2	2.4	2.4	2.5	2.6
Euro area	3.1	.6	.8	.7	.8	1.0	1.2	1.4	1.6	1.7	1.8	1.8
Germany	5.5	.5	1.5	1.5	1.5	1.7	1.9	2.2	2.2	2.3	2.5	2.5
Emerging market economies	6.2	4.4	4.8	4.4	4.5	4.5	4.7	4.6	4.7	4.8	4.8	4.8
Asia	8.5	4.9	5.7	5.3	5.6	5.6	5.8	5.8	5.9	6.0	6.0	6.0
Korea	5.4	3.6	3.7	3.7	3.7	3.8	3.9	3.9	4.1	4.2	4.3	4.5
China	8.7	9.1	8.0	8.2	8.2	8.2	8.2	8.2	8.3	8.3	8.3	8.3
Latin America	4.0	4.1	4.0	3.4	3.3	3.3	3.5	3.2	3.4	3.4	3.4	3.5
Mexico	2.4	4.5	4.3	3.4	3.3	3.3	3.6	3.2	3.3	3.3	3.3	3.3
Brazil	5.0	3.1	3.2	3.2	3.2	3.3	3.3	3.3	3.7	3.8	3.8	4.0
Consumer prices [2]												
Total foreign	4.3	3.2	2.9	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4
Previous Tealbook	*4.3*	*3.2*	*2.5*	*2.2*	*2.4*	*2.3*	*2.4*	*2.4*	...	...	...	...
Advanced foreign economies	3.3	2.1	.8	1.3	1.3	1.2	1.3	1.4	1.3	1.4	1.5	1.5
Canada	3.6	3.1	.3	1.8	2.0	1.8	1.9	1.8	1.9	1.9	1.9	1.9
Japan	.4	-.8	.9	-.5	-.6	-.4	-.4	-.3	-.3	-.3	-.3	-.2
United Kingdom	7.7	3.5	2.2	3.6	2.6	1.6	1.8	3.1	1.9	1.7	1.9	3.0
Euro Area	3.7	2.7	.9	1.4	1.3	1.3	1.4	1.4	1.5	1.6	1.8	1.8
Germany	3.7	2.2	1.1	1.4	1.5	1.6	1.6	1.6	1.7	1.7	1.8	1.8
Emerging market economies	5.1	4.0	4.6	2.8	3.2	3.1	3.1	3.1	3.2	3.1	3.1	3.1
Asia	5.4	4.7	5.0	2.4	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Korea	5.7	2.2	5.5	4.0	3.1	2.9	2.9	2.9	3.0	2.9	2.9	2.9
China	4.6	5.8	5.9	1.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Latin America	4.3	2.5	3.9	3.8	4.0	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Mexico	3.6	1.8	3.7	3.5	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Brazil	9.5	7.5	5.1	5.2	5.7	5.3	4.9	4.9	5.3	5.1	4.9	4.9

[1] Foreign GDP aggregates calculated using shares of U.S. exports.
[2] Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

Foreign Real GDP and Consumer Prices: Selected Countries
(Percent change, Q4 to Q4)

Measure and country	2005	2006	2007	2008	2009	2010	2011 (Projected)	2012 (Projected)	2013 (Projected)
Real GDP [1]									
Total foreign	4.0	4.2	4.3	-.8	.7	4.3	3.2	3.2	3.4
Previous Tealbook	*4.0*	*4.2*	*4.2*	*-.8*	*.7*	*4.3*	*3.4*	*3.4*	...
Advanced foreign economies	2.8	2.6	2.5	-1.7	-1.6	2.7	1.6	1.9	2.2
Canada	3.1	1.9	2.5	-.7	-1.4	3.3	2.0	2.1	2.4
Japan	2.9	2.1	1.8	-4.7	-1.8	2.5	.5	2.3	1.6
United Kingdom	2.4	2.7	2.4	-2.7	-2.8	1.5	1.6	2.0	2.5
Euro area	2.1	3.7	2.3	-2.1	-2.1	2.0	1.3	1.1	1.7
Germany	1.6	4.9	2.4	-1.9	-2.2	3.8	2.2	1.8	2.4
Emerging market economies	5.8	6.3	6.7	.4	3.4	6.1	5.0	4.6	4.8
Asia	7.6	7.8	8.8	.9	7.9	7.5	6.1	5.7	6.0
Korea	5.2	4.6	5.8	-3.2	6.3	4.7	4.1	3.8	4.3
China	10.3	12.8	13.7	7.7	11.4	9.6	8.5	8.2	8.3
Latin America	3.9	4.8	4.4	-.4	-.9	4.5	3.9	3.3	3.4
Mexico	3.6	4.1	3.5	-1.2	-2.3	4.2	3.6	3.3	3.3
Brazil	2.2	4.8	6.6	.8	5.0	5.0	3.6	3.3	3.8
Consumer prices [2]									
Total foreign	2.3	2.2	3.7	3.3	1.3	3.2	3.1	2.3	2.4
Previous Tealbook	*2.3*	*2.2*	*3.7*	*3.3*	*1.3*	*3.2*	*3.1*	*2.4*	...
Advanced foreign economies	1.6	1.4	2.2	2.0	.2	1.7	1.9	1.3	1.4
Canada	2.3	1.4	2.5	1.8	.8	2.2	2.2	1.9	1.9
Japan	-.7	.3	.5	1.0	-2.0	-.3	-.0	-.4	-.3
United Kingdom	2.1	2.7	2.1	3.9	2.1	3.4	4.2	2.3	2.1
Euro Area	2.3	1.8	2.9	2.3	.4	2.0	2.2	1.4	1.7
Germany	2.2	1.3	3.1	1.7	.3	1.6	2.1	1.6	1.7
Emerging market economies	3.0	2.9	5.1	4.6	2.1	4.4	4.1	3.2	3.1
Asia	2.5	2.4	5.5	3.6	1.3	4.3	4.4	2.9	2.8
Korea	2.5	2.1	3.4	4.5	2.4	3.6	4.4	2.9	2.9
China	1.4	2.1	6.7	2.5	.6	4.7	4.5	2.7	2.7
Latin America	3.8	4.2	4.2	6.7	3.9	4.4	3.6	3.9	3.9
Mexico	3.1	4.1	3.8	6.2	4.0	4.3	3.2	3.7	3.7
Brazil	6.1	3.2	4.3	6.2	4.2	5.4	6.8	5.2	5.1

[1] Foreign GDP aggregates calculated using shares of U.S. exports.
[2] Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

U.S. Current Account

Quarterly Data

	2011 Q1	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4
			Projected									
	Billions of dollars, s.a.a.r.											
U.S. current account balance	**-473.8**	**-476.6**	**-438.8**	**-401.5**	**-393.4**	**-346.9**	**-351.9**	**-355.2**	**-371.1**	**-340.1**	**-349.9**	**-363.2**
Previous Tealbook	*-477.1*	*-469.3*	*-448.7*	*-428.1*	*-431.4*	*-356.8*	*-354.6*	*-360.6*	...	...	...	...
Current account as percent of GDP	-3.2	-3.2	-2.9	-2.6	-2.5	-2.2	-2.2	-2.2	-2.3	-2.1	-2.1	-2.2
Previous Tealbook	*-3.2*	*-3.1*	*-3.0*	*-2.8*	*-2.8*	*-2.3*	*-2.2*	*-2.2*	...	...	...	...
Net goods & services	-559.9	-580.0	-540.2	-497.9	-499.0	-450.8	-449.4	-442.0	-456.0	-414.3	-409.6	-414.3
Investment income, net	228.1	251.0	242.6	239.6	247.4	241.8	238.7	230.1	226.6	212.1	200.9	194.3
Direct, net	324.7	356.1	333.2	311.2	307.5	305.9	309.4	313.1	317.1	310.1	307.0	308.5
Portfolio, net	-96.6	-105.1	-90.6	-71.6	-60.1	-64.1	-70.6	-83.0	-90.5	-98.0	-106.2	-114.2
Other income and transfers, net	-142.0	-147.6	-141.2	-143.3	-141.8	-137.9	-141.2	-143.3	-141.8	-137.9	-141.2	-143.3

Projected: 2011 Q3 through 2013 Q4.

Annual Data

	2005	2006	2007	2008	2009	2010	2011	2012	2013
							Projected		
	Billions of dollars								
U.S. current account balance	**-745.8**	**-800.6**	**-710.3**	**-677.1**	**-376.6**	**-470.9**	**-447.7**	**-361.8**	**-356.1**
Previous Tealbook	*-745.8*	*-800.6*	*-710.3*	*-677.1*	*-376.6*	*-470.9*	*-455.8*	*-375.9*	...
Current account as percent of GDP	-5.9	-6.0	-5.1	-4.7	-2.7	-3.2	-3.0	-2.3	-2.2
Previous Tealbook	*-5.9*	*-6.0*	*-5.1*	*-4.7*	*-2.7*	*-3.2*	*-3.0*	*-2.4*	...
Net goods & services	-708.6	-753.3	-696.7	-698.3	-381.3	-500.0	-544.5	-460.3	-423.5
Investment income, net	78.7	54.7	111.1	157.8	137.1	174.5	240.3	239.5	208.5
Direct, net	173.2	174.0	244.6	284.3	262.2	280.6	331.3	309.0	310.7
Portfolio, net	-94.5	-119.4	-133.5	-126.5	-125.1	-106.2	-91.0	-69.4	-102.2
Other income and transfers, net	-115.9	-102.0	-124.7	-136.6	-132.3	-145.3	-143.5	-141.0	-141.0

Abbreviations

ABCP	asset-backed commercial paper
ABS	asset-backed securities
AFE	advanced foreign economy
BEA	Bureau of Economic Analysis, Department of Commerce
BHCs	bank holding companies
CD	certificate of deposit
CDS	credit default swap
C&I	commercial and industrial
CMBS	commercial mortgage-backed securities
CP	commercial paper
CPI	consumer price index
ECB	European Central Bank
EDO Model	Estimated Dynamic Optimization-Based Model
EME	emerging market economy
E&S	equipment and software
FDIC	Federal Deposit Insurance Corporation
FOMC	Federal Open Market Committee; also, the Committee
FRBNY	Federal Reserve Bank of New York
GDP	gross domestic product
GO	general obligation
IOER	interest on excess reserves
IPO	initial public offering
Libor	London interbank offered rate
LLC	limited liability company
MBS	mortgage-backed securities
Michigan survey	Thomson Reuters/University of Michigan Surveys of Consumers
NAIRU	non-accelerating inflation rate of unemployment

NIPA	national income and product accounts
OIS	overnight index swap
OTC	over the counter
PCE	personal consumption expenditures
PMI	purchasing managers index
REIT	real estate investment trust
repo	repurchase agreement
RMBS	residential mortgage-backed securities
SCOOS	Senior Credit Officer Opinion Survey on Dealer Financing Terms
SNB	Swiss National Bank
SOMA	System Open Market Account
S&P	Standard & Poor’s
TALF	Term Asset-Backed Securities Loan Facility
TIPS	Treasury inflation-protected securities
USDA	U.S. Department of Agriculture
VIX	volatility index
WTI	West Texas Intermediate