

### **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.

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Class II FOMC – Restricted (FR)

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# Report to the FOMC on Economic Conditions and Monetary Policy



## Book A

### Economic and Financial Conditions: Current Situation and Outlook

December 7, 2011

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

Authorized for Public Release

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## Domestic Economic Developments and Outlook

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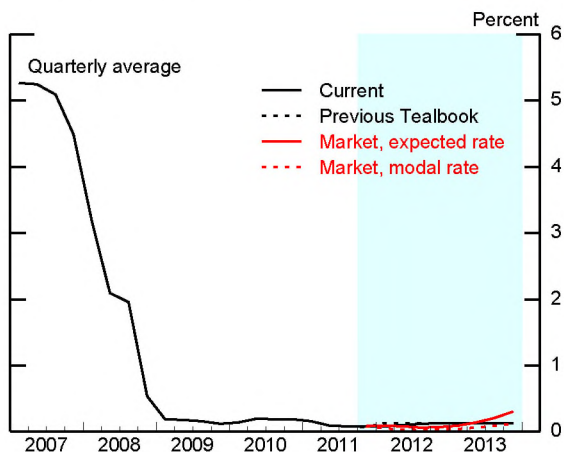
The near-term indicators of real GDP that we have received since the October Tealbook have been, on balance, in line with our expectations. Retail sales were stronger than expected in October, motor vehicles sold at a faster pace in November, and reports suggest that the holiday shopping season got off to a generally better-than-expected start. In addition, news from the labor market has been a bit better than anticipated. In contrast, inventory accumulation fell sharply in the third quarter, federal spending appears likely to post a sizable decline this quarter, and households remain downbeat. All told, we project real GDP to increase at an annual rate of 2½ percent over the second half of this year, the same pace as in the October Tealbook.

Nonetheless, the medium-term projection for real GDP growth in this Tealbook is weaker than the one we presented in October. The most important factor is our more pessimistic view about the European situation and its implications for the U.S. economy. In our revised baseline projection, foreign demand for our output is diminished because of weaker activity abroad and a stronger exchange value of the dollar. We also expect the turmoil overseas to result in somewhat higher risk premiums, lower equity prices, and lower consumer and business confidence than we previously anticipated, thereby restraining domestic demand. Separately, both real gross domestic income—an alternative measure of the same economic concept as real GDP—and disposable personal income (DPI) have, according to the latest estimates from the BEA, been on markedly lower trajectories than the information available in October suggested. The downward revision to real DPI weighs on our projection for the growth of consumer spending going forward.

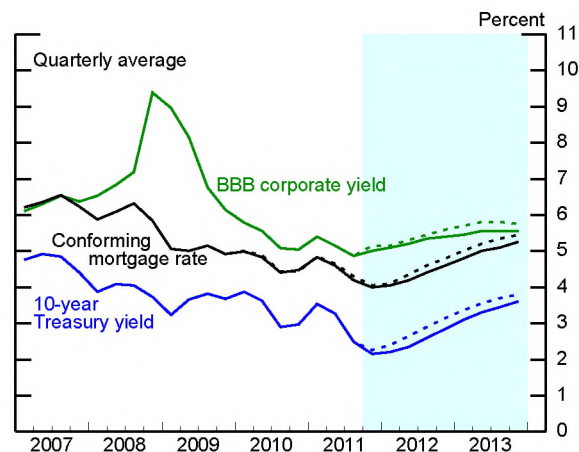
Two other adjustments to our assumptions have important implications for the contour of economic growth and resource utilization. First, in light of the substantial decline in the unemployment rate over the past year despite only modest growth of real activity, we reduced our assumption for the growth of potential output noticeably in 2011 and to a lesser degree going forward. Second, we now assume that the payroll tax cut and emergency unemployment benefits will be extended through the end of next year; this change adds to GDP growth in 2012. Some of the fiscal increment to growth is unwound in 2013, but some remains to be run off in subsequent years.

## Key Background Factors underlying the Baseline Staff Projection

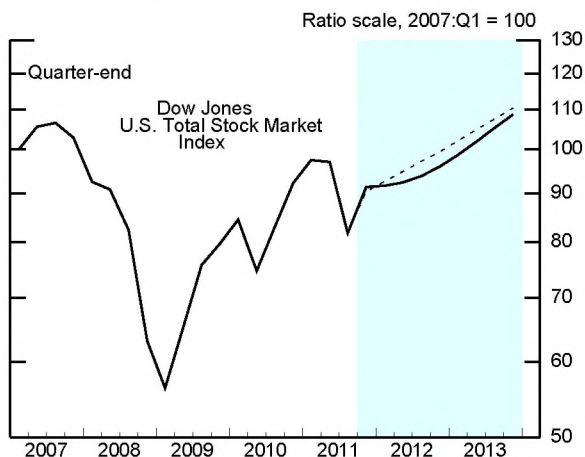
Federal Funds Rate



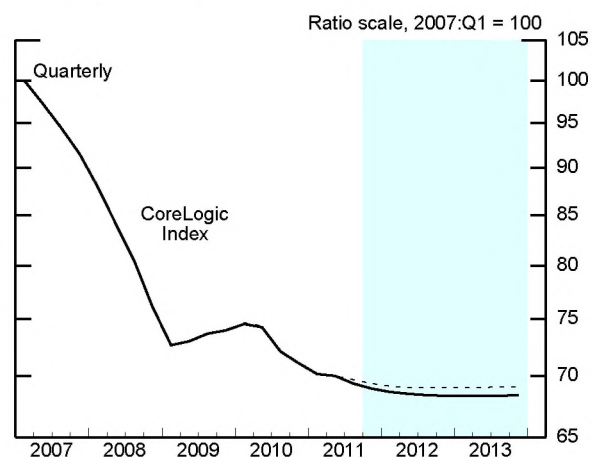
Long-Term Interest Rates



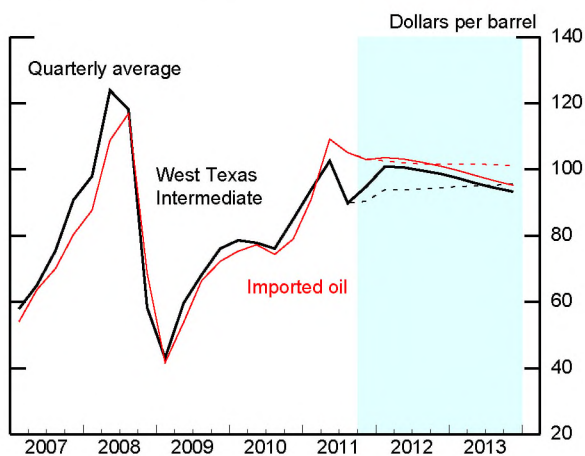
Equity Prices



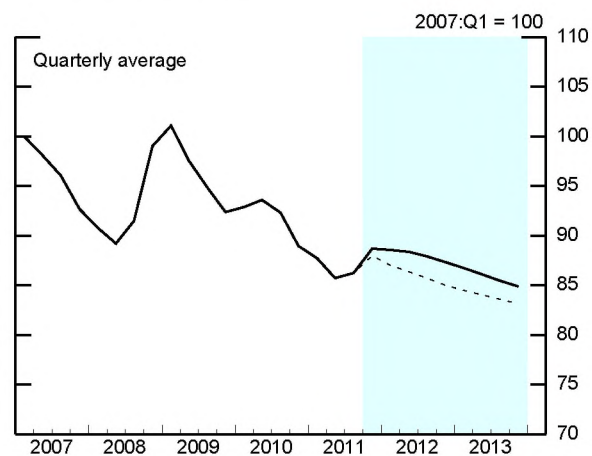
House Prices



Crude Oil Prices



Broad Real Dollar



Putting all of the pieces together, we now expect real GDP to rise  $2\frac{1}{4}$  percent in 2012 and  $2\frac{1}{2}$  percent in 2013, down  $\frac{1}{4}$  percentage point and  $\frac{3}{4}$  percentage point, respectively, from the October Tealbook. Because only a small part of this revision reflects changes to our supply-side assumptions, we expect less progress will be made in lowering the unemployment rate from here forward; the unemployment rate declines from  $8\frac{3}{4}$  percent in the current quarter,  $\frac{1}{4}$  percentage point lower than in October, to  $8\frac{1}{4}$  percent by the end of 2013, a bit higher than in the last projection. More than half of the reduction in the unemployment rate reflects the expiration of unemployment benefits at the end of 2012 rather than a material strengthening of labor market conditions.

The outlook for inflation is little changed from the October Tealbook. The latest data appear to support our view that the faster pace of core inflation evident in the spring and summer was mainly due to transitory factors, most notably the pass-through of the surge in commodity and import prices during the first half of this year. In an environment in which inflation expectations are anticipated to hold steady and slack in labor and product markets is expected to remain substantial, core inflation is projected to persist at  $1\frac{1}{2}$  percent over the next two years. With energy prices expected to edge down over the projection period, headline inflation runs just a bit below core in both 2012 and 2013.

## **KEY BACKGROUND FACTORS**

The box on the consequences of the European crisis discusses the various channels through which the developments in Europe affect our assumptions about financial conditions over the projection period.

## **Monetary Policy**

With little change in the outlook for slack in labor and product markets by the end of the medium-term projection, and with the inflation forecast essentially unrevised, we continue to assume that the FOMC will hold the target federal funds rate in the current range of 0 to  $\frac{1}{4}$  percent well into 2014. On our revised projection, we now have liftoff occurring in the fourth quarter of 2014, one quarter later than in the October Tealbook. We also assume that the Committee will maintain the Federal Reserve's current portfolio-related policies.

## Consequences of the European Crisis for the U.S. Outlook

As detailed in the International Developments section, European policymakers continue to struggle to devise a credible, comprehensive solution to the region's fiscal crisis, and prospects for the region remain highly uncertain. Amid continued financial stresses and dismal economic indicators, the staff now anticipates that the euro-area economies will suffer a moderate recession. The revisions to the projection for the U.S. economy since the October Tealbook reflect the changing European situation in three main ways. The first influence is through foreign trade: In this projection, the export forecast has been weakened considerably, reflecting both the weaker economic outlook abroad (directly in Europe and indirectly in other countries as well) and the stronger exchange value of the dollar, reflecting safe-haven demands for our currency while the European situation remains especially unsettled.

Second, the European situation affects the outlook through its effect on U.S. asset prices. Due in part to strong safe-haven demands, long-maturity U.S. Treasury yields have remained very low, and private-sector bond spreads and equity risk premiums have moved up noticeably on balance. Correlations between changes in the European sovereign bond spreads and movements in U.S. financial asset prices have remained high, suggesting that the low levels of long-term Treasury yields and the high levels of the equity premium have reflected continued concern about the European sovereign debt crisis.

Looking forward, the baseline forecast assumes that the heightened uncertainty associated with the European crisis will extend well into next year, as European policymakers continue to face difficulties in designing and implementing a set of policies that allays investor concerns. As a result, through the middle of next year, Treasury yields are projected to remain lower than they would otherwise. U.S. equity prices are forecast to stay roughly flat, rather than moving up steadily as previously assumed; similarly, spreads on BBB-rated corporate bonds and conforming fixed-rate mortgages are forecast to remain wide. Around the middle of 2012, however, we assume that investors, businesses, and households will begin to regain confidence as measures to address the debt crisis gain traction. Accordingly, we assume that Treasury yields begin to rise and risk premiums in U.S. financial markets start to narrow. Moreover, the safe-haven demands for dollar-denominated assets begin to diminish, leading to some unwinding of the recent dollar appreciation.

Finally, the heightened uncertainty and pullback in risk-taking that is evident in asset prices may also make banks more hesitant to lend and households and businesses more hesitant to commit to major purchases. As with our assumptions about asset prices, we assume that such factors worsen over the next several quarters but then gradually improve. As a consequence, consumer

durables and investment spending have been weakened some in 2012 but, thereafter, the drag from this source eases.

Despite gradual recuperation beginning around the middle of next year, our revised thinking about the implications of the European situation leaves a persistent (though not permanent) imprint on the baseline projection for domestic real activity, reducing the level of real GDP about  $\frac{1}{2}$  percent by the end of 2013.

In the event of a more adverse outcome in Europe, financial linkages between Europe and the United States could come into play to a greater degree. Although U.S. banks have significantly reduced their direct exposures to peripheral Europe, they still have large direct exposures to entities in core European countries. Similarly, while U.S. money market funds (MMFs) have cut exposures to peripheral Europe, they remain heavily exposed to financial institutions in core European countries.

It is difficult to gauge the risks to the U.S. financial system should events turn out to be worse than anticipated, especially as some segments of the financial system are very sensitive even to small losses. For example, losses in the MMF sector could cause some funds to “break the buck” and possibly induce a catastrophic run on MMFs. Similarly, in repo markets, the recent U.S. financial crisis showed that doubts about the solvency of counterparties can trigger runs. The resulting inability to obtain short-term funding can lead to shortages of liquidity in markets for longer-term assets as well as fire sales, leading in turn to declines in asset prices. Such an environment may entail a more-general pullback from risk-taking, causing further reductions in equity prices, wider spreads on risky securities, and a pullback in bank lending. Finally, the additional uncertainty and pullback in risk-taking may also make households and businesses still more reticent to increase their spending.

Although the staff’s baseline forecast envisions that financial conditions in Europe are likely to remain unsettled through roughly the first half of next year before starting to improve, the timing of such a turnaround cannot be predicted with any confidence. Against the backdrop of very fragile financial conditions in Europe, decelerating economic activity around the world, and weak confidence of households and firms, the risks associated with our outlook for Europe and its consequences for the U.S. economy appear outsized. Accordingly, the “European Crisis with Severe Spillovers” scenario presented in the Risks and Uncertainty section explores the implications of a more substantial deterioration in Europe for the U.S. outlook. Alternatively, European policymakers could implement a credible and decisive plan that restores confidence sooner than we anticipate, and these actions would likely spur a much faster economic recovery. The possible implications for the U.S. outlook are explored in the “Faster European Recovery” scenario.



## Interest Rates

Even though the yield on 10-year Treasury securities has changed little, on net, since the October Tealbook, we have lowered its projected path this round. In the near term, the downward revision reflects our thinking that sluggish progress toward resolving the European debt crisis will prompt greater safe-haven demand for Treasury securities in coming quarters. And, with real GDP now projected to barely outpace its potential rate over the medium term, we have flattened the contour of the 10-year Treasury yield a little over the next two years.

That said, as in previous projections, we expect the 10-year Treasury yield to rise markedly from the middle of next year through the end of 2013, ending that year at 3½ percent—1½ percentage points above its current level. This projected increase reflects the movement of the valuation window through the period of near-zero short-term interest rates, a gradual waning of the effects of nonconventional monetary policy, and an unwinding of safe-haven demands as apprehensions related to the European debt crisis eventually abate and the U.S. economic recovery gains a firmer footing.

Spreads on BBB-rated corporate bonds and conforming fixed-rate mortgages have not changed much, on net, since the October Tealbook. These spreads are currently well above their typical levels, and, as in previous forecasts, we expect them to narrow gradually over the medium term. However, given the less sanguine outlook for progress on the European front in the near term, both spreads are now expected to be roughly flat over the next few quarters before narrowing further out. Coupled with our forecast for Treasury rates, these assumptions imply a moderate increase in yields on these private instruments over the next two years.

## Equity Prices and Home Prices

Broad U.S. stock price indexes have exhibited considerable volatility recently, reflecting the sometimes pronounced anxiety among investors about the European debt crisis; they now stand about 1 percent higher than expected in the October Tealbook. However, given our more pessimistic view of the European situation, we have lowered our projection for U.S. stock prices a little over the projection period. We now expect the U.S. equity premium to be essentially flat through the middle of next year and then to begin narrowing as investors gain confidence that European authorities will make progress toward putting sovereign debt on a more sustainable path as well as toward guarding against major default. In all, the level of stock prices is projected to be more

than 3 percent lower than in the October Tealbook by the middle of 2012, narrowing to almost 2 percent lower by the end of 2013.

According to the latest data, home prices have continued to edge down in recent months by a touch more than we expected. We reacted by shaving the level of home prices throughout the projection period. Our forecast calls for the CoreLogic home price index to decrease 1 percent in 2012 and to be about unchanged in 2013.

## **Fiscal Policy**

We have changed our fiscal policy assumptions and now assume that the Congress will extend for one year both the 2 percentage point payroll tax reduction for employees and the Emergency Unemployment Compensation (EUC) program. We had previously assumed that the payroll tax reduction would expire at the end of this year and that the EUC benefits would phase out over the course of 2012. Our other fiscal policy assumptions are unchanged: We continue to assume that discretionary spending beginning in fiscal year 2012 will be restrained by the caps set in the Budget Control Act, and that additional measures will be put in place to reduce the budget deficit by \$1.2 trillion in fiscal 2013 through 2021, consistent with the spending sequester triggered by the failure of the so-called supercommittee. On our revised assumptions, we now expect federal fiscal policy to impose restraint of only about  $\frac{1}{4}$  percentage point on the growth of real GDP in 2012; the remaining restraint reflects the winding down of earlier stimulus-related policies and the beginning of the fiscal restraint from the Budget Control Act. In 2013, federal fiscal policy is anticipated to impose a drag of 1 percentage point of GDP; this drop is larger than in the October Tealbook, reflecting the expiration of the payroll tax cut and EUC program.

The markdown in economic activity and our new policy assumptions imply a forecast for the unified budget deficit that is a little larger than in the October projection. However, we continue to expect the budget deficit to narrow over the forecast period as fiscal policy tightens and as tax revenues are boosted by the gradual pickup in the pace of economic activity. The budget deficit in fiscal 2011 was \$1.3 trillion ( $8\frac{1}{2}$  percent of GDP), and we expect it to decline to about \$900 billion ( $5\frac{1}{2}$  percent of GDP) in fiscal 2013. Federal debt held by the public is projected to rise to about 75 percent of GDP over this period.

## Foreign Activity and the Dollar

We expect that foreign real GDP will expand at an annual rate of  $2\frac{1}{4}$  percent in the current quarter, down from a  $3\frac{3}{4}$  percent third-quarter pace. The anticipated slowdown this quarter in part reflects the waning of several factors that temporarily boosted growth last quarter, including the economic recovery from the earlier disaster in Japan. The slowing this quarter is also exacerbated by the effects of floods in Thailand, which disrupted economic activity in that country and supply chains throughout Asia. As discussed earlier, weak economic data and the expectation that financial tensions will persist have led us to revise down significantly our forecast for European economic activity, and we now expect euro-area GDP to contract this quarter and throughout 2012. Economic growth in the emerging market economies (EMEs) is expected to slow to a moderate pace during the forecast period, largely because of weakening external demand, even as domestic demand continues to provide solid support. In all, the projection for overall foreign output growth is down nearly  $\frac{1}{2}$  percentage point per year over the forecast period relative to the October Tealbook. Foreign real GDP is expected to increase about  $2\frac{1}{2}$  percent next year and then move up to a 3 percent gain in 2013 as financial tensions eventually abate and the euro-area economy slowly recuperates.

Since the previous Tealbook, the dollar has appreciated against most major currencies, likely as a reflection of increased financial stress in Europe. Going forward, we project the broad real dollar to depreciate  $1\frac{1}{2}$  percent in 2012 and 3 percent in 2013, with most of this decline concentrated against the emerging market currencies. Compared with the previous Tealbook, we have lessened the pace of dollar depreciation in 2012, as strains within the euro area continue to support the dollar, and have increased the rate of depreciation in 2013, when these financial stresses are expected to abate. On average over the forecast period, the level of the broad real dollar is almost  $2\frac{1}{2}$  percent higher than we projected in the October Tealbook.

## Oil and Other Commodity Prices

The prices of near-dated futures contracts for Brent crude changed little since the previous Tealbook; accordingly, our forecast for the price of imported oil is also little changed in the near term.<sup>1</sup> We project the price of imported oil to decline about \$9 per

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<sup>1</sup> The spot price for West Texas Intermediate (WTI) crude oil has risen about \$8 per barrel since the time of the October Tealbook, closing at \$101 per barrel on December 5. This increase largely reflected the mid-November announcement of plans to reverse the flow of a key pipeline currently delivering oil from the Gulf Coast into Cushing, Oklahoma, the delivery point for WTI crude. This

barrel over the forecast period, ending 2013 at about \$95 per barrel, in line with expectations of continued supply growth and only moderate increases in demand. By the end of 2013, this forecast is about \$6 per barrel below the forecast in the previous Tealbook. The projected path is also a bit below the one evident in futures prices, reflecting our adjustment for a global growth outlook that is weaker than the consensus among outside forecasters.

The broad index of nonfuel commodity prices that we follow has fallen more than 3 percent since the time of the October Tealbook, largely on account of lower prices for agricultural products. Field crops, including corn, soybeans, and wheat, recorded some of the steepest drops, as the negative effect of weaker demand prospects was reinforced by an improved global supply outlook. Overall, we expect nonfuel commodity prices to decline slightly further through 2013.

## **RECENT DEVELOPMENTS AND THE NEAR-TERM OUTLOOK**

Real GDP is projected to advance at an average pace of 2½ percent in the second half of the year, the same as in the October Tealbook. Consumer spending appears to be a little firmer than we expected, but inventory accumulation and defense spending are likely to be weaker. Our forecast calls for real GDP to rise at an annual rate of about 2 percent in the first quarter, down ¼ percentage point from the October Tealbook. This projection reflects the weaker prospects for net exports and domestic demand in light of the European situation and the lower level of disposable income, which is partly offset by the extension of the payroll tax cut and EUC benefits.

### **The Labor Market**

Overall, the news about conditions in the labor market has been a bit more encouraging than we anticipated in the October forecast. In particular, the unemployment rate fell 0.4 percentage point in November to 8.6 percent. Although we think that this decline likely exaggerates the improvement in underlying conditions, we do take some signal from it. We expect the unemployment rate to tick back up to 8.8 percent in December, which is below the 9.1 percent rate we had projected last Tealbook.

Meanwhile, the news from the establishment survey has been close to our expectations, with private nonfarm payroll employment rising 130,000 per month, on

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reversal will help to alleviate the supply glut of crude oil in the Midwest and will better integrate WTI with global markets.

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

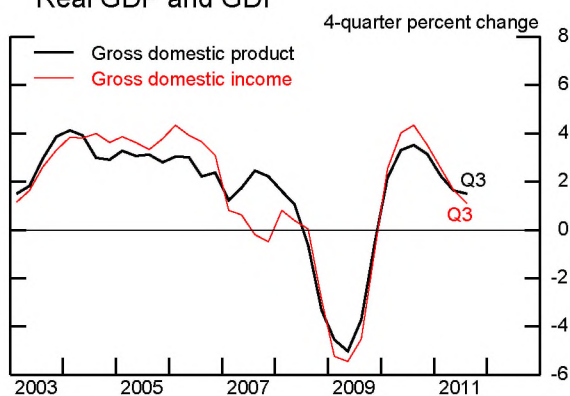
Measure	2011:Q3		2011:Q4		2012:Q1	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
<b>Real GDP</b>	<b>2.7</b>	<b>1.9</b>	<b>2.5</b>	<b>3.2</b>	<b>2.4</b>	<b>2.1</b>
Private domestic final purchases	3.4	3.6	1.9	2.6	1.8	1.9
Personal consumption expenditures	2.2	2.1	2.0	2.4	1.9	2.3
Residential investment	1.2	1.7	3.2	3.1	3.5	3.6
Business Fixed Investment	12.8	15.8	1.3	3.7	.3	-1.2
Government Purchases	-1.2	-.2	1.4	-1.9	-.8	1.1
<i>Contributions to change in real GDP</i>						
Inventory investment <sup>1</sup>	-.3	-1.5	.4	1.2	.6	.1
Net exports <sup>1</sup>	.4	.5	.2	.2	.4	.1
<b>Unemployment Rate<sup>2</sup></b>	<b>9.1</b>	<b>9.1</b>	<b>9.1</b>	<b>8.8</b>	<b>9.0</b>	<b>8.8</b>
<b>PCE Chain Price Index</b>	<b>2.3</b>	<b>2.3</b>	<b>1.2</b>	<b>.7</b>	<b>1.4</b>	<b>1.4</b>
Ex. food and energy	2.1	2.0	1.5	1.1	1.6	1.6

1. Percentage points.

2. Percent.

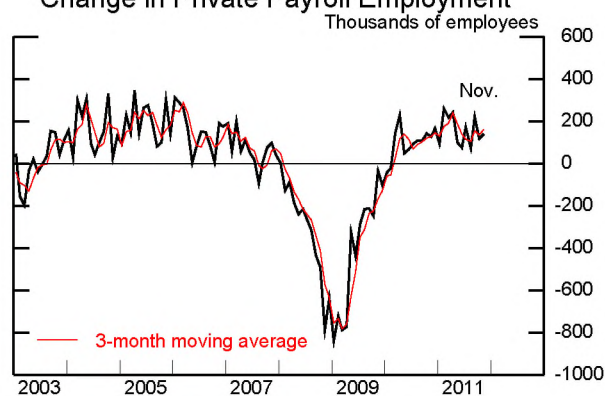
**Recent Nonfinancial Developments (1)**

**Real GDP and GDI**



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

**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."

average, in October and November. Looking forward, we now project that private employers will add 150,000 jobs per month from December through March, about the same pace of hiring as in the previous Tealbook. With state and local governments expected to make further cuts to payrolls in response to budget pressures, total payroll employment is expected to increase about 125,000 per month through March. In light of these modest gains in employment, we expect the unemployment rate to average 8.8 percent through the first quarter.

### **The Industrial Sector**

We expect manufacturing output to rise only modestly this quarter and next. Outside the motor vehicle supply chain, the pace of activity has been sluggish in recent months, and the available near-term indicators of manufacturing production remain lackluster on balance. In contrast, automobile dealers' inventories are lean and we expect motor vehicle production to step up this quarter and next, roughly in line with manufacturers' assembly schedules. (Disruptions associated with flooding in Thailand are expected to have only a small effect on vehicle assemblies.) In total, we now expect manufacturing output to rise at an annual rate of about  $2\frac{3}{4}$  percent on average over the fourth and first quarters, slightly weaker than the October Tealbook forecast.

### **Household Spending**

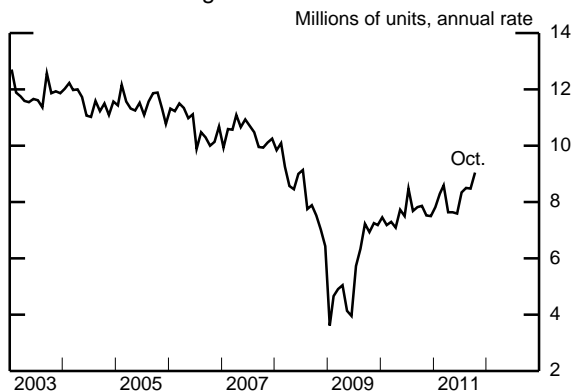
Incoming indicators of consumer spending in the fourth quarter have been somewhat firmer than we had been expecting. Sales of light vehicles averaged 13.4 million units at an annual rate in October and November, a bit higher than projected in the previous Tealbook. In addition, retail sales in October were noticeably stronger than expected, and some indicators suggest sales growth in November was solid as well. As a result, we now project that real PCE will rise at an annual rate of about  $2\frac{1}{2}$  percent in the current quarter,  $\frac{1}{2}$  percentage point faster than in the October Tealbook.

This pace of spending, however, seems stronger than can be explained by its usual determinants. Revised data indicate that DPI last quarter was substantially lower than we had expected, and indicators of consumer sentiment remain very low, even though they are up from their recent troughs. The downward revision to income restrains our projection of consumption expenditures going forward, but the change in fiscal policy assumptions supports it. All told, we expect real PCE to rise at an annual rate of  $2\frac{1}{4}$  percent next quarter, just a bit slower than in the fourth quarter and about  $\frac{1}{2}$  percentage point faster than in the previous Tealbook.

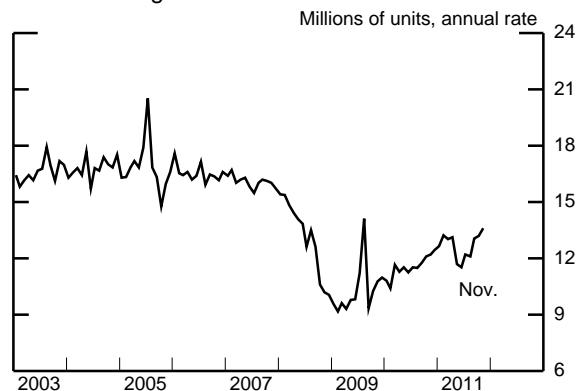


## Recent Nonfinancial Developments (2)

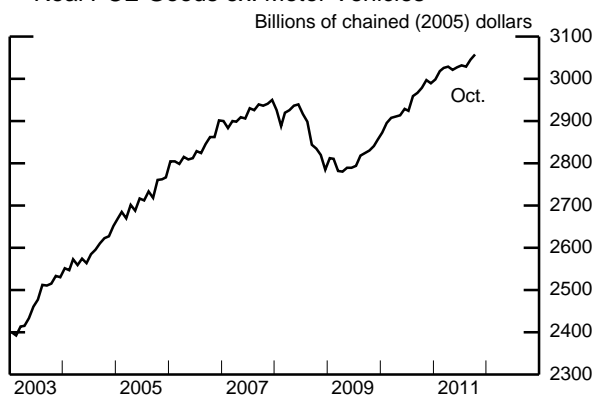
Production of Light Motor Vehicles



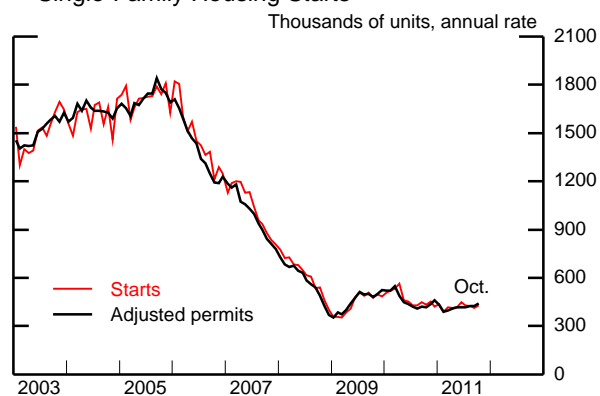
Sales of Light Motor Vehicles



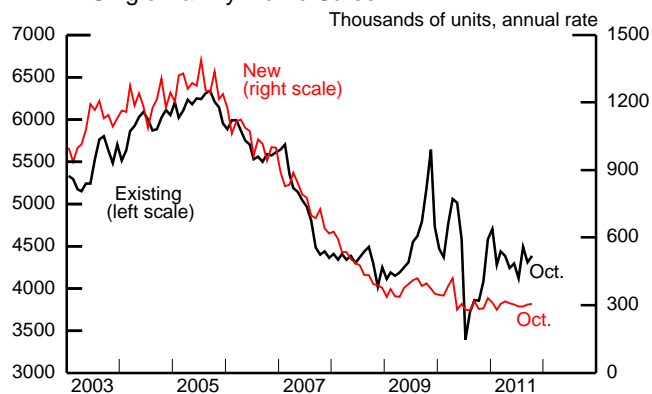
Real PCE Goods ex. Motor Vehicles



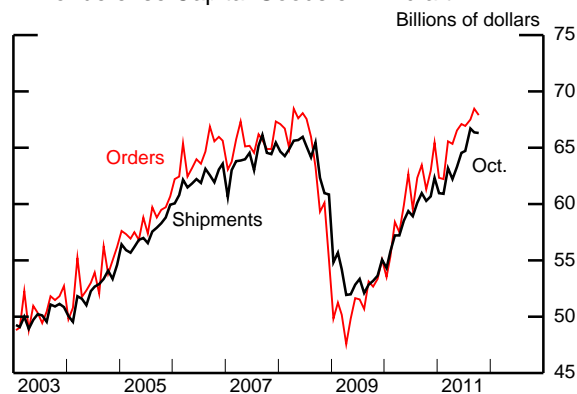
Single-Family Housing Starts



Single-Family Home Sales



Nondefense Capital Goods ex. Aircraft



Residential construction remains depressed. Available data for starts, permits, and home sales through October continue to show no meaningful upturn in housing demand since activity bottomed out at the end of the recession. Although affordability has increased, many potential buyers either lack the down payment and credit history to qualify for loans or are discouraged by ongoing uncertainty about future income and employment. Moreover, new housing construction continues to be held down by the considerable overhang of vacant homes and by tight credit availability for builders. Accordingly, we expect single-family starts to continue to track sideways over the next few months at an annual rate of 430,000 units, similar to recent Tealbook projections. In contrast, in response to increased demand for apartments and falling vacancy rates, multifamily starts have been moving up slowly in recent quarters, albeit from very low levels. We expect this gradual improvement to continue.

### **Business Investment**

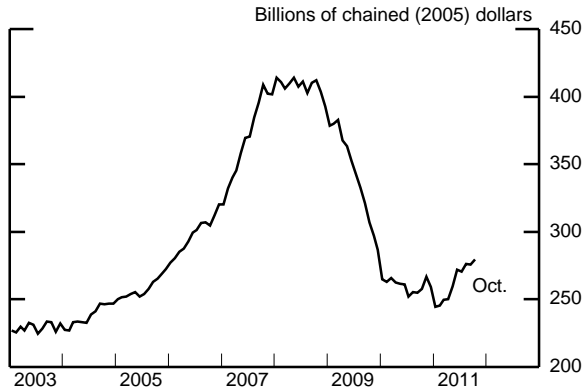
Recent data suggest that real spending on equipment and software (E&S) has softened considerably in recent months, about as expected. After rising at an annual rate of 16 percent in the third quarter, real investment in E&S is projected to increase 3 percent in the current quarter. Moreover, forward-looking indicators, including capital spending plans, analysts' earnings expectations for capital goods producers, and corporate bond spreads, have all become more downbeat of late and point to continued near-term weakness in E&S. As a result, we expect spending to be about flat in the first quarter of next year. In the previous Tealbook, we expected E&S to register gains at an annual rate of about 3 percent, on average, over the fourth and first quarters.

Business outlays on nonresidential structures rose at double-digit rates in the second and third quarters. However, outside the drilling and mining sector, that rapid pace seems unlikely to be sustained given the unfavorable conditions facing the sector, including high vacancy rates, low property values, and tight lending conditions. Moreover, the architectural billings index—a useful indicator of building activity two to three quarters out—continues to register readings consistent with spending declines. Nonetheless, recent construction data have been a bit more upbeat than we had expected, and we have boosted our near-term projection as a result. Meanwhile, activity in the drilling and mining sector has continued to rise at a brisk pace in recent quarters, driven by the high price of crude oil and by new techniques that have raised the profitability of drilling for oil and natural gas. We expect these innovations to continue to support robust growth in this sector over the next few quarters.



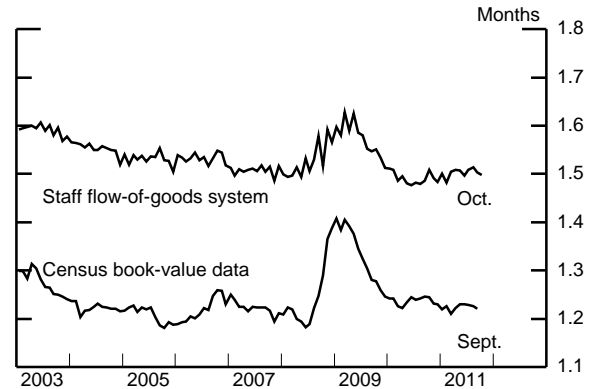
## Recent Nonfinancial Developments (3)

Nonresidential Construction Put in Place



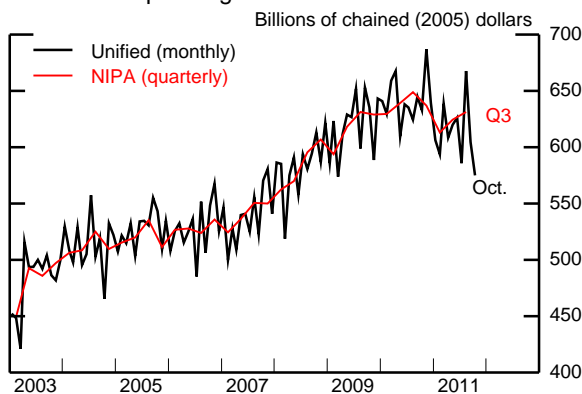
Source: U.S. Census Bureau

Inventory Ratios ex. Motor Vehicles



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

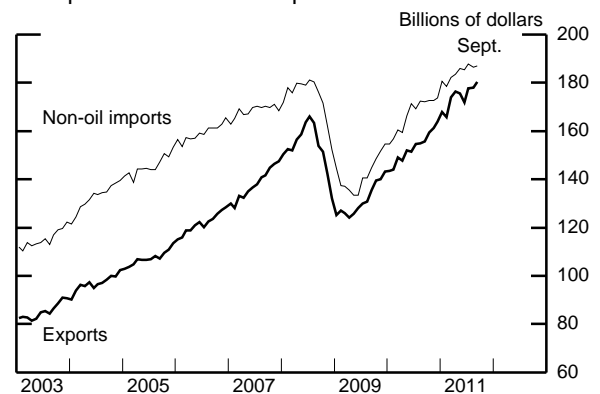
Defense Spending



Note: The unified series is seasonally adjusted and deflated by BEA prices. The NIPA series excludes the consumption of fixed capital.

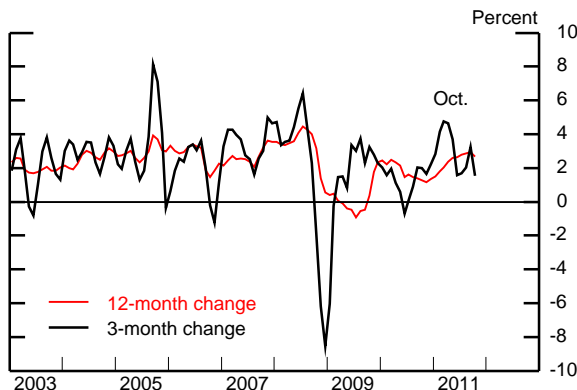
Source: *Monthly Treasury Statement*; U.S. Dept. of Commerce, Bureau of Economic Analysis.

Exports and Non-Oil Imports



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

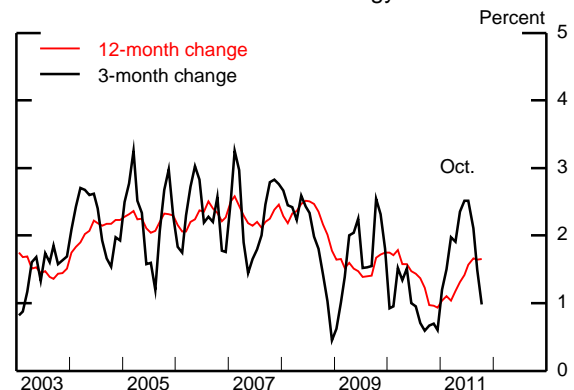
Total PCE Prices



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.

As noted earlier, motor vehicle dealers' stocks are still lean, and we expect automakers to rebuild inventories slowly over the next few months. Elsewhere, the pace of inventory investment slowed sharply in the third quarter, and inventory stocks look fairly well aligned with sales. Therefore, we now expect inventory investment outside of motor vehicles to proceed at a moderate pace in the near term. As a result, after subtracting considerably more than we expected from the growth of GDP in the third quarter, the contribution of inventory investment to the growth of real GDP over the fourth and first quarters is a bit higher than in the previous Tealbook.

## Government

Incoming data suggest that real federal purchases will likely decline this quarter as a result of a dip in defense spending. We expect purchases to rebound in the first quarter as defense spending returns to a level we judge to be more in line with appropriations. Meanwhile, data for the state and local sector have come in broadly as expected at the time of the October Tealbook and provide some tentative signs that the rate of decline in real purchases is moderating. Since July, employment has declined by an average of about 10,000 jobs per month, compared with declines of roughly 30,000 in the first half of the year. Similarly, following extremely sharp decreases in real construction spending in the first half of the year, data through October point toward a flattening out of these expenditures in the second half. As in the October Tealbook, we project that real purchases by state and local governments will decline at an annual rate of about 1 percent this quarter and next.

## Foreign Trade

Real exports of goods and services are expected to increase at an average pace of 6 percent in the current quarter and the first quarter of next year, supported by continued foreign growth, particularly in the EMEs, and past depreciation of the dollar. This forecast is about 1½ percentage points lower than in the previous Tealbook: The path of the dollar is now higher and our outlook for foreign GDP lower in light of the European crisis.

After moving up at an annual rate of only ½ percent in the third quarter, real imports of goods and services are expected to rise at an average rate of about 4 percent over the current quarter and the first quarter of next year. The pickup in import growth in part reflects a rebound in oil imports following a sharp decline in the third quarter because of a large release from the Strategic Petroleum Reserve. The acceleration also

incorporates our view that non-oil imports will recover from their surprising third-quarter weakness.

All together, we expect the external sector to add  $\frac{1}{4}$  percentage point to GDP growth in the current quarter and to be about neutral for growth in the first quarter of next year. Although this forecast is a touch more positive in the current quarter, the projection for the contribution in the first quarter of next year has been revised down by over  $\frac{1}{4}$  percentage point.

## Prices and Wages

Recent data on consumer prices have been broadly consistent with our October forecast. After rising at annual rates of  $3\frac{1}{2}$  percent in the first half of the year and  $2\frac{1}{4}$  percent in the third quarter, total PCE prices are now expected to edge up just  $\frac{3}{4}$  percent in the current quarter and  $1\frac{1}{2}$  percent in the first quarter of 2012, as energy prices turn down after their first-half surge and both food and core prices continue to decelerate.

With regard to core consumer prices, the latest data reinforce our view that the faster pace of inflation evident in the spring and summer was mainly due to transitory factors, including the pass-through of the first-half surge in commodity and import prices as well as a boost to motor vehicle prices that stemmed from post-earthquake supply shortages. Indeed, the prices of new motor vehicles have already decelerated noticeably, as have the prices for most other durable goods. We now project that core PCE price inflation will slow to 1 percent in the current quarter from an average of about  $2\frac{1}{4}$  percent in the second and third quarters. The fourth-quarter projection, which is about  $\frac{1}{2}$  percentage point below our forecast in the previous Tealbook, is held down by weak readings for prices for medical services in October that we do not expect to continue, and our forecast for core inflation in the first quarter of next year is unchanged at  $1\frac{1}{2}$  percent.

After moving up rapidly earlier in the year, consumer energy prices declined in October and are expected to show further declines in November and December; this contour mainly reflects the rise and subsequent reversal in the price of imported crude oil. (As noted earlier, the recent run-up in the price of West Texas Intermediate crude oil reflects idiosyncratic factors and has not been matched by prices of imported grades.) Similarly, we expect the recent deceleration in food prices to continue this quarter and next, as declines in crop prices since the spring continue to pass through to retail prices.

The latest readings on labor compensation have come in considerably lower than we expected in the October Tealbook. Based on the BEA's revised estimates of private compensation, the Productivity and Costs (P&C) measure of hourly compensation now appears to have edged lower in the second and third quarters, whereas the October projection assumed it had increased at an annual rate of about 2 percent over this period. In addition, the employment cost index (ECI) for private industry workers decelerated last quarter to an increase of 1½ percent, almost 1 percentage point lower than in the October Tealbook as payments for benefits slowed considerably more than expected. As these data tend to be noisy, we have not significantly revised our compensation in light of the weaker incoming data. We continue to project that both measures of hourly compensation will rise at an average annual rate in the neighborhood of 2¼ percent over the next couple of quarters.

## THE MEDIUM-TERM OUTLOOK

We have lowered our projection for real GDP growth ¼ percentage point in 2012, to 2¼ percent, and ¾ percentage point in 2013, to 2½ percent. These revisions reflect the interplay of a number of factors. Most important, developments in Europe are now expected to weigh on U.S. economic growth throughout the medium term. Demand is also being held down by the much lower level of personal income as well as by our trimming of potential output growth. Finally, the assumed extensions of the payroll tax cut and EUC benefits partially offset these downward revisions, adding about ½ percentage point to real GDP growth in 2012 and deducting a somewhat smaller amount from 2013.<sup>2</sup> Absent these fiscal policy changes, we would have projected GDP growth to be just 1¾ percent in 2012 and to step up to 2¾ percent in 2013.

Since the October Tealbook, we have lowered our projection for the contribution of net exports to GDP growth by about ¼ percentage point on average over the projection period, as the recession in Europe and the higher path for the dollar weigh on export demand. Real export growth is expected to average about 5¼ percent in 2012 and 2013, down from 6¾ percent in the October Tealbook. Real imports are projected to increase at a 4 percent pace in 2012 and 2013, consistent with the pace of U.S. demand growth. In all, net exports are now expected to make no contribution to GDP growth over the medium term.

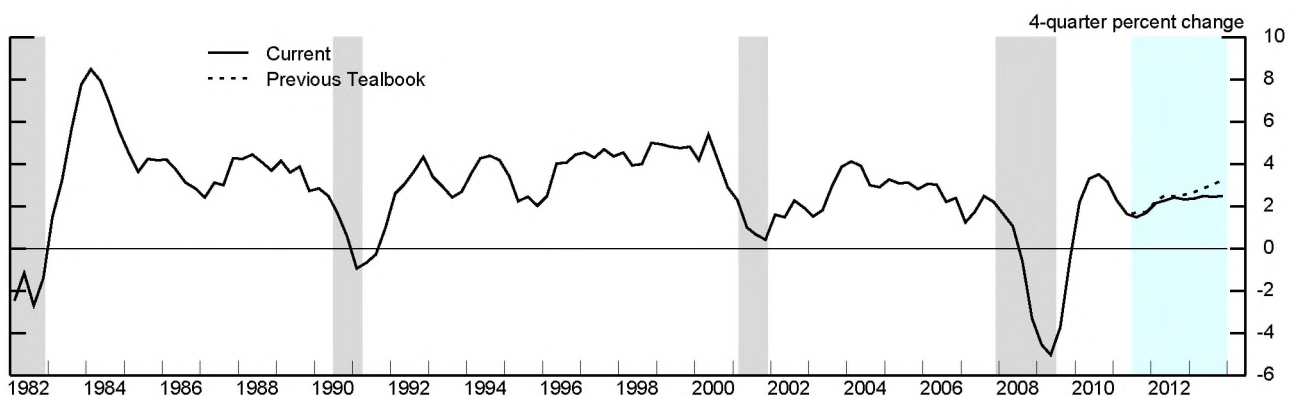
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<sup>2</sup> Because consumption responds only gradually to disposable income, the extension of the payroll tax cut still has a small positive effect on the level of GDP at the end of 2013.

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

Measure	2010	2011		2012	2013
		H1	H2		
<b>Real GDP</b>	<b>3.1</b>	<b>.8</b>	<b>2.6</b>	<b>2.3</b>	<b>2.5</b>
Previous Tealbook	3.1	.8	2.6	2.5	3.2
Final sales	2.4	.8	2.7	2.1	2.2
Previous Tealbook	2.4	.8	2.5	2.3	2.8
Personal consumption expenditures	3.0	1.4	2.2	2.4	2.3
Previous Tealbook	3.0	1.4	2.1	2.4	3.1
Residential investment	-6.3	.8	2.4	5.8	7.9
Previous Tealbook	-6.3	.8	2.2	6.2	9.2
Nonresidential structures	-1.8	2.5	10.2	-1.1	.9
Previous Tealbook	-1.8	2.5	4.0	-3.4	.3
Equipment and software	16.6	7.5	9.4	3.2	6.4
Previous Tealbook	16.6	7.5	8.0	5.3	6.7
Federal purchases	2.9	-3.9	-.8	.4	-3.9
Previous Tealbook	2.9	-3.9	1.1	-.7	-4.1
State and local purchases	-1.7	-3.1	-1.2	-.4	.8
Previous Tealbook	-1.7	-3.1	-.7	-.4	.8
Exports	8.8	5.7	5.4	5.1	5.5
Previous Tealbook	8.8	5.7	6.8	6.8	6.7
Imports	10.7	4.8	2.3	3.8	4.2
Previous Tealbook	10.7	4.8	3.6	3.7	4.9
Contributions to change in real GDP (percentage points)					
Inventory change	.7	.0	-.2	.3	.3
Previous Tealbook	.7	.0	.1	.2	.4
Net exports	-.6	-.1	.3	.0	.0
Previous Tealbook	-.6	-.1	.3	.3	.1

### Real GDP



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

The current forecast incorporates more-pessimistic projections for income and confidence. As a result, we have lowered our forecast of PCE growth over the medium term by an average of almost  $\frac{1}{2}$  percentage point per year. In addition, the revisions to our fiscal policy assumptions have changed the contour of the consumption forecast. The October Tealbook projected a noticeable acceleration of consumer spending between 2012 and 2013, but with the payroll tax cut and EUC benefits now lasting through the end of 2012, we now project real PCE to rise at a pace of around  $2\frac{1}{4}$  percent in both years.

In light of the sharp downward revision to household income and surprisingly strong recent data on consumer spending, the personal saving rate is projected to average  $4\frac{1}{4}$  percent in the current quarter, down from 5 percent at the start of this year. The projected path of the saving rate is buffeted by changes in fiscal policy, which affect the saving rate because of the gradual response of consumption to tax changes. Excluding the effects of fiscal policy, the saving rate is expected to rise about  $\frac{3}{4}$  percentage point over the projection period as consumption comes into better alignment with income.

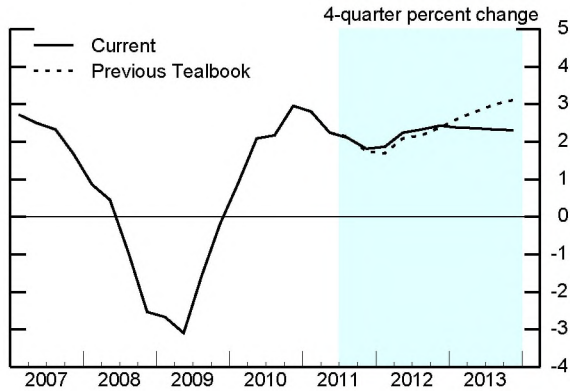
The downward revisions to output and the heightened uncertainty in the current forecast are expected to weigh on the business sector as well. Although many corporations are flush with cash and have ready access to capital markets, we do not expect firms to undertake any substantial increases in their productive capacity until financial conditions and business sentiment improve later next year. As a result, we expect real E&S outlays to rise just 3 percent in 2012 and  $6\frac{1}{2}$  percent in 2013. With this subdued level of investment, the growth rate of the capital stock remains quite low throughout the forecast period.

We continue to see no meaningful recovery in the housing sector over the medium term. Households' uncertainty about their future income and about the direction of house prices, combined with the prevalence of underwater mortgages and tight credit conditions, are likely to continue to restrain demand through the medium term. Moreover, to the extent demand is expected to improve, much of the increase will likely be satisfied by the outsized stock of vacant houses, which, given the pipeline of delinquent and foreclosed homes, should remain very large. As a result, single-family housing starts are projected to move up to an annual rate of only 550,000 units by the end of 2013—far below the pace we think is consistent with the longer-run demand for housing.

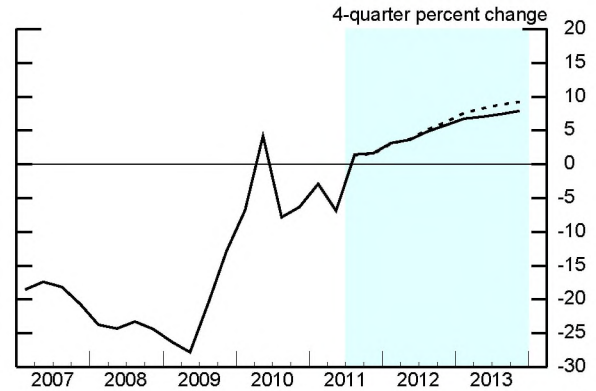


## Components of Final Demand

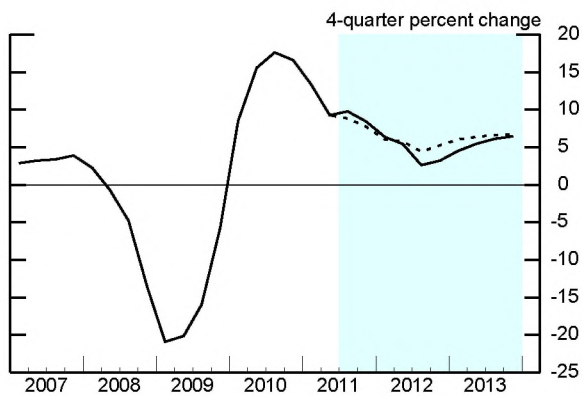
Personal Consumption Expenditures



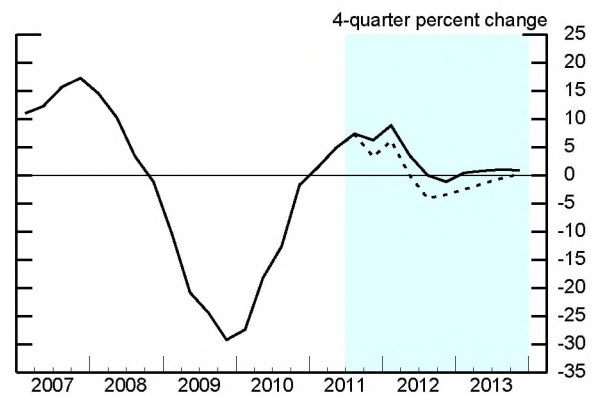
Residential Investment



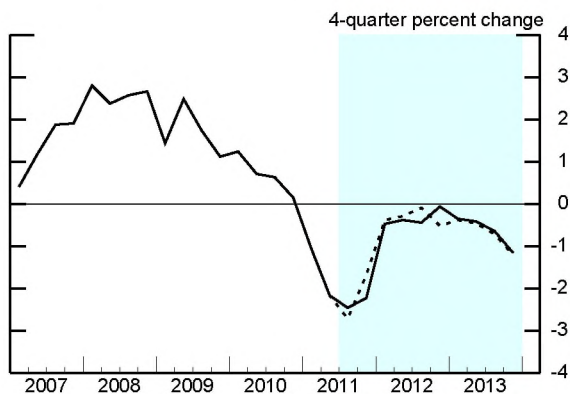
Equipment and Software



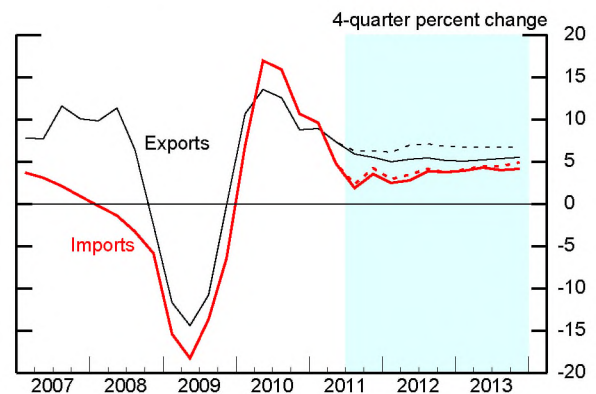
Nonresidential Structures



Government Consumption & Investment



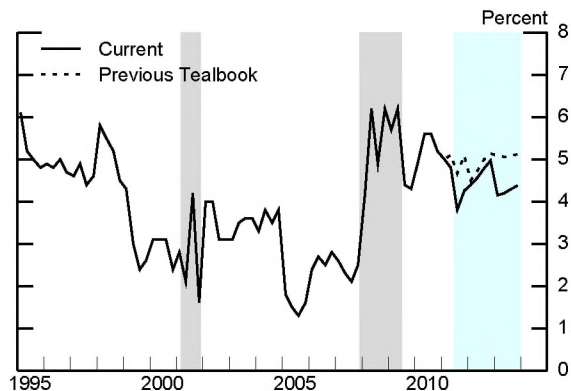
Exports and Imports



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

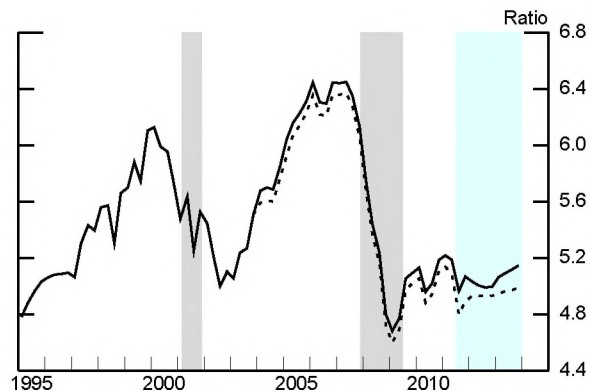
## Aspects of the Medium-Term Projection

### Personal Saving Rate



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

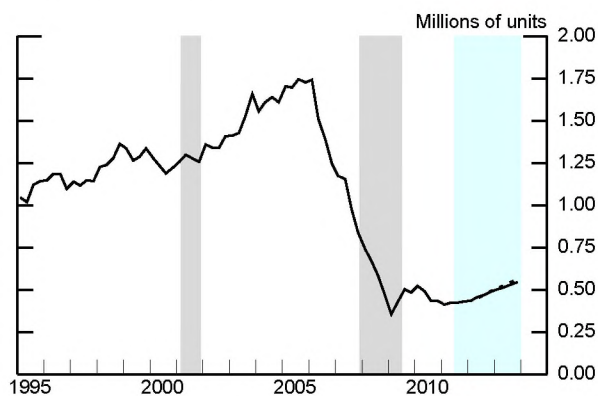
### Wealth-to-Income Ratio



Note: Household net worth as a ratio to disposable personal income.

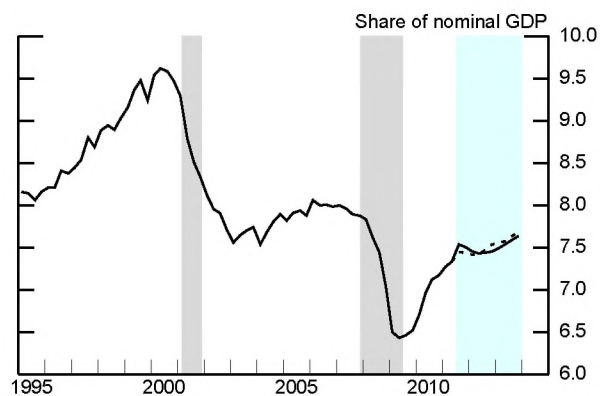
Source: For net worth, Federal Reserve Board, flow of funds data; for income, Dept. of Commerce, Bureau of Economic Analysis.

### Single-Family Housing Starts



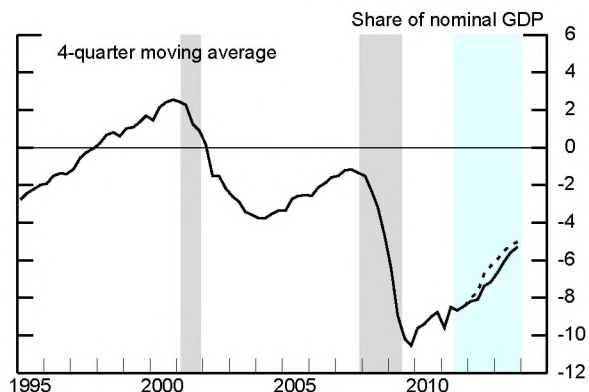
Source: U.S. Census Bureau.

### Equipment and Software Spending



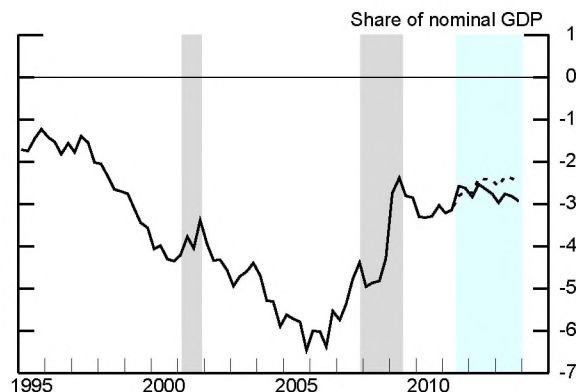
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

### 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.



### Decomposition of Potential GDP

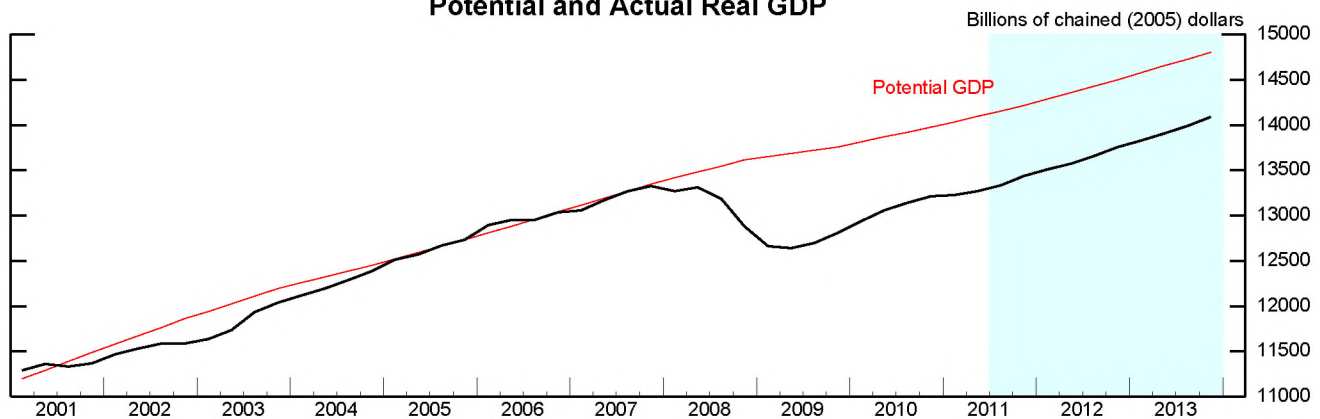
(Percent change, Q4 to Q4, except as noted)

Measure	1974-1995	1996-2000	2001-2009	2010	2011	2012	2013
Potential Real GDP	3.0	3.5	2.4	1.6	1.7	2.0	2.1
Previous Tealbook	3.0	3.5	2.5	1.7	2.1	2.1	2.2
<i>Selected contributions<sup>1</sup></i>							
Structural labor productivity	1.5	2.7	2.4	1.4	1.5	1.6	1.7
Previous Tealbook	1.5	2.7	2.4	1.5	1.7	1.7	1.9
Capital deepening	.7	1.5	.8	.4	.5	.5	.7
Previous Tealbook	.7	1.5	.8	.4	.6	.6	.8
Multifactor productivity	.5	.9	1.4	.9	.8	.9	.9
Previous Tealbook	.5	.9	1.4	1.0	1.0	1.0	1.0
Structural hours	1.5	1.0	.6	.5	.6	.7	.6
Previous Tealbook	1.5	1.0	.6	.5	.6	.7	.6
Labor force participation	.4	.0	-.3	-.4	-.3	-.2	-.3
Previous Tealbook	.4	.0	-.3	-.4	-.3	-.2	-.3

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.

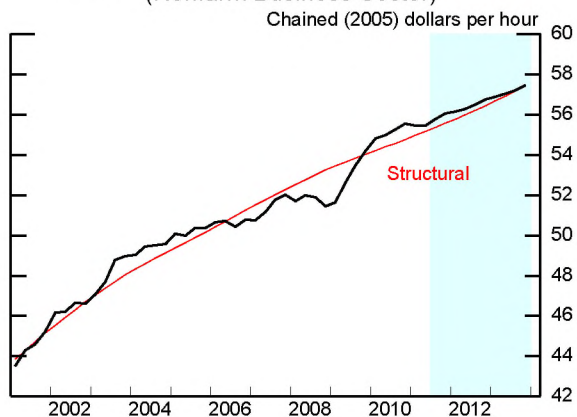
1. Percentage points.

### Potential and Actual Real GDP

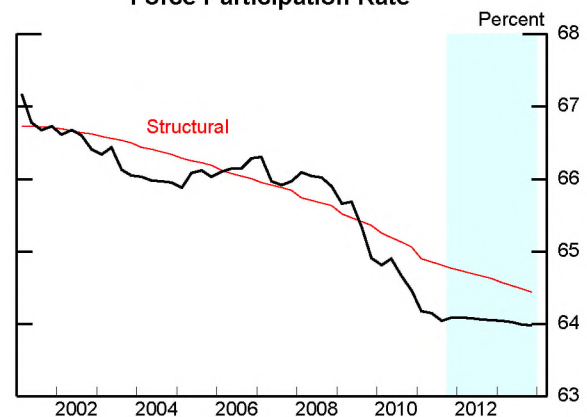


### Structural and Actual Labor Productivity

(Nonfarm Business Sector)



### Structural and Actual Labor Force Participation Rate



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

Similarly, we see few prospects for an appreciable gain in business spending on nonresidential structures excluding drilling and mining over the medium term. The headwinds facing this sector have not diminished materially, and we do not expect them to do so in coming quarters. In contrast, we have become somewhat more optimistic about drilling and mining activity based on an assessment that improvements in technologies are likely to provide a more prolonged boost to spending.

Finally, we continue to expect restrained government spending to hold down economic growth over the medium term. At the federal level, real purchases are projected to be about flat in 2012 and then to fall 4 percent in 2013 as discretionary spending is restrained by the caps in the Budget Control Act and expenditures for overseas military operations decline. In the state and local sector, budgets are expected to remain extremely tight: State tax revenues are rising at a solid pace, but the federal stimulus grants are being phased out and tax collections (especially property taxes) at the local level have been weak. Given these tight budget conditions, state and local government purchases are expected to be about flat over the next two years.

## **AGGREGATE SUPPLY, THE LABOR MARKET, AND INFLATION**

### **Potential GDP and the NAIRU**

Even discounting somewhat the November reading on the unemployment rate, unemployment has declined roughly  $\frac{3}{4}$  percentage point over the past year despite only modest growth of real activity, suggesting that the growth of potential output has been lower than we had previously estimated. Accordingly, we have reduced our estimate of potential GDP growth by 0.4 percentage point in 2011; we also nudged down our estimates of potential GDP growth in 2012 and 2013, reflecting both the lower investment spending in this projection and indications that trend multifactor productivity may be expanding a bit more slowly than we had previously estimated. We now assume that potential GDP will increase roughly 2 percent in both 2012 and 2013. The NAIRU is assumed stay at 6 percent through 2013.<sup>3</sup>

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<sup>3</sup> In light of our revised fiscal policy assumptions, we have boosted our estimate of the “effective” NAIRU (which includes the influence of extended and emergency unemployment benefits) to 6.4 percent at the end of 2012, up  $\frac{1}{4}$  percentage point from the October Tealbook assumption. However, the gap between the effective NAIRU and the traditional NAIRU is nearly gone by the end of 2013 when these benefits are almost fully wound down.

## The Outlook for the Labor Market and Resource Utilization

(Percent change from final quarter of preceding period)

Measure	2010	2011		2012	2013
		H1	H2		
Output per hour, nonfarm business	2.5	-4	2.1	1.3	1.2
Previous Tealbook	2.5	-3	2.4	1.2	1.7
Nonfarm private employment <sup>1</sup>	98	165	145	168	173
Previous Tealbook	98	165	119	174	220
Labor force participation rate <sup>2</sup>	64.5	64.1	64.1	64.1	64.0
Previous Tealbook	64.5	64.1	64.1	64.0	64.1
Civilian unemployment rate <sup>2</sup>	9.6	9.1	8.8	8.6	8.2
Previous Tealbook	9.6	9.1	9.1	8.6	8.1
Memo: GDP gap <sup>3</sup>	-5.4	-5.8	-5.5	-5.2	-4.8
Previous Tealbook	-5.6	-6.2	-6.0	-5.6	-4.7

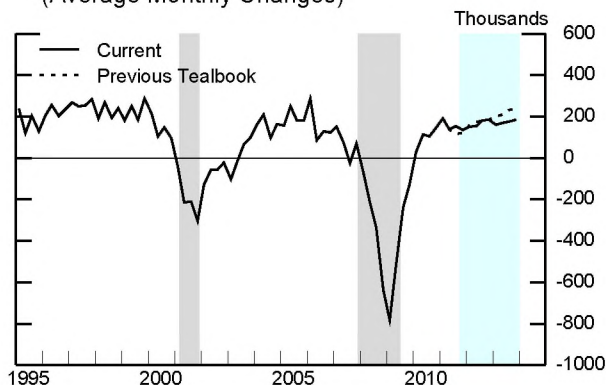
1. Thousands, average monthly changes.

2. Percent, average for the final quarter in the period.

3. Percent difference between actual and potential GDP in the final quarter of the period indicated. A negative number indicates that the economy is operating below potential.

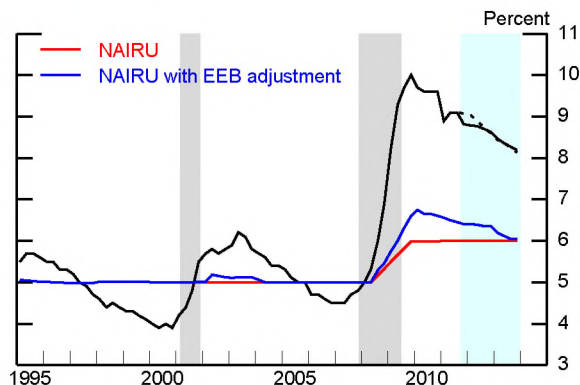
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

### Nonfarm Private Employment (Average Monthly Changes)



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

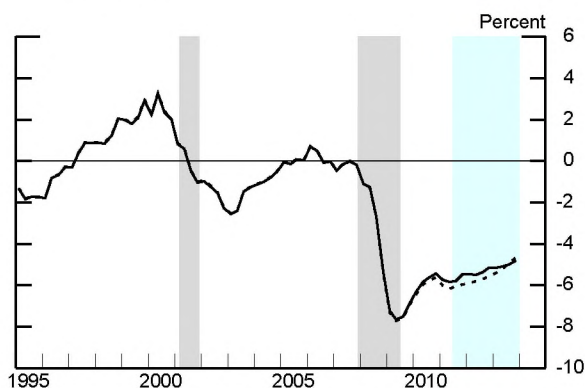
### Unemployment Rate



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.

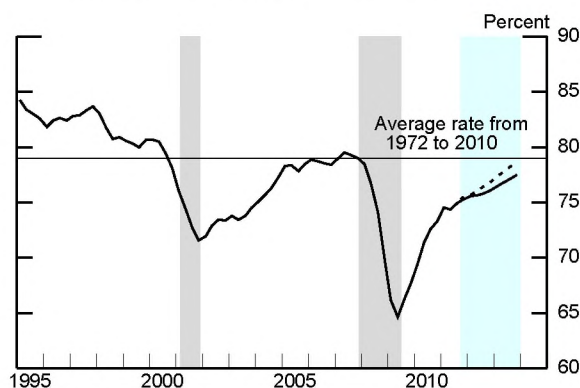
### GDP Gap



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.

## Productivity and the Labor Market

We estimate that productivity increased at an annual rate of about 2¼ percent in the third quarter after edging lower in the first half of the year, and we project that it will increase at an annual rate of about 2 percent in the current quarter. This projection leaves the level of productivity at the end of this year somewhat above our estimate of its trend, and we expect this gap to narrow over the forecast period.

With little acceleration in economic activity projected over the medium term, we now expect the pace of private employment growth to be mostly flat as well, with monthly job gains averaging 170,000 over 2012 and 2013. Meanwhile, we expect state and local employment to continue to decline in 2012, though by less than in recent years, and to rise modestly in 2013, as budget pressures diminish somewhat. With these tepid employment gains, the jobless rate edges down to about 8¼ percent by the end of 2013; more than half of this decline is accounted for by effect of the phase out of EUC benefits on labor force participation.

For a discussion of recent developments and prospects in employment at small businesses, see the box “Small and New Business Employment and Financing.”

## Resource Utilization

The recent unexpected decline in the unemployment rate and our revisions to potential GDP imply that the economy currently has a bit less slack than we assumed in the October Tealbook. But the downward revision to our forecast of economic activity also means that the slack is taken up even more gradually than in the previous projection. By our estimate, the unemployment rate in the current quarter is 2½ percentage points above the effective NAIRU; at the end of 2013, the gap is expected to remain elevated at 2¼ percentage points. This extended period of labor market slack is likely to be associated with a continuation of other adverse labor market conditions, including below-trend labor force participation and an unusually large concentration of workers experiencing long-term unemployment spells.

While we admit to considerable uncertainty about the magnitude of slack in labor and product markets, a wide range of other labor market indicators also supports the view that, despite some recent improvement, slack remains quite substantial. (See the exhibit “How Much Slack Is There in the Labor Market?”) For example, the deterioration in household perceptions of job availability, as measured by the Conference Board survey,

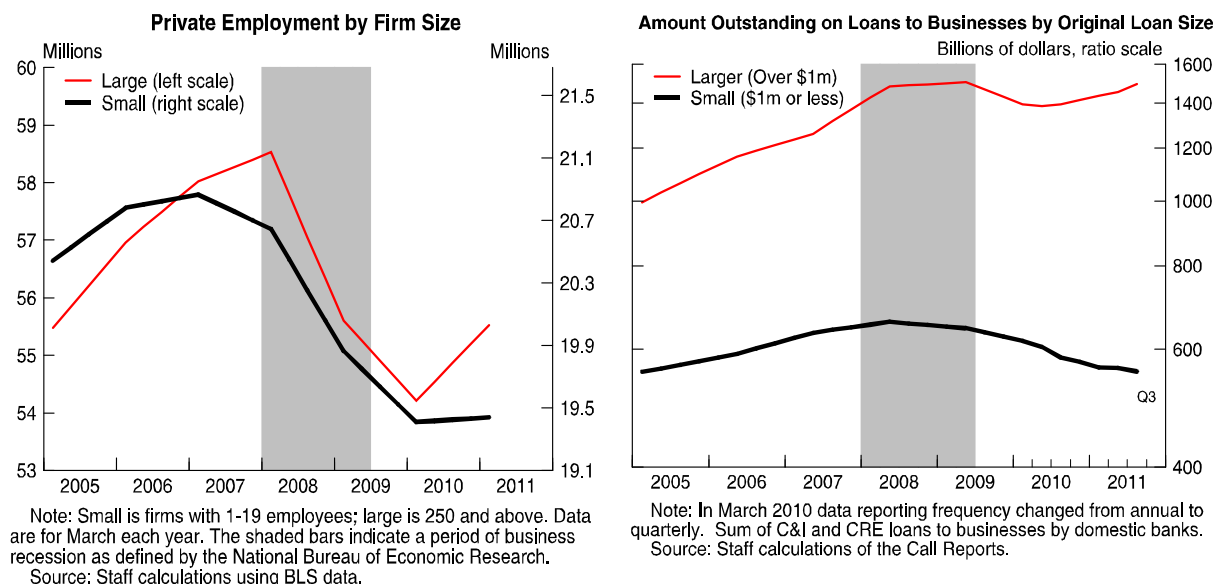
## Small and New Business Employment and Financing

Both employment at and lending to small businesses declined during the recession, and neither has yet shown signs of recovering. Although these two developments are linked, the causal relations are not clear: Tight credit conditions may have contributed to the weak employment performance, but we think that they probably played only a limited role. However, reduced household net wealth may have held down employment at start-ups and young businesses.

Employment at both small and large businesses fell sharply, and by similar degrees, from their pre-recession levels (the lower-left figure), whereas historically, large firms have tended to shed proportionately more jobs during recessions. While employment at larger businesses began to pick up modestly by early 2011, employment at small firms remained flat; historically, small firms have tended to grow faster than large ones in the early stages of recoveries.<sup>1</sup>

Commercial lending by domestic banks also declined in the wake of the financial crisis. According to data from the Call Reports, the outstanding value of large loans to businesses began to turn back up in late 2010; by the third quarter of this year, this value had nearly returned to its previous peak level (the lower-right figure). However, the same has not been true for small loans: the outstanding value of small loans to businesses (a proxy for loans to small businesses) continued to decline through the third quarter of this year.

Although employment and borrowing tend to move together, determining the causal chain from one to the other is difficult. Poor customer demand likely explains most of the weak performance of small firms as well as their larger counterparts. Overwhelmingly, businesses in the National Federation of Independent Business (NFIB) survey and elsewhere report that the most important

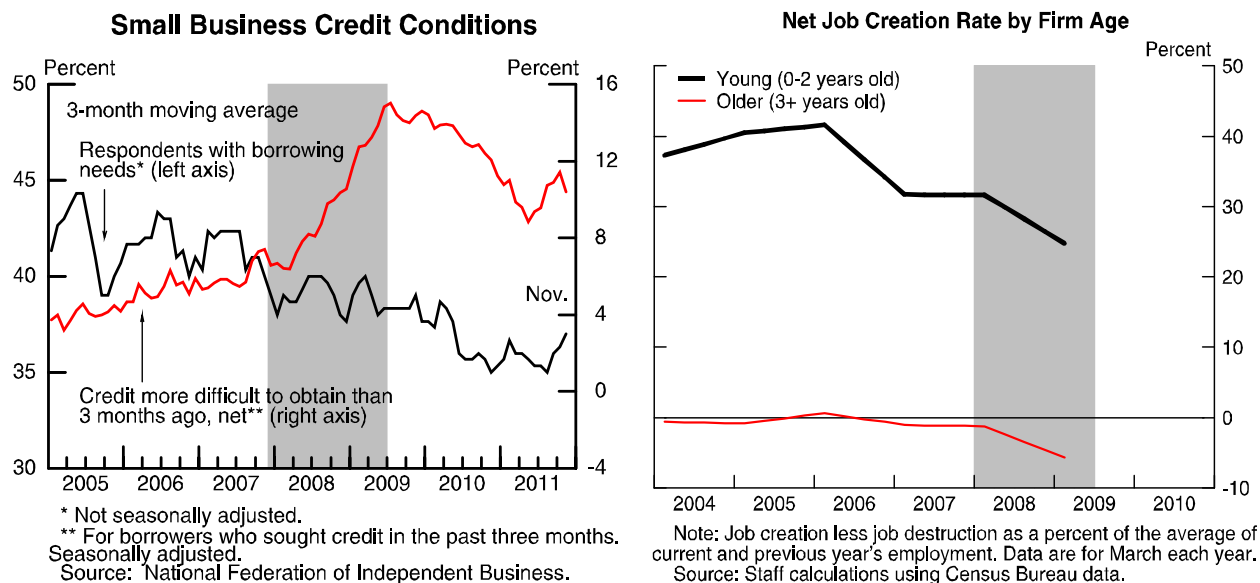


<sup>1</sup> See Giuseppe Moscarini and Fabien Postel-Vinay (forthcoming), "The Contribution of Large and Small Employers to Job Creation in Times of High and Low Unemployment," *American Economic Review*.



problem they face is weak sales. If firms anticipate continued slow sales growth, then they may be reluctant to hire additional employees or to borrow funds. Indeed, the share of firms in the NFIB survey that reported having any borrowing needs, met or unmet, has fallen substantially since 2007 and remains low by historical standards (the black line in the lower-left figure). At the same time, financing for small businesses did become increasingly difficult to obtain over this period, due to both tightened lending standards and borrowers' weakened balance sheets. The net percentage of firms in the NFIB survey reporting that credit was more difficult to obtain than in the prior three months rose markedly during the recession, and, although it has fallen some since its peak, it remains quite elevated (the red line). Overall, tight credit conditions for *existing* small businesses may have been a contributing factor to the employment problem, but we think it likely played only a minor independent role.

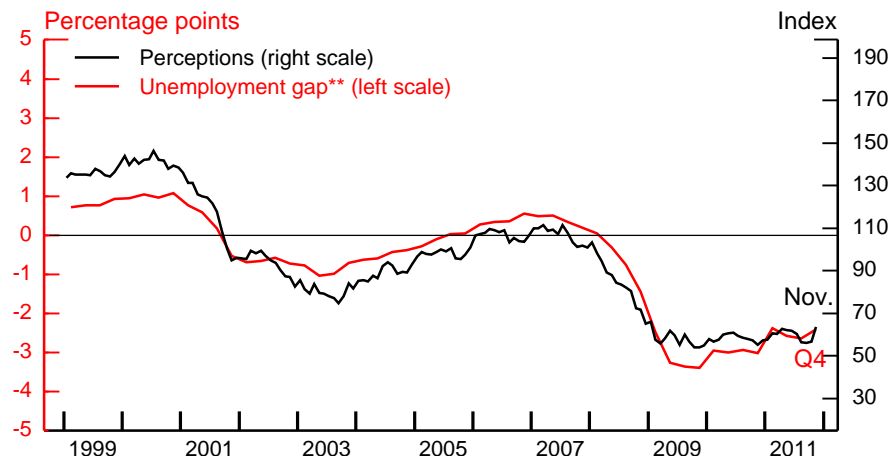
Potentially more important is the role played by *new and young* firms. A dramatic slowing in net job creation at new and young firms (the black line in the lower-right figure) accounted for much of the anemic employment performance at small firms from 2006 to 2009.<sup>2</sup> And the limited data available after 2009 suggest that job creation at such businesses has remained weak relative to historical norms. Yet, prior to this recession, job creation at new and young firms varied little with the business cycle. Why might this cycle have been different? One possibility is that difficulties in funding new businesses have hampered business creation. Data from the 2007 Survey of Business Owners indicate that at least 60 percent of business owners used personal and family savings or home equity to start their businesses, while only 11 percent used bank loans to do so. In the aggregate, household net worth remains well below its pre-recession level, reducing this major source of funding and possibly holding back employment growth significantly. Moreover, we project household net worth to recover only modestly in coming years, suggesting that funding troubles may continue to weigh on start-ups and young businesses.



<sup>2</sup> Historically, new and young firms have contributed disproportionately to net job creation, and the vast majority of these businesses are small. According to Census Bureau data, businesses less than three years old created almost 40 percent of all net new jobs from 1978 to 2009 despite accounting for less than 10 percent of employment.

## How Much Slack Is There in the Labor Market?

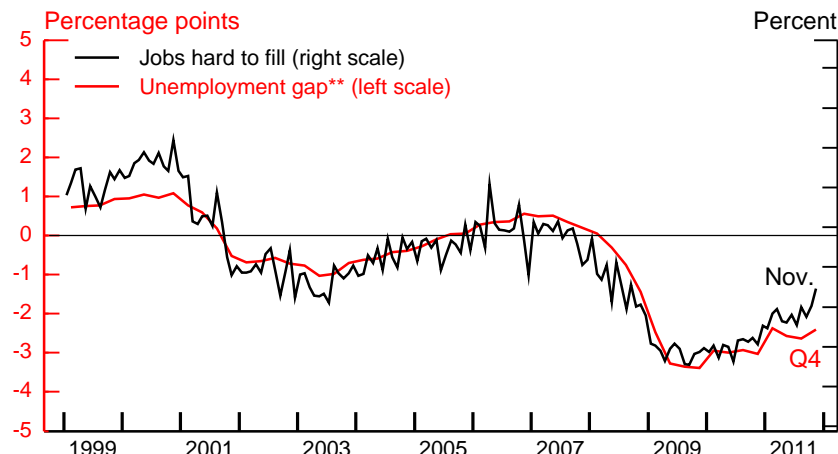
### Job Market Perceptions\*



\*Proportion of households believing jobs are plentiful minus the proportion believing jobs are hard to get plus 100. \*\*The staff effective NAIRU minus the unemployment rate.

Source: Conference Board.

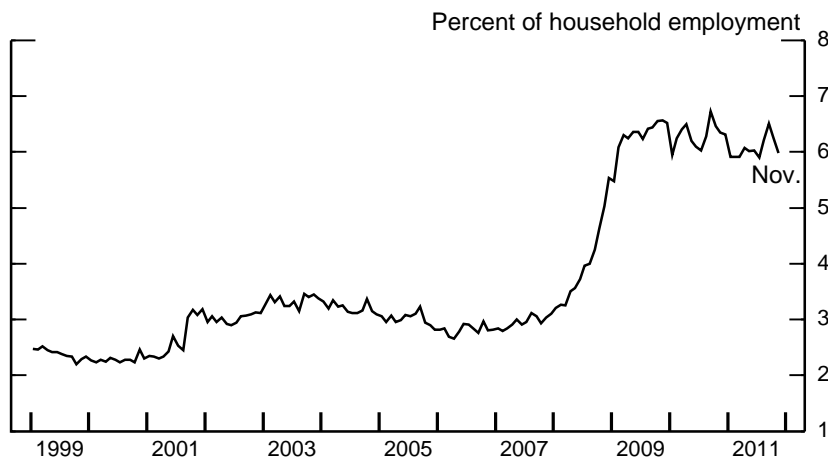
### Jobs Hard to Fill\*



\*Percent of small businesses surveyed with at least one "hard to fill" job opening. \*\*The staff effective NAIRU minus the unemployment rate.

Source: NFIB.

### Persons Working Part-Time for Economic Reasons



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

is well aligned with the movements in the unemployment gap, as is the marked decline in the percent of small businesses reporting that job openings are “hard to fill.” Similarly, the percent of workers who are working part time for economic reasons—workers who, almost by definition, are underutilized due to lack of demand—rose to a historically high share of employment in 2008 and remains elevated still.

We expect slack in the industrial sector to be taken up somewhat less quickly over the medium term than in the previous projection, as gains in industrial production are tempered by weaker paths of domestic spending and export demand. As a result, at the end of 2013, the factory operating rate is now forecast to be  $1\frac{1}{4}$  percentage points lower than in the previous projection while the still sizable GDP and unemployment gaps prevailing at that time are only a touch narrower.

### **Prices and Compensation**

We expect that the wide margin of slack in resource utilization, along with low rates of price inflation, will continue to restrain labor costs over the forecast period. Both the P&C measure of nonfarm hourly compensation and ECI are projected to rise about  $2\frac{1}{4}$  percent per year in 2012 and 2013, unchanged from the October Tealbook. 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 are expected to decline about  $\frac{3}{4}$  percent in the current quarter and the first quarter of next year, reflecting both lower prices for commodities as well as the recent appreciation of the dollar. Core import price inflation is expected to pick up gradually in 2012, as commodity prices flatten out and the dollar starts depreciating, and then run at about a  $1\frac{1}{2}$  percent rate in 2013. This forecast is about  $\frac{1}{2}$  percentage point lower in 2012 and 2013, on average, than in the October Tealbook.

Median inflation expectations from the Michigan survey have moved down somewhat at both the 1-year and 5-to-10-year horizon since the second quarter, and long-term expectations now stand at the lower edge of the range they have moved in for most of the past 10 years. In addition, inflation compensation 5 to 10 years ahead derived from TIPS spreads has fallen since the middle of the year.

As in previous Tealbooks, we anticipate that subdued labor costs and low levels of resource utilization will put downward pressure on core PCE inflation over the projection period, but that further disinflation will be checked by stable inflation



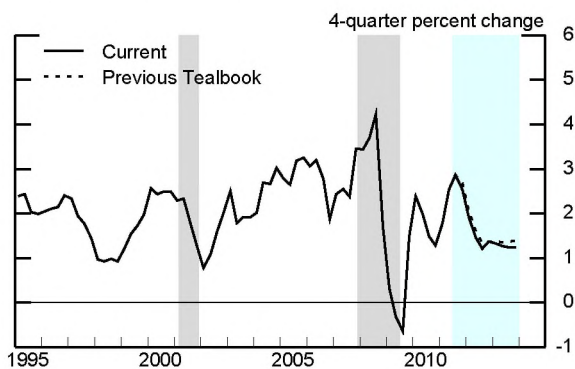
# **Inflation Projections** (Percent change at annual rate from final quarter of preceding period)

Measure	2010	2011		2012	2013
		H1	H2		
PCE chain-weighted price index	1.3	3.6	1.5	1.4	1.2
Previous Tealbook	1.3	3.6	1.8	1.4	1.4
Food and beverages	1.3	6.4	4.1	1.2	1.2
Previous Tealbook	1.3	6.4	4.2	1.2	1.2
Energy	6.2	27.2	-2.6	-.3	-1.6
Previous Tealbook	6.2	27.2	-1.3	-.4	1.2
Excluding food and energy	1.0	1.9	1.6	1.5	1.4
Previous Tealbook	1.0	1.9	1.8	1.5	1.4
Prices of core goods imports <sup>1</sup>	2.6	7.7	.8	.4	1.4
Previous Tealbook	2.6	7.7	1.2	1.2	1.7

1. Core goods imports exclude computers, semiconductors, oil, and natural gas.

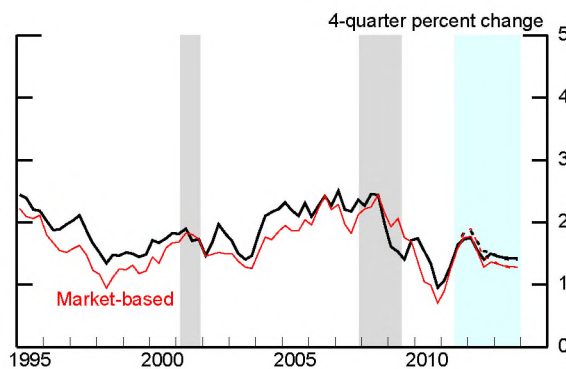
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Total PCE Prices



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

PCE Prices ex. Food and Energy



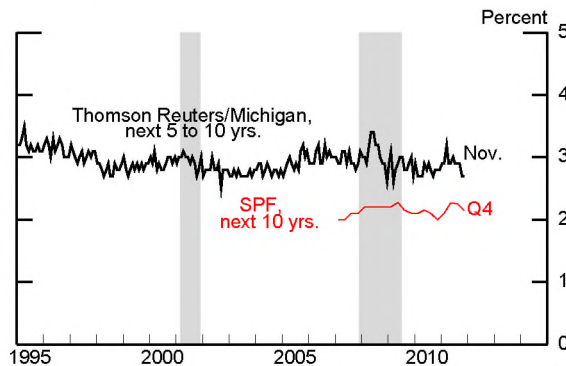
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

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 PCE price index.  
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.

expectations. We continue to project that core PCE inflation will be about 1½ percent in both 2012 and 2013, the same as in the October Tealbook. With energy prices expected to edge down over the medium term, headline inflation runs just a bit below core in both 2012 and 2013.

## THE LONG-TERM OUTLOOK

We have extended the staff forecast through 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 November meeting.
- 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.
- Beyond 2013, risk premiums on corporate equities and bonds decline gradually to normal levels and credit availability improves somewhat further.
- The federal government budget deficit (NIPA basis) narrows from 5½ percent of GDP in 2013 to 4 percent of GDP in 2016. This narrowing reflects both the effects of the economic recovery on tax receipts and budgetary restraint consistent with this summer's Budget Control Act (including the \$1.2 trillion of spending cuts triggered by the failure of the so-called supercommittee to propose a deficit reduction plan).
- The real foreign exchange value of the dollar is assumed to decline 2 percent per year from 2014 to 2016. The price of crude oil is roughly flat beyond 2013. Foreign real GDP expands, on average, 3½ percent per year from 2014 through 2016, slightly above its trend rate.
- The NAIRU remains at 6 percent in 2014 and then declines to 5½ percent by late 2016 as the functioning of the labor market gradually improves. Potential GDP expands 2½ percent per year on average from 2014 to 2016.

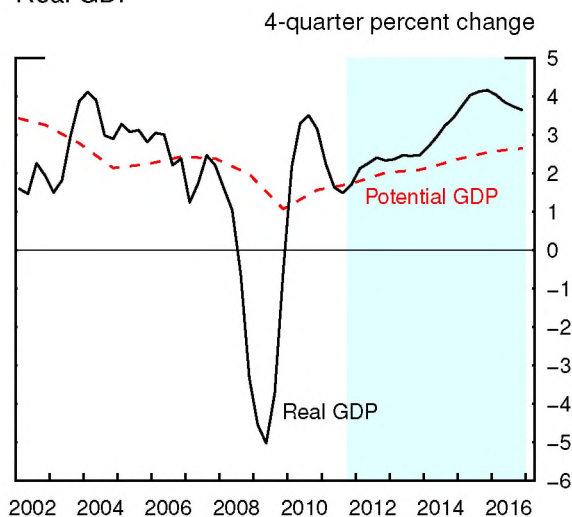
## The Long-Term Outlook

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

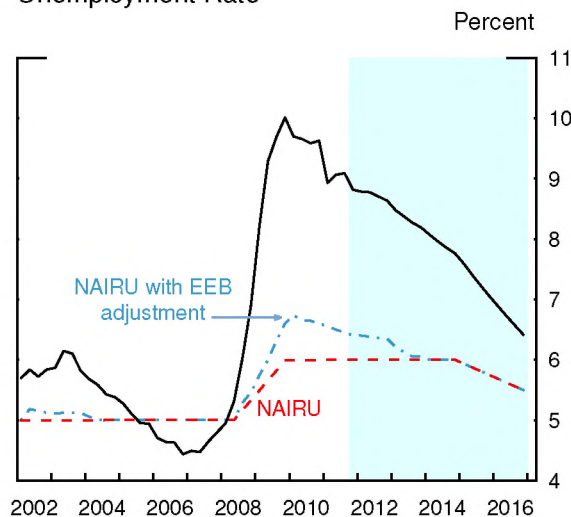
Item	2011	2012	2013	2014	2015	2016
Real GDP	1.7	2.3	2.5	3.4	4.2	3.7
Civilian unemployment rate <sup>1</sup>	8.8	8.6	8.2	7.8	7.1	6.4
PCE prices, total	2.5	1.4	1.2	1.4	1.5	1.6
Core PCE prices	1.7	1.5	1.4	1.4	1.5	1.6
Federal funds rate <sup>1</sup>	.1	.1	.1	.4	1.7	2.7
10-year Treasury yield <sup>1</sup>	2.2	2.9	3.6	3.8	4.0	4.2

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

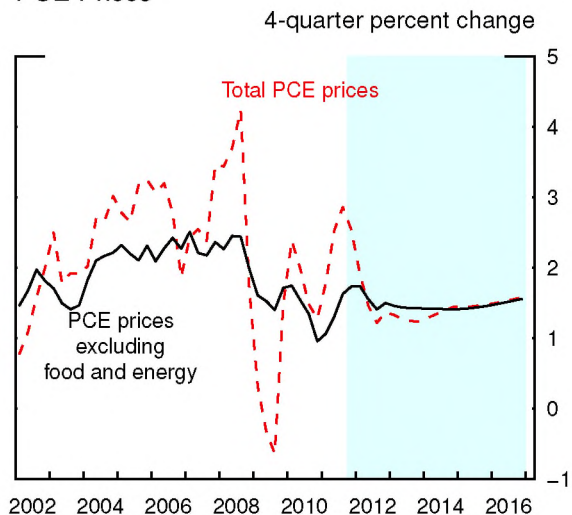
Real GDP



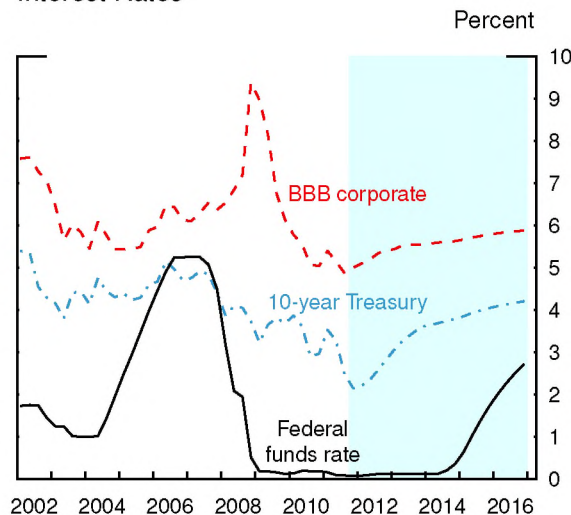
Unemployment Rate



PCE Prices



Interest Rates

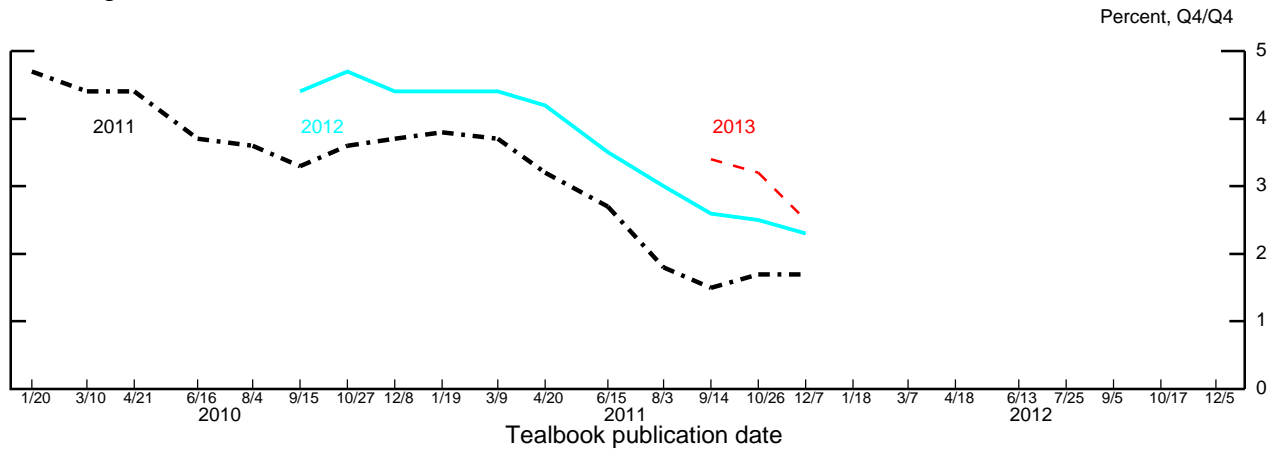


Note: In each panel, shading represents the projection period.

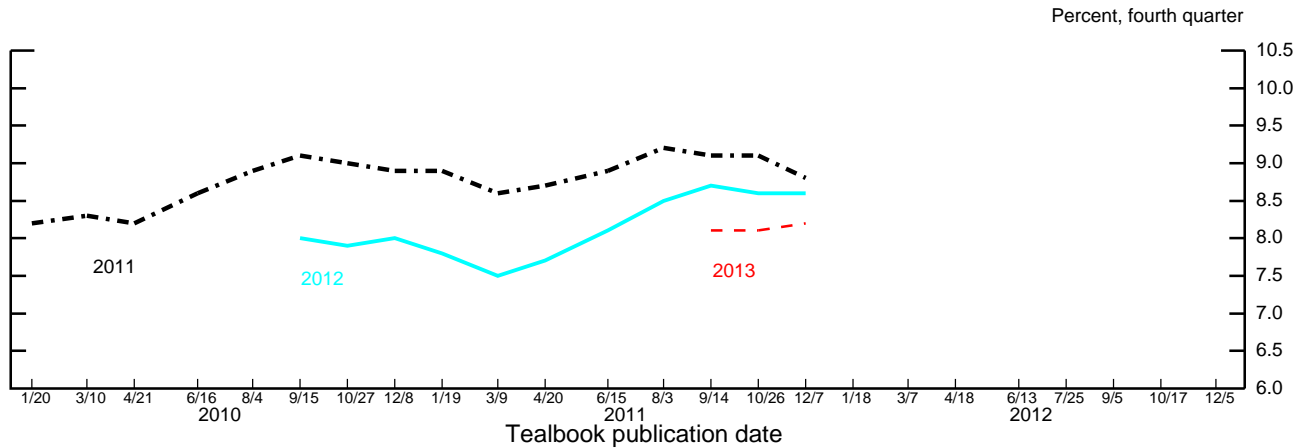
The economy enters 2014 with output still considerably below its potential, the unemployment rate well above the projected NAIRU, and inflation below the assumed objective. In the long-run forecast, improving confidence, diminishing uncertainty, and supportive financial conditions enable real GDP to rise at an average annual rate of 3¾ percent from 2014 to 2016. With actual output expanding faster than potential, labor market conditions improve; nevertheless, the unemployment rate, at 6½ percent at the end of 2016, is still 1 percentage point above the assumed NAIRU. With downward pressures from slack gradually abating after 2013, inflation edges up to 1.6 percent by 2016. The federal funds rate rises above ¼ percent at the end of 2014 and reaches 2¾ percent by the end of 2016.

## Evolution of the Staff Forecast

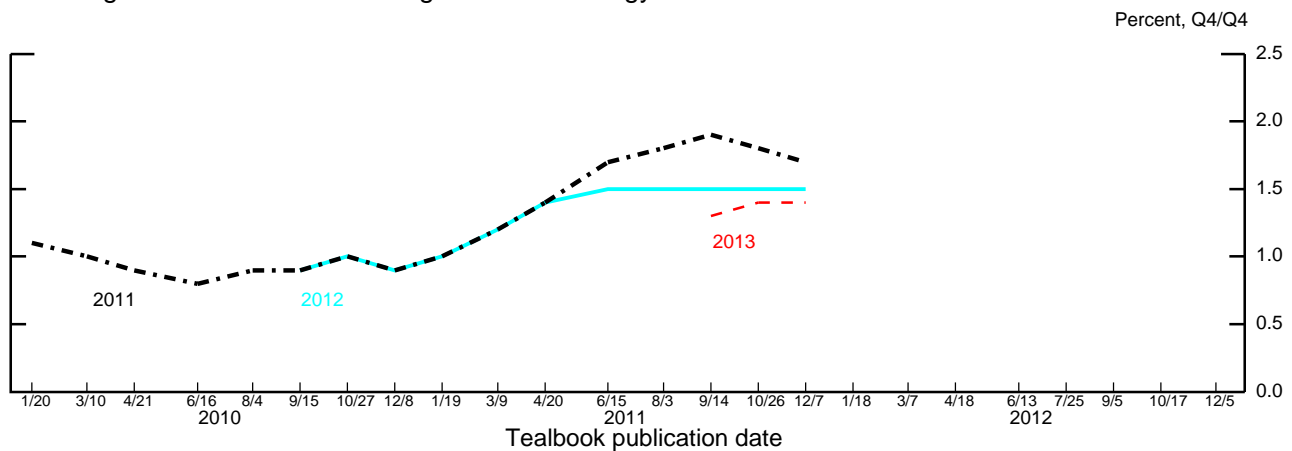
Change in Real GDP



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.

## International Economic Developments and Outlook

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Prospects for the global economy depend critically on the course of the financial crisis in Europe. After measures agreed upon at the late October EU summit failed to gain traction, financial tensions rebounded amid growing doubts about the ability of Europe's authorities to construct a credible backstop. (See the box "Recent Policy and Market Developments in the Euro Area.") At the time of this writing, markets have improved a bit on hopes that European leaders will agree to significant actions at their meeting this Friday (December 9), but we believe that, after the dust settles, substantial doubts will remain about the specifics and effectiveness of any announced program. Accordingly, we expect that investor confidence will diminish once again in coming months, forcing European policymakers to take even stronger actions to ward off defaults by a major country—for example, Italy or Spain—and convince markets that the euro area will remain largely intact. Even afterward, we expect it will take some time for investor confidence to be fully restored.

Our expectation of persistent heightened tensions, together with accumulating weak economic data, has led us to revise down significantly our forecast for European economic activity; we now project euro-area GDP will contract more sharply this quarter, and we are extending the contraction throughout 2012. Given how fluid the situation is at present, there is some chance that European leaders will take actions that are more decisive and effective than we currently anticipate, leading to an earlier easing of financial tensions and recovery of economic activity. (See the "Faster European Recovery" scenario in the Risks and Uncertainty section.) By the same token, however, there is also some chance that financial conditions could deteriorate much more severely. (See the "European Crisis with Severe Spillovers" scenario also in the Risks and Uncertainty section.)

Reflecting the implications of the euro-area revision and the lower path for U.S. economic activity, the projection for foreign output growth is nearly  $\frac{1}{2}$  percentage point lower over the forecast period than in the October Tealbook. In the current quarter, we estimate that foreign real GDP expanded at an annual rate of  $2\frac{1}{4}$  percent, down from a  $3\frac{3}{4}$  percent third-quarter pace. This slowdown is broad based, owing to the contraction in Europe and the waning of factors that temporarily boosted growth last quarter, including the rebound from the earlier disaster in Japan. In addition, floods in Thailand disrupted



## Recent Policy and Market Developments in the Euro Area

Since the time of the October Tealbook, European policymakers have continued to struggle to contain the region's fiscal and financial stresses, with developments unfolding in three phases.

The first phase occurred in late October when euro-area leaders announced additional policies designed to reduce financial tensions. First, euro-area leaders agreed on a new €130 billion official financing package for Greece, predicated on a voluntary debt restructuring that would halve the face value of private claims on the Greek government. Second, leaders planned to leverage the remaining €270 billion in uncommitted resources of the European Financial Stability Facility (EFSF) with private-sector funds to achieve over €1 trillion in capacity. Third, they required banks to reach a 9 percent core Tier 1 risk-based capital ratio by mid-2012, with public capital injections if necessary. In anticipation of and following these agreements, markets rallied around the world.

The second phase began in early November when political developments in Greece helped extinguish the market rally. Then-Prime Minister Papandreou announced plans for a referendum on Greece's EU-IMF rescue program and its membership in the euro area. The resulting uncertainty propelled Greek sovereign spreads to new euro-era records and fuelled concerns about a possible breakup of the euro area. In the wake of severe political backlash, Papandreou cancelled the referendum and resigned, to be replaced by former ECB Vice President Papademos. The new caretaker government is expected to receive a long-delayed €8 billion disbursement from Greece's existing EU-IMF program shortly, but negotiations between the Greek government and its private creditors regarding debt restructuring have been fractious. Insufficient progress in these negotiations or on austerity measures over the next few months could jeopardize the new EU-IMF program, which would again fuel speculation that Greece will default and possibly withdraw from the euro area.

Had a credible sovereign backstop already been in place, the Greek situation would likely have had limited consequences for broader markets. However, initial euphoria about the October plan to leverage the EFSF quickly gave way to skepticism. Outside investors demonstrated little interest in participating directly in this scheme, and the EFSF itself has had difficulty raising funds. As a result, it is unlikely that the EFSF, alone, will be able to protect Italy and Spain from a major run on their debt.

In the absence of a credible backstop, investor concerns about sovereign default and the future of the euro area snowballed. Alarmingly, market pressures spread to core euro-area economies, where Belgian and French sovereign spreads hit their highest levels in decades, and even Germany had a poor bond auction in late November. In turn, soaring borrowing costs and weakening economic conditions contributed to the demise of governments in both Italy and Spain.<sup>1</sup> Although the new governments

<sup>1</sup> As financial market strains on Italy escalated, Premier Berlusconi resigned under pressure from members of his own party. Former EU Commissioner Monti replaced him and formed a new cabinet of unelected technocrats. In Spain, national elections previously scheduled for November 20 deposed the ruling center-left party and gave an outright parliamentary majority to the main center-right party.

appear committed to fiscal austerity and structural reform, it is uncertain whether they will be able to meet fiscal targets as economic conditions weaken. In addition, investors remained concerned that the combined financing needs of the two governments over the next two years substantially exceed the existing resources of the EFSF and the IMF.

To stem the spreading panic, calls mounted for a more active role for the ECB in funding vulnerable governments. However, both the ECB and German authorities resisted greater ECB involvement, not least because it would undermine incentives for embattled governments to implement fiscal reforms. The European Commission formally evaluated an alternative approach, involving the issuance of Eurobonds guaranteed by the euro area as a whole and stronger centralized authority over national budgets.

The third phase began in late November, when investor sentiment improved following the November 30 announcement of coordinated central bank action on liquidity swap lines, as well as signs that euro-area policymakers were moving toward agreement on more aggressive measures to address the crisis. On December 1, ECB President Draghi reiterated the ECB's long-standing call for stronger rules governing national fiscal policies and noted that "other elements might follow, but the sequencing matters."<sup>2</sup> This statement was widely interpreted as a hint that the ECB may enhance its support for vulnerable governments, provided euro-area governments sufficiently strengthen fiscal discipline. On December 5, in advance of the December 9 European leaders' summit, German Chancellor Merkel and French President Sarkozy announced their support for more automatic sanctions for fiscally profligate countries and for advancing the launch of the €500 billion European Stability Mechanism (ESM), the permanent euro-area financial support facility, to 2012, a year earlier than originally scheduled. If the ESM is allowed to overlap with the EFSF until that temporary facility expires in 2013, it could expand the overall size of the euro-area backstop.

Provided the broader set of European leaders endorses these proposals at their summit on December 9, sentiment may further improve for a time. However, implementing these measures will be a difficult and time-consuming process, possibly involving a new treaty among euro-area members or substantial changes to the existing EU treaty. We expect the summit agreement to be just a first step toward credibly binding and integrating national fiscal policies. Hence, it is doubtful that the ECB will immediately and decisively step up its support of sovereign funding needs. Our baseline forecast accordingly assumes that until financial conditions have worsened considerably further, progress toward an effective policy response will remain incremental and insufficient to durably contain the crisis.

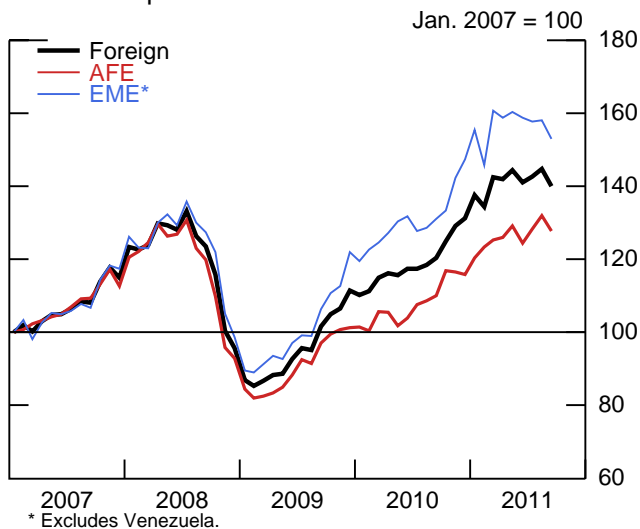
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<sup>2</sup> Mario Draghi (2011), "Introductory Statement," speech delivered at the Hearing before the Plenary of the European Parliament on the occasion of the adoption of the Resolution on the ECB's 2010 Annual Report, held in Brussels, December 1, [www.ecb.int/press/key/date/2011/html/sp111201.en.html](http://www.ecb.int/press/key/date/2011/html/sp111201.en.html).

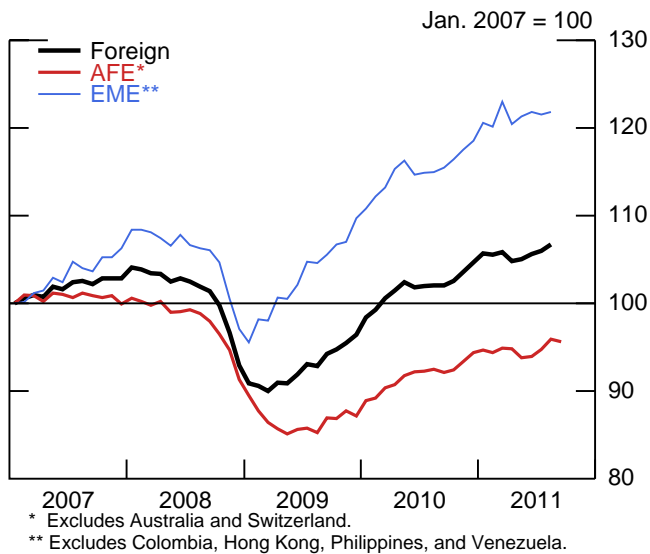


## Recent Foreign Indicators

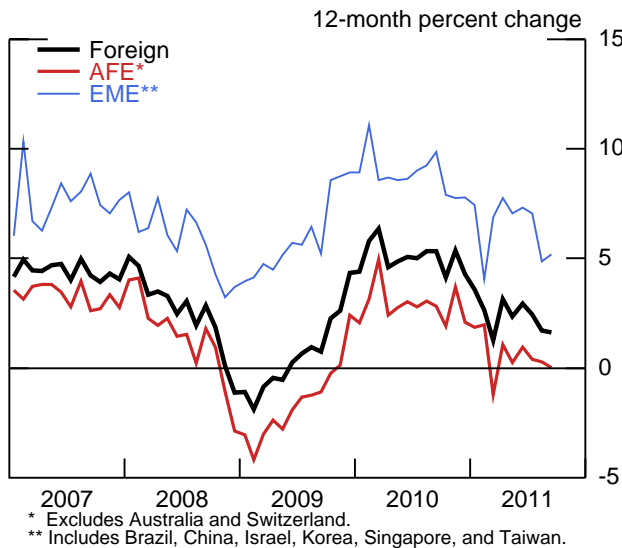
Nominal Exports



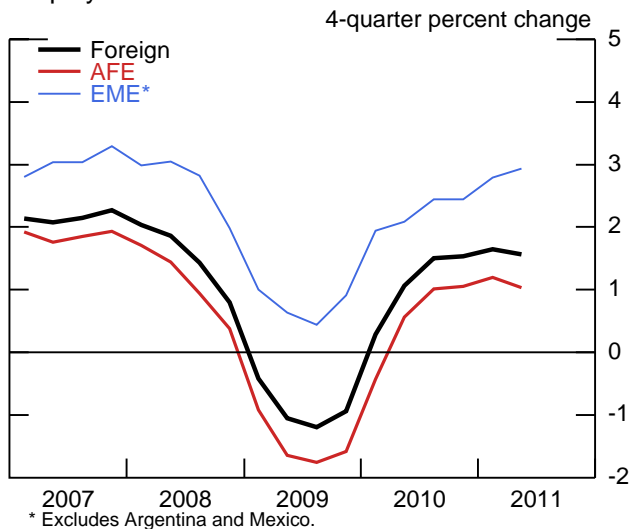
Industrial Production



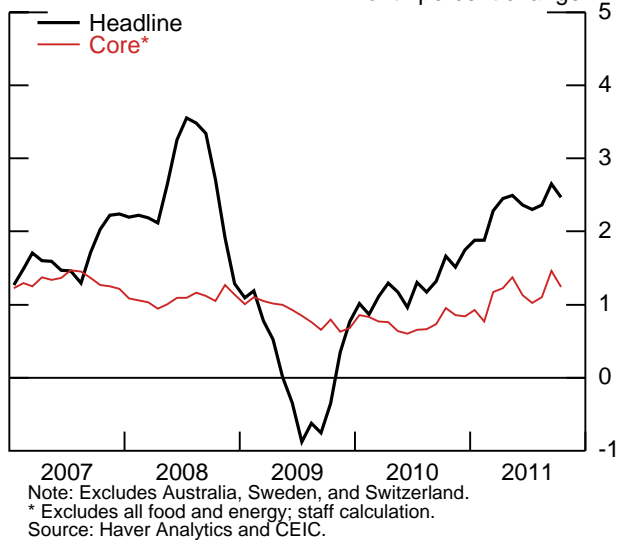
Retail Sales



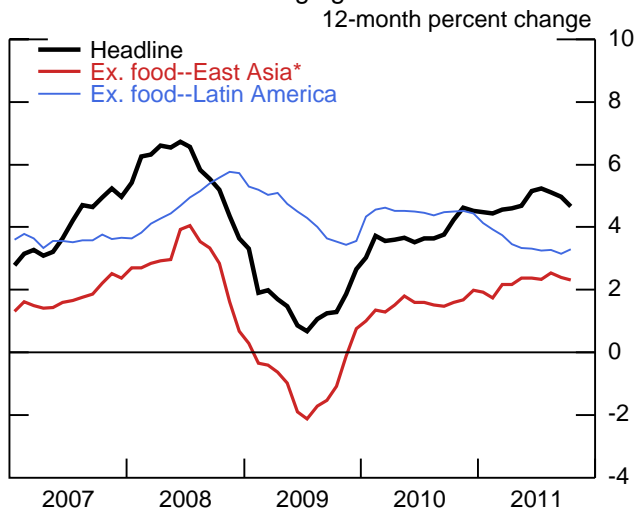
Employment



Consumer Prices: Advanced Foreign Economies



Consumer Prices: Emerging Market Economies



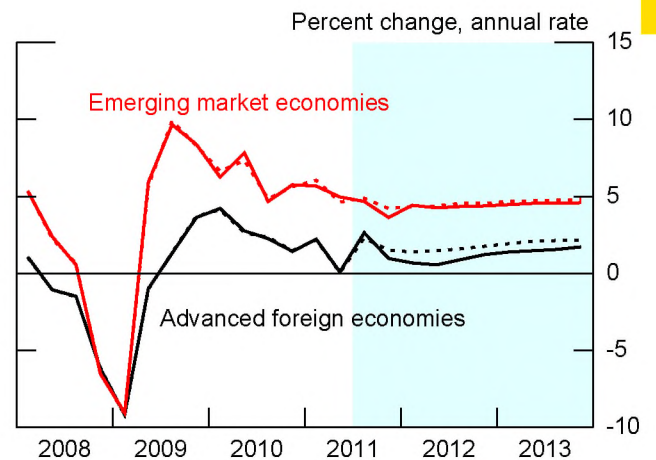
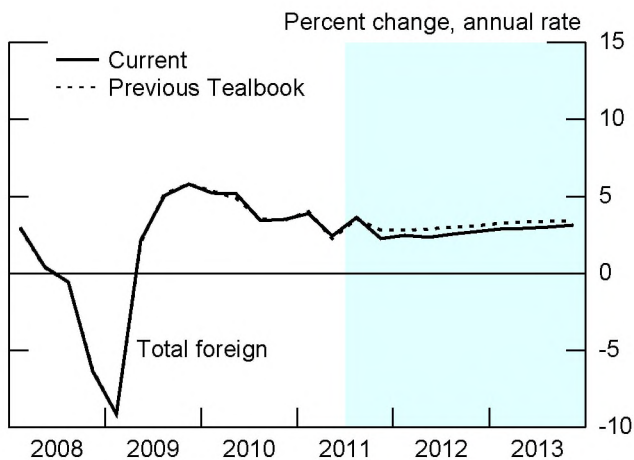
## The Foreign Outlook

(Percent change, annual rate)

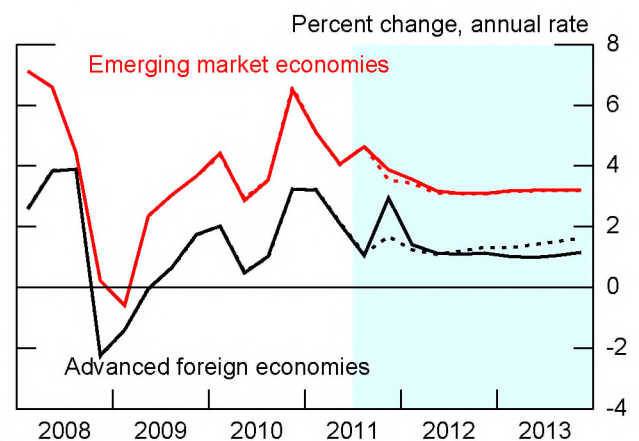
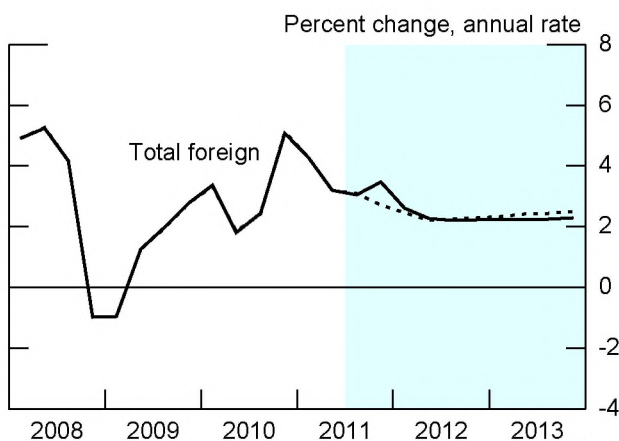
	2010	2011				2012	2013
		Q1	Q2	Q3	Q4		
<b>Real GDP</b>							
Total foreign	4.3	3.9	2.4	3.6	2.3	2.5	3.0
Previous Tealbook	4.3	4.0	2.3	3.6	2.8	3.0	3.4
Advanced foreign economies	2.7	2.2	.1	2.7	1.0	.8	1.6
Previous Tealbook	2.7	2.2	.1	2.3	1.5	1.6	2.1
Emerging market economies	6.1	5.7	5.0	4.7	3.7	4.4	4.6
Previous Tealbook	6.1	6.0	4.7	4.9	4.2	4.5	4.8
<b>Consumer Prices</b>							
Total foreign	3.2	4.3	3.2	3.1	3.5	2.3	2.3
Previous Tealbook	3.2	4.3	3.2	3.1	2.7	2.3	2.4
Advanced foreign economies	1.7	3.2	2.1	1.1	2.9	1.2	1.1
Previous Tealbook	1.7	3.2	2.1	1.1	1.7	1.2	1.5
Emerging market economies	4.3	5.1	4.1	4.6	3.9	3.2	3.2
Previous Tealbook	4.4	5.1	4.0	4.7	3.6	3.2	3.2

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

### Real GDP



### Consumer Prices



economic activity in that country and supply chains throughout Asia. Going forward, we project that foreign real GDP will increase about  $2\frac{1}{2}$  percent next year and 3 percent in 2013, as financial tensions eventually abate and the euro-area economy recuperates.

Foreign inflation edged up to an estimated  $3\frac{1}{2}$  percent in the current quarter, with consumer prices in the advanced economies rising more than we had anticipated. We expect inflation abroad to slow to  $2\frac{1}{2}$  percent next quarter and to  $2\frac{1}{4}$  percent over the remainder of the forecast period, as pressures from earlier run-ups in commodity prices diminish and resource slack persists. Concerns about slowing economic growth have led some foreign central banks, such as the ECB, the Central Bank of Brazil, and the People's Bank of China (PBOC), to loosen monetary policy during the intermeeting period, and in some cases we expect further easing going forward.

## ADVANCED FOREIGN ECONOMIES

Real GDP in the AFEs rose nearly  $2\frac{3}{4}$  percent in the third quarter after stalling in the second quarter. Economic activity rebounded sharply in Canada and Japan, where temporary factors had restrained second-quarter output, but growth remained weak in the euro area. Amid increased uncertainty about the resolution of the euro-area crisis and heightened financial stresses, data suggest that economic conditions in Europe are worsening at a faster pace than previously anticipated. Consequently, we now expect the euro area to experience a moderate recession this quarter and during 2012, with significant spillovers to the global economy.

We project that AFE growth will step down to 1 percent in the current quarter and slow further to below  $\frac{3}{4}$  percent in the first half of 2012 before picking up to only a  $1\frac{3}{4}$  percent pace by the end of 2013. Relative to the October Tealbook forecast, this projection is  $\frac{3}{4}$  percentage point lower in 2012 and  $\frac{1}{2}$  percentage point lower in 2013, primarily owing to the bleaker outlook for Europe.

Headline inflation in the AFEs is projected to rise to a 3 percent pace this quarter, significantly higher than projected in the previous Tealbook. Amid substantial output gaps and flat commodity prices, AFE inflation is projected to slow to  $1\frac{1}{2}$  percent next quarter and to average just above 1 percent over the remainder of the forecast period. In the context of weak outlooks for growth and inflation, we anticipate the major foreign central banks will further ease monetary policy.

## Euro Area

Our assessment of the euro-area outlook has worsened significantly, for three main reasons. First, as discussed below, incoming economic indicators have been disappointingly weak. Second, during the intermeeting period, concerns about sovereign risk spilled over from the euro-area periphery to the core economies, increasing the scope and severity of the crisis. And third, the ongoing failure of European policymakers to take decisive actions in the face of increasingly dangerous financial strains has reinforced our sense that domestic political considerations will continue to constrain the policy response to the crisis.

Accordingly, even taking into account the progress of negotiations by euro-area leaders evidenced this week, our baseline scenario envisions further intensification of the crisis in the months ahead. We believe this development will ultimately force European policymakers to overcome more of the domestic political constraints that have hampered their efforts thus far. In particular, we expect the ECB eventually to assume a much larger role in providing liquidity to vulnerable governments—possibly via purchases of their bonds or by contributing to the financing of an IMF program—in exchange for credible commitments by euro-area governments to stronger governance over national fiscal policies. These actions should prevent catastrophic events such as a wave of sovereign defaults or bank failures. However, this response is unlikely to come in time to prevent a substantial recession and likely will not fully alleviate investor concerns.

Data released since the October Tealbook point to a further deterioration of economic conditions in the euro area. Real GDP grew just over ½ percent in the third quarter. Economic activity was even weaker toward the end of the quarter, with industrial production falling sharply in September and manufacturing orders retracing to their October 2010 level. Preliminary indicators for the fourth quarter point to a recession, with PMIs remaining firmly in contractionary territory in November, and business and consumer confidence continuing to slide. Labor market conditions worsened further, as the unemployment rate rose in October to 10.3 percent, its highest level in more than 10 years.

Against this backdrop of disappointing data and elevated financial stresses, we now forecast a more severe and prolonged contraction. We expect real GDP to fall at a 1 percent rate this quarter, with the recession deepening in the first half of next year. With policymakers eventually forced to act in order to prevent a catastrophic event, we

expect financial conditions to gradually normalize and confidence to improve, such that the recession slowly attenuates late in 2012. Thereafter, we expect a modest recovery to take place, with real GDP growth rising to a still below-trend 1 percent pace by the end of 2013, as fiscal austerity remains a significant headwind.

We estimate that euro-area inflation picked up from 1½ percent in the third quarter to 4 percent in the fourth quarter. This surprising swing in inflation appears to be due in large part to seasonal adjustment issues and, we believe, does not reflect a rise in underlying price pressures. Going forward, we expect widening output gaps to lower inflation to 1¼ percent in 2012 and 1 percent in 2013.

At its November meeting, the ECB cut its benchmark policy rate 25 basis points to 1.25 percent and ECB President Draghi acknowledged that a mild recession was likely. In light of the weaker outlook for output and inflation, we now expect that the ECB will further reduce its policy rate 25 basis points at its December 8 meeting and substantially expand its liquidity support to banks, allowing the overnight interest rate to fall to near zero in coming months.

## United Kingdom

U.K. real GDP rose 2 percent in the third quarter, nearly ½ percentage point faster than our October Tealbook estimate. However, the expansion was due entirely to a large positive contribution from the change in inventories; private consumption was flat and investment spending declined. Recent indicators suggest that economic activity weakened in the current quarter, with the composite PMI falling to just above 50 and business and consumer sentiment plunging to near two-year lows. Thus, we project that real GDP will expand at a meager ½ percent pace in the fourth quarter, down ½ percentage point from the October Tealbook. The deepening of the recession in the euro area is expected to continue weighing on the GDP outlook, as almost half of U.K. exports go to the euro area. Thus, U.K. real GDP should grow only ¾ percent in 2012 before picking up to a still-modest 1¾ percent pace in 2013. These figures are down nearly 1 percentage point from the previous Tealbook.

Twelve-month headline inflation came in at 5 percent in October. Moreover, on a quarterly basis, we estimate that inflation rose from 3½ percent in the third quarter to 4¼ percent in the fourth quarter, reflecting higher utility prices and pass-through of past increases in energy prices to core inflation. Going forward, with domestic energy prices

projected to decline, ample resource slack, and assuming no further VAT increases, inflation should decline to below 2 percent over the remainder of the forecast period.

Faced with renewed financial stresses and a deteriorating outlook, we expect that the Bank of England will increase the size of its asset purchase program from the £275 billion announced in October to £400 billion (28 percent of GDP) during the first half of 2012, £75 billion more than we had anticipated in the previous Tealbook.

## Japan

Japanese real GDP jumped 6 percent in the third quarter as it rebounded from the disruptions of the March earthquake and tsunami. Recent data have been mixed, with merchandise exports falling almost 5 percent in October but industrial production rising 2½ percent. Floods in Thailand have created shortages of parts in Japan, especially in the automotive sector, although this effect should be small and temporary. All told, we expect GDP growth to slow to 2 percent in the fourth quarter, down a bit from the October Tealbook. Going forward, economic growth should stay around 2 percent in 2012 and slow to 1½ percent in 2013, as the boost from post-quake reconstruction is expected to wane. This projection is down ¼ percentage point from that in the October Tealbook because of the weaker global outlook.

Core consumer prices declined in October at a somewhat more rapid pace than previously expected, prompting us to lower our forecast for fourth-quarter inflation to negative ½ percent. We project deflation to moderate only slightly over the forecast period, amid still sizable output gaps. Given the weaker outlook for both output and inflation, we now expect the Bank of Japan to expand its asset purchase program from ¥20 trillion to ¥25 trillion (5 percent of GDP) in early 2012.

## Canada

Real GDP rose 3.5 percent in the third quarter, a full percentage point more than anticipated in the October Tealbook, as oil production rebounded faster than expected after several months of shutdowns. However, third-quarter consumption and investment spending were relatively disappointing, and recent indicators point to slowing growth. In October, the manufacturing PMI edged down and the unemployment rate increased to 7.3 percent. We now expect fourth-quarter GDP to increase 2 percent, ½ percentage point less than in the previous Tealbook. Looking ahead, we anticipate that Canadian output will grow 2 percent in 2012 and in 2013. The forecast for 2013 is nearly



½ percentage point lower than in the previous Tealbook, largely reflecting weaker projected demand from the United States.

Canadian consumer prices rose more in October than we expected, driven entirely by a large increase in domestic energy prices. This development has led us to revise up significantly our estimate for headline inflation in the current quarter to 3¾ percent. Going forward, amid a somewhat weaker growth outlook, we now anticipate that inflation will average 2 percent in 2012 and slow to about 1½ percent in 2013. We expect that the Bank of Canada will keep its target for the overnight rate unchanged at 1 percent throughout the forecast period instead of raising it in 2013, as we had previously assumed.

## EMERGING MARKET ECONOMIES

In the EMEs, aggregate real GDP grew 4¾ percent in the third quarter, about as expected in the October Tealbook, with weaker-than-anticipated growth in emerging Asia offsetting stronger growth in Mexico. In the current quarter, we estimate that EME growth slowed to 3¾ percent, ½ percentage point lower than in the previous Tealbook. This slowing reflects both the adverse effects of severe flooding in Thailand, which disrupted economic activity in that country and supply chains throughout Asia, as well as weaker external demand from Europe. In 2012 and 2013, GDP growth in the EMEs should pick up to around 4½ percent, a bit below its trend pace and a little weaker than in the October Tealbook, as solid domestic demand supports growth, but an anemic recovery in the United States and the recession in Europe continue to weigh on external demand.

Headline consumer price inflation, after increasing in the third quarter, is projected to fall in the fourth to a touch less than 4 percent at an annual rate—not quite as sharp a fall as anticipated at the time of the October Tealbook. We project inflation will continue to edge lower to 3½ percent in the first quarter of next year, as the effects of previous food and energy price increases fade. Inflation should remain around 3¼ percent thereafter. The moderation of inflation in recent months, along with greater uncertainty about global economic prospects, has prompted many central banks to refrain from tightening monetary policy further and some, including those in China and Brazil, to loosen policy.



## China

Chinese data indicate that, on balance, economic activity is decelerating amid weakening global growth. The November manufacturing PMI fell to 49, although for China and many other EMEs, a level of 50 has historically indicated still-significant growth as opposed to a contraction. Indicators of domestic demand have remained strong. In October, fixed-asset investment and industrial production growth were steady. Real retail sales decelerated slightly but remained 10 percent higher than a year earlier. In contrast, external demand has been weak, with seasonally adjusted exports in October at the lowest level since February. We project that Chinese real GDP growth will slow to 8¼ percent in the fourth quarter from 9½ percent in the third, reflecting weaker demand from the advanced economies and the effect of the Thai floods. With the former expected to continue, our projection of Chinese growth in 2012 and 2013—roughly 8 percent throughout—has been revised down ¼ percentage point.

Chinese headline consumer price inflation peaked in the third quarter at an annual rate of 6¼ percent, reflecting very high inflation in June and July. Since August, however, inflation has been much more muted, and we estimate that inflation in the fourth quarter will come in at 3½ percent. As food price pressures continue to wane and Chinese economic growth slows from this year's pace, inflation should average a little less than 3 percent over the next two years.

With inflation moderating and growth slowing, the PBOC reversed course on monetary policy and lowered the reserve requirement ratio for banks 50 basis points in late November, bringing the ratio to 21 percent for large banks. The PBOC had been on hold since late August, when it broadened the range of deposits subject to reserve requirements.

## Other Emerging Asia

Since the October Tealbook, we have received third-quarter GDP for all of the other emerging Asian economies. Aggregate real GDP growth for these economies slowed to 2½ percent, hampered by weaker-than-expected external demand; this rate is 1¾ percentage points lower than the projection in the previous Tealbook. In the current quarter, we have lowered our estimate for growth 1¼ percentage points to 2¼ percent, reflecting a nearly 14 percent contraction in Thailand, the temporary disruption of regional supply chains, and weaker demand from Europe. Growth should pick up to

nearly 4½ percent during the next two years, a bit lower than in the October Tealbook owing to greater drag from the advanced economies.

Inflation in the region is expected to remain around 3½ percent in the current quarter, with falling inflation in some countries, including Korea, offset by increases in Hong Kong and Thailand. We expect inflation to edge down to about 3¼ percent over the remainder of the forecast period. Since the previous Tealbook, growth concerns have prompted Indonesia's central bank to lower its policy rate 50 basis points and Thailand's central bank to cut its policy rate 25 basis points.

## Latin America

Mexican real GDP surged 5½ percent in the third quarter—1½ percentage points faster than estimated in the October Tealbook—driven by soaring output in the volatile agricultural sector. Services also grew robustly, but manufacturing growth was weak. GDP is expected to decelerate to about a 3 percent pace in the current quarter, held down in part by slow growth in U.S. manufacturing activity. We expect that real GDP will continue to grow at a 3 percent pace in 2012 and 2013. This projection is down ¼ percentage point from that in the October Tealbook, in line with revisions to U.S. manufacturing production.

We estimate that real GDP in South America moderated to a 2½ percent pace in the third quarter. Brazilian real GDP was flat, down about 2½ percentage points relative to the October Tealbook. For the current quarter, indicators of Brazilian activity show modest improvement, and we expect growth of 2¼ percent, still well below trend. Our forecast calls for Brazilian GDP growth to gradually increase to 3¾ percent, our estimate of potential, by the end of 2013. Relative to the October Tealbook, this projection is down about ¼ percentage point over the forecast period, reflecting the weaker global environment.

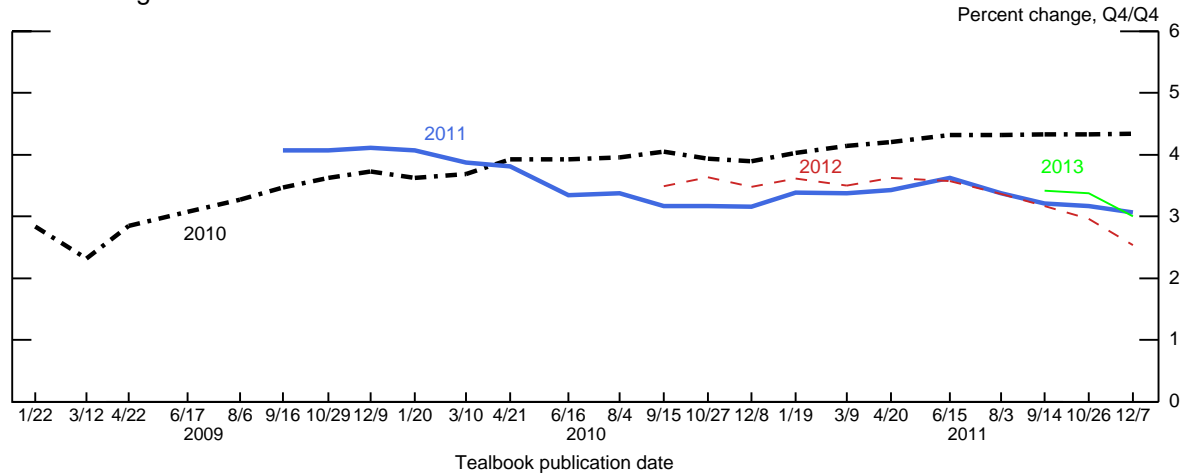
We have headline consumer price inflation in Latin America climbing to 4¾ percent in the current quarter, led by increases in Mexico, where electricity subsidies expired and the peso has been depreciating in recent months, and in Brazil, where the *real* has also been trending downward. Looking ahead, we expect inflation in Latin America to moderate to 3¾ percent by the end of next year and hold at that pace in 2013.

In response to the deteriorating outlook for global growth, the Brazilian central bank lowered its policy rate 50 basis points on November 30, bringing the cumulative

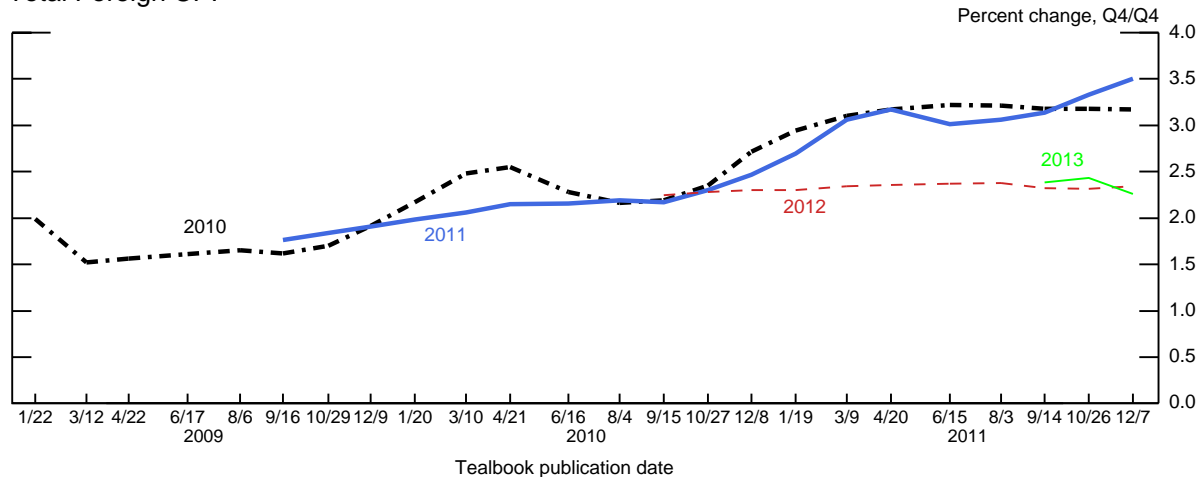
loosening since this summer to 150 basis points. The monetary policy committee said that these reductions are consistent with inflation falling to within its target range (2.5 to 6.5 percent) by the end of 2012.

## Evolution of Staff's International Forecast

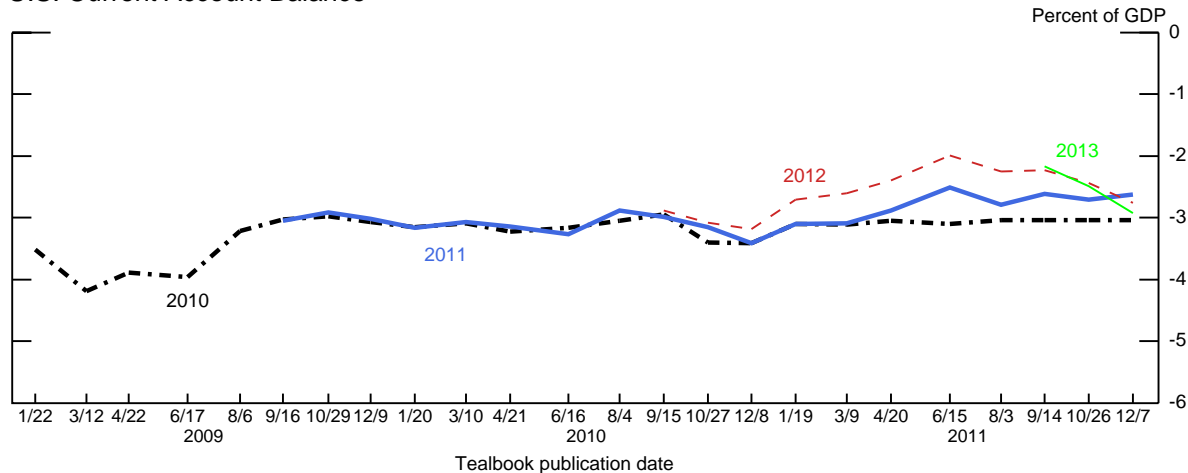
Total Foreign GDP



Total Foreign CPI



U.S. Current Account Balance



## Financial Developments

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The crisis in Europe remained the focus of financial markets over the intermeeting period and contributed to heightened volatility in a wide range of asset markets. Early in the period, investors became increasingly concerned that European leaders would fail to agree on actions forceful enough to successfully address the mounting problems in the euro area. However, those concerns eased later in the period amid signs that European leaders and the ECB might finally take decisive and effective steps to address the crisis and after the Federal Reserve and five other major central banks announced that they would lower the cost of dollar funds offered through their swap line arrangements. Somewhat better-than-expected readings on domestic economic activity also appeared to support market sentiment.

Over the intermeeting period, Treasury yields fluctuated within a relatively narrow range and were slightly higher on net. Inflation compensation and the expected path of the federal funds rate were also little changed on balance. By contrast, yields on investment-grade corporate bonds rose somewhat over the period, leaving their spreads to comparable Treasury yields wider. U.S. banks continued to have fairly normal access to short-term funding markets. Broad indexes of U.S. equity prices fluctuated widely and increased a bit on net. The dollar strengthened slightly on balance over the period, though it depreciated significantly following the swap line announcement.

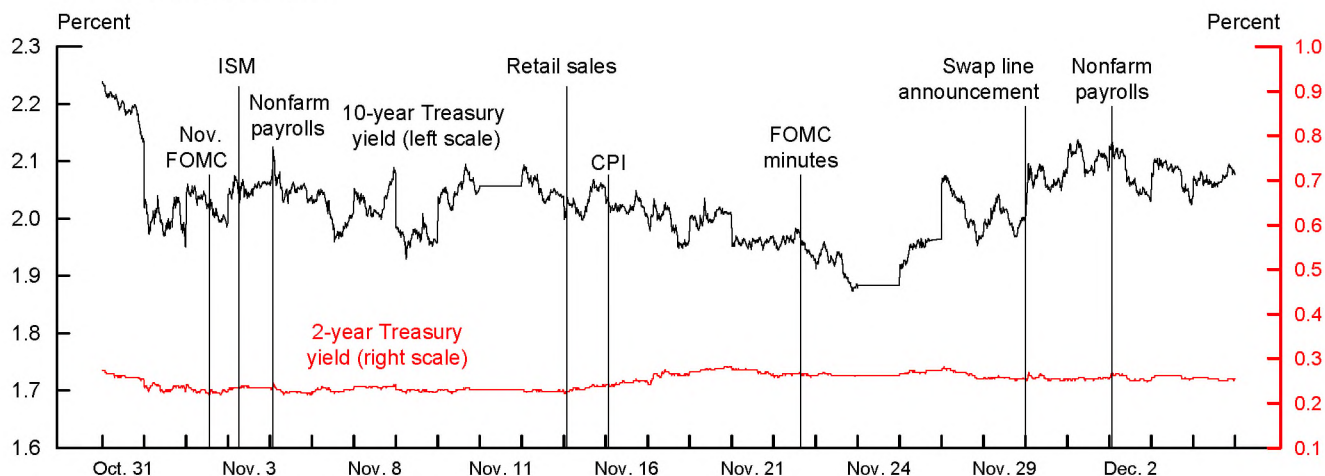
Net debt financing of nonfinancial firms picked up in November from an already solid pace in October. Nonfinancial corporate bond issuance was particularly robust, as some firms were reportedly eager to issue bonds before year-end. Nonfinancial commercial paper outstanding and C&I loans continued to expand at a moderate pace. In the household sector, consumer credit rose slightly in the third quarter, while mortgage refinancing activity remained subdued amid tight underwriting standards and low levels of home equity. Bank credit continued to expand briskly over the intermeeting period, and banks reported moderately higher earnings in the third quarter. M2 growth also remained solid in the autumn.

### POLICY EXPECTATIONS AND TREASURY YIELDS

Treasury yields were little changed following the release of the November FOMC statement and fluctuated in a fairly narrow range over subsequent weeks, ending the

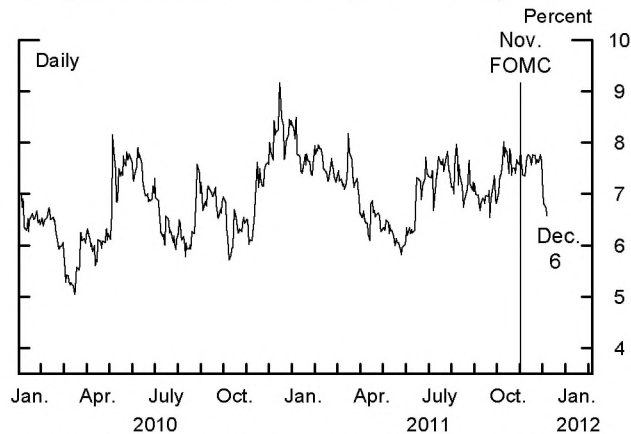
## Policy Expectations and Treasury Yields

### Selected Interest Rates



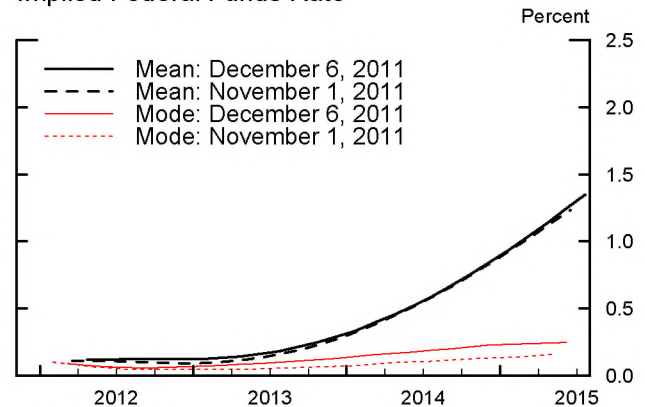
Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m. No adjustments for term premiums.  
Source: Bloomberg.

### Long-Term Interest Rate Implied Volatility



Note: Derived from options on 10-year Treasury note futures.  
Source: Bloomberg.

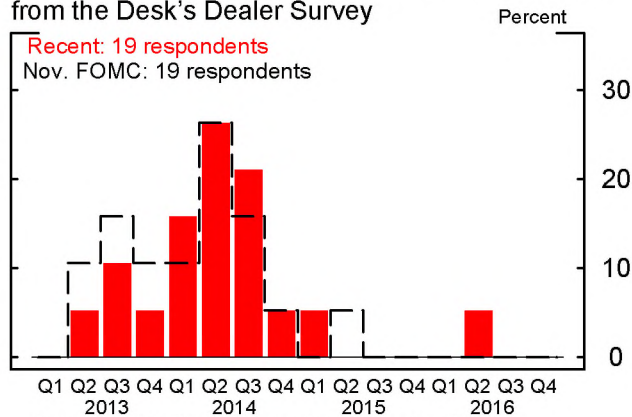
### Implied Federal Funds Rate



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

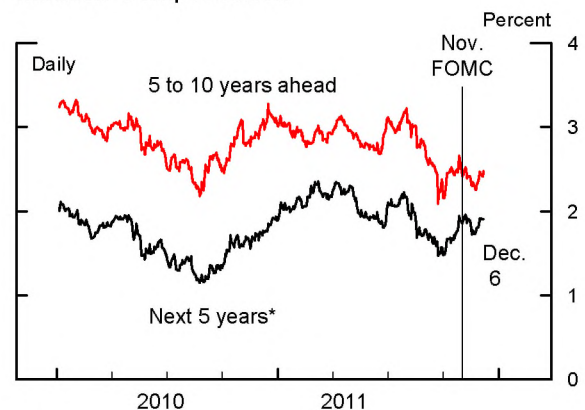
Source: Bloomberg and CME Group.

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



Source: Desk's Dealer Survey from December 5, 2011.

### 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.

period slightly higher on net. Yields were supported by generally stronger-than-expected news on U.S. economic activity but were buffeted by swings in investor sentiment regarding the European crisis. The widely anticipated failure of the Joint Select Committee on Deficit Reduction to reach an agreement did not appear to elicit a sustained response in financial markets. Similarly, markets largely shrugged off the Fitch Ratings announcement of its bleaker outlook for the U.S. sovereign credit rating. Consistent with relatively low realized volatility, the implied volatility of long-term Treasury yields declined noticeably near the end of the intermeeting period.

Aside from the swap line announcement, FOMC communications during the intermeeting period were generally in line with expectations and prompted little market reaction. Market participants reportedly did take note of the Chairman's remarks during the post-FOMC-meeting press conference that expanded mortgage-backed securities (MBS) purchases constituted a "viable option" under appropriate conditions. Market participants also reportedly noted the discussion in the minutes regarding the FOMC's intention to improve policy communications, but there were no apparent effects in markets.

The mean path of the expected federal funds rate was about unchanged over the period, and the expected federal funds rate continued to lie within the current target range until the fourth quarter of 2013.<sup>1</sup> The modal path of the federal funds rate derived from quotes on interest rate caps shifted up a bit but remains within the target range into the middle of 2015.

Results from the Open Market Desk's latest survey of primary dealers also suggested that the expected path of the policy rate was little changed. Respondents continued to view the second quarter of 2014 as the most likely time for liftoff of the federal funds rate.<sup>2</sup> Most respondents did not anticipate major changes in the language of the statement at the upcoming FOMC meeting. In response to questions about possible options for easing, dealers revised from 50 percent to 80 percent the likelihood they assigned to the Committee making changes within one year to its forward guidance regarding the federal funds rate. In addition, participants revised from 50 percent to 60 percent the likelihood they assigned to an expansion of the SOMA portfolio through

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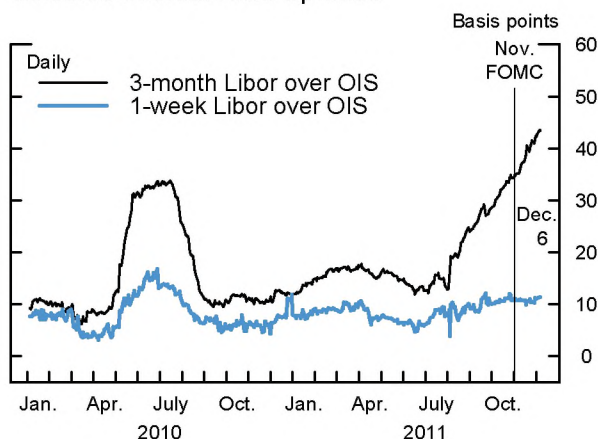
<sup>1</sup> The effective federal funds rate averaged 8 basis points over the intermeeting period, with the intraday standard deviation averaging about 5 basis points.

<sup>2</sup> The list of respondents changed between the November and December surveys. The text refers to the median results from a matched sample.

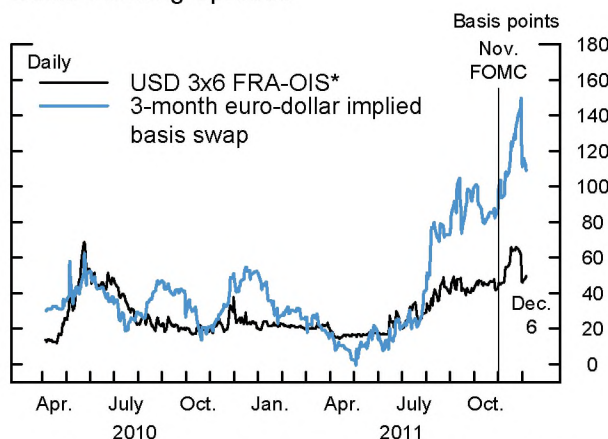


## Short-Term Funding Markets and Financial Institutions

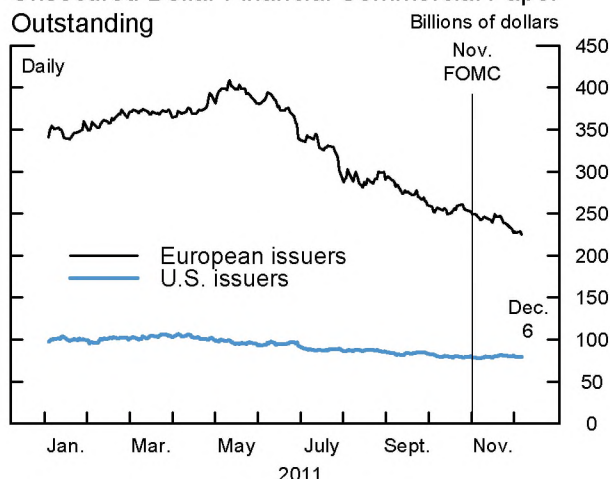
### Selected Interest Rate Spreads



### Dollar Funding Spreads



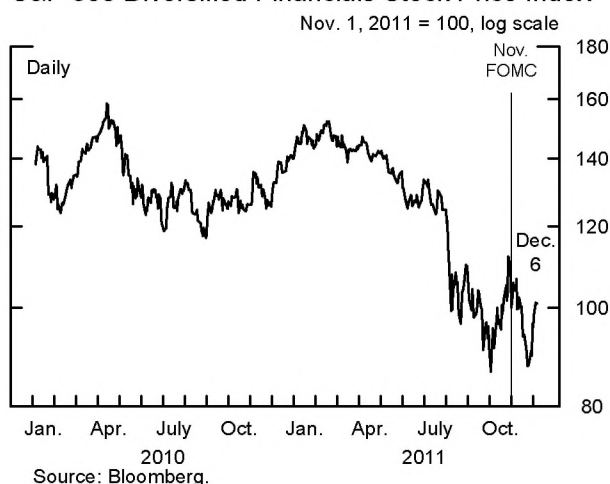
### Unsecured Dollar Financial Commercial Paper Outstanding



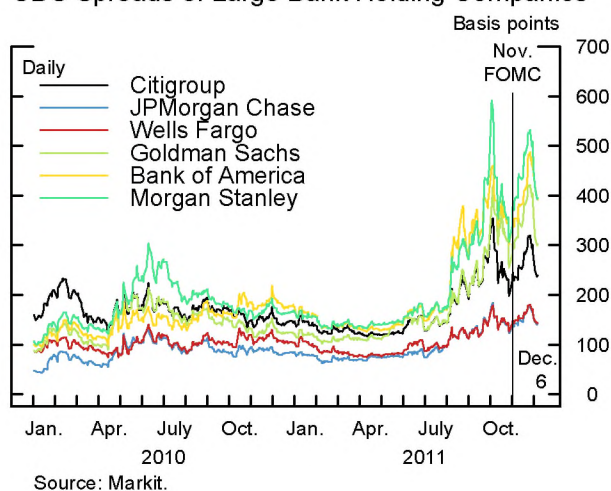
### Average Maturity for Unsecured Financial Commercial Paper Outstanding in the U.S. Market



### S&P 500 Diversified Financials Stock Price Index



### CDS Spreads of Large Bank Holding Companies



securities purchases within one year. Moreover, survey participants thought that within one year there is a 75 percent chance that the Committee will provide more information on its policy objectives (such as its longer-run inflation goal) and a 75 percent chance that the Committee will provide more information about its assessment of appropriate monetary policy in the Summary of Economic Projections. Dealers upgraded notably their forecasts for real GDP growth in the fourth quarter of 2011, while their growth forecasts for 2012 and 2013 were little changed. Respondents' median forecasts for core PCE inflation declined a little for 2011 and 2013 but increased a touch for 2012, while their estimates of headline PCE inflation for 2011 through 2013 declined slightly.

The Desk's outright purchases and sales of Treasury securities continued to be well received, and the operations did not appear to have any adverse effects on Treasury market functioning.<sup>3</sup> Indeed, measures of liquidity in nominal Treasury and TIPS markets changed little over the intermeeting period.

## SHORT-TERM FUNDING MARKETS

Over the intermeeting period, U.S. financial institutions were generally able to access short-term funding markets on relatively normal terms. For example, spreads on unsecured financial commercial paper, as well as haircuts and rates in the repurchase agreement (repo) market, remained at relatively low levels. That said, U.S. firms in the Libor panel reported somewhat elevated spreads over OIS rates.

In contrast, European institutions have faced increased strains in such markets, especially for dollar funding (see the box "U.S. Dollar Funding Pressures and Dollar Liquidity Swap Arrangements"). In early November, the spread between the three-month forward rate agreement (FRA) and the OIS rate three to six months ahead increased sharply, and the cost of dollar funding implied by FX basis swaps also spiked. However, conditions improved following the announcement on November 30 by the Federal Reserve and other major central banks that they would reduce the cost of existing dollar liquidity swap arrangements by 50 basis points (to the OIS rate plus 50 basis points) and that they would extend the swap arrangements until February 1, 2013.<sup>4</sup> Strains were also eased by hopes that European leaders might finally take decisive and effective steps to

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<sup>3</sup> As of December 6, the Desk had sold \$90 billion of short-term Treasury securities and purchased \$100 billion of long-term securities under the maturity extension program.

<sup>4</sup> As a contingency measure, these central banks also agreed to establish temporary bilateral swap arrangements to allow provision of liquidity in each jurisdiction in any of their currencies if needed.

## U.S. Dollar Funding Pressures and Dollar Liquidity Swap Arrangements

As the euro-area crisis has intensified, the dollar funding pressures faced by euro-area financial institutions have increased. Many institutions have found it increasingly difficult to obtain unsecured dollar funding, particularly at maturities exceeding one week.

A number of euro-area financial institutions have instead obtained dollar funding by borrowing euros and swapping them into dollars via the private foreign exchange (FX) swap market, but the cost of such funding has also increased. The implied cost of dollar funding (the black line in the figure on the facing page), under the assumption that euros are borrowed at euro Libor and swapped into dollars, rose from 40 basis points early this summer to about 200 basis points by late November. The large increase in dollar funding costs through the FX swap market is likely due to both heightened demand for dollar funds relative to euros in that market and fears about the solvency of European financial institutions. Although FX swap transactions are by nature collateralized, market participants may fear that, if the euro-area crisis were to worsen, the value of the euros held as collateral could drop sharply at the same time as some of their European counterparties were unable to return their dollars.

In May 2010, the ECB resumed providing dollar loans against eligible collateral, using funds obtained through its swap line with the Federal Reserve. It offered these loans at a cost of 100 basis points plus the overnight index swap (OIS) rate at the relevant maturity. As shown by the red line in the figure on the facing page, at the three-month maturity the cost of dollar funding at the ECB has been below the cost of dollar funding through the FX swap market since late summer, and a significant wedge between the two series developed in November.<sup>1</sup> Despite the favorable cost differential, demand at the ECB's October and November tenders was extremely small; the outstanding amount of loans totaled only \$2.3 billion at the end of November.

Three potential explanations may account for the low demand: the high level of collateral haircuts imposed by the ECB, the ability of some European banks to access low-cost euro funding, and the potential stigma associated with borrowing dollars from the ECB.

Regarding haircuts, in addition to the standard levels imposed on various types of collateral, to account for exchange rate risk, the ECB has required an additional haircut of 12 percent at a one-week maturity and, prior to December 7, 20 percent at a three-month maturity. The extra collateral required likely imposed an additional cost for borrowing dollars from the ECB in the range of 10 to 20 basis points.

The second possible reason for low demand is that many European institutions can borrow euros at a rate below euro Libor, lowering the implicit cost of dollars borrowed through FX

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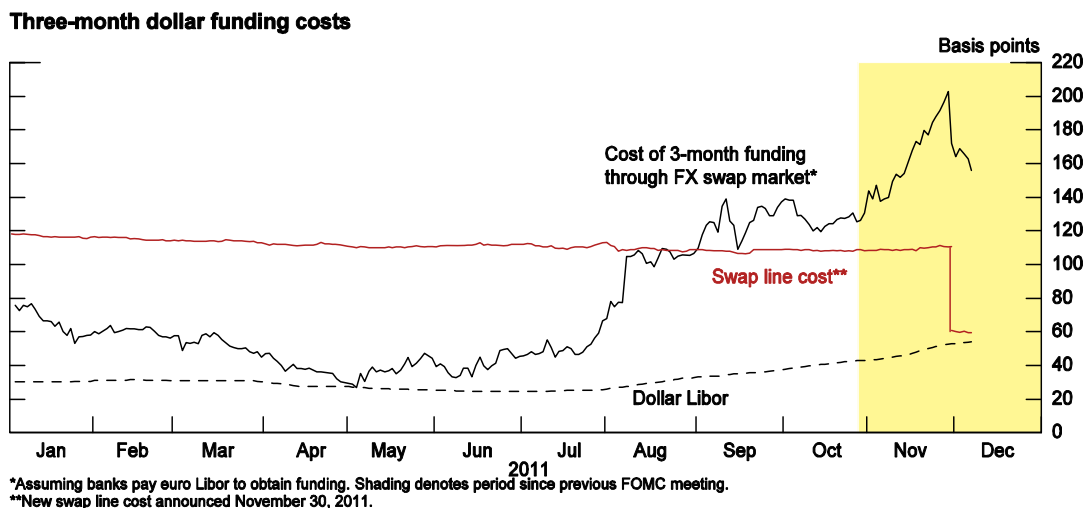
<sup>1</sup> The cost of one-week dollar funding in the FX swap market, not shown, has remained below the cost of one-week dollar funding from the ECB.

swaps and making the ECB facility less attractive by comparison. For instance, in mid-November, European institutions could obtain euro liquidity from the ECB for three months at 125 basis points, about 15 basis points less than in the comparable-maturity euro Libor market, reducing the cost of dollar borrowing by that amount. In the extreme, institutions with unencumbered German or French general collateral could borrow euros through repurchase agreements for about 30 basis points, lowering the final cost of dollar borrowing via an FX swap more than 100 basis points, to a level below that offered by the ECB.

Finally, even healthy European financial institutions may fear that stigma would be associated with borrowing from the ECB. That is, they may be concerned that borrowing from the ECB might be viewed by creditors and counterparties as evidence of financial weakness. Although the ECB does not publish the names of participating institutions, some banks in the past announced that they had not participated, reportedly leading to speculation about those who may have. Moreover, some market participants believe they can infer participation by monitoring a bank's trading activity (for example, the institution may suddenly stop borrowing in the FX swap market).

To ease the growing strains in dollar funding and to lower any hurdles financial institutions might confront in taking advantage of dollar liquidity offered by foreign central banks, the Federal Reserve and the ECB, along with four other central banks, agreed on November 30 to lower the pricing of dollar liquidity to a rate of 50 basis points over the relevant-maturity OIS rate. In addition, the ECB lowered its additional collateral requirement for three-month U.S. dollar operations to 12 percent. The cost of dollar funding through private FX swap markets dropped about 40 basis points over the subsequent two days. On December 7, at the first dollar tender under the new pricing scheme, the ECB allocated \$50.7 billion in three-month funding to 34 institutions, a substantial increase over previous operations.<sup>2</sup>

## Dollar Funding Costs in Europe



<sup>2</sup> The ECB also lent \$1.6 billion in one-week funds to five institutions.

address the crisis in the euro area. In an apparent response to these developments, the FRA–OIS forward spread and the cost of dollar funding implied by FX basis swaps both retraced large parts of their earlier increases. On December 7, the ECB allocated \$50.7 billion in three-month dollar funding to 34 institutions at its first tender under the new pricing, a substantial increase over previous auctions, and implied basis fell a bit further. That said, the three-month Libor–OIS spread continued to increase through the end of the intermeeting period, although apparently very little, if any, activity is occurring at those maturities.

In addition, unsecured financial commercial paper issued by entities with European (especially French) parents continued to run off, as did AA-rated asset-backed commercial paper from programs with European sponsors. Average maturities for European issuers have stayed well below those for domestic issuers, as investors such as money market funds have apparently remained reluctant to acquire all but the shortest exposures to European firms.

## FINANCIAL INSTITUTIONS

On balance over the intermeeting period, equity prices of large domestic financial institutions increased a bit, and CDS spreads for most large domestic bank holding companies (BHCs) were about unchanged. Within the period, both equity prices and CDS spreads were buffeted by developments in Europe. In addition, Standard & Poor's (S&P) downgraded the credit ratings of a large number of global financial firms, including the six largest U.S. BHCs, as part of their implementation of new methods that were announced earlier in the year. The downgrades were generally not large and appeared to elicit relatively little market response.

Responses to the December 2011 Senior Credit Officer Opinion Survey on Dealer Financing Terms indicated a broad but moderate tightening of credit terms over the past three months (see the appendix on the survey at the end of this section). Dealers generally tightened terms applicable to important classes of counterparties across a range of transactions, as well as those applicable when financing important types of collateral. In addition, notable net shares of respondents reported that liquidity and functioning had deteriorated in a range of financial markets other than those for Treasury securities and U.S. equities. The vast majority of dealers indicated both that the amount of time and attention devoted to the management of concentrated credit exposures to other dealers had increased and, in response to a special question on the survey, that they decreased



credit limits for some specific financial institutions. These changes may well reflect continuing concerns about the potential effects of events in Europe on financial institutions, as well as concerns about smaller broker-dealers in the wake of the failure of MF Global and funding pressures on Jefferies Group.

On November 22, the Federal Reserve announced the details of the supervisory stress test that will be completed in March; market reaction was generally muted. On the same day, press reports indicated that Bank of America was instructed by regulators to strengthen its capital position to avoid facing a public enforcement action.

## FOREIGN DEVELOPMENTS

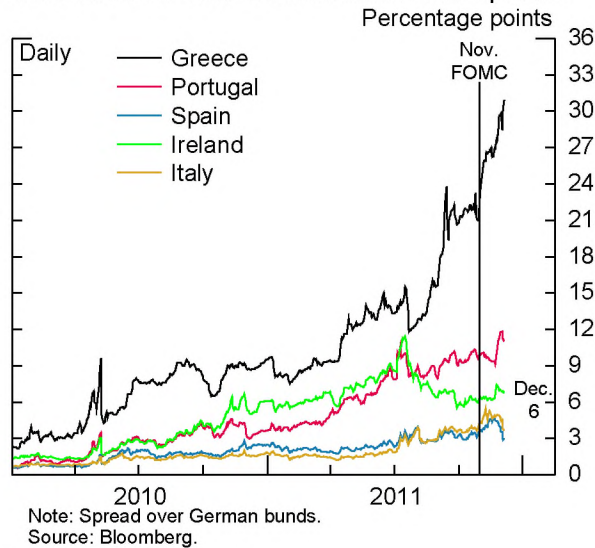
Developments in international financial markets remained centered on the situation in Europe, which continued to be highly volatile. The positive sentiment that followed the October summit of euro-area leaders quickly gave way to pessimism amid political turmoil in Greece and Italy and a growing realization that attempts to provide an effective firewall by leveraging the funds available to the European Financial Stability Facility (EFSF) would be insufficient. Despite stepped-up purchases of sovereign debt by the ECB, 10-year peripheral government bond spreads over German bonds rose for most of the period. Spreads on core European government bonds also increased. German sovereign yields rose, briefly surpassing rates on U.K. gilts despite a much higher rate of inflation in the United Kingdom, and the EFSF was forced to temporarily postpone a new debt issue as market conditions worsened. However, late in the period, in the lead-up to the December 9 European summit, investors' fears eased somewhat on hopes that euro-area leaders might agree to a set of tighter fiscal rules for the euro area and that the ECB might agree to take further actions in response. As a result, yield spreads over German bonds declined substantially for most European economies. That said, spreads for the most vulnerable euro-area countries, including Greece and Portugal, increased over the intermeeting period, and last week, S&P placed 15 euro-area countries and the EFSF on review for potential downgrade.

Several European banks announced large declines in third-quarter profits owing to write-downs on holdings of Greek sovereign debt. Notably, Italy's largest bank, UniCredit, announced a surprise €10.5 billion third-quarter loss and reportedly asked the ECB to expand the range of collateral it accepts at its lending facilities. Amid rising spreads on Italian sovereign debt, LCH.Clearnet, the main European clearinghouse for the repo market, raised margins on repos involving Italian government securities.

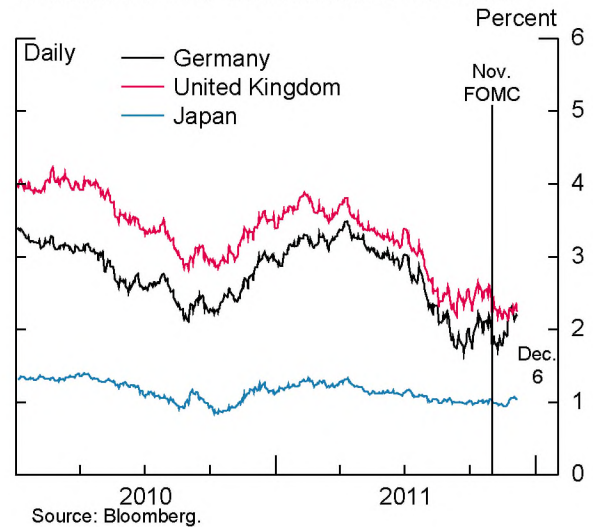


## Foreign Developments

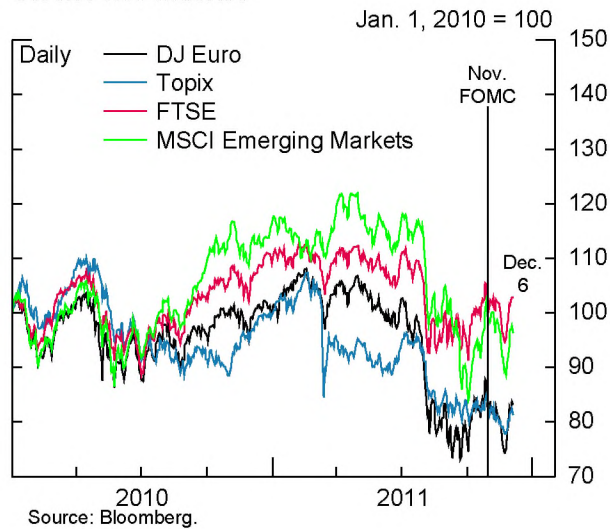
### Euro-Area 10-Year Government Bond Spreads



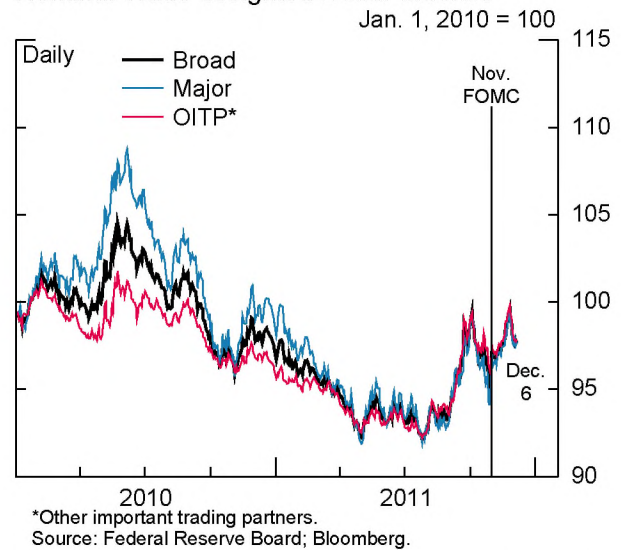
### Nominal 10-Year Government Bond Yields



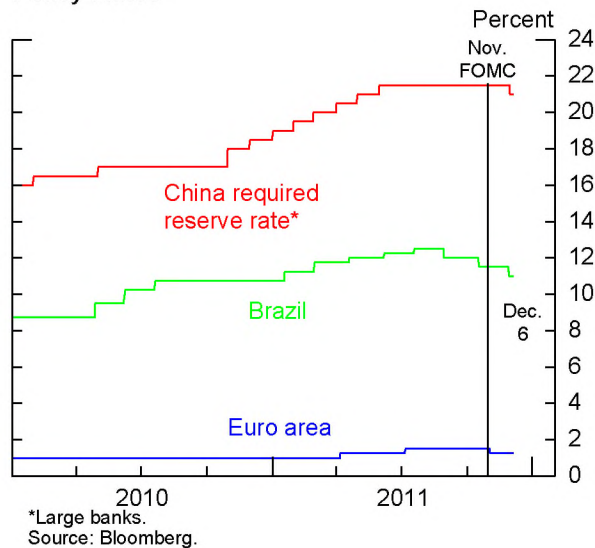
### Stock Price Indexes



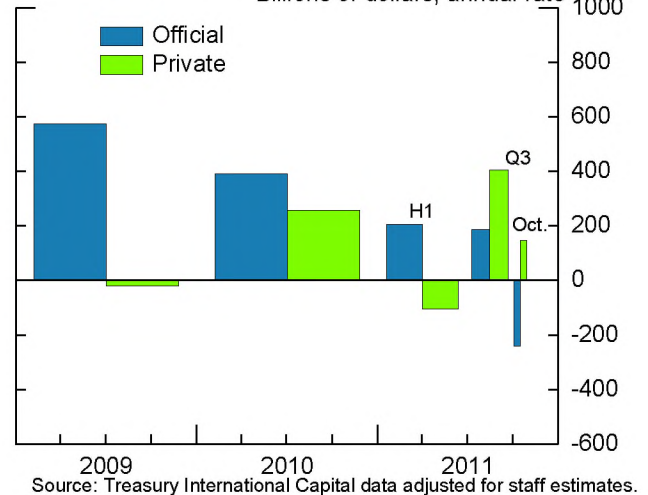
### Nominal Trade-Weighted Dollar Indexes



### Policy Rates



### Foreign Net Purchases of U.S. Treasury Securities



Maturities shortened notably for repos using the sovereign bonds of most euro-area countries as collateral. However, repos using German bonds showed little change in maturity, and their rates declined sharply as investors appeared to shift activity to safer assets.

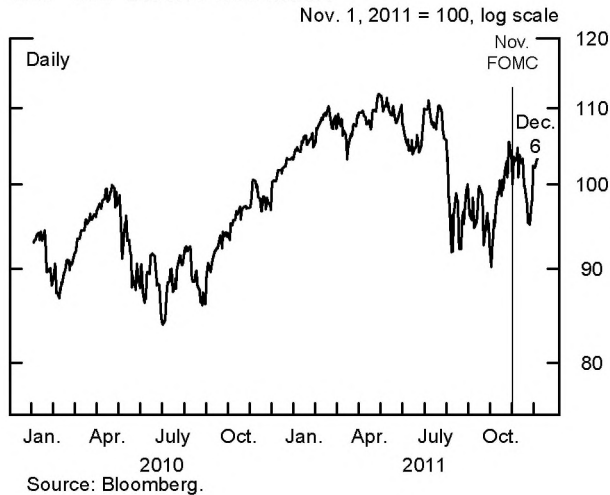
Investors shied away from risky assets for most of the period, although they reversed course late in the period as sentiment improved. Equity prices in both developed and emerging markets followed this pattern and ended the period little changed on net. Flight-to-safety flows boosted the dollar by over 2 percent against the euro, on net, over the intermeeting period despite the dollar's sharp depreciation following the swap line announcement. The dollar rose less, on balance, against most other currencies, leaving the broad nominal index of the dollar only slightly higher than at the time of the November FOMC meeting. Following a downward trend in the peso in recent months, Mexico's government announced that it would resume its program of dollar sales on days when the peso depreciates more than 2 percent against the dollar. In Brazil, whose currency has also been depreciating on balance since last summer, authorities took measures to exempt foreign investors in equities and longer-term corporate bonds from taxes on financial transactions.

Citing the implications of a weakening growth outlook for price pressures, the ECB cut its benchmark policy rate by 25 basis points to 1¼ percent in November. Several other central banks also eased over the period. The People's Bank of China lowered its reserve requirement by 50 basis points—its first such cut in nearly three years—and Brazil's central bank cut its benchmark rate by 50 basis points in late November on concerns that external demand would weaken further. As a precautionary measure, the Bank of England announced a new liquidity facility, the Extended Collateral Term Repo Facility, which will auction term sterling funds against a wide range of collateral.

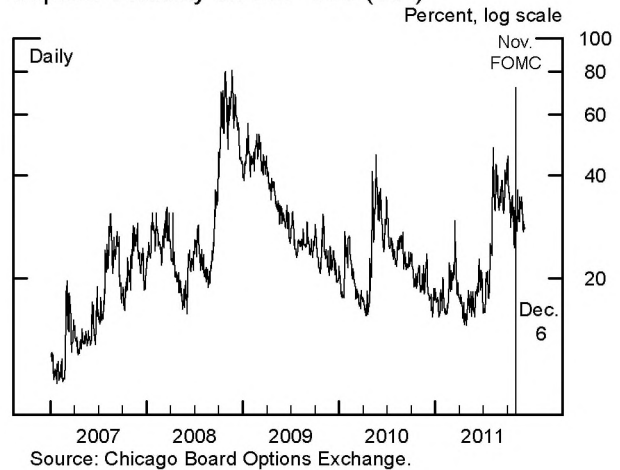
Demand for U.S. Treasury securities by private foreign investors remained solid in October. By contrast, official holdings of Treasury securities fell in October, as large acquisitions from earlier currency interventions ran down. However, more recent data on official holdings under custody at the Federal Reserve Bank of New York suggest a return to strong inflows in November, likely reflecting the renewed intervention by Japan at the end of October and in early November to counter upward pressure on the yen.

## Domestic Asset Market Developments

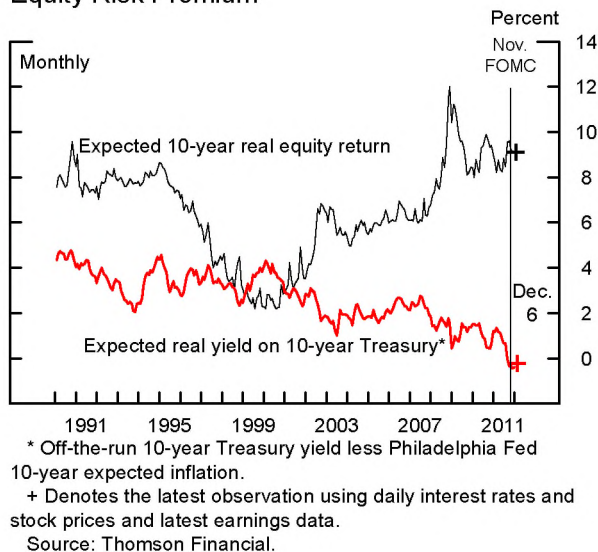
S&P 500 Stock Price Index



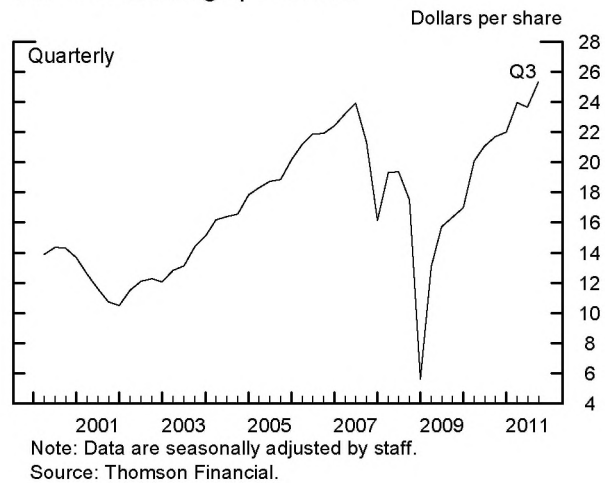
Implied Volatility on S&P 500 (VIX)



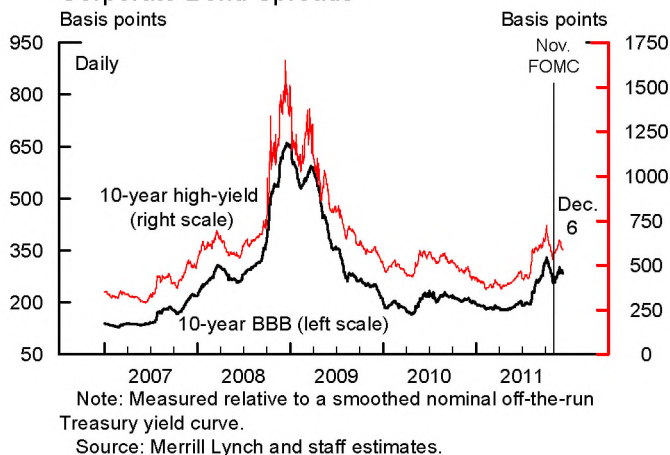
Equity Risk Premium



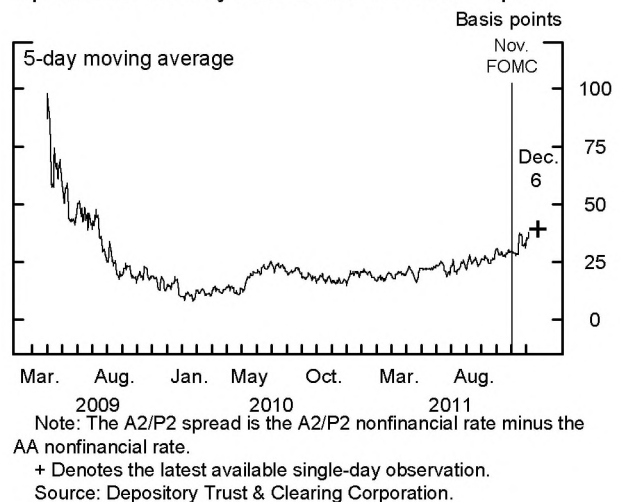
S&P 500 Earnings per Share



Corporate Bond Spreads



Spread on 30-Day A2/P2 Commercial Paper



## DOMESTIC ASSET MARKET DEVELOPMENTS

Broad U.S. equity price indexes were volatile over the intermeeting period but increased about 3 percent on net. Consistent with the large swings in stock prices, option-implied volatility on the S&P 500 index remained somewhat elevated. Meanwhile, the staff's estimate of the spread between the expected real equity return for the S&P 500 index and the real 10-year Treasury yield—a gauge of the equity premium—remained extraordinarily wide.

Nearly all firms in the S&P 500 index have reported operating earnings for the third quarter. Although earnings per share grew 8 percent relative to the previous quarter, the overall level of earnings in the second quarter was depressed by a large loss at Bank of America. Excluding this effect, corporate earnings grew 3 percent in the third quarter.

Yields on BBB-rated corporate bonds rose somewhat, on balance, over the intermeeting period, and their spreads to yields on comparable-maturity Treasury securities widened 25 basis points; yields and spreads for speculative-grade corporate bonds were about unchanged. The spread of yields on 30-day A2/P2-rated unsecured commercial paper issued by nonfinancial firms over yields on A1/P1-rated issues increased a bit, on net, over the intermeeting period, possibly reflecting some moderate year-end pressures in that market.

## BUSINESS FINANCE

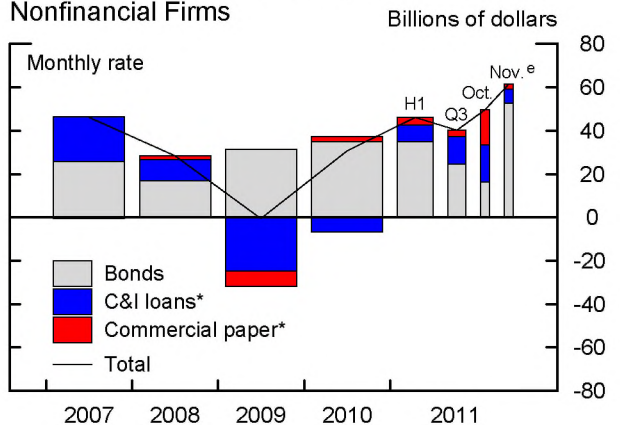
Net debt financing of nonfinancial firms increased in November from an already solid pace in October. Investment- and speculative-grade issuance of nonfinancial corporate bonds was particularly robust in November, as some firms were reportedly eager to issue bonds before year-end. Nonfinancial commercial paper outstanding and C&I loans expanded at a moderate pace. Issuance of leveraged loans stepped up somewhat in October but remained sluggish relative to the pace seen earlier this year.

Gross public equity issuance by nonfinancial firms rebounded in November after a slow third quarter, as some previously withdrawn IPOs were reportedly brought back to the market. However, net equity issuance became more negative in the third quarter, reflecting the continued strength of cash-financed mergers and share repurchases. Preliminary data on merger activity and announcements of new share-repurchase programs suggest continued sizable equity retirements in the fourth quarter.



## Business Finance

Selected Components of Net Debt Financing,  
Nonfinancial Firms

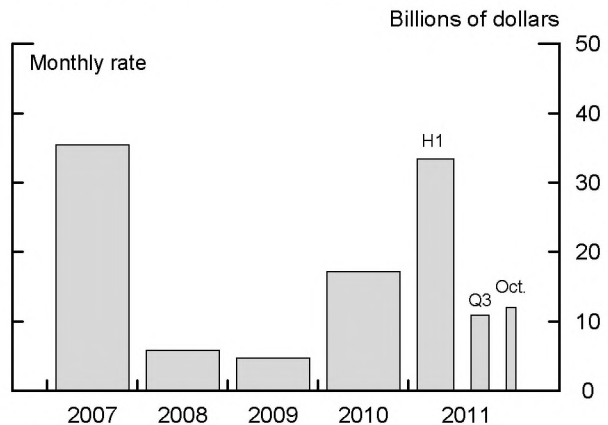


\* Period-end basis, seasonally adjusted.

e Estimate.

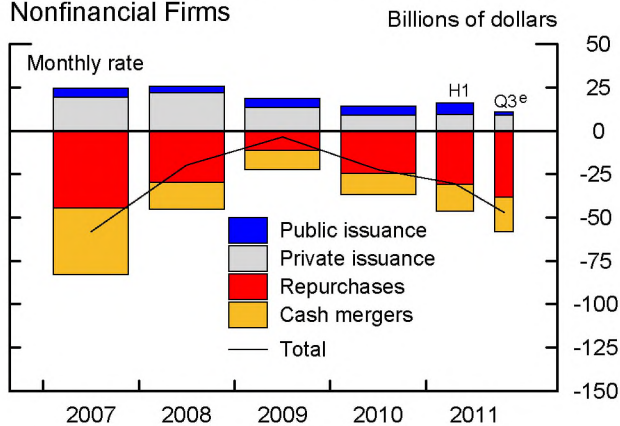
Source: Depository Trust & Clearing Corporation; Thomson Financial; Federal Reserve Board.

Gross Issuance of Institutional Leveraged Loans



Source: Reuters Loan Pricing Corporation.

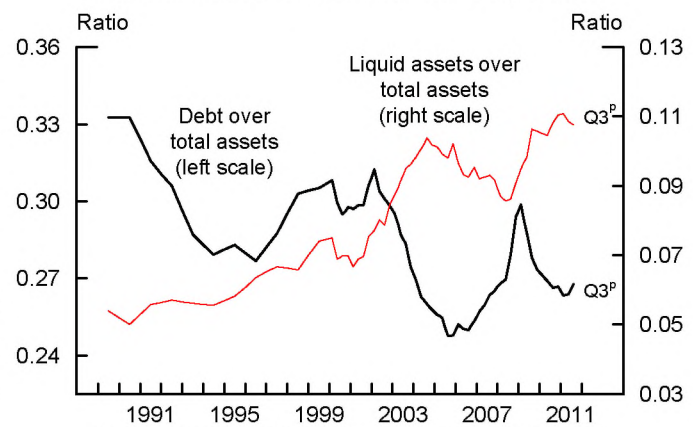
Selected Components of Net Equity Issuance,  
Nonfinancial Firms



e Estimate.

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

Financial Ratios for Nonfinancial Corporations

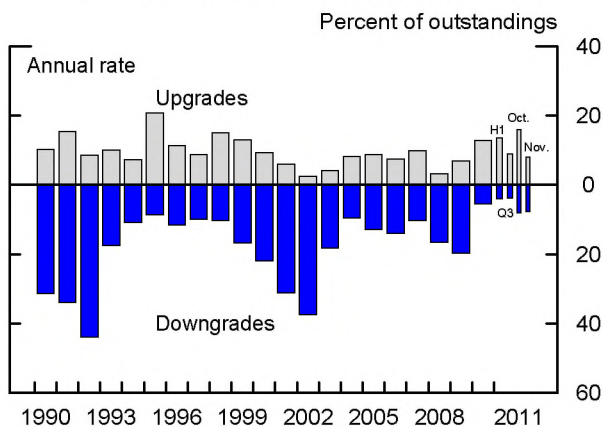


Note: Data are annual through 1999 and quarterly thereafter.

p Preliminary.

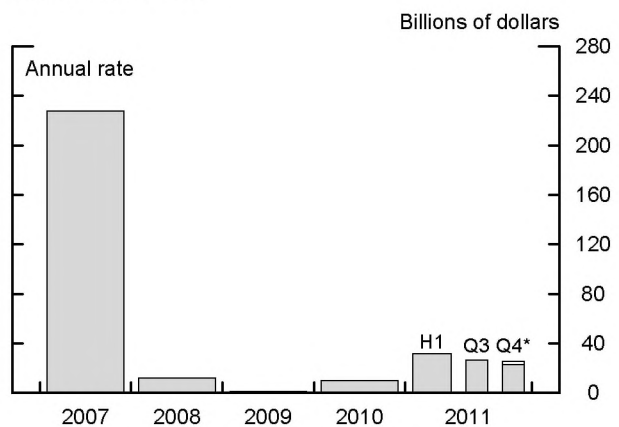
Source: Compustat.

Bond Ratings Changes of Nonfinancial Firms



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

CMBS Issuance



\* Hollow bar indicates issuance in the pipeline.

Source: Commercial Mortgage Alert.

Indicators of the credit quality of nonfinancial corporations remained solid. Based on preliminary data, the aggregate ratio of debt to assets stayed low in the third quarter, and the aggregate liquid asset ratio remained near its highest level in more than 20 years. Upgrades by Moody's Investors Service of corporate bonds issued by nonfinancial companies slightly outpaced downgrades in October and November. Furthermore, the six-month trailing bond default rate for nonfinancial firms remained close to zero in October, and the expected year-ahead default rate for such firms ticked down a bit in November.

Data received during the intermeeting period suggest that commercial real estate markets remained depressed and financing conditions for such property continued to be strained. Delinquency rates on commercial mortgages remained high, and prices of commercial real estate have been flat at depressed levels. In addition, vacancy rates for most types of commercial properties have stayed elevated, exerting further downward pressure on property prices and the performance of commercial mortgage loans. While a small volume of commercial mortgage-backed securities (CMBS) issuance continued to trickle through the pipeline, liquidity conditions in the CMBS market have reportedly deteriorated in recent months, partly owing to increased volatility related to the situation in Europe.

## HOUSEHOLD FINANCE

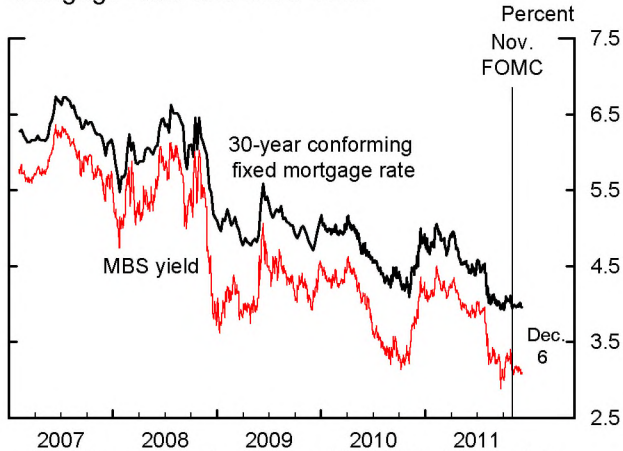
Interest rates on residential mortgages were little changed, on net, over the intermeeting period. Rates on conforming mortgages fluctuated within a narrow range near the historically low level of 4 percent for 30-year fixed-rate loans, largely tracking the movements of yields on agency MBS. The Desk continued to reinvest receipts of principal payments from SOMA holdings of agency securities in MBS. Market reactions to the announcements by Fannie Mae and Freddie Mac on November 15 regarding the details of an expansion of the Home Affordable Refinance Program appeared to be quite limited and were contained within the high-coupon MBS segment, where yields declined slightly as investor concerns about an increase in refinancing-related prepayments eased. In general, mortgage refinancing activity remained subdued, as tight underwriting standards and low home equity continued to limit access of many households to the mortgage market.

Mortgage credit quality appears to have improved a bit further recently, as the three-month moving average of the entry rate into delinquency for prime mortgages



## Household Finance

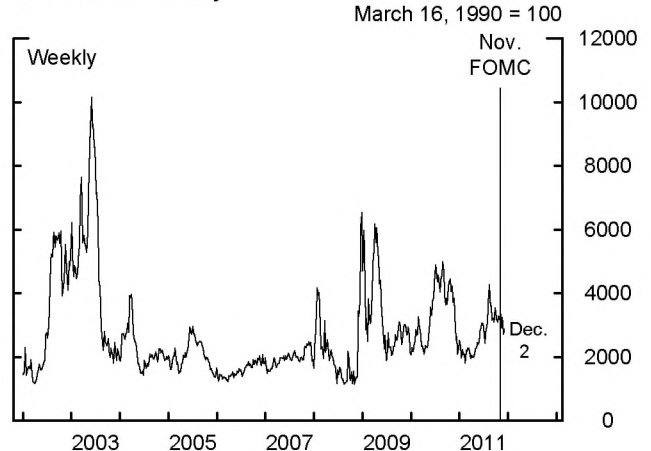
### Mortgage Rate and MBS Yield



Note: For mortgage-backed securities (MBS) yield, the data are daily and consist of the Fannie Mae 30-year current-coupon rate; for mortgage rate, the data are weekly before 2010 and daily thereafter.

Source: For MBS yield, Barclays; for mortgage rate, Freddie Mac (before 2010) and Loansifter (after 2010).

### Refinance Activity



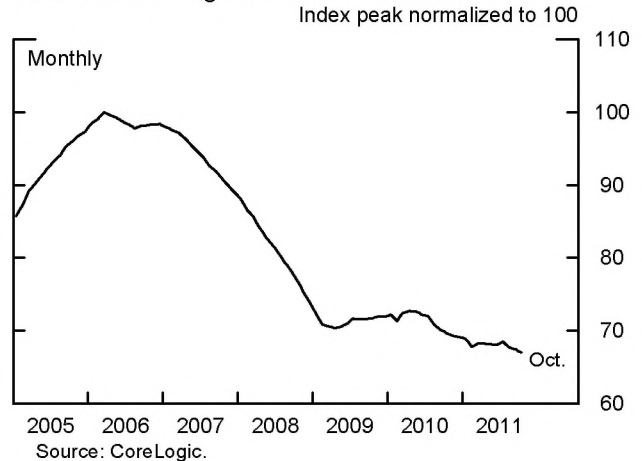
Note: Seasonally adjusted by FRB staff.  
Source: Mortgage Bankers Association.

### Delinquencies on Prime Mortgages, Transition Rate



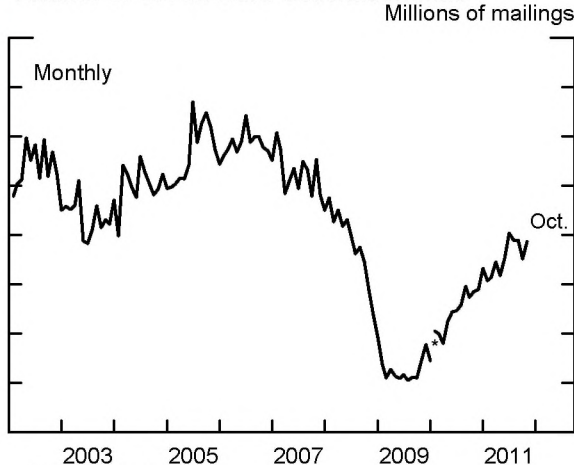
Note: Percent of previously current mortgages that transition to being at least 30 days delinquent each month.  
Source: LPS Applied Analytics.

### Prices of Existing Homes



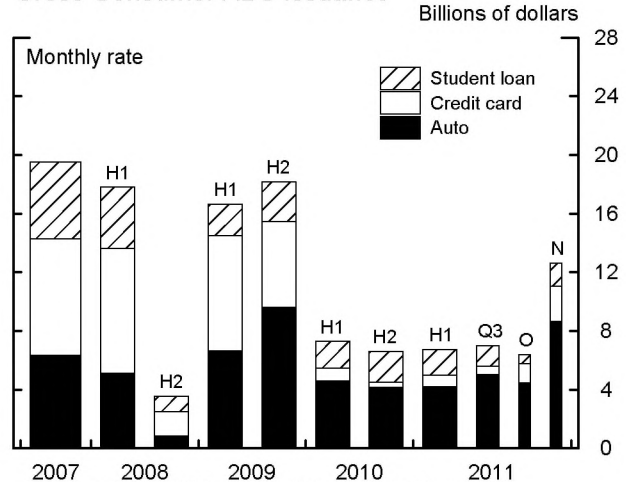
Source: CoreLogic.

### Volume of Credit Card Solicitation Mail



\*Break in series.  
Source: Mintel.

### Gross Consumer ABS Issuance



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

returned to a downward trend after having moved sideways for several months. That said, overall delinquency rates on residential mortgages remained elevated. Moreover, house prices continued to decline, with the CoreLogic index edging lower in both September and October.

In contrast to the gloomy conditions in the market for home mortgages, consumer credit markets have shown some signs of improvement. In addition, consumer credit rose slightly in the third quarter. The aggregate volume of credit card solicitations in recent months has remained at levels comparable to those seen before the escalation of the financial crisis in 2008, though the mail volume for low-income households is still well below pre-crisis levels. Issuance of consumer ABS increased substantially in November. Meanwhile, consumer credit quality improved further in recent months, with delinquency rates on credit card loans declining to near historical lows and delinquency rates on nonrevolving consumer credit at commercial banks retreating to pre-crisis levels.

## **GOVERNMENT FINANCE**

During the intermeeting period, the Treasury auctioned about \$171 billion of nominal coupon securities across the maturity spectrum and \$11 billion of 10-year TIPS. The auctions were generally well received, with the exceptions of the 10- and 30-year auctions in early November, which saw slightly below-average shares of indirect bidding and lower-than-expected pricing amid heightened market volatility.

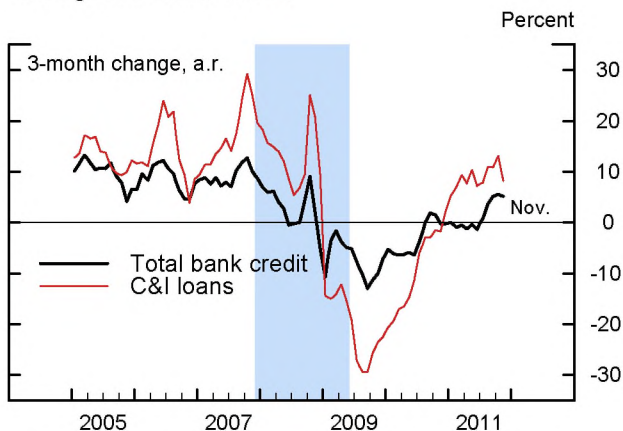
For state and local governments, financing conditions were somewhat mixed. Gross long-term issuance of municipal bonds remained robust in November, with a modest pickup in new capital issuance. However, in the third quarter, Moody's again downgraded substantially more municipal bonds than it upgraded, a trend that higher-frequency data suggest will persist in the fourth quarter. Yields on long-term general obligation (GO) municipal bonds were about flat, on net, and the ratio of GO-bond yields to yields on comparable-maturity Treasury securities—a gauge of the relative risk of municipal bonds—fluctuated at elevated levels.

## **COMMERCIAL BANKING AND MONEY**

Bank credit grew briskly in October and November, boosted by growth in both loans and securities. Increases in C&I loans remained widespread among domestic banks amid reports of strong appetite for better-quality syndicated credits, while growth of C&I

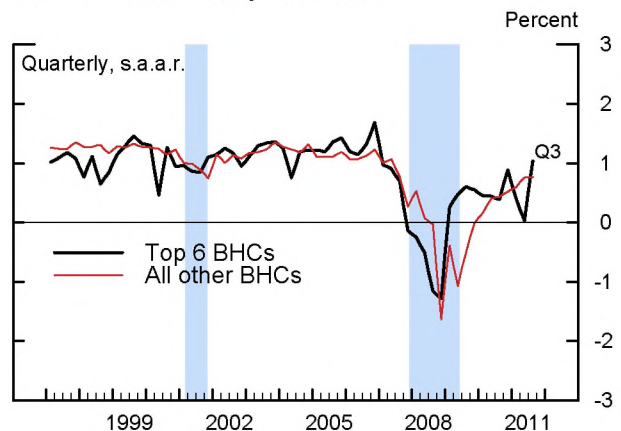
## Commercial Banking and Money

### Changes in Bank Credit



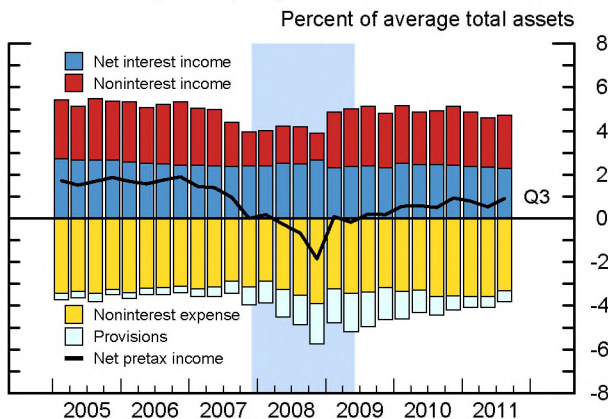
Source: Federal Reserve Board.

### Return on Assets, by BHC Size



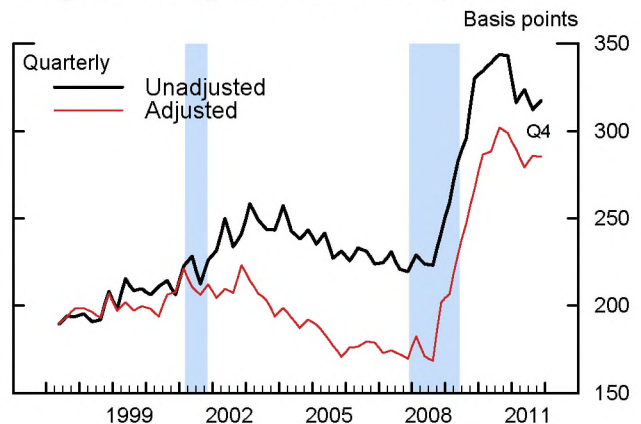
Note: BHC is a bank holding company.  
Source: Federal Reserve Board.

### Bank Holding Company Pretax Income



Note: Quarterly, s.a.a.r.  
Source: Federal Reserve Board.

### Weighted-Average C&I Loan Rate Spread



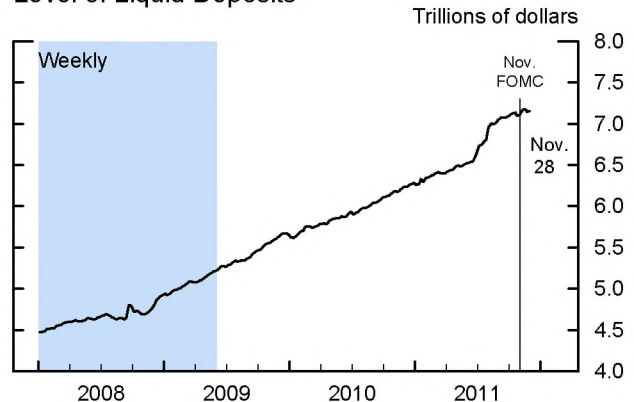
Note: The rate on C&I loans of less than \$25 million over a market interest rate on an instrument of comparable maturity, adjusted for changes in nonprice loan characteristics.  
Source: Survey of Terms of Business Lending.

### 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	-15.5	5.9	
2011:H1	5.6	10.0	-18.9	-6.7	10.1	
2011:Q3	19.9	27.9	-20.5	11.2	7.9	
Sept.	6.0	9.7	-21.0	-1.2	6.4	
Oct.	3.7	5.9	-21.8	10.9	2.9	
Nov.(e)	4.8	9.1	-22.8	-13.0	8.3	

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

### Level of Liquid Deposits



Note: Seasonally adjusted.  
Source: Federal Reserve Board.

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

loans at branches and agencies of foreign banks stalled. However, commercial real estate loans declined further on balance. Closed-end residential mortgage loans on banks' books increased rapidly in October and early November, which was due in part to the settlement of loans from last summer's pickup in refinancing activity. By contrast, home equity loans continued to run off. Credit card loans remained about flat, and other consumer loans rose.

Noncore loans ramped up further at large domestic banks and at branches and agencies of foreign banks in October and November, apparently in part because of the extremely tight short-term funding conditions in Europe. Indeed, weekly data combined with information from the third-quarter Call Report suggest that reverse repos and other loans from U.S. banks to foreign banks and to nonbank financial institutions in the United States and abroad have contributed importantly to the recent strength in noncore loans.

Aggregate profitability of BHCs increased moderately in the third quarter of 2011, primarily because of accounting gains related to drops in the market value of bank debt and reductions in noninterest expense at the largest BHCs. Net interest income continued to decline, reportedly owing to a runoff of higher-yielding assets. For the industry as a whole, net income continued to be supported by the release of loan loss reserves, albeit to a lesser extent than in previous quarters. Delinquency and charge-off rates continued to improve across most major asset classes. Overall, regulatory capital ratios were about unchanged and remained near the high end of their historical ranges. The leverage ratios of the largest BHCs decreased a bit further in the third quarter, partly owing to balance sheet expansion related to the ongoing rapid growth in deposits.

The November Survey of Terms of Business Lending showed that spreads of rates on C&I loans over banks' cost of funds were little changed since the August survey and remained elevated. Although spreads at domestic banks inched up because of changes in loan composition, this increase was offset in part by a decrease in spreads at U.S. branches and agencies of foreign banks. Reflecting the intensification of the European crisis last month, however, spreads on C&I loans originated by European banks increased sharply in the November survey, and the share of originations by those institutions relative to the total at all foreign banks fell for the third consecutive quarter.

M2 expanded at a 4¾ percent annual rate in November amid ongoing flight-to-quality flows related to the European crisis. Liquid deposits, the single largest component of M2, accelerated to an annual growth rate of 9 percent, partly because of

continued rebooking of offshore deposits to domestic offices. Offshore deposits have been included in the FDIC's assessment base since April of this year, negating some of the benefits to banks of booking these deposits abroad, and the FDIC's insurance of onshore deposits makes them increasingly attractive when uncertainty rises. Currency grew at an annual rate of 8¼ percent in November, above its historical average, reflecting strong domestic and international demand. The monetary base—reserve balances and currency—fell at an annual rate of 18½ percent, in line with a temporary decline in the size of the SOMA portfolio (see the box “Balance Sheet Developments over the Intermeeting Period”).

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## Balance Sheet Developments over the Intermeeting Period

Over the intermeeting period, total assets of the Federal Reserve edged down \$21 billion to \$2,812 billion (see the table on the facing page).

Since the November FOMC meeting, the Open Market Desk at the Federal Reserve Bank of New York (FRBNY) has conducted 22 operations as part of the maturity extension program: The Desk purchased \$57 billion in Treasury securities with remaining maturities of 6 to 30 years and sold \$36 billion in Treasury securities with maturities of 3 years or less.<sup>1</sup> In addition, the Desk purchased \$29 billion in agency MBS securities as part of the policy of reinvesting principal payments from agency debt and agency MBS. Because of agency MBS market conventions, settlements of these transactions can occur well after trade execution. As of November 21, the FRBNY required primary dealers to post margin to protect the FRBNY against counterparty risk associated with the forward settlement of agency MBS transactions. These transactions are exposed to market value changes between purchase and settlement. In addition, to facilitate December and January settlements, the Desk began to transact dollar rolls in early December.

The net portfolio holdings of Maiden Lane LLC declined \$2 billion, while holdings of the Maiden Lane II and Maiden Lane III LLCs were nearly unchanged. Loans outstanding under the Term Asset-Backed Securities Loan Facility declined about \$1 billion to \$10 billion. Foreign central bank liquidity swaps increased a bit to \$2 billion, reflecting several small draws by the European Central Bank and the Bank of Japan. On November 30, these swap lines were expanded to a broader set of central banks, the pricing on the swap lines was reduced, and swap lines in other currencies were established. The authorization of the swap lines was extended through February 1, 2013.<sup>2</sup>

On the liability side of the Federal Reserve's balance sheet, Federal Reserve notes in circulation increased \$13 billion over the period, the Treasury's General Account decreased \$34 billion, and reverse repurchase transactions with foreign official and international accounts expanded \$4 billion. The Federal Reserve conducted an additional \$5 billion small-scale operation of the Term Deposit Facility. Reserve balances, deposits of depository institutions, declined \$30 billion over the period. Other deposits increased \$17 billion, primarily due to increases in GSE balances reflecting reduced lending in the federal funds market.

<sup>1</sup> Purchases of \$9 billion conducted on December 5, 2011, and December 6, 2011, are not reflected in the table, as settlement occurred after December 5, 2011.

<sup>2</sup> The ECB subsequently drew \$52 billion on the swap lines, including \$1.6 billion maturing in 7 days and \$50.7 billion maturing in 84 days. These transactions settle on December 8, 2011, and so are not reflected in the table.

**Federal Reserve Balance Sheet**  
Billions of dollars

	<b>Change since last FOMC</b>	<b>Current (12/05/11)</b>
<b>Total assets</b>	<b>-21</b>	<b>2,812</b>
Selected assets:		
Liquidity programs for financial firms	+0	2
Primary, secondary, and seasonal credit	+0	+0
Foreign central bank liquidity swaps	+0	2
Term Asset-Backed Securities Loan Facility (TALF)	-1	10
Net portfolio holdings of Maiden Lane LLCs	-3	38
Maiden Lane	-2	11
Maiden Lane II	-0	9
Maiden Lane III	-0	18
Securities held outright*	-21	2,599
U.S. Treasury securities	3	1,666
Agency debt securities	-2	106
Agency mortgage-backed securities	-22	827
<b>Total liabilities</b>	<b>-23</b>	<b>2,758</b>
Selected liabilities:		
Federal Reserve notes in circulation	13	1,020
Reverse repurchase agreements	4	87
Foreign official and international accounts	4	87
Others	0	0
Reserve balances of depository institutions**	-30	1,546
Term deposits held by depository institutions	5	5
U.S. Treasury, General Account	-34	27
U.S. Treasury, Supplementary Financing Account	0	0
Other deposits	17	54
<b>Total capital</b>	<b>2</b>	<b>54</b>

Note: +0 (-0) denotes positive (negative) value rounded to zero.

\* Par value.

\*\* Includes required clearing balances and overdrafts. Excludes as-of adjustments.

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## Appendix

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### Senior Credit Officer Opinion Survey on Dealer Financing Terms

Responses to the December 2011 Senior Credit Officer Opinion Survey on Dealer Financing Terms indicated a broad but moderate tightening of credit terms applicable to important classes of counterparties over the past three months.<sup>1</sup> This tightening was especially evident for hedge fund clients, trading real estate investment trusts (REITs), and nonfinancial corporations.<sup>2</sup> Of note, respondents reported an increase in the degree to which more-favorable terms were offered to most-favored clients across most client types. An overwhelming majority of firms reported an increase in the amount of resources and attention devoted 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. These responses reflect an apparent continuation and intensification of developments already in evidence in the September survey. With respect to a special question on aggregate counterparty credit limits to other financial institutions, 80 percent of dealers reported having decreased limits for some specific counterparties.

With regard to over-the-counter (OTC) derivatives, respondents to the December survey indicated that nonprice terms incorporated in new or renegotiated OTC derivatives master agreements were for the most part little changed, on net, during the past three months. However, a small net fraction of respondents reported that they had imposed more-stringent requirements, timelines, and thresholds for posting additional margin.<sup>3</sup> A small net fraction of dealers also reported a tightening of initial margin requirements, which fall outside the scope of the master agreement, over the past three months.

With respect to securities financing, survey respondents reported a general tightening over the past three months of the terms on which the securities types included in the survey are

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<sup>1</sup> The December survey collected qualitative information on changes over the previous three months in credit terms and conditions in securities financing and over-the-counter (OTC) derivatives markets. In addition to the core set of questions, this survey included a set of special questions about the liquidity and functioning of markets for U.S. Treasury securities and equities, a second set of special questions focused on changes in aggregate risk limits applicable to other financial institutions, and a final set of special questions asked about clients' efforts to negotiate credit terms for trades cleared through central counterparties. The 20 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 November 15, 2011, to November 28, 2011. The core questions ask about changes between September 2011 and November 2011.

<sup>2</sup> Trading REITs invest in assets backed by real estate rather than directly in real estate.

<sup>3</sup> 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").

funded. Tightening was more pronounced for average clients than for most-favored clients. For each of the types of collateral covered in the survey, notable net fractions of respondents reported that liquidity and functioning had deteriorated over the past three months in the underlying asset market. With regard to conditions in those markets generally deemed the most liquid, responses to a set of special questions suggested that liquidity and functioning in the market for U.S. Treasury securities were little changed since the second quarter, while a small net fraction of dealers reported that conditions in equity markets had deteriorated somewhat over the same period.

Finally, in response to a set of special questions on clients' efforts to negotiate terms applicable to trades cleared through central counterparties, dealers indicated that most-favored hedge funds were the counterparty type most intensively seeking to obtain terms that entail lower margin requirements or that provide protection against changes in such requirements.

## **COUNTERPARTY TYPES**

### **Dealers and Other Financial Intermediaries**

In the December survey, all but two 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. In the September survey, three-fourths of respondents noted such an increase. These responses may well reflect heightened concerns about the potential for the situation in Europe to negatively affect financial institutions as well as worries stemming from the recent failure of MF Global.

### **Central Counterparties and Other Financial Utilities**

Two-thirds of respondents indicated that the amount of resources and attention devoted to management of concentrated exposures to central counterparties and other financial utilities had also increased over the past three months. In the September survey, slightly more than one-half of dealers, on balance, noted an increase.

### **Hedge Funds**

The survey responses suggested a modest tightening of price and nonprice terms applicable to hedge funds over the past three months. On net, about one-third of dealers reported having tightened price terms (such as financing rates) offered to hedge funds and one-fourth reported having tightened nonprice terms (including haircuts, maximum maturity, covenants, cure periods, cross-default provisions, or other documentation features) across the spectrum of securities financing and OTC derivative transactions. The institutions that reported a tightening of credit terms most frequently pointed to a worsening in general market liquidity and functioning and to reduced willingness to take on risk and, to a lesser extent, adoption of more-stringent market conventions and deterioration in the strength of counterparties as the reasons. Twenty percent of respondents, a smaller net fraction than in September, reported an increase in the intensity of efforts by hedge funds to negotiate more-favorable price and nonprice terms over the

past three months. More than one-half of dealers, on balance, indicated that the use of financial leverage by hedge funds, considering the entire range of transactions facilitated, had decreased somewhat over the past three months. Among the subsample of firms with a significant presence in almost all of the business areas covered in the survey (broad-scope dealers), nearly all reported a decline in the use of financial leverage.<sup>4</sup> Respondents also noted that the availability of additional unutilized financial leverage under agreements currently in place with hedge funds was little changed, on net, over the past three months, suggesting that the tightening of the supply of credit, as evidenced by more-stringent credit terms, was presumably matched by a reduction in demand. Finally, nearly one-third of respondents reported that the provision of more-favorable terms to most-favored hedge funds had increased over the past three months.

### **Trading Real Estate Investment Trusts**

One-fourth of survey respondents reported that they had tightened price terms offered to trading REITs, and a smaller net fraction indicated that they had tightened nonprice terms. A worsening of market liquidity and functioning, reduced willingness to take on risk, and a deterioration in the financial strength of counterparties were cited as the most important reasons for the change in lending posture.

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

The survey responses suggested that, on balance, there had been little change in the price and nonprice credit terms provided to mutual funds, exchange-traded funds (ETFs), pension plans, and endowments over the past three months, as well as the use of leverage by such clients. Of note, one-fourth of respondents indicated an increase in the intensity of efforts by clients in this category to negotiate more-favorable credit terms, and a similar net percentage reported an increase in the provision of more-favorable terms to most-favored clients over the past three months.

### **Insurance Companies**

Survey respondents indicated that price and nonprice terms applicable to insurance companies were basically unchanged over the past three months despite a continued increase in the intensity of efforts by such clients to negotiate more-favorable terms. A modest fraction of dealers noted an increase in the provision of more-favorable terms to most-favored clients over the past three months.

### **Separately Managed Accounts Established with Investment Advisers**

Dealers indicated that price and nonprice terms negotiated by investment advisers on behalf of separately managed accounts were little changed, on net, over the past three months. A small net fraction of respondents noted that the intensity of efforts by these advisers to negotiate more-favorable credit terms had increased during the survey period; dealers reported, however, that the use of financial leverage by this client type was basically unchanged. A small

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<sup>4</sup> Nine of the 20 respondents to the survey are classified as broad-scope dealers.



net percentage of respondents noted an increase in the provision of more-favorable terms to most-favored clients over the past three months.

### **Nonfinancial Corporations**

About one-third of respondents indicated that they had tightened somewhat price terms offered to nonfinancial corporations over the past three months, while one-fifth of dealers reported a tightening of nonprice terms. Survey respondents cited higher internal treasury charges for funding as the single most prominent explanation for the change in lending posture, although they also cited a particularly wide range of reasons as important for this change. One-fifth of dealers noted that the intensity of efforts by nonfinancial corporations to negotiate more-favorable terms had increased over the past three months.

### **Mark and Collateral Disputes**

Despite the apparently heightened focus on management of concentrated credit exposure to dealers and other financial intermediaries, only a small net fraction of dealers reported that the volume of mark and collateral disputes with other dealers had increased somewhat over the past three months. Similar net shares of respondents noted an increase in the volume of mark and collateral disputes with mutual funds, ETFs, pension plans, and endowments, as well as with investment advisers acting on behalf of separately managed accounts. In addition, a small net fraction of respondents reported an increase in the duration and persistence of such disputes with other dealers.

### **OVER-THE-COUNTER DERIVATIVES**

As in the September survey, dealers reported that nonprice terms incorporated in new or renegotiated OTC derivatives master agreements were broadly unchanged over the past three months.<sup>5</sup> However, a small net fraction of respondents indicated that they had tightened requirements, timelines, and thresholds for posting additional margins over the past three months. Small net fractions of dealers also noted that they had tightened initial margins (which fall outside the scope of the master agreement) applied to average clients on contracts referencing most underlying collateral types (underlyings) over the past three months. The largest changes were reported with respect to equity derivatives and, to a lesser extent, interest rate derivatives. By contrast, initial margin requirements were generally little changed for most-favored clients. A small net percentage of respondents noted an increase in the volume, duration, and persistence of mark and collateral disputes across underlyings.

### **SECURITIES FINANCING**

As in September 2011, survey respondents indicated a general tightening over the past three months of credit terms under which the types of securities included in the survey are financed. This tightening was especially evident for the financing of corporate bonds (both high

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<sup>5</sup> The survey asks specifically about 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.

grade and high yield), agency and non-agency residential mortgage-backed securities (RMBS), and commercial mortgage-backed securities. The apparent overall tightening of terms over the past three months applied to both average and most-favored clients (though it was less pronounced for most-favored clients).

Dealers reported that demand for funding of most securities was little changed over the past three months. However, demand for term funding with a maturity greater than 30 days increased for all types of securities. Most notably, 40 percent of respondents reported an increased demand for term funding of high-grade bonds. For agency RMBS and high-yield corporate bonds, the net fractions reporting increased demand for term funding in the December survey were 33 percent and 29 percent, respectively.

Broadly consistent with the September responses, dealers reported a further worsening in the liquidity and functioning of the underlying asset markets covered by the survey.<sup>6</sup> In particular, net fractions of respondents ranging between one-third and one-half indicated that liquidity and functioning in these markets had deteriorated over the past three months. However, this deterioration was not accompanied by an increase in reported mark and collateral disputes.

### **SPECIAL QUESTIONS ON MARKET FUNDING AND LIQUIDITY**

Some market observers have reported that liquidity has recently declined in a number of markets, including those generally considered to have the greatest depth and transparency. A set of special questions queried dealers about changes since the end of the second quarter of 2011 in the liquidity and functioning of markets for U.S. Treasury securities and for equities. Survey respondents reported that, on balance, liquidity and functioning in the U.S. Treasury market had remained basically unchanged. By contrast, one-fifth of respondents pointed to a deterioration in liquidity and functioning in equity markets.

### **SPECIAL QUESTIONS ON COUNTERPARTY CREDIT LIMITS APPLICABLE TO OTHER FINANCIAL INSTITUTIONS**

In recent months, many financial firms have been subject to heightened scrutiny by clients and counterparties. A second set of special questions asked respondents about changes in limits on counterparty credit exposure to other financial institutions since the end of the second quarter of 2011 and solicited the most important reasons for reported adjustments of these limits. Four-fifths of respondents indicated that counterparty credit limits had decreased, but only for some specific institutions, while the rest of the respondents reported no change in these limits. Respondents pointed to a deterioration in the current or expected financial strength of other institutions and to increased strains in global financial markets as the most important reasons for the change in limits on counterparty credit exposure to other financial institutions.

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<sup>6</sup> Note that survey respondents are instructed to report changes in liquidity and functioning in the market for the underlying collateral to be funded through repurchase agreements and similar secured financing transactions, not changes in the funding market itself. This question is not asked with respect to equity markets in the core questions but is included in the December survey as a special question.

## **SPECIAL QUESTIONS ON CLIENTS' EFFORTS TO NEGOTIATE TERMS FOR TRADES CLEARED THROUGH CENTRAL COUNTERPARTIES**

As increasing volumes of trades are centrally cleared, clients are reportedly seeking to negotiate with dealers terms that address certain specific issues related to such trades. A third set of special questions asked respondents about demand for margin locks, porting agreements, and cross-product margining.

A *margin lock* is defined for the purpose of this survey as a provision that insulates clients over some period of time from increases in margin requirements beyond those imposed by central counterparties. About one-third of respondents reported that these provisions had been a significant and widespread topic of discussion with potential new clients and with current clients renegotiating agreements, while about one-third indicated that the issue had arisen in some discussions with clients. The rest of the dealers noted that the issue had arisen only occasionally or not at all. This issue appears to be particularly important for the subsample of broad-scope dealers: Over one-half of these firms indicated that margin locks had been a significant and widespread topic of discussion, and another one-third reported that the issue had arisen in some discussions. With regard to the client types that had more intensively pursued the incorporation of margin lock provisions in agreements, dealers pointed to hedge funds (particularly most-favored hedge funds), mutual funds, ETFs, pension plans, and endowments, as well as investment advisers operating on behalf of separately managed accounts.

A *porting agreement* is defined for the purpose of this survey as a commitment by a dealer to accept the novation of centrally cleared trades previously established with other dealers. Only one dealer reported that this provision had been a significant and widespread topic of discussion with potential new clients and with current clients renegotiating agreements, but another one-third of respondents reported that this provision had arisen in some discussions with such clients. The rest of the respondents noted that the issue had arisen only occasionally or not at all. Dealers indicated that this issue had been more intensively pursued by hedge funds, particularly most-favored hedge funds.

*Cross-product margining* entails the computation of margin requirements by a dealer on a portfolio basis. Reflecting the recognition of diversification benefits, this approach will in general reduce the requirement when there are potentially offsetting trades, including those that are not cleared or are cleared through multiple clearing organizations. None of the respondents indicated that this approach to computing margin requirements had been a significant and widespread topic of discussion with potential new clients and with current clients renegotiating agreements, but one-half of dealers noted that the issue had arisen in some discussions. As with margin locks and porting agreements, hedge funds (particularly most-favored hedge funds) were said to be most intensively pursuing cross-product margining.

## Risks and Uncertainty

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### ALTERNATIVE SCENARIOS

To illustrate some of the risks to the outlook, we construct several alternatives to the baseline projection using simulations of staff models. The first two scenarios analyze risks to the U.S. economic outlook associated with Europe's sovereign debt crisis. One scenario considers the effects of a more severe deterioration in European financial conditions than in the baseline with larger spillovers to the United States and the rest of the world; the other scenario assumes that European policymakers make unexpectedly rapid progress in stabilizing conditions in the euro area, thereby reducing uncertainty in global financial markets. In the third scenario, we assume that domestic factors cause the sluggish recovery in the United States to stall and push the economy into recession, which turns out to be severe because of financial fragility and a limited response of policymakers in buffering the downturn. In contrast, the fourth scenario features a faster recovery of aggregate spending and production than in the baseline because the process of balance sheet repair and expanding credit availability proves to be further along than we have assumed. The final two scenarios consider risks to the outlook for inflation: The margin of slack is narrower than assumed in the baseline and than policymakers estimate, resulting in more upward pressure on both actual and expected inflation; or, alternatively, with slack in labor and product markets remaining so persistently elevated in the baseline projection, inflation will decline by more than we anticipate.

We generate most of the scenarios using the FRB/US model and an estimated policy rule that responds to core PCE inflation and a measure of economic slack based on the staff's estimate of potential output. The first two scenarios are 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.<sup>1</sup>

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<sup>1</sup> 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 simulations using SIGMA, the policy rule is broadly similar, but 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.

**Alternative Scenarios**

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

Measure and scenario	2011	2012	2013	2014	2015-16
	H2				
<i>Real GDP</i>					
Extended Tealbook baseline	2.6	2.3	2.5	3.4	3.9
European crisis with severe spillovers	2.5	-3.5	-1.2	2.9	5.4
Faster European recovery	2.6	3.2	3.6	3.7	3.6
Homegrown recession	2.6	-3.6	1.6	3.7	5.3
Faster snapback	2.9	3.2	3.1	3.2	3.1
Greater supply-side damage	2.5	1.8	1.8	2.3	3.0
Further disinflation	2.6	2.2	2.1	2.7	3.9
<i>Unemployment rate<sup>1</sup></i>					
Extended Tealbook baseline	8.8	8.6	8.2	7.8	6.4
European crisis with severe spillovers	8.8	10.4	11.8	11.7	9.2
Faster European recovery	8.8	8.3	7.4	6.8	5.5
Homegrown recession	8.8	11.0	11.7	11.3	8.4
Faster snapback	8.8	8.2	7.3	6.8	6.3
Greater supply-side damage	8.8	8.5	8.1	8.1	7.6
Further disinflation	8.8	8.6	8.4	8.3	7.0
<i>Total PCE prices</i>					
Extended Tealbook baseline	1.5	1.4	1.2	1.4	1.5
European crisis with severe spillovers	1.5	-1.2	-.1	1.3	2.2
Faster European recovery	1.5	2.5	1.8	1.7	1.6
Homegrown recession	1.5	1.2	.3	-.2	-.3
Faster snapback	1.5	1.4	1.4	1.7	1.9
Greater supply-side damage	1.5	1.7	1.8	2.2	2.3
Further disinflation	1.5	.7	.2	.1	.0
<i>Core PCE prices</i>					
Extended Tealbook baseline	1.6	1.5	1.4	1.4	1.5
European crisis with severe spillovers	1.6	.2	.4	1.1	1.9
Faster European recovery	1.6	1.9	1.9	1.6	1.6
Homegrown recession	1.6	1.3	.5	-.2	-.3
Faster snapback	1.6	1.5	1.6	1.7	1.9
Greater supply-side damage	1.6	1.8	2.0	2.2	2.3
Further disinflation	1.6	.8	.4	.1	.0
<i>Federal funds rate<sup>1</sup></i>					
Extended Tealbook baseline	.1	.1	.1	.4	2.7
European crisis with severe spillovers	.1	.1	.1	.1	.3
Faster European recovery	.1	.1	.1	1.4	3.7
Homegrown recession	.1	.1	.1	.1	.1
Faster snapback	.1	.3	.6	1.4	2.8
Greater supply-side damage	.1	.1	.9	1.8	3.5
Further disinflation	.1	.1	.1	.1	.1

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

## European Crisis with Severe Spillovers

In this scenario, Europe's fiscal and financial difficulties intensify markedly in coming months and to an even greater degree than in our baseline. This outcome could result from a disorderly sovereign default, a disruptive failure of a large financial institution, or because the public loses confidence in the ability of European governments to resolve the crisis. Specifically, European sovereign and private borrowing costs soar, with corporate bond spreads rising 400 basis points above baseline, and household and business confidence plummet. European real GDP declines almost 8 percent relative to the baseline by the end of 2012, notwithstanding a 25 percent real effective depreciation of the euro. Given substantial cross-border financial and macroeconomic linkages, Europe's difficulties are assumed to have very large spillovers to financial markets in the United States and throughout the world. U.S. domestic demand contracts sharply in response to higher borrowing costs (corporate bond spreads widen by more than 300 basis points relative to the baseline), a much weaker stock market, and decreases in household and business confidence. In addition, weaker foreign activity and the stronger dollar depress U.S. net exports. All told, U.S. real GDP contracts 3½ percent next year and the unemployment rate rises to nearly 12 percent by late 2013. With substantially greater resource slack and lower import prices, overall consumer prices in the United States decline in 2012.<sup>2</sup> Under these conditions, the federal funds rate remains near zero until late 2016.

## Faster European Recovery

Although we anticipate that the European summit on Friday, December 9, will fail to stabilize financial conditions and that these conditions will deteriorate further, European policymakers may be able to implement a credible and decisive plan sooner than we anticipate, thereby restoring financial market confidence more quickly. In this scenario, such progress is achieved and spurs a faster recovery in Europe with favorable spillovers to the rest of the world. Specifically, European sovereign and private-sector

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<sup>2</sup> The marked rebound in consumer price inflation after 2013 in the simulation reflects the forward-looking nature of inflation determination in SIGMA. Thus, long-run inflation expectations remain firmly anchored at 2 percent, producer marginal costs are expected to rise as the economy recovers, and productivity is weaker (reflecting reduced capital spending). In addition, import price inflation runs significantly higher than in the baseline as the dollar's initial appreciation is gradually reversed. Under alternative specifications of SIGMA—that, for instance, allow for more structural persistence in the inflation process or a less firm anchoring of inflation expectations—inflation would remain low for a considerably longer period.

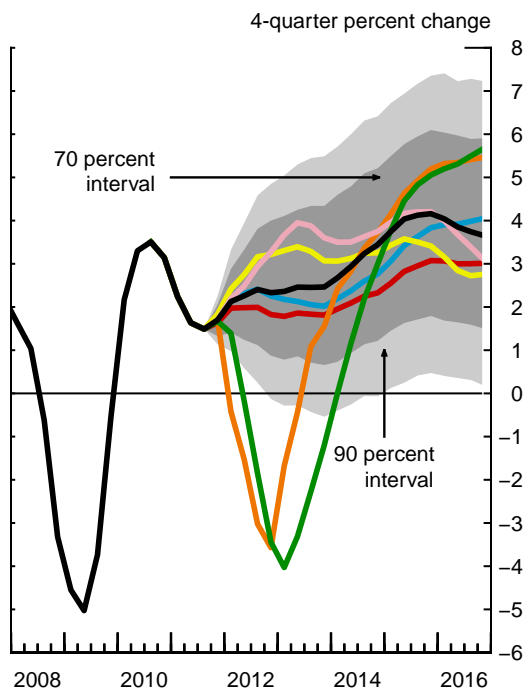


## Forecast Confidence Intervals and Alternative Scenarios

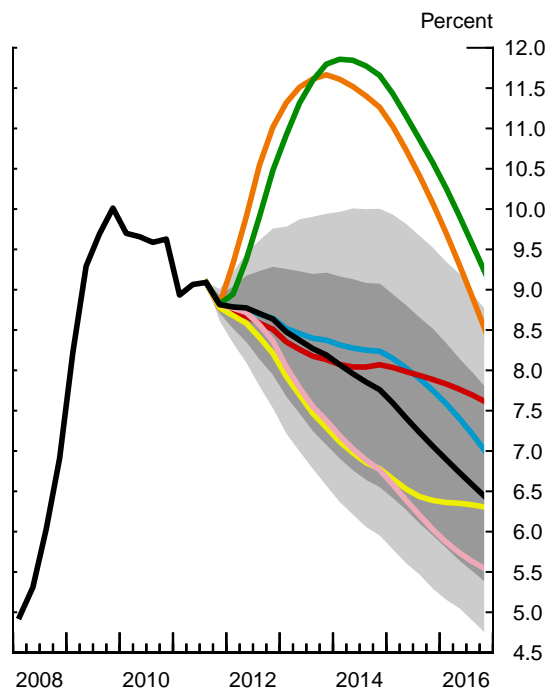
Confidence Intervals Based on FRB/US Stochastic Simulations

- Extended Tealbook baseline
- Homegrown recession
- Greater supply-side damage
- European crisis with severe spillovers
- Faster snapback
- Further disinflation
- Faster European recovery

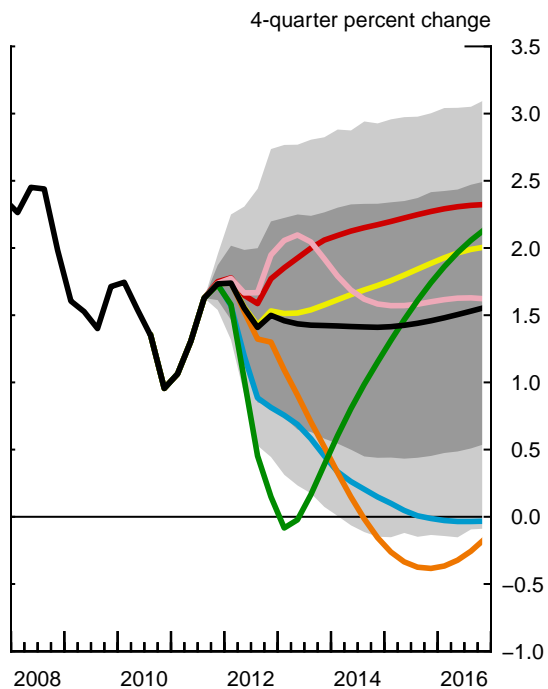
Real GDP



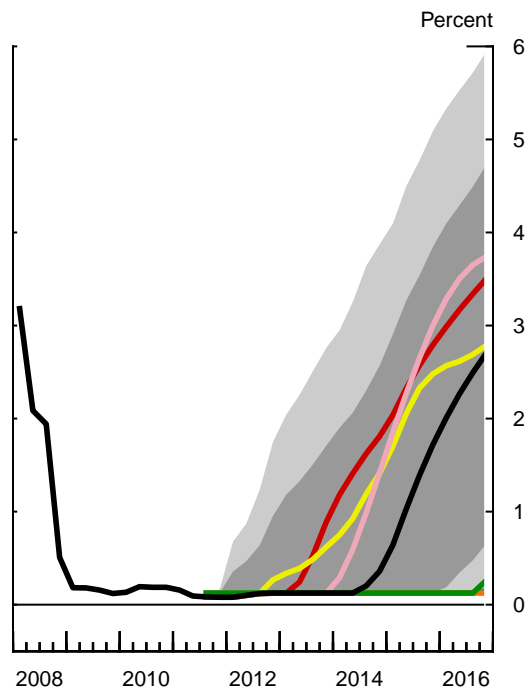
Unemployment Rate



PCE Prices excluding Food and Energy



Federal Funds Rate



borrowing costs decline considerably next year with corporate bond spreads eventually falling more than 150 basis points relative to baseline; household and business confidence also improve. As a result, European GDP stays flat during 2012, rather than declining 1½ percent as in the baseline, and then rises almost 2 percent in 2013. Stronger economic activity in Europe and in other U.S. trading partners, in turn, boosts U.S. real exports. In addition, a more rapid removal of monetary accommodation abroad and diminished safe-haven concerns cause the broad real dollar to depreciate 10 percent relative to baseline by the end of 2012, thereby stimulating U.S. net exports further. Moreover, U.S. domestic demand is strengthened by improved financial conditions, including diminished risk premiums in U.S. markets, and heightened confidence. All told, U.S. real GDP rises about 3½ percent on average over the next two years, the unemployment rate falls to 7½ percent by the end of 2013, and core PCE inflation increases to nearly 2 percent in 2012 and 2013. Under these conditions, the federal funds rate begins to rise somewhat earlier, and subsequently climbs appreciably faster, than in the baseline.

### **Homegrown Recession**

The economic recovery has been disappointingly slow and remains tenuous, weighed down by a depressed housing sector, tight credit conditions, ongoing balance sheet repair, and weak employment and income growth. We could be wrong about the amount of restraint that will be imposed by these factors. Accordingly, this scenario assumes that—relative to baseline—households and firms become more pessimistic and financial stress intensifies. As a result, the recovery stalls and the economy slips into recession early next year. Because discretionary fiscal policy does not respond to the weakness, monetary policy is constrained by the zero lower bound until later in the decade, and the financial position of many households and firms is already impaired, the downturn proves to be severe. All told, real GDP contracts 3½ percent in 2012, causing the unemployment rate to rise to 11¾ percent by late 2013. Thereafter, real activity gradually recovers but the unemployment rate is still 8½ percent in late 2016. Such persistent and elevated economic slack puts substantial downward pressure on consumer prices and long-run inflation expectations, resulting in a modest deflation from 2014 to 2016.<sup>3</sup> Under these conditions, the federal funds rate remains near zero through 2016.

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<sup>3</sup> If this FRB/US simulation had been run under full rational expectations, inflation would begin to recover more appreciably by the middle of the decade, in a manner more akin to the behavior of inflation in the “European Crisis with Severe Spillovers” scenario.

**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
<i>Real GDP</i> (percent change, Q4 to Q4)						
Projection	1.7	2.3	2.5	3.4	4.2	3.7
Confidence interval						
Tealbook forecast errors	1.2–2.2	.6–4.0	.7–4.2	...	...	...
FRB/US stochastic simulations	1.3–2.1	.9–4.0	.7–4.3	1.2–5.2	1.8–6.1	1.5–5.9
<i>Civilian unemployment rate</i> (percent, Q4)						
Projection	8.8	8.6	8.2	7.8	7.1	6.4
Confidence interval						
Tealbook forecast errors	8.7–8.9	7.9–9.3	7.0–9.4	...	...	...
FRB/US stochastic simulations	8.7–8.9	7.9–9.3	7.1–9.2	6.6–9.1	6.0–8.5	5.4–7.8
<i>PCE prices, total</i> (percent change, Q4 to Q4)						
Projection	2.5	1.4	1.2	1.4	1.5	1.6
Confidence interval						
Tealbook forecast errors	2.3–2.8	.1–2.6	.0–2.4	...	...	...
FRB/US stochastic simulations	2.3–2.8	.4–2.5	.0–2.4	.1–2.7	.2–2.8	.2–2.9
<i>PCE prices excluding food and energy</i> (percent change, Q4 to Q4)						
Projection	1.7	1.5	1.4	1.4	1.5	1.6
Confidence interval						
Tealbook forecast errors	1.5–2.0	.8–2.2	.6–2.2	...	...	...
FRB/US stochastic simulations	1.6–1.9	.8–2.2	.6–2.3	.4–2.3	.5–2.4	.5–2.5
<i>Federal funds rate</i> (percent, Q4)						
Projection	.1	.1	.1	.4	1.7	2.7
Confidence interval						
FRB/US stochastic simulations	.1–.1	.1–1.0	.1–1.7	.1–2.6	.1–3.8	.7–4.7

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.

## **Faster Snapback**

The economy may be further along in the financial recovery process than we have assumed: Household debt service burdens have declined appreciably and corporate bond issuance and C&I lending have been solid. Moreover, recent indicators of consumer spending have been somewhat stronger than expected, and pent-up demand for durable goods may represent an upside risk to our outlook—for example, the average age of motor vehicles on the road is still rising and the level of the E&S capital stock is relatively low. In this scenario, the underlying pace of consumption and investment is stronger than in the baseline, spurred in part by easier credit conditions, more rapidly falling risk premiums, a reduced pace of household deleveraging, and pent-up demand. Real GDP rises about  $3\frac{1}{4}$  percent, on average, in 2012 and 2013, bringing the unemployment rate down to  $7\frac{1}{4}$  percent by the end of 2013, almost 1 percentage point below baseline. Initially, the stronger pace of recovery has little effect on inflation because greater capital investment increases labor productivity (thereby holding down unit labor costs) and because long-run inflation expectations remain well anchored. Over 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 at the end of next year.

## **Greater Supply-Side Damage**

In the baseline projection, we have trimmed our estimate of the level of potential GDP. But the supply side of the economy may have suffered greater damage over the past several years than we have estimated, resulting in greater inflationary pressures than we have assumed. In this scenario, the current output gap is assumed to be only half as large as in the baseline, and less slack and lower productivity imply higher unit labor costs and greater upward pressure on prices going forward. These inflationary forces are amplified by the assumption that policymakers only gradually recognize the less-favorable supply-side conditions, which in turn causes long-run inflation expectations to rise appreciably. Under these assumptions, real GDP expands about  $\frac{3}{4}$  percentage point less rapidly per year, on average, through 2016 than in the baseline, partly because households and businesses recognize the weaker trajectory for income and earnings. Meanwhile, core PCE inflation gradually moves up to  $2\frac{1}{4}$  percent. In response to higher inflation, the federal funds rate begins to rise about a year earlier than in the baseline.

## Further Disinflation

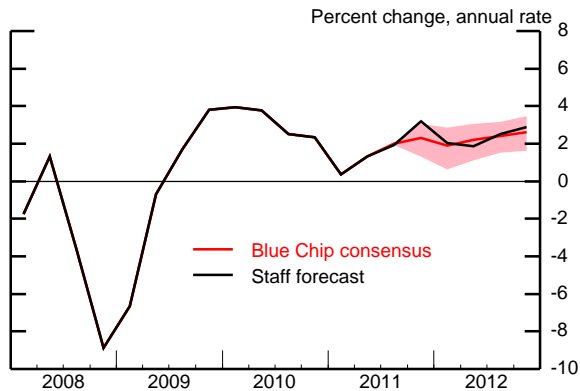
Of course, the inflation outlook remains subject to downside risks as well. In particular, the stability of various measures of expected inflation to date may be misleading us about the potential for further disinflation, particularly given the baseline outlook in which the economy is persistently weak. In this scenario, both expected and actual inflation drift down steadily over time, with inflation reaching zero by 2015; such a decline in inflation would be in line with the predictions of some accelerationist Phillips curves that the staff monitors. As disinflationary pressures mount, investors become increasingly concerned about the economy becoming mired in deflation with monetary policy persistently constrained by the zero lower bound; as a result, bond and equity premiums rise, thereby modestly damping spending and boosting unemployment relative to baseline. In response to lower inflation and greater economic slack, the federal funds rate remains at its effective lower bound through 2016.

## OUTSIDE FORECASTS

The latest Blue Chip survey was released on November 10, and so is quite stale; for example, it was collected too early to incorporate the two most recent labor market reports. With that caveat, the consensus projection showed real GDP rising 2.3 percent over the four quarters of 2012, about the same as the staff projection. The Blue Chip forecast for the unemployment rate at the end of 2012 was 8.9 percent, above the staff projection of 8.6 percent. Regarding inflation, the Blue Chip panelists anticipated that the overall CPI will increase 2 percent in 2012,  $\frac{1}{2}$  percentage point higher than the staff projection.

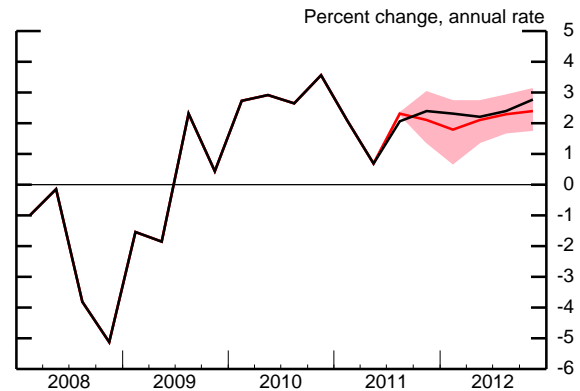
## Tealbook Forecast Compared with Blue Chip (Blue Chip survey released November 10, 2011)

Real GDP

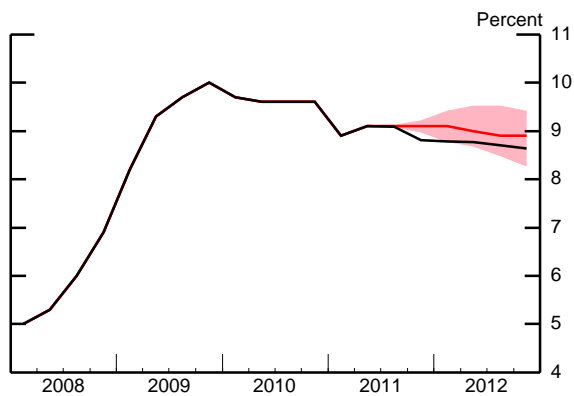


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

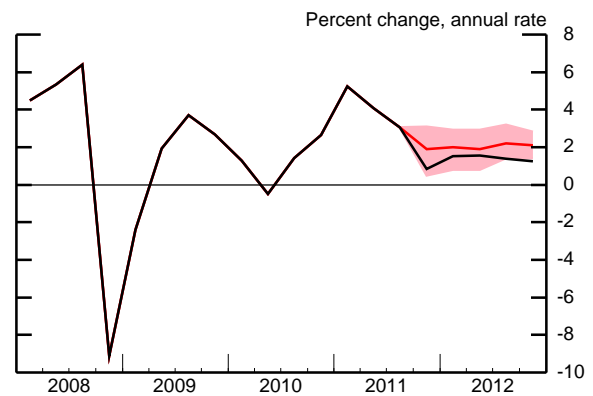
Real PCE



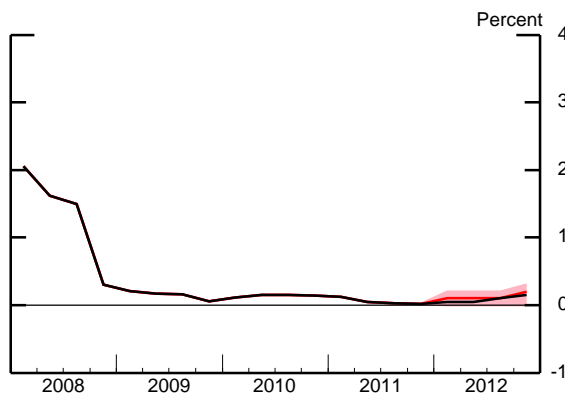
Unemployment Rate



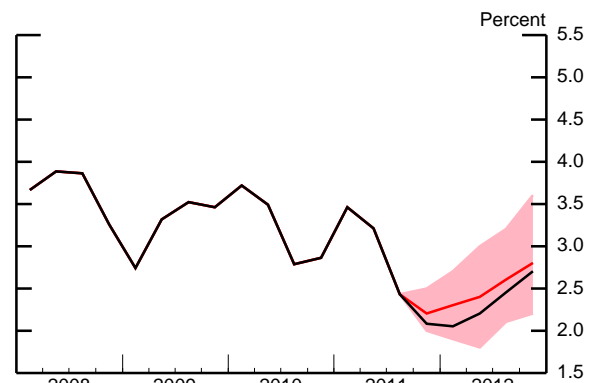
Consumer Price Index



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.



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

Interval	Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate <sup>1</sup>	
	10/26/11	12/07/11	10/26/11	12/07/11	10/26/11	12/07/11	10/26/11	12/07/11	10/26/11	12/07/11
<i>Quarterly</i>										
2011:Q1	3.1	3.1	.4	.4	3.9	3.9	1.6	1.6	8.9	8.9
Q2	4.0	4.0	1.3	1.3	3.3	3.3	2.3	2.3	9.1	9.1
Q3	5.2	4.5	2.7	1.9	2.3	2.3	2.1	2.0	9.1	9.1
Q4	3.9	4.3	2.5	3.2	1.2	.7	1.5	1.1	9.1	8.8
2012:Q1	3.5	3.8	2.4	2.1	1.4	1.4	1.6	1.6	9.0	8.8
Q2	5.0	3.5	2.5	1.9	1.4	1.5	1.6	1.5	8.9	8.8
Q3	4.0	4.1	2.6	2.5	1.3	1.3	1.5	1.5	8.8	8.7
Q4	3.9	4.4	2.7	2.9	1.3	1.3	1.4	1.4	8.6	8.6
2013:Q1	4.0	3.7	2.9	2.2	1.4	1.3	1.4	1.4	8.4	8.5
Q2	5.5	3.7	3.1	2.3	1.4	1.2	1.4	1.4	8.4	8.4
Q3	4.8	3.9	3.4	2.5	1.4	1.2	1.4	1.4	8.3	8.3
Q4	4.8	4.4	3.5	2.9	1.4	1.2	1.4	1.4	8.1	8.2
<i>Two-quarter<sup>2</sup></i>										
2011:Q2	3.5	3.5	.8	.8	3.6	3.6	1.9	1.9	-.5	-.5
Q4	4.6	4.4	2.6	2.6	1.8	1.5	1.8	1.6	.0	-.3
2012:Q2	4.2	3.6	2.4	2.0	1.4	1.4	1.6	1.5	-.2	.0
Q4	4.0	4.2	2.6	2.7	1.3	1.3	1.4	1.4	-.3	-.2
2013:Q2	4.7	3.7	3.0	2.2	1.4	1.2	1.4	1.4	-.2	-.2
Q4	4.8	4.2	3.4	2.7	1.4	1.2	1.4	1.4	-.3	-.2
<i>Four-quarter<sup>3</sup></i>										
2010:Q4	4.7	4.7	3.1	3.1	1.3	1.3	1.0	1.0	-.4	-.4
2011:Q4	4.1	4.0	1.7	1.7	2.7	2.5	1.8	1.7	-.5	-.8
2012:Q4	4.1	3.9	2.5	2.3	1.4	1.4	1.5	1.5	-.5	-.2
2013:Q4	4.8	3.9	3.2	2.5	1.4	1.2	1.4	1.4	-.5	-.4
<i>Annual</i>										
2010	4.2	4.2	3.0	3.0	1.8	1.8	1.4	1.4	9.6	9.6
2011	4.0	3.9	1.8	1.8	2.5	2.4	1.5	1.4	9.0	9.0
2012	4.2	4.0	2.4	2.3	1.6	1.5	1.6	1.5	8.8	8.7
2013	4.5	3.9	2.9	2.4	1.4	1.3	1.4	1.4	8.3	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				2012				2013				2011 <sup>1</sup>	2012 <sup>1</sup>	2013 <sup>1</sup>
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Real GDP	.4	1.3	1.9	3.2	2.1	1.9	2.5	2.9	2.2	2.3	2.5	2.9	1.7	2.3	2.5
<i>Previous Tealbook</i>	.4	1.3	2.7	2.5	2.4	2.5	2.6	2.7	2.9	3.1	3.4	3.5	1.7	2.5	3.2
Final sales	.0	1.6	3.5	1.9	1.9	2.0	1.9	2.5	2.1	2.1	2.2	2.2	1.8	2.1	2.2
<i>Previous Tealbook</i>	.0	1.6	3.0	2.1	1.7	2.3	2.3	2.9	2.7	2.8	2.9	2.8	1.7	2.3	2.8
Priv. dom. final purch.	2.0	1.9	3.6	2.6	1.9	2.3	2.6	3.0	2.5	2.6	2.8	3.2	2.5	2.5	2.8
<i>Previous Tealbook</i>	2.0	1.9	3.4	1.9	1.8	2.4	2.8	3.2	3.1	3.4	3.7	3.8	2.3	2.5	3.5
Personal cons. expend.	2.1	.7	2.1	2.4	2.3	2.2	2.4	2.8	2.1	2.1	2.3	2.7	1.8	2.4	2.3
<i>Previous Tealbook</i>	2.1	.7	2.2	2.0	1.9	2.2	2.5	2.8	2.9	3.0	3.2	3.3	1.7	2.4	3.1
Durables	11.7	-5.3	5.5	16.2	4.9	5.7	5.5	6.9	8.5	7.2	7.9	8.0	6.7	5.8	7.9
Nondurables	1.6	.2	-.6	2.0	3.2	1.4	1.6	1.8	.9	1.1	1.2	1.8	.8	2.0	1.2
Services	.8	1.9	2.5	.4	1.6	1.9	2.2	2.4	1.5	1.7	1.7	2.2	1.4	2.0	1.8
Residential investment	-2.4	4.2	1.7	3.1	3.6	6.3	6.5	6.9	7.2	7.6	8.1	8.5	1.6	5.8	7.9
<i>Previous Tealbook</i>	-2.4	4.2	1.2	3.2	3.5	6.9	7.1	7.5	8.9	9.5	9.3	9.1	1.5	6.2	9.2
Business fixed invest.	2.1	10.3	15.8	3.7	-1.2	1.8	3.3	4.1	4.4	4.8	5.4	5.1	7.8	2.0	4.9
<i>Previous Tealbook</i>	2.1	10.3	12.8	1.3	.3	2.6	4.0	4.7	3.4	4.8	5.9	5.9	6.5	2.9	5.0
Equipment & software	8.7	6.2	16.2	3.0	.6	2.5	4.5	5.2	5.9	6.1	7.1	6.7	8.4	3.2	6.4
<i>Previous Tealbook</i>	8.7	6.2	12.3	3.8	2.0	5.1	6.7	7.3	4.8	6.4	7.9	7.6	7.7	5.3	6.7
Nonres. structures	-14.3	22.6	14.7	5.8	-5.6	.0	.0	1.2	.6	1.4	1.0	.8	6.2	-1.1	.9
<i>Previous Tealbook</i>	-14.3	22.6	14.1	-5.2	-4.2	-3.8	-3.2	-2.3	-.7	.2	.5	1.1	3.2	-3.4	.3
Net exports <sup>2</sup>	-424	-416	-401	-394	-391	-384	-388	-386	-386	-383	-378	-377	-409	-387	-381
<i>Previous Tealbook<sup>2</sup></i>	-424	-416	-403	-397	-382	-369	-366	-354	-348	-342	-338	-336	-410	-368	-341
Exports	7.9	3.6	4.3	6.4	5.7	4.8	4.8	5.1	5.5	5.5	5.5	5.5	5.5	5.1	5.5
Imports	8.3	1.4	.5	4.0	4.0	2.7	4.8	3.8	4.5	4.0	3.7	4.4	3.5	3.8	4.2
Gov't. cons. & invest.	-5.9	-.9	-.2	-1.9	1.1	-.5	-.4	-.4	.0	-.8	-1.3	-2.5	-2.2	-.1	-1.2
<i>Previous Tealbook</i>	-5.9	-.9	-1.2	1.4	-.8	-.5	-.4	-.3	-.3	-.8	-1.5	-2.2	-1.7	-.5	-1.2
Federal	-9.4	1.9	1.9	-3.3	4.1	-.6	-.8	-1.0	-.8	-2.9	-4.5	-7.3	-2.3	.4	-3.9
Defense	-12.6	7.0	4.7	-6.4	6.8	.2	.0	-.2	.0	-3.0	-5.4	-9.5	-2.1	1.7	-4.6
Nondefense	-2.7	-7.6	-3.8	3.5	-1.0	-2.1	-2.5	-2.5	-2.5	-2.6	-2.6	-2.6	-2.7	-2.1	-2.6
State & local	-3.4	-2.8	-1.6	-.9	-.9	-.5	-.2	.0	.5	.7	.9	.9	-2.2	-.4	.8
Change in bus. inventories <sup>2</sup>	49	39	-5	32	37	34	53	66	68	73	82	106	29	47	82
<i>Previous Tealbook<sup>2</sup></i>	49	39	34	47	67	73	80	72	81	91	105	130	42	73	102
Nonfarm <sup>2</sup>	60	51	5	35	38	34	52	65	67	72	81	105	38	47	81
Farm <sup>2</sup>	-8	-9	-11	-3	-1	0	1	1	1	1	1	1	-8	0	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	1.7	2.3	2.5
<i>Previous Tealbook</i>	2.8	2.4	2.2	-3.3	-.5	3.1	1.7	2.5	3.2
Final sales	2.7	2.8	2.4	-2.6	-.8	2.4	1.8	2.1	2.2
<i>Previous Tealbook</i>	2.7	2.8	2.4	-2.6	-.8	2.4	1.7	2.3	2.8
Priv. dom. final purch.	3.2	2.4	1.2	-4.5	-2.5	3.6	2.5	2.5	2.8
<i>Previous Tealbook</i>	3.2	2.4	1.2	-4.5	-2.5	3.6	2.3	2.5	3.5
Personal cons. expend.	2.8	3.2	1.7	-2.5	-.2	3.0	1.8	2.4	2.3
<i>Previous Tealbook</i>	2.8	3.2	1.7	-2.5	-.2	3.0	1.7	2.4	3.1
Durables	2.8	7.0	4.6	-13.0	3.0	10.9	6.7	5.8	7.9
Nondurables	3.1	2.9	.8	-3.1	.6	3.5	.8	2.0	1.2
Services	2.7	2.6	1.4	-.5	-.9	1.6	1.4	2.0	1.8
Residential investment	5.3	-15.7	-20.7	-24.4	-12.9	-6.3	1.6	5.8	7.9
<i>Previous Tealbook</i>	5.3	-15.7	-20.7	-24.4	-12.9	-6.3	1.5	6.2	9.2
Business fixed invest.	4.5	7.8	7.9	-9.4	-14.4	11.1	7.8	2.0	4.9
<i>Previous Tealbook</i>	4.5	7.8	7.9	-9.4	-14.4	11.1	6.5	2.9	5.0
Equipment & software	6.2	6.0	3.9	-13.6	-5.8	16.6	8.4	3.2	6.4
<i>Previous Tealbook</i>	6.2	6.0	3.9	-13.6	-5.8	16.6	7.7	5.3	6.7
Nonres. structures	-.1	13.0	17.3	-1.2	-29.3	-1.8	6.2	-1.1	.9
<i>Previous Tealbook</i>	-.1	13.0	17.3	-1.2	-29.3	-1.8	3.2	-3.4	.3
Net exports <sup>1</sup>	-723	-729	-649	-495	-359	-422	-409	-387	-381
<i>Previous Tealbook<sup>1</sup></i>	-723	-729	-649	-495	-359	-422	-410	-368	-341
Exports	6.7	10.2	10.1	-2.5	-.1	8.8	5.5	5.1	5.5
Imports	5.2	4.1	.8	-5.9	-6.5	10.7	3.5	3.8	4.2
Gov't. cons. & invest.	.7	1.5	1.9	2.7	1.1	.1	-2.2	-.1	-1.2
<i>Previous Tealbook</i>	.7	1.5	1.9	2.7	1.1	.1	-1.7	-.5	-1.2
Federal	1.2	2.2	3.1	8.8	4.6	2.9	-2.3	.4	-3.9
Defense	.4	4.4	2.6	9.8	3.5	1.5	-2.1	1.7	-4.6
Nondefense	2.6	-2.3	4.2	6.8	6.9	5.7	-2.7	-2.1	-2.6
State & local	.4	1.2	1.2	-.9	-1.1	-1.7	-2.2	-.4	.8
Change in bus. inventories <sup>1</sup>	50	59	28	-36	-145	59	29	47	82
<i>Previous Tealbook<sup>1</sup></i>	50	59	28	-36	-145	59	42	73	102
Nonfarm <sup>1</sup>	50	63	29	-38	-144	61	38	47	81
Farm <sup>1</sup>	0	-4	-1	1	-1	-1	-8	0	1

1. Billions of chained (2005) dollars.

# Greensheets

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

Item	2011				2012				2013				2011 <sup>1</sup>	2012 <sup>1</sup>	2013 <sup>1</sup>
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Real GDP	.4	1.3	1.9	3.2	2.1	1.9	2.5	2.9	2.2	2.3	2.5	2.9	1.7	2.3	2.5
<i>Previous Tealbook</i>	.4	1.3	2.7	2.5	2.4	2.5	2.6	2.7	2.9	3.1	3.4	3.5	1.7	2.5	3.2
Final sales	.0	1.6	3.5	2.0	1.9	2.0	1.9	2.5	2.1	2.1	2.2	2.2	1.8	2.1	2.1
<i>Previous Tealbook</i>	.0	1.6	3.0	2.1	1.7	2.3	2.3	2.9	2.7	2.8	2.9	2.8	1.7	2.3	2.8
Priv. dom. final purch.	1.6	1.6	3.0	2.2	1.6	1.9	2.2	2.5	2.1	2.2	2.3	2.7	2.1	2.1	2.3
<i>Previous Tealbook</i>	1.6	1.6	2.8	1.6	1.5	2.0	2.4	2.6	2.6	2.8	3.1	3.2	1.9	2.1	2.9
Personal cons. expend.	1.5	.5	1.5	1.7	1.6	1.6	1.7	2.0	1.5	1.5	1.6	1.9	1.3	1.7	1.6
<i>Previous Tealbook</i>	1.5	.5	1.6	1.4	1.4	1.6	1.8	2.0	2.0	2.1	2.3	2.4	1.2	1.7	2.2
Durables	.9	-.4	.4	1.2	.4	.4	.4	.5	.6	.6	.6	.6	.5	.4	.6
Nondurables	.3	.0	-.1	.3	.5	.2	.3	.3	.1	.2	.2	.3	.1	.3	.2
Services	.4	.9	1.2	.2	.7	.9	1.0	1.1	.7	.8	.8	1.0	.6	.9	.8
Residential investment	-.1	.1	.0	.1	.1	.1	.1	.2	.2	.2	.2	.2	.0	.1	.2
<i>Previous Tealbook</i>	-.1	.1	.0	.1	.1	.2	.2	.2	.2	.2	.2	.2	.0	.1	.2
Business fixed invest.	.2	1.0	1.5	.4	-.1	.2	.3	.4	.4	.5	.6	.5	.8	.2	.5
<i>Previous Tealbook</i>	.2	1.0	1.2	.1	.0	.3	.4	.5	.3	.5	.6	.6	.6	.3	.5
Equipment & software	.6	.4	1.1	.2	.0	.2	.3	.4	.4	.4	.5	.5	.6	.2	.5
<i>Previous Tealbook</i>	.6	.4	.9	.3	.2	.4	.5	.5	.4	.5	.6	.6	.5	.4	.5
Nonres. structures	-.4	.5	.4	.2	-.2	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
<i>Previous Tealbook</i>	-.4	.5	.4	-.1	-.1	-.1	-.1	-.1	.0	.0	.0	.0	.1	-.1	.0
Net exports	-.3	.2	.5	.2	.1	.2	-.1	.1	.0	.1	.1	.0	.1	.0	.0
<i>Previous Tealbook</i>	-.3	.2	.4	.2	.4	.4	.1	.3	.2	.2	.1	.0	.1	.3	.1
Exports	1.0	.5	.6	.9	.8	.7	.7	.7	.8	.8	.8	.8	.7	.7	.8
Imports	-1.4	-.2	-.1	-.7	-.7	-.5	-.8	-.6	-.8	-.7	-.6	-.8	-.6	-.7	-.7
Gov't. cons. & invest.	-1.2	-.2	.0	-.4	.2	-.1	-.1	-.1	.0	-.1	-.2	-.5	-.5	.0	-.2
<i>Previous Tealbook</i>	-1.2	-.2	-.2	.3	-.2	-.1	-.1	-.1	.0	-.1	-.3	-.4	-.3	-.1	-.2
Federal	-.8	.2	.2	-.3	.3	.0	-.1	-.1	-.1	-.2	-.4	-.6	-.2	.0	-.3
Defense	-.7	.4	.3	-.4	.4	.0	.0	.0	.0	-.2	-.3	-.5	-.1	.1	-.2
Nondefense	-.1	-.2	-.1	.1	.0	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1
State & local	-.4	-.3	-.2	-.1	-.1	-.1	.0	.0	.1	.1	.1	.1	-.3	.0	.1
Change in bus. inventories	.3	-.3	-1.5	1.2	.1	-.1	.6	.4	.1	.2	.3	.7	-.1	.3	.3
<i>Previous Tealbook</i>	.3	-.3	-.3	.4	.6	.2	.2	-.2	.3	.3	.4	.7	.0	.2	.4
Nonfarm	.4	-.3	-1.5	1.0	.1	-.1	.6	.4	.1	.2	.3	.7	-.1	.2	.3
Farm	-.1	.0	.0	.3	.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				2012				2013				2011 <sup>1</sup>	2012 <sup>1</sup>	2013 <sup>1</sup>
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
GDP chain-wt. price index	2.5	2.5	2.5	1.0	1.7	1.6	1.6	1.4	1.5	1.4	1.4	1.4	2.1	1.6	1.4
<i>Previous Tealbook</i>	2.5	2.5	2.5	1.4	1.1	2.4	1.4	1.2	1.0	2.3	1.4	1.3	2.2	1.5	1.5
PCE chain-wt. price index	3.9	3.3	2.3	.7	1.4	1.5	1.3	1.3	1.3	1.2	1.2	1.2	2.5	1.4	1.2
<i>Previous Tealbook</i>	3.9	3.3	2.3	1.2	1.4	1.4	1.3	1.3	1.4	1.4	1.4	1.4	2.7	1.4	1.4
Energy	40.7	15.0	3.3	-8.2	-9	1.3	-4	-1.2	-1.2	-1.7	-1.7	-1.6	11.3	-.3	-1.6
<i>Previous Tealbook</i>	40.7	15.0	3.2	-5.6	-1.2	-9	-1	.7	1.4	1.0	1.0	1.3	12.1	-.4	1.2
Food	6.5	6.4	4.7	3.5	1.3	1.1	1.2	1.2	1.2	1.2	1.2	1.2	5.2	1.2	1.2
<i>Previous Tealbook</i>	6.5	6.4	4.7	3.8	1.3	1.1	1.2	1.2	1.2	1.2	1.2	1.2	5.3	1.2	1.2
Ex. food & energy	1.6	2.3	2.0	1.1	1.6	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.7	1.5	1.4
<i>Previous Tealbook</i>	1.6	2.3	2.1	1.5	1.6	1.6	1.5	1.4	1.4	1.4	1.4	1.4	1.8	1.5	1.4
Ex. food & energy, market based	1.3	2.4	2.3	1.0	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.7	1.4	1.3
<i>Previous Tealbook</i>	1.3	2.4	2.3	1.4	1.6	1.5	1.3	1.3	1.3	1.3	1.3	1.3	1.8	1.4	1.3
CPI	5.2	4.1	3.1	.9	1.5	1.5	1.4	1.2	1.2	1.2	1.2	1.2	3.3	1.4	1.2
<i>Previous Tealbook</i>	5.2	4.1	3.1	1.4	1.5	1.3	1.4	1.4	1.5	1.4	1.4	1.5	3.4	1.4	1.5
Ex. food & energy	1.7	2.5	2.7	1.7	1.8	1.6	1.5	1.5	1.5	1.5	1.5	1.5	2.2	1.6	1.5
<i>Previous Tealbook</i>	1.7	2.5	2.7	1.9	1.8	1.6	1.6	1.5	1.5	1.5	1.5	1.5	2.2	1.6	1.5
ECI, hourly compensation <sup>2</sup>	2.1	3.2	1.4	1.9	2.3	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.4	2.3
<i>Previous Tealbook<sup>2</sup></i>	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
Nonfarm business sector															
Output per hour	-.6	-.1	2.2	2.1	.7	.9	1.5	1.9	1.0	1.1	1.2	1.6	.9	1.3	1.2
<i>Previous Tealbook</i>	-.6	-.1	3.4	1.5	.9	1.2	1.3	1.4	1.5	1.7	1.7	1.8	1.0	1.2	1.7
Compensation per hour	5.6	-.3	-.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.1	1.8	2.3	2.2
<i>Previous Tealbook</i>	5.6	2.7	1.7	1.7	2.4	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.9	2.3	2.2
Unit labor costs	6.2	-.2	-2.4	.1	1.5	1.3	.8	.3	1.2	1.1	1.0	.5	.9	1.0	.9
<i>Previous Tealbook</i>	6.2	2.8	-1.6	.2	1.5	1.0	1.0	.9	.7	.5	.5	.5	1.9	1.1	.6
Core goods imports chain-wt. price index <sup>3</sup>	8.3	7.2	2.3	-.7	-.9	.4	.7	1.2	1.4	1.4	1.4	1.4	4.2	.4	1.4
<i>Previous Tealbook<sup>3</sup></i>	8.3	7.2	2.6	-.3	.0	1.5	1.5	1.8	1.8	1.7	1.6	1.6	4.4	1.2	1.7

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	2.1	1.6	1.4
<i>Previous Tealbook</i>	3.5	2.9	2.6	2.1	.7	1.6	2.2	1.5	1.5
PCE chain-wt. price index	3.2	1.9	3.5	1.7	1.5	1.3	2.5	1.4	1.2
<i>Previous Tealbook</i>	3.2	1.9	3.5	1.7	1.5	1.3	2.7	1.4	1.4
Energy	21.5	-3.7	19.3	-8.8	2.6	6.2	11.3	-.3	-1.6
<i>Previous Tealbook</i>	21.5	-3.7	19.3	-8.8	2.6	6.2	12.1	-.4	1.2
Food	1.5	1.7	4.7	7.0	-1.7	1.3	5.2	1.2	1.2
<i>Previous Tealbook</i>	1.5	1.7	4.7	7.0	-1.7	1.3	5.3	1.2	1.2
Ex. food & energy	2.3	2.3	2.4	2.0	1.7	1.0	1.7	1.5	1.4
<i>Previous Tealbook</i>	2.3	2.3	2.4	2.0	1.7	1.0	1.8	1.5	1.4
Ex. food & energy, market based	2.0	2.2	2.1	2.2	1.7	.7	1.7	1.4	1.3
<i>Previous Tealbook</i>	2.0	2.2	2.1	2.2	1.7	.7	1.8	1.4	1.3
CPI	3.7	2.0	4.0	1.6	1.5	1.2	3.3	1.4	1.2
<i>Previous Tealbook</i>	3.7	2.0	4.0	1.6	1.5	1.2	3.4	1.4	1.5
Ex. food & energy	2.1	2.7	2.3	2.0	1.7	.6	2.2	1.6	1.5
<i>Previous Tealbook</i>	2.1	2.7	2.3	2.0	1.7	.6	2.2	1.6	1.5
ECI, hourly compensation <sup>1</sup>	2.9	3.2	3.0	2.4	1.2	2.1	2.2	2.4	2.3
<i>Previous Tealbook</i> <sup>1</sup>	2.9	3.2	3.0	2.4	1.2	2.1	2.5	2.4	2.3
Nonfarm business sector									
Output per hour	1.6	.8	2.5	-1.1	5.3	2.5	.9	1.3	1.2
<i>Previous Tealbook</i>	1.6	.8	2.5	-1.1	5.3	2.5	1.0	1.2	1.7
Compensation per hour	3.5	4.5	3.6	2.5	1.8	1.6	1.8	2.3	2.2
<i>Previous Tealbook</i>	3.5	4.5	3.6	2.5	1.8	1.6	2.9	2.3	2.2
Unit labor costs	1.9	3.6	1.1	3.7	-3.3	-.9	.9	1.0	.9
<i>Previous Tealbook</i>	1.9	3.6	1.1	3.7	-3.3	-.9	1.9	1.1	.6
Core goods imports chain-wt. price index <sup>2</sup>	2.2	2.5	2.9	3.7	-1.7	2.6	4.2	.4	1.4
<i>Previous Tealbook</i> <sup>2</sup>	2.2	2.5	2.9	3.7	-1.7	2.6	4.4	1.2	1.7

1. Private-industry workers.

2. Core goods imports exclude computers, semiconductors, oil, and natural gas.

# Other Macroeconomic Indicators

Item	2011				2012				2013				2011 <sup>1</sup>	2012 <sup>1</sup>	2013 <sup>1</sup>
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
<i>Employment and production</i>															
Nonfarm payroll employment <sup>2</sup>	.4	.5	.3	.4	.4	.4	.5	.5	.5	.5	.6	.6	1.6	1.8	2.2
Unemployment rate <sup>3</sup>	8.9	9.1	9.1	8.8	8.8	8.8	8.7	8.6	8.5	8.4	8.3	8.2	8.8	8.6	8.2
<i>Previous Tealbook<sup>3</sup></i>	8.9	9.1	9.1	9.1	9.0	8.9	8.8	8.6	8.4	8.4	8.3	8.1	9.1	8.6	8.1
NAIRU <sup>3</sup>	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
<i>Previous Tealbook<sup>3</sup></i>	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
GDP gap <sup>4</sup>	-5.8	-5.8	-5.8	-5.5	-5.4	-5.5	-5.4	-5.2	-5.1	-5.1	-5.0	-4.8	-5.5	-5.2	-4.8
<i>Previous Tealbook<sup>4</sup></i>	-6.0	-6.2	-6.1	-6.0	-5.9	-5.8	-5.7	-5.6	-5.4	-5.2	-4.9	-4.7	-6.0	-5.6	-4.7
Industrial production <sup>5</sup>	4.8	.6	5.2	2.6	2.4	2.3	2.3	2.2	3.2	3.2	3.3	3.3	3.3	2.3	3.2
<i>Previous Tealbook<sup>5</sup></i>	4.8	.5	5.1	4.5	2.4	2.8	2.7	2.5	3.5	3.6	3.5	3.5	3.7	2.6	3.5
Manufacturing industr. prod. <sup>5</sup>	7.2	.0	4.3	2.7	2.7	1.6	2.0	2.5	3.3	3.3	3.5	3.5	3.5	2.2	3.4
<i>Previous Tealbook<sup>5</sup></i>	7.2	-.1	4.3	4.4	2.0	3.0	3.2	3.0	3.9	4.1	3.9	3.8	3.9	2.8	3.9
Capacity utilization rate - mfg. <sup>3</sup>	74.5	74.4	74.9	75.3	75.6	75.7	75.8	76.1	76.4	76.8	77.1	77.5	75.3	76.1	77.5
<i>Previous Tealbook<sup>3</sup></i>	74.5	74.3	74.9	75.5	75.7	76.1	76.5	76.8	77.3	77.8	78.2	78.7	75.5	76.8	78.7
Housing starts <sup>6</sup>	.6	.6	.6	.6	.7	.7	.8	.8	.8	.9	.9	1.0	.6	.7	.9
Light motor vehicle sales <sup>6</sup>	13.0	12.1	12.5	13.4	13.4	13.4	13.4	13.5	13.9	14.1	14.3	14.4	12.7	13.4	14.2
<i>Income and saving</i>															
Nominal GDP <sup>5</sup>	3.1	4.0	4.5	4.3	3.8	3.5	4.1	4.4	3.7	3.7	3.9	4.4	4.0	3.9	3.9
Real disposable pers. income <sup>5</sup>	1.2	-.5	-2.1	4.3	2.9	3.0	3.3	3.6	-1.3	2.4	2.7	3.2	.7	3.2	1.7
<i>Previous Tealbook<sup>5</sup></i>	1.2	.6	.6	3.8	-.6	3.3	3.7	3.5	2.7	2.9	3.3	3.5	1.5	2.5	3.1
Personal saving rate <sup>3</sup>	5.0	4.8	3.8	4.3	4.4	4.6	4.8	5.0	4.1	4.2	4.3	4.4	4.3	5.0	4.4
<i>Previous Tealbook<sup>3</sup></i>	5.0	5.1	4.7	5.1	4.5	4.7	5.0	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Corporate profits <sup>7</sup>	4.2	13.7	8.4	-1.6	3.9	-5.8	-.2	-3.4	.1	-1.2	.0	-.1	6.0	-1.4	-.3
Profit share of GNP <sup>3</sup>	12.4	12.7	12.8	12.6	12.6	12.3	12.2	12.0	11.9	11.8	11.7	11.6	12.6	12.0	11.6
Net federal saving <sup>8</sup>	-1,201	-1,275	-1,175	-1,168	-1,106	-1,099	-1,083	-1,077	-899	-873	-846	-818	-1,205	-1,091	-859
Net state & local saving <sup>8</sup>	-57	-40	-79	-74	-62	-48	-44	-39	-37	-25	-25	-25	-63	-48	-28
Gross national saving rate <sup>3</sup>	12.6	12.4	12.2	12.4	12.6	12.5	12.6	12.6	12.7	12.8	13.0	13.1	12.4	12.6	13.1
Net national saving rate <sup>3</sup>	-.1	-.4	-.4	-.1	.0	.0	.1	.0	.2	.3	.5	.6	-.1	.0	.6

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.

Class II FOMC - Restricted (FR)

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# 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
<i>Employment and production</i>									
Nonfarm payroll employment <sup>1</sup>	2.4	2.1	1.2	-2.8	-5.6	.7	1.6	1.8	2.2
Unemployment rate <sup>2</sup>	5.0	4.5	4.8	6.9	10.0	9.6	8.8	8.6	8.2
<i>Previous Tealbook<sup>2</sup></i>	5.0	4.5	4.8	6.9	10.0	9.6	9.1	8.6	8.1
NAIRU <sup>2</sup>	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0	6.0
<i>Previous Tealbook<sup>2</sup></i>	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0	6.0
GDP gap <sup>3</sup>	.0	.0	-.2	-5.4	-6.9	-5.4	-5.5	-5.2	-4.8
<i>Previous Tealbook<sup>3</sup></i>	.1	.0	-.2	-5.4	-7.0	-5.6	-6.0	-5.6	-4.7
Industrial production <sup>4</sup>	2.3	2.3	2.5	-9.1	-5.5	6.2	3.3	2.3	3.2
<i>Previous Tealbook<sup>4</sup></i>	2.3	2.3	2.5	-9.1	-5.5	6.2	3.7	2.6	3.5
Manufacturing industr. prod. <sup>4</sup>	3.4	2.0	2.8	-11.8	-6.1	6.1	3.5	2.2	3.4
<i>Previous Tealbook<sup>4</sup></i>	3.4	2.0	2.8	-11.8	-6.1	6.1	3.9	2.8	3.9
Capacity utilization rate - mfg. <sup>2</sup>	78.5	78.4	79.0	70.1	67.7	73.3	75.3	76.1	77.5
<i>Previous Tealbook<sup>2</sup></i>	78.5	78.4	79.0	70.1	67.7	73.3	75.5	76.8	78.7
Housing starts <sup>5</sup>	2.1	1.8	1.4	.9	.6	.6	.6	.7	.9
Light motor vehicle sales <sup>5</sup>	16.9	16.5	16.1	13.1	10.3	11.5	12.7	13.4	14.2
<i>Income and saving</i>									
Nominal GDP <sup>4</sup>	6.4	5.3	4.9	-1.2	.0	4.7	4.0	3.9	3.9
Real disposable pers. income <sup>4</sup>	.6	4.6	1.6	1.0	-2.4	3.5	.7	3.2	1.7
<i>Previous Tealbook<sup>4</sup></i>	.6	4.6	1.6	1.0	-2.4	3.5	1.5	2.5	3.1
Personal saving rate <sup>2</sup>	1.6	2.8	2.5	6.2	4.3	5.2	4.3	5.0	4.4
<i>Previous Tealbook<sup>2</sup></i>	1.6	2.8	2.5	6.2	4.3	5.2	5.1	5.1	5.1
Corporate profits <sup>6</sup>	19.6	3.7	-8.1	-33.5	61.8	18.2	6.0	-1.4	-.3
Profit share of GNP <sup>2</sup>	11.8	11.6	10.1	6.8	11.0	12.4	12.6	12.0	11.6
Net federal saving <sup>7</sup>	-283	-204	-245	-613	-1218	-1274	-1205	-1091	-859
Net state & local saving <sup>7</sup>	26	51	12	-72	-78	-25	-63	-48	-28
Gross national saving rate <sup>2</sup>	15.6	16.5	13.9	12.6	11.3	12.3	12.4	12.6	13.1
Net national saving rate <sup>2</sup>	3.6	4.4	1.7	-.6	-1.9	-.4	-.1	.0	.6

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				2011				2012				2013			
	2010 <sup>a</sup>	2011 <sup>a</sup>	2012	2013	Q1 <sup>a</sup>	Q2 <sup>a</sup>	Q3 <sup>a</sup>	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Unified budget</b>																
Receipts <sup>1</sup>	2163	2302	2459	2716	488	714	568	554	520	760	625	607	569	839	701	650
Outlays <sup>1</sup>	3456	3598	3608	3620	949	855	894	902	957	895	854	934	933	892	861	938
Surplus/deficit <sup>1</sup>	-1293	-1296	-1149	-904	-460	-141	-325	-348	-437	-135	-228	-328	-364	-53	-159	-288
<i>Previous Tealbook</i>	<i>-1293</i>	<i>-1299</i>	<i>-1048</i>	<i>-845</i>	<i>-460</i>	<i>-141</i>	<i>-328</i>	<i>-350</i>	<i>-408</i>	<i>-98</i>	<i>-193</i>	<i>-298</i>	<i>-357</i>	<i>-38</i>	<i>-152</i>	<i>-282</i>
On-budget	-1370	-1363	-1123	-917	-451	-202	-310	-372	-403	-166	-182	-338	-346	-101	-132	-315
Off-budget	77	67	-25	14	-10	61	-15	24	-34	31	-46	10	-18	48	-27	27
<b>Means of financing</b>																
Borrowing	1474	1110	1136	984	260	93	389	320	449	159	208	348	384	73	179	308
Cash decrease	-35	252	8	0	225	-19	79	-2	0	-30	40	0	0	0	0	0
Other <sup>2</sup>	-146	-66	5	-80	-24	67	-143	31	-12	6	-20	-20	-20	-20	-20	-20
Cash operating balance, end of period	310	58	50	50	118	137	58	60	60	90	50	50	50	50	50	50
<b>NIPA federal sector</b>																
Receipts	2379	2531	2690	2943	2528	2554	2570	2597	2691	2719	2754	2786	2964	2994	3028	3061
Expenditures	3648	3765	3804	3867	3729	3829	3745	3765	3797	3818	3837	3863	3863	3868	3874	3879
Consumption expenditures	1042	1070	1098	1109	1059	1078	1085	1082	1101	1104	1106	1107	1113	1110	1103	1089
Defense	697	715	740	753	701	723	733	725	742	745	748	751	757	756	750	737
Nondefense	346	355	358	355	358	354	352	358	359	358	357	356	356	355	353	352
Other spending	2606	2695	2706	2758	2670	2752	2660	2683	2696	2714	2732	2755	2749	2758	2771	2790
Current account surplus	-1269	-1234	-1114	-924	-1201	-1275	-1175	-1168	-1106	-1099	-1083	-1077	-899	-873	-846	-818
Gross investment	165	165	163	162	161	160	164	160	163	164	164	164	164	162	159	154
Gross saving less gross investment <sup>3</sup>	-1305	-1263	-1131	-931	-1227	-1298	-1199	-1186	-1125	-1116	-1098	-1090	-909	-880	-847	-812
<b>Fiscal indicators<sup>4</sup></b>																
High-employment (HEB)																
surplus/deficit	-943	-929	-790	-596	-906	-962	-844	-840	-784	-774	-760	-757	-568	-543	-516	-489
Change in HEB, percent of potential GDP	1.1	-3	-1.1	-1.3	-7	.3	-8	-1	-4	-1	-1	-1	-1.2	-2	-2	-2
Fiscal impetus (FI), percent of GDP	0.5	-0.3	-0.3	-1.1	-0.6	0.4	-0.1	-0.7	-0.0	-0.5	-0.4	-0.3	-1.6	-0.8	-1.0	-0.9
<i>Previous Tealbook</i>	<i>0.5</i>	<i>-0.1</i>	<i>-0.9</i>	<i>-0.8</i>	<i>-0.6</i>	<i>0.4</i>	<i>-0.4</i>	<i>0.2</i>	<i>-1.4</i>	<i>-0.9</i>	<i>-0.7</i>	<i>-0.7</i>	<i>-0.8</i>	<i>-0.6</i>	<i>-0.8</i>	<i>-0.8</i>

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 <sup>1</sup>	Total	Households			Business	State and local governments	Federal government	Memo: Nominal GDP
		Total	Home mortgages	Consumer credit				
<i>Year</i>								
2006	8.7	9.9	11.1	4.1	11.1	3.7	3.9	5.3
2007	8.5	6.7	6.9	5.8	13.6	5.4	4.9	4.9
2008	6.0	.1	-.5	1.5	6.2	.7	24.2	-1.2
2009	3.0	-1.7	-1.4	-4.4	-2.4	3.9	22.7	.0
2010	4.1	-2.1	-2.9	-1.8	.7	2.2	20.2	4.7
2011	3.7	-.9	-2.0	2.6	4.0	-1.2	11.3	4.0
2012	4.6	1.0	-.2	4.7	3.4	2.0	11.1	3.9
2013	4.2	1.6	.1	6.1	3.9	1.9	8.1	3.9
<i>Quarter</i>								
2010:1	3.5	-3.1	-4.8	-3.9	-.1	2.4	20.6	5.5
2	3.9	-2.2	-2.5	-3.3	-1.3	-.5	22.5	5.4
3	3.7	-2.2	-2.5	-2.2	1.8	2.1	16.0	3.9
4	4.9	-.7	-1.8	2.3	2.4	4.8	16.4	4.2
2011:1	2.3	-1.8	-2.6	2.2	4.2	-3.3	7.9	3.1
2	3.1	-.6	-2.4	3.4	4.5	-3.5	8.6	4.0
3	4.3	-1.2	-1.8	1.2	3.5	.0	14.1	4.5
4	4.7	.0	-1.2	3.3	3.8	1.9	12.8	4.3
2012:1	5.2	.5	-.7	3.6	3.1	2.2	14.3	3.8
2	4.3	.9	-.3	4.4	3.3	2.0	10.1	3.5
3	3.3	1.3	.0	4.8	3.4	1.9	5.9	4.1
4	5.3	1.5	.1	5.5	3.5	1.9	12.5	4.4
2013:1	4.9	1.6	.1	5.9	3.7	1.9	10.7	3.7
2	3.6	1.6	.1	6.0	3.8	1.9	6.3	3.7
3	3.2	1.6	.1	6.1	3.9	1.9	4.5	3.9
4	4.9	1.7	.1	6.1	3.9	1.9	10.2	4.4

Note: Quarterly data are at seasonally adjusted annual rates.

1. Data after 2011:Q3 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
<i>Domestic nonfinancial sectors</i>														
Net funds raised														
Total	1167.1	882.8	1352.6	1343.2	1029.5	1332.3	1608.2	1282.2	864.3	1655.5	1627.2	1157.9	935.2	1652.3
Net equity issuance	-278.0	-472.4	-400.0	-340.0	-593.4	-460.0	-380.0	-380.0	-420.0	-420.0	-320.0	-320.0	-360.0	-360.0
Net debt issuance	1445.1	1355.2	1752.6	1683.2	1622.9	1792.3	1988.2	1662.2	1284.3	2075.5	1947.2	1477.9	1295.2	2012.3
Borrowing indicators														
Debt (percent of GDP) <sup>1</sup>	249.1	249.1	249.4	250.5	248.0	248.2	248.9	249.7	249.6	249.5	250.4	250.8	250.5	250.3
Borrowing (percent of GDP)	9.9	9.0	11.2	10.3	10.7	11.7	12.8	10.6	8.1	13.0	12.1	9.1	7.9	12.1
Households														
Net borrowing <sup>2</sup>	-278.4	-121.0	136.6	217.1	-158.8	3.7	62.2	123.4	165.7	195.1	208.7	214.8	220.7	224.0
Home mortgages	-298.2	-200.9	-22.2	9.8	-181.4	-118.7	-69.0	-29.5	0.0	9.8	9.8	9.8	9.8	9.8
Consumer credit	-44.2	62.1	116.6	160.7	29.5	82.4	90.6	111.6	123.0	141.3	153.8	158.7	163.8	166.3
Debt/DPI (percent) <sup>3</sup>	120.3	114.6	110.3	108.3	114.4	112.8	111.7	110.7	109.7	108.8	109.2	108.7	108.0	107.3
Business														
Financing gap <sup>4</sup>	-197.1	-210.3	-105.5	72.7	-278.0	-209.0	-173.0	-134.3	-85.0	-29.7	22.4	49.1	82.2	137.2
Net equity issuance	-278.0	-472.4	-400.0	-340.0	-593.4	-460.0	-380.0	-380.0	-420.0	-420.0	-320.0	-320.0	-360.0	-360.0
Credit market borrowing	77.0	451.2	391.6	464.1	398.0	433.7	364.6	385.4	401.4	415.0	443.0	459.1	473.6	480.8
State and local governments														
Net borrowing	66.2	-36.9	61.0	58.0	1.0	58.0	66.0	62.0	58.0	58.0	58.0	58.0	58.0	58.0
Current surplus <sup>5</sup>	257.0	201.5	200.2	228.0	163.6	169.9	183.6	199.2	205.6	212.4	216.1	230.0	231.7	234.1
Federal government														
Net borrowing	1580.2	1061.9	1163.4	944.0	1382.6	1296.9	1495.5	1091.4	659.3	1407.5	1237.6	746.0	543.0	1249.6
Net borrowing (n.s.a.)	1580.2	1061.9	1163.4	944.0	389.1	319.9	448.7	159.0	208.2	347.5	384.2	72.6	179.1	308.1
Unified deficit (n.s.a.)	1275.1	1278.1	1127.9	864.0	328.1	348.4	436.8	135.2	228.4	327.5	364.2	52.6	159.1	288.1
<i>Depository institutions</i>														
Funds supplied	-181.1	182.8	352.8	374.7	785.2	248.5	398.2	323.9	342.5	346.5	352.2	358.2	392.9	395.4

Note: Data after 2011:Q3 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.

Class II FOMC - Restricted (FR)

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# Greensheets

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

Measure and country	-----Projected-----											
	2011				2012				2013			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Real GDP</b> <sup>1</sup>												
Total foreign	3.9	2.4	3.6	2.3	2.5	2.4	2.6	2.7	2.9	3.0	3.0	3.1
<i>Previous Tealbook</i>	4.0	2.3	3.6	2.8	2.8	2.9	3.0	3.1	3.3	3.4	3.4	3.4
Advanced foreign economies	2.2	.1	2.7	1.0	.7	.6	.9	1.2	1.4	1.5	1.6	1.8
Canada	3.5	-.5	3.5	2.1	2.1	1.8	2.0	2.2	2.1	2.0	2.0	2.1
Japan	-2.7	-1.3	6.0	1.9	2.3	1.8	1.7	1.6	1.5	1.4	1.3	1.3
United Kingdom	1.6	.4	2.0	.5	.4	.7	1.0	1.2	1.5	1.7	1.9	2.1
Euro area	3.1	.7	.6	-1.0	-2.0	-1.8	-1.2	-.5	.1	.4	.6	1.0
Germany	5.5	1.1	2.0	.0	-1.2	-1.0	-.4	.1	.7	1.1	1.2	1.7
Emerging market economies	5.7	5.0	4.7	3.7	4.4	4.3	4.4	4.4	4.5	4.5	4.6	4.6
Asia	7.9	5.3	4.9	4.3	5.7	5.5	5.5	5.5	5.6	5.7	5.8	5.8
Korea	5.4	3.6	3.3	3.9	3.5	3.5	3.5	3.5	3.6	3.8	4.0	4.2
China	8.2	10.0	9.5	8.2	8.0	7.9	7.9	7.9	8.0	8.1	8.1	8.1
Latin America	3.5	4.9	4.5	3.0	3.2	3.0	3.2	3.2	3.2	3.2	3.2	3.3
Mexico	2.3	5.2	5.5	3.0	3.1	2.8	3.1	3.1	3.1	3.1	3.1	3.1
Brazil	3.2	2.9	-.2	2.3	3.0	3.1	3.1	3.1	3.5	3.6	3.6	3.8
<b>Consumer prices</b> <sup>2</sup>												
Total foreign	4.3	3.2	3.1	3.5	2.6	2.3	2.2	2.2	2.2	2.2	2.3	2.3
<i>Previous Tealbook</i>	4.3	3.2	3.1	2.7	2.5	2.2	2.3	2.3	2.3	2.4	2.5	2.5
Advanced foreign economies	3.2	2.1	1.1	2.9	1.4	1.1	1.1	1.2	1.0	1.0	1.0	1.2
Canada	3.6	3.1	1.1	3.8	2.3	1.9	1.7	1.6	1.6	1.6	1.7	1.7
Japan	.4	-.8	-.3	-.6	-.5	-.4	-.4	-.3	-.3	-.3	-.3	-.3
United Kingdom	7.2	3.8	3.5	4.3	1.7	1.3	1.3	2.6	1.5	1.3	1.5	2.8
Euro Area	3.6	2.7	1.4	4.1	1.5	1.3	1.2	1.2	1.1	1.0	1.0	1.1
Germany	3.5	2.2	1.7	4.3	2.0	2.0	1.8	1.7	1.5	1.4	1.5	1.6
Emerging market economies	5.1	4.1	4.6	3.9	3.6	3.2	3.1	3.1	3.2	3.2	3.2	3.2
Asia	5.3	4.8	5.3	3.5	3.3	2.9	2.9	2.9	3.0	3.0	3.0	3.0
Korea	6.0	2.8	4.8	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
China	4.6	5.8	6.2	3.5	3.2	2.7	2.7	2.7	2.8	2.9	2.9	2.9
Latin America	4.3	2.5	3.6	4.8	4.4	3.9	3.7	3.7	3.7	3.7	3.7	3.7
Mexico	3.6	1.8	3.3	4.6	4.2	3.6	3.4	3.4	3.4	3.4	3.4	3.4
Brazil	9.5	7.5	5.6	6.2	5.7	5.3	4.9	4.9	5.3	5.1	4.9	4.9

<sup>1</sup>Foreign GDP aggregates calculated using shares of U.S. exports.

<sup>2</sup>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	-----Projected-----	2011	2012	2013
<b>Real GDP <sup>1</sup></b>										
Total foreign	4.1	4.1	4.4	-9	.8	4.3		3.1	2.5	3.0
<i>Previous Tealbook</i>	4.1	4.2	4.4	-9	.8	4.3		3.2	3.0	3.4
Advanced foreign economies	2.8	2.6	2.6	-1.9	-1.4	2.7		1.5	.8	1.6
Canada	3.1	1.9	2.5	-7	-1.4	3.3		2.1	2.1	2.1
Japan	2.9	2.1	1.7	-4.7	-1.9	2.5		.9	1.9	1.4
United Kingdom	2.8	2.1	4.1	-5.4	-.8	1.3		1.1	.8	1.8
Euro area	2.1	3.8	2.4	-2.1	-2.1	1.9		.8	-1.4	.6
Germany	1.6	4.9	2.4	-1.9	-2.2	3.8		2.1	-.6	1.2
Emerging market economies	5.8	6.3	6.7	.4	3.5	6.1		4.8	4.4	4.6
Asia	7.6	7.8	8.8	.9	8.0	7.6		5.6	5.5	5.7
Korea	5.2	4.6	5.8	-3.2	6.3	4.7		4.0	3.5	3.9
China	10.3	12.8	13.7	7.7	11.4	9.6		9.0	7.9	8.1
Latin America	3.9	4.8	4.4	-.4	-.9	4.5		4.0	3.1	3.2
Mexico	3.6	4.1	3.5	-1.2	-2.3	4.2		4.0	3.0	3.1
Brazil	2.2	4.8	6.6	.9	5.3	5.4		2.0	3.1	3.6
<b>Consumer prices <sup>2</sup></b>										
Total foreign	2.3	2.2	3.7	3.3	1.3	3.2		3.5	2.3	2.3
<i>Previous Tealbook</i>	2.3	2.2	3.7	3.3	1.3	3.2		3.3	2.3	2.4
Advanced foreign economies	1.6	1.4	2.2	2.0	.2	1.7		2.3	1.2	1.1
Canada	2.3	1.4	2.5	1.8	.8	2.2		2.9	1.9	1.6
Japan	-.7	.3	.5	1.0	-2.0	-.3		-.3	-.4	-.3
United Kingdom	2.1	2.7	2.1	3.9	2.2	3.4		4.7	1.7	1.8
Euro Area	2.3	1.8	2.9	2.3	.4	2.0		3.0	1.3	1.0
Germany	2.2	1.3	3.1	1.7	.3	1.6		2.9	1.9	1.5
Emerging market economies	3.0	2.9	5.1	4.6	2.1	4.3		4.4	3.2	3.2
Asia	2.5	2.4	5.5	3.6	1.3	4.3		4.7	3.0	3.0
Korea	2.5	2.1	3.4	4.5	2.4	3.2		4.2	3.0	3.0
China	1.4	2.1	6.7	2.5	.6	4.7		5.0	2.8	2.9
Latin America	3.8	4.2	4.2	6.7	3.9	4.4		3.8	3.9	3.7
Mexico	3.1	4.1	3.8	6.2	4.0	4.3		3.3	3.7	3.4
Brazil	6.1	3.2	4.3	6.2	4.2	5.4		7.2	5.2	5.1

<sup>1</sup> Foreign GDP aggregates calculated using shares of U.S. exports.

<sup>2</sup> Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

## U.S. Current Account

## Quarterly Data

	-----Projected-----											
	2011				2012				2013			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<i>Billions of dollars, s.a.a.r.</i>												
<b>U.S. current account balance</b>	<b>-478.4</b>	<b>-472.0</b>	<b>-390.7</b>	<b>-402.7</b>	<b>-439.8</b>	<b>-396.8</b>	<b>-416.6</b>	<b>-440.7</b>	<b>-477.6</b>	<b>-448.4</b>	<b>-463.9</b>	<b>-485.2</b>
<i>Previous Tealbook</i>	<i>-478.4</i>	<i>-472.0</i>	<i>-426.8</i>	<i>-416.4</i>	<i>-422.7</i>	<i>-376.4</i>	<i>-381.9</i>	<i>-390.2</i>	<i>-416.1</i>	<i>-386.0</i>	<i>-397.7</i>	<i>-416.4</i>
Current account as percent of GDP	-3.2	-3.1	-2.6	-2.6	-2.8	-2.5	-2.6	-2.8	-3.0	-2.8	-2.8	-2.9
<i>Previous Tealbook</i>	<i>-3.2</i>	<i>-3.1</i>	<i>-2.8</i>	<i>-2.7</i>	<i>-2.7</i>	<i>-2.4</i>	<i>-2.4</i>	<i>-2.4</i>	<i>-2.6</i>	<i>-2.4</i>	<i>-2.4</i>	<i>-2.5</i>
Net goods & services	-559.9	-580.0	-534.6	-545.0	-577.7	-523.9	-527.0	-532.6	-554.0	-508.9	-501.9	-508.2
Investment income, net	219.5	253.5	279.5	279.6	273.7	258.9	245.6	229.3	212.2	192.4	173.3	160.3
Direct, net	315.9	339.3	352.7	333.4	316.2	302.9	291.8	280.9	271.4	259.6	249.1	244.8
Portfolio, net	-96.4	-85.8	-73.2	-53.8	-42.5	-43.9	-46.2	-51.6	-59.2	-67.2	-75.8	-84.5
Other income and transfers, net	-138.0	-145.5	-135.6	-137.3	-135.8	-131.9	-135.2	-137.3	-135.8	-131.9	-135.2	-137.3

## Annual Data

	2005	2006	2007	2008	2009	2010	-----Projected-----		
							2011	2012	2013
	Billions of dollars								
U.S. current account balance	-745.8	-800.6	-710.3	-677.1	-376.6	-470.9	-435.9	-423.5	-468.8
Previous Tealbook	-745.8	-800.6	-710.3	-677.1	-376.6	-470.9	-448.4	-392.8	-404.1
Current account as percent of GDP	-5.9	-6.0	-5.1	-4.7	-2.7	-3.2	-2.9	-2.7	-2.9
Previous Tealbook	-5.9	-6.0	-5.1	-4.7	-2.7	-3.2	-3.0	-2.5	-2.5
Net goods & services	-708.6	-753.3	-696.7	-698.3	-381.3	-500.0	-554.9	-540.3	-518.2
Investment income, net	78.7	54.7	111.1	157.8	137.1	174.5	258.0	251.9	184.5
Direct, net	173.2	174.0	244.6	284.3	262.2	280.6	335.3	297.9	256.2
Portfolio, net	-94.5	-119.4	-133.5	-126.5	-125.1	-106.2	-77.3	-46.1	-71.7
Other income and transfers, net	-115.9	-102.0	-124.7	-136.6	-132.3	-145.3	-139.1	-135.1	-135.1

## Abbreviations

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ABS	asset-backed securities
AFE	advanced foreign economy
BEA	Bureau of Economic Analysis, Department of Commerce
BHCs	bank holding companies
CDS	credit default swap
C&I	commercial and industrial
CMBS	commercial mortgage-backed securities
CPI	consumer price index
DPI	disposable personal income
ECB	European Central Bank
ECI	employment cost index
EDO Model	Estimated Dynamic Optimization-Based Model
EFSF	European Financial Stability Facility
EME	emerging market economy
E&S	equipment and software
ETF	exchange-traded fund
EU	European Union
EUC	Emergency Unemployment Compensation
FDIC	Federal Deposit Insurance Corporation
FOMC	Federal Open Market Committee; also, the Committee
FRA	forward rate agreement
FX	foreign exchange
GDP	gross domestic product
GO	general obligation
GSE	government-sponsored enterprise
IMF	International Monetary Fund
IPO	initial public offering

Libor	London interbank offered rate
LLC	limited liability company
MBS	mortgage-backed securities
MEP	maturity extension program
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
P&C	Productivity and Costs
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
SFA	Supplementary Financing Account
SOMA	System Open Market Account
S&P	Standard & Poor's
STBL	Survey of Terms of Business Lending
TALF	Term Asset-Backed Securities Loan Facility
TGA	Treasury's General Account
TIPS	Treasury inflation-protected securities
VAT	value-added tax
WTI	West Texas Intermediate