

Prefatory Note

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Class II FOMC – Restricted (FR)

Report to the FOMC on Economic Conditions and Monetary Policy



Book A

Economic and Financial Conditions: Current Situation and Outlook

October 26, 2011

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

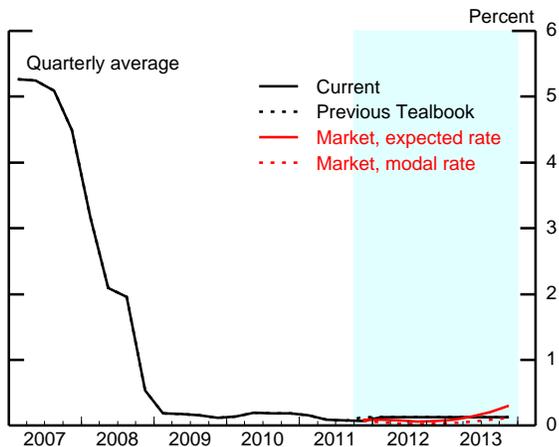
The data on spending that have become available during the intermeeting period have been somewhat stronger than we expected. In particular, recent readings on retail sales, capital goods orders and shipments, and nonresidential construction have all surprised us to the upside. However, important indicators of near-term economic activity remain downbeat: Measures of consumer sentiment are exceedingly low, business surveys point to continued caution, conditions in the labor market have not brightened, and gains in industrial production outside of the motor vehicle supply chain have been sluggish. Consequently, while the recent spending data led us to raise our projection about $\frac{1}{4}$ percentage point for real GDP growth in the second half of this year, to an annual rate of about $2\frac{1}{2}$ percent, we have not carried forward that positive revision into next year.

Indeed, our medium-term projection for real activity is largely the same as in the September Tealbook. The key conditioning factors shaping the forecast are not much different, on net, from our previous assumptions, and we think many of the factors that have been restraining the pace of the recovery—including the large overhang of vacant housing units, impaired credit availability, and elevated risk premiums—are still in place. We continue to expect the accommodative stance of monetary policy to eventually show through more forcefully to economic activity, as financial conditions improve and consumer and business confidence strengthen. But this progress is expected to be very gradual. In all, we project real GDP to rise just $2\frac{1}{2}$ percent in 2012 and to pick up to $3\frac{1}{4}$ percent in 2013, similar to our projection in September. Given the modest acceleration in real activity that we are projecting, resource slack is expected to remain sizable. The unemployment rate is projected to fall to about 8 percent by the end of 2013, but about half of the 1 percentage point decline from its current level reflects the expiration of the emergency unemployment benefit program.

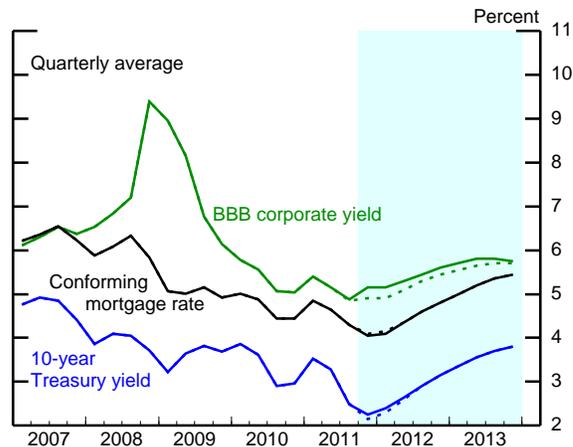
The trajectory of our inflation forecast is little changed from the September Tealbook and continues to be shaped by our assessment that the upturn in core inflation this spring and summer stemmed largely from transitory factors—most notably the pass-through of the surge in commodity and import prices during the first half of the year. With commodity prices having pulled back from their peaks in the spring, we expect these pass-through pressures on consumer prices to continue to fade in coming quarters.

Key Background Factors underlying the Baseline Staff Projection

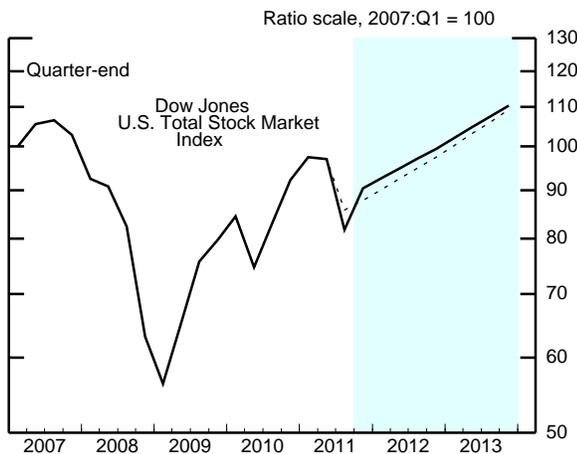
Federal Funds Rate



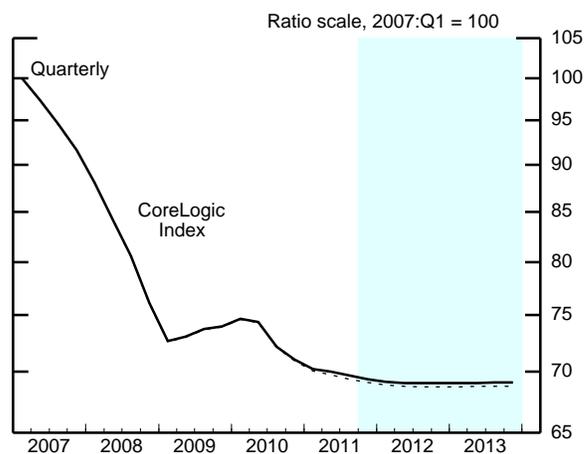
Long-Term Interest Rates



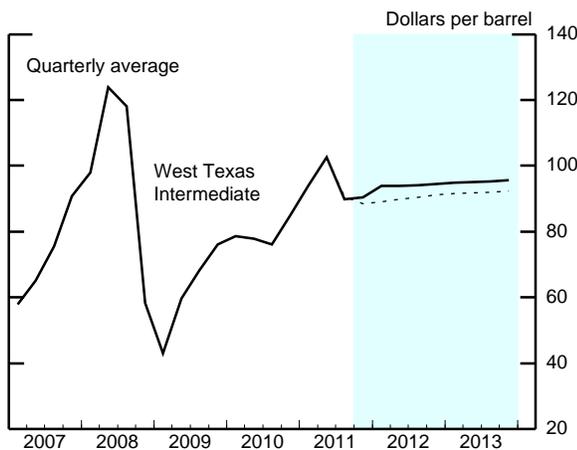
Equity Prices



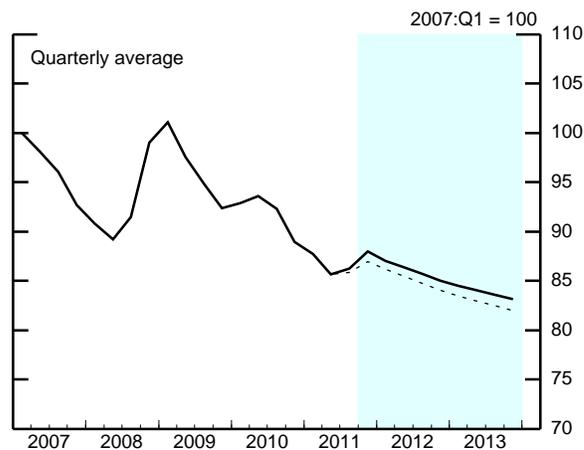
House Prices



Crude Oil Prices



Broad Real Dollar



Thus, 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 decline from about 1¾ percent this year to 1½ percent next year and then to edge down slightly further in 2013. With consumer energy prices expected to fall into early next year and to rise only modestly thereafter, we project overall consumer price inflation to slow from around 2¾ percent this year to about 1½ percent in both 2012 and 2013.

KEY BACKGROUND FACTORS

Monetary Policy

With little change to the staff's outlook for real GDP, labor market conditions, and inflation, we continue to assume that the FOMC will hold the target federal funds rate in the current range of 0 to ¼ percent until the third quarter of 2014. We also assume that the Committee will maintain its current portfolio-related policies.¹

Financial Conditions

The yield on 10-year Treasury securities has increased about 15 basis points, on net, since the September Tealbook. Flight-to-safety demands have swung widely in both directions but, on balance, appear to have eased a bit. In response, we boosted our projection for the 10-year Treasury yield slightly in the near term. Over the medium term, we continue to expect this yield to rise markedly, reflecting the movement of the valuation window through the period of near-zero short-term interest rates, a waning of the effects of nonconventional monetary policy, and a further unwinding of flight-to-safety demands as the economic recovery gains firmer footing and concerns about the European situation gradually abate.

Yields on investment-grade corporate bonds have increased about 20 basis points, on net, since the September Tealbook, nudging up their spreads to comparable maturity Treasury securities by about 5 basis points. Over the projection period, we expect risk spreads to narrow gradually in response to slowly improving economic conditions,

¹ These policies include the reinvestment, until the first quarter of 2014, of principal payments from the FOMC's Treasury holdings into Treasury securities as well as from its agency debt and agency mortgage-backed securities into agency mortgage-backed securities. The policies also include the purchase, by the end of June 2012, of \$400 billion of Treasury securities with remaining maturity of at least six years and the selling of an equal amount of Treasury securities with remaining maturity of three years or less.

though not by enough to prevent the yields on these securities from increasing moderately. Since the September Tealbook, interest rates on conforming fixed-rate mortgages have changed little, on net, and their spreads to intermediate-term Treasury yields have narrowed somewhat. Looking ahead, yields on conforming mortgages are projected to rise a bit less than yields on medium-term Treasury securities.

The Dow Jones U.S. Total Stock Market Index increased more than we had projected in the September Tealbook, leading us to mark up the projected level of stock prices 1½ percent, on average, in 2012 and 2013. We expect share prices to rise at an average annual rate of around 10 percent through the end of 2013, a pace that would help bring the equity premium down gradually toward longer-run norms.

According to the latest data from CoreLogic, existing home prices edged down in August, in line with the projection in the September Tealbook. Looking ahead, we expect house prices to decline slightly further next year before flattening out in 2013.

Fiscal Policy

Our fiscal policy assumptions are unchanged in this projection.² As before, we expect federal fiscal policy to be a roughly neutral influence on aggregate demand in 2011 but then to impose a drag of almost 1 percent of GDP per year in each of 2012 and 2013, reflecting both the winding down of stimulus-related policies and the additional fiscal restraint from the Budget Control Act.

Our projection for the federal budget deficit over the next two years is also essentially unchanged from the September Tealbook. After ending fiscal year 2011 at \$1.3 trillion (8½ percent of GDP), the deficit is projected to slowly narrow to about \$850 billion (5 percent of GDP) by fiscal 2013, reflecting the tightening of fiscal policy and the boost to tax receipts from the continued recovery. Federal debt held by the public is projected to rise to about 73 percent of GDP at the end of fiscal 2013.

² Consistent with the Budget Control Act, we assume that discretionary spending beginning in fiscal year 2012 will be restrained by the caps set in the act and that additional measures will be put in place to reduce the budget deficit by \$1.2 trillion in fiscal years 2013 through 2021. Moreover, we assume that the current payroll tax reductions for employees will be allowed to expire at the end of this year and that the Congress will enact legislation to allow Emergency Unemployment Compensation (EUC) benefits to be phased out over the course of 2012. (Absent such legislation, no new EUC recipients can be added after the end of this year and benefits for current recipients will run out near the middle of next year.)

Foreign Activity and the Dollar

We expect that foreign real GDP will expand at an annual rate of 2¾ percent in the current quarter, down ¾ percentage point from the estimated third-quarter pace. In part, the anticipated slowdown this quarter reflects the fact that the bulk of the economic recovery from the effects of the earlier disaster in Japan was accomplished last quarter. In addition, we expect that economic growth in the European economies will remain considerably weaker than in most of our other trading partners, with euro-area GDP contracting slightly this quarter and next. By contrast, although export-dependent emerging market economies (EMEs) have seen some weakening in external demand, domestic demand should continue to support a moderate pace of output growth there. In the aggregate, the projection for foreign output growth is down a bit from the September Tealbook. Foreign real GDP is expected to increase at an annual rate of about 3 percent next year and nearly 3½ percent in 2013, as economic activity in the United States accelerates moderately and the euro-area economy recuperates.

The dollar has appreciated amid continuing concerns about the European debt crisis and the global economic outlook, boosting the starting point for our projection of the broad real dollar by about 1 percent relative to the September Tealbook. We project that the dollar will depreciate at an average annual rate of about 2¾ percent over the next two years, with most of that decline occurring against the currencies of the EMEs.

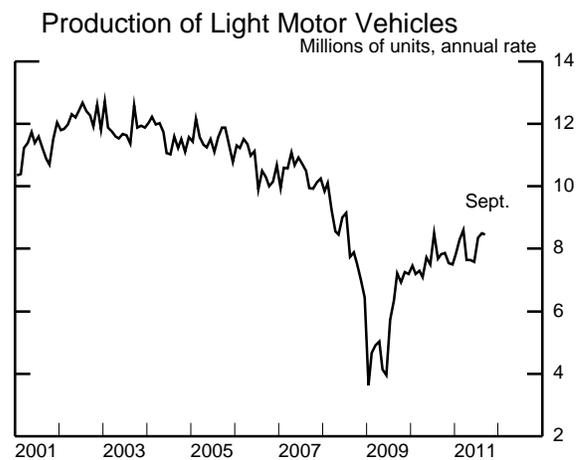
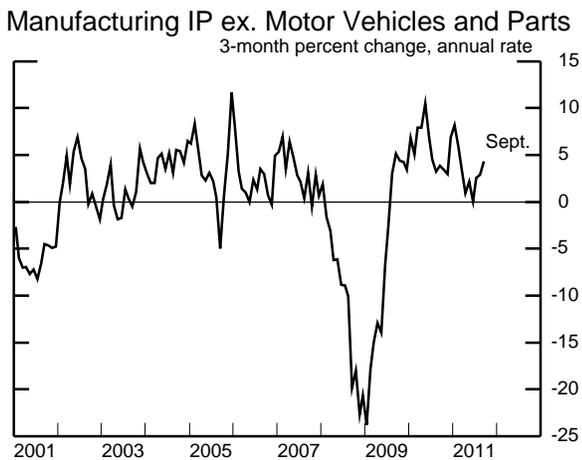
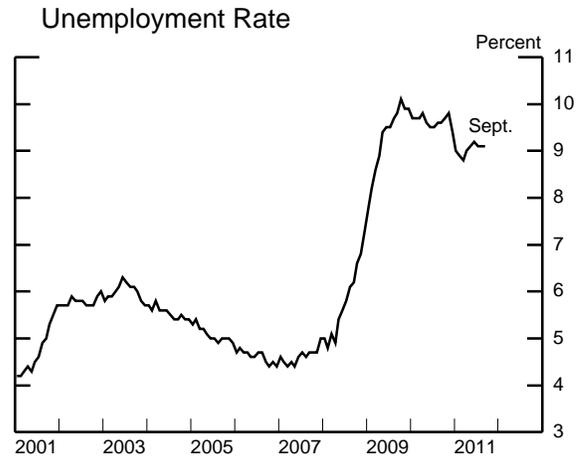
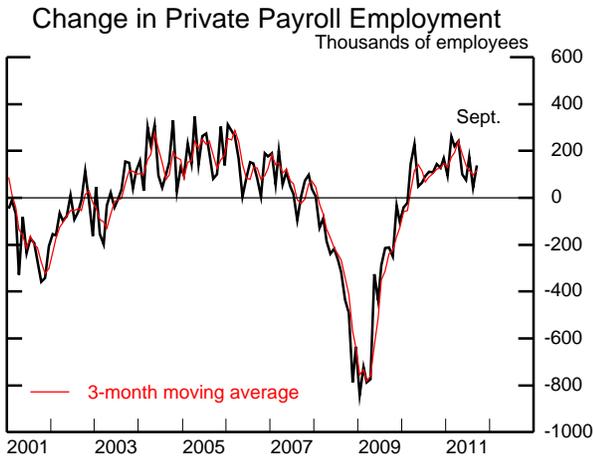
Oil and Other Commodity Prices

The spot price of West Texas Intermediate (WTI) crude oil has risen about \$5 per barrel since the time of the September Tealbook, in part reflecting reports of tighter domestic inventories. On October 25, the spot price of WTI closed at \$93 per barrel. We anticipate that the price of WTI will gradually increase to just under \$96 per barrel by the end of the 2013, about \$4 per barrel higher than in the September Tealbook. In contrast, the futures curve slopes downward to \$89 per barrel by the end of 2013. The difference between our projection and the futures curve reflects both our expectation for dollar depreciation and a forecast for global growth that is a touch more optimistic than the consensus among outside forecasters. We raised our forecast for the price of imported oil even more, so that at the end of 2013 it is about \$7 per barrel higher than in September. In recent months, the BEA's price of imported oil has been running higher than what we would ordinarily have expected given the prices of WTI and other types of crude, and we have carried forward more of this differential in the current forecast than we had previously.

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
Real GDP	2.5	2.7	2.0	2.5	2.2	2.4
Private domestic final purchases	2.1	3.4	1.2	1.9	1.8	1.8
Personal consumption expenditures	1.7	2.2	1.1	2.0	1.7	1.9
Residential investment	-1.3	1.2	-8	3.2	3.8	3.5
Nonres. structures	3.7	14.1	-1.6	-5.2	-4.8	-4.2
Equipment and software	6.0	12.3	4.2	3.8	4.0	2.0
Federal purchases	-7	-2.2	3.7	4.6	-7	-7
State and local purchases	-2.6	-6	-1.2	-8	-8	-8
Contribution to change in real GDP (percentage points)						
Inventory investment	.8	-.3	.2	.4	.1	.6
Net exports	.3	.4	.6	.2	.7	.4

Recent Nonfinancial Developments (1)



Prices for most metals and agricultural goods moved down sharply in the second half of September, likely reflecting concerns about the outlook for global demand. Although prices rebounded somewhat in October, the broad index of nonfuel commodity prices that we follow is still about 6 percent below the level at the time of the September Tealbook. We project that nonfuel commodity prices will increase at an annual rate of about 3½ percent through 2013. As with oil prices, our forecast is a touch higher than that implied by quotes from futures markets.

RECENT DEVELOPMENTS AND THE NEAR-TERM OUTLOOK

The recent data on final sales have been stronger than we expected, with upward surprises notched in household spending, investment in equipment and software (E&S), and nonresidential construction. However, available data on inventory investment point to less accumulation than we had expected. On balance, our estimate of the growth of real GDP in the third quarter, at 2¾ percent, is about ¼ percentage point stronger than in the September Tealbook. The recent upside surprises also imply somewhat faster growth of real GDP in the fourth quarter; as a result, we have boosted our forecast ½ percentage point to 2½ percent.³

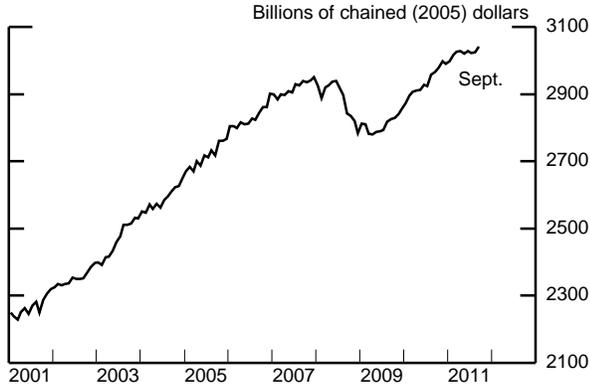
The Labor Market

Labor market conditions continue to disappoint. Private payrolls increased 92,000 in September (after adjusting for the return to work of 45,000 Verizon workers who had been on strike during the August reference period for the payroll survey) and rose an average of about 120,000 per month over the third quarter as a whole, down somewhat from the average pace in the second quarter. Meanwhile, government employment continued to decline last quarter, with employment in the state and local sector falling about 20,000 per month. Job gains in recent months have been insufficient to bring down the unemployment rate, which has been essentially flat since May at a bit above 9 percent.

³ We now estimate that the drag on production from the Japan-related disruptions to global supply chains subtracted about ½ percentage point from real GDP growth in the second quarter, and that the rebound from those disruptions added about ¾ percentage point to GDP growth in the third quarter and will add another ¼ percentage point in the current quarter. These effects are slightly smaller in magnitude than in the September Tealbook. The GDP contributions through the end of this year are, on net, positive, as automakers not only attempt to achieve previous production levels but also endeavor to make up a portion of the lost production; as the pace of this make-up slows in early 2012 and ends by the middle of the year, the effects become a small drag on the growth rate of GDP.

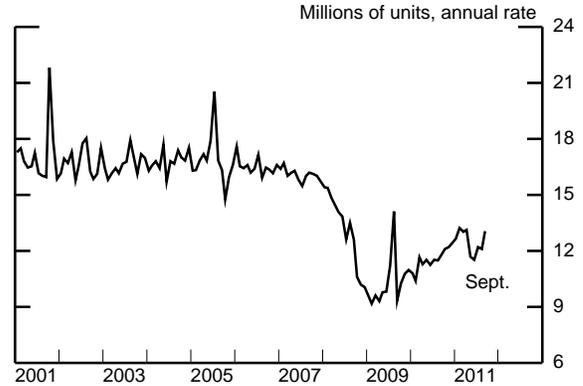
Recent Nonfinancial Developments (2)

Real PCE Goods ex. Motor Vehicles



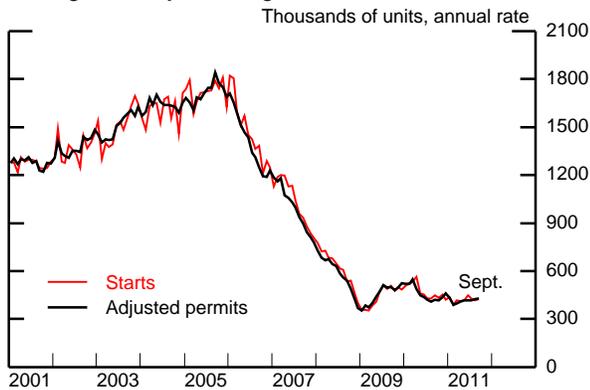
Note: Figures for July, August, and September are staff estimates based on available source data.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Sales of Light Motor Vehicles



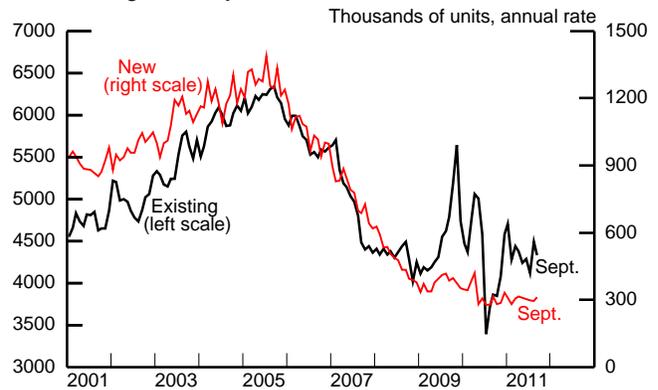
Source: Ward's Auto Infobank.

Single-Family Housing Starts



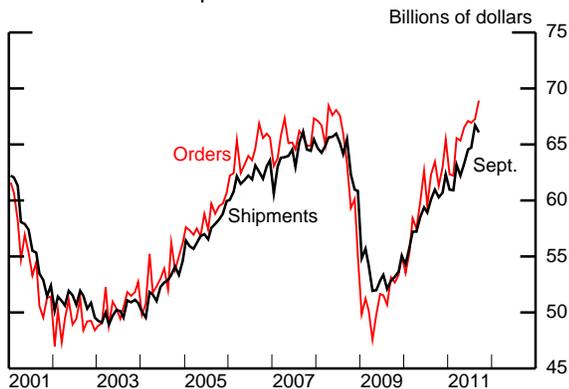
Note: Adjusted permits equal permits plus starts outside of permit-issuing areas.
Source: U.S. Census Bureau.

Single-Family Home Sales



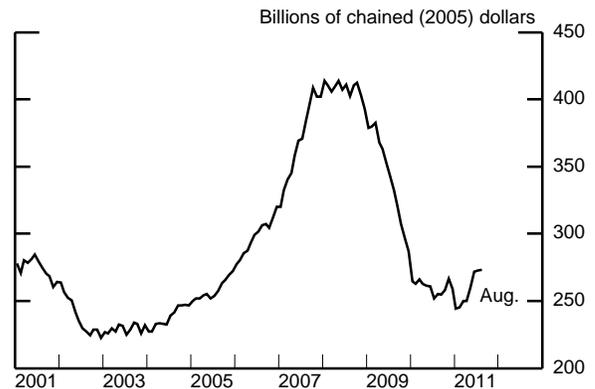
Source: For existing, National Association of Realtors; for new, U.S. Census Bureau.

Nondefense Capital Goods ex. Aircraft



Source: U.S. Census Bureau.

Nonresidential Construction Put in Place



Source: U.S. Census Bureau.

Other labor market indicators continue to point to tepid gains in employment in coming months. Although initial claims for unemployment insurance have fallen slightly in recent weeks, job openings and help-wanted advertising have edged lower in recent months. In all, we expect that private payroll employment will increase about 120,000 per month this quarter, the same pace as in the third quarter. With state and local governments expected to make further cuts to payrolls in response to budget pressures, total payroll employment in the fourth quarter is expected to increase a little under 100,000 per month. In light of these modest gains in employment, we expect the unemployment rate to remain a little above 9 percent through the end of the year.

The Industrial Sector

Manufacturing production rose at an annual rate of 4¼ percent in the third quarter, largely reflecting a ramp-up in production along the motor vehicle supply chain following the earthquake-related disruptions earlier in the year. Most manufacturers affected by the earthquake—both at home and abroad—have returned to roughly pre-earthquake rates of production, and some firms are attempting to further boost output in order to make up for production that was lost due to the supply chain interruptions. In particular, with automobile dealers' inventories still lean, we expect motor vehicle production to step up noticeably further this quarter. In contrast, the underlying pace of activity outside the motor vehicle sector has remained sluggish in recent months. Moreover, national and regional business surveys have remained soft, on balance, and suggest little impetus to production outside motor vehicles in the near term. All told, we expect manufacturing output to rise 4½ percent this quarter, about ½ percentage point faster than the September Tealbook, but to slow to more modest rates of increase in early 2012.

Household Spending

The pace of consumer spending appears to have picked up in the third quarter. With the easing of the supply shortages induced by the Japan earthquake, motor vehicle sales rebounded appreciably, on net, during the summer, and sales are expected to remain near their September pace in coming months. Spending appears to have risen briskly recently in other categories as well: The part of nominal retail sales that the BEA uses in estimating PCE increased 0.6 percent in September—a much larger gain than we anticipated—and the figure for August was revised up noticeably. As a result, we now estimate that real PCE increased at an annual rate of 2¼ percent in the third quarter, about ½ percentage point above the September Tealbook forecast. Still, the very low level of

sentiment, the earlier declines in the stock market, and the tepid gains in employment and income projected for the coming months continue to weigh on consumer spending. As a result, although the most recent retail sales data caused us to mark up our fourth-quarter projection by about 1 percentage point, we still look for real PCE to increase at a relatively modest pace of 2 percent. (See the box “Consumer Sentiment and Consumer Spending” for further discussion.)

In the market for single-family homes, activity remains at levels only modestly above the lows plumbed in the wake of the recession. Recent data on starts and permits, as well as on home sales, have continued to portray a sector generally moving sideways since early 2010. With a host of factors continuing to weigh on home construction, we expect single-family housing starts to hold steady at an annual rate of 430,000 units in the fourth quarter, a level similar to our projection in the September Tealbook. By contrast, multifamily starts are expected to increase in coming months (albeit from still-low levels), with activity spurred by increased demand for apartments, which has already pushed down vacancy rates for these structures and boosted rental prices. All told, we now estimate that residential investment edged up in the third quarter and will post another modest increase in the current quarter.

Business Investment

Recent data on shipments suggest that real investment in E&S rose about 12½ percent at an annual rate in the third quarter, faster than the 7½ percent increase recorded in the first half of the year and likewise considerably faster than the pace expected in the September Tealbook. However, gains of this size are not expected to persist: Business sentiment remains subdued, analysts’ earnings expectations for capital goods producers have softened noticeably since earlier in the year, and corporate bond spreads have remained elevated. Accordingly, we expect spending gains to slow to an annual rate of about 3¾ percent this quarter, similar to our projection in the September Tealbook.

After factoring in the latest monthly construction data, we estimate that real outlays for nonresidential structures (other than those for drilling and mining) rose at an annual rate of 16 percent in the third quarter, similar to the increase posted in the second quarter and considerably faster than we expected in the September Tealbook. These gains have been widespread across sectors. Nonetheless, vacancy rates remain high, prices of commercial real estate are still low, financing conditions are likely to remain

difficult, and the architectural billings index, which is a useful leading indicator of building activity, points to a decline in outlays in the next several quarters. As a result, we expect spending outside drilling and mining structures to fall nearly 10 percent this quarter. By contrast, investment in drilling and mining structures will likely move up further over the near term, boosted by the proliferation of new technologies that render drilling profitable at a wider range of sites as well as by the continued high level of oil prices.

The pace of inventory investment outside the motor vehicle sector stepped down in July and August, and we expect stockbuilding to slow further in coming months as businesses work to keep inventories in better alignment with sales. Then again, with dealers' stocks of motor vehicles still fairly lean following the supply problems induced by the earthquake in Japan, we expect automakers to rebuild inventories through the end of the year.

Government

Incoming data suggest that real federal purchases fell modestly in the third quarter, reflecting a decline in nondefense purchases and little change in defense purchases. We expect federal purchases to move up in the current quarter as defense expenditures rise toward a level more consistent with appropriated funding.

Meanwhile, recent declines in real expenditures by state and local governments appear to have been somewhat smaller than expected in the September Tealbook. In particular, the pace of job loss in July and August was revised down somewhat in the latest employment report, while real construction spending now appears to have risen modestly in the third quarter, in contrast to our expectation of a further decline. Nonetheless, the budgets of these governments remain strained: Tax collections at the state level have been rising more quickly in recent quarters, but federal stimulus grants are being phased out and local tax collections have been quite weak, reflecting the earlier collapse in property values. Accordingly, we continue to expect real state and local government purchases to move down further in the fourth quarter.

Foreign Trade

In light of an unexpectedly weak reading for August, we now estimate that real exports of goods and services in the third quarter as a whole rose at an annual rate of 6 percent, about 3½ percentage points less than we anticipated in the September

Consumer Sentiment and Consumer Spending

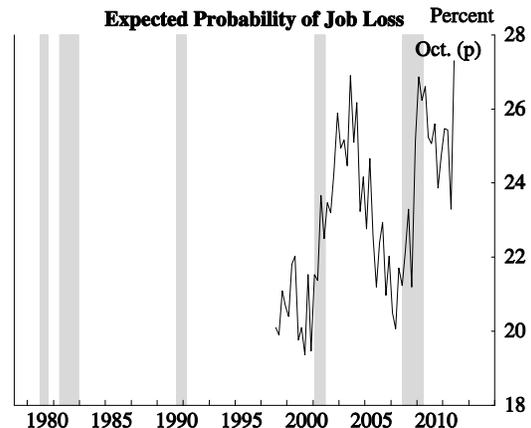
Measures of consumer sentiment play an important role in the Board staff forecast of consumption because they have some incremental predictive power for household spending, even when other conventional determinants (such as wealth, income, and interest rates) are taken into account. One hypothesis for why they have such power is that they may be capturing factors—such as expectations of and uncertainty about future income and wealth—that are difficult to measure directly but likely significantly influence consumer spending. For example, the weakening in consumption at the onset of recessions is likely due not only to already experienced changes in income and wealth, but also to changes in households’ expectations of future income and wealth. As shown in the lower-left figure, a diffusion index of households’ expectations of real income growth from the Michigan survey often drops at the beginning of recessions, as does an index of households’ expectations of their future financial situations (not shown). In addition, for many households, uncertainty about future labor income likely rises during recessions, increasing precautionary saving and further damping spending. One measure of this uncertainty—the perceived probability of losing one’s job in the next few years—jumped in the past two recessions (see lower-right figure).

The staff monitors several different measures of households’ assessments of current and future economic conditions, all of which tend to move together. One measure we often highlight is the Michigan survey’s composite index of consumer sentiment, shown in the top figure on the facing page. The figure shows that sentiment has experienced several sharp declines during the past 30 years, some of which are marked with vertical lines. These movements are often, but not always, followed by a weakening in economic activity. For example, in mid-1990, late 2000, late 2007, and September 2008, sharp drops in sentiment anticipated or coincided with the onset or intensification of recessions. In other cases—the stock market crash of 1987 and Hurricane Katrina—sentiment declined noticeably, but activity did not weaken significantly, and any effect on consumption was relatively short lived.

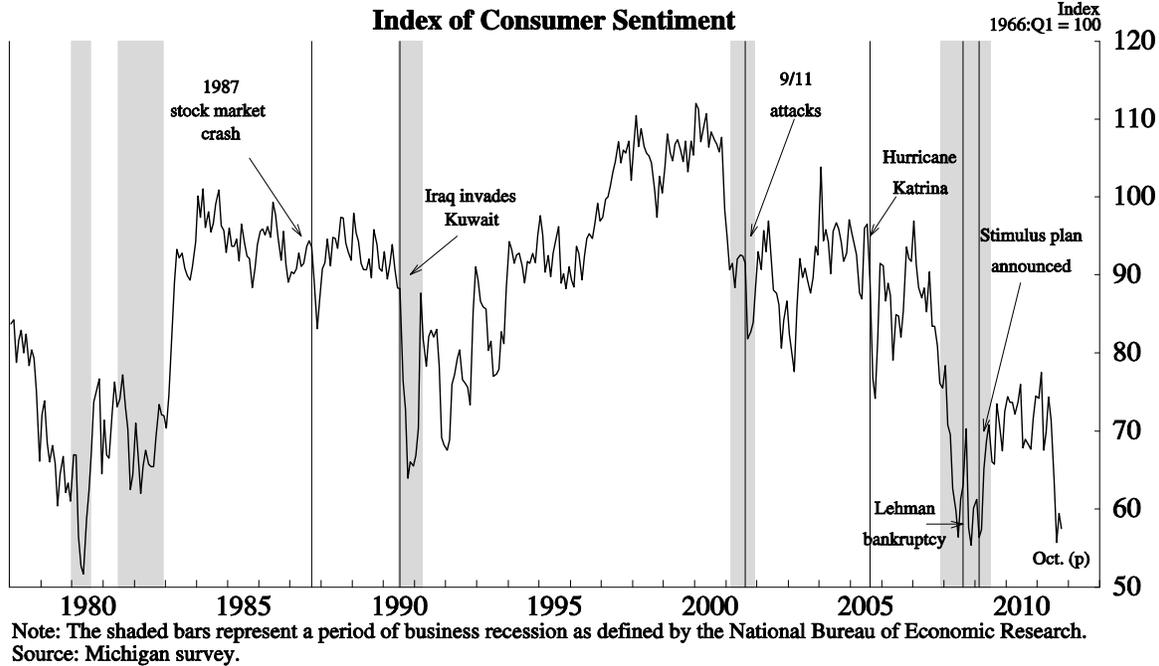
In July and August of this year, sentiment declined sharply, likely reflecting anxiety about the possibility that the economy was slipping back into recession, as well as heightened concerns about financial market stability—stemming, in large part, from sovereign debt problems in Europe—and increased doubts that



Note: Index is the percent of respondents answering "More" to the following question, "How about the next year or two—do you expect that your (family) income will go up more than prices will go up, about the same, or less than prices will go up?" minus the percent responding "Less," plus 100.
 p Preliminary.
 Source: Michigan survey.



Note: Average response to "During the next 5 years, what do you think the chances are that you (or your husband/wife) will lose a job you wanted to keep?"
 p Preliminary.
 Source: Michigan survey.



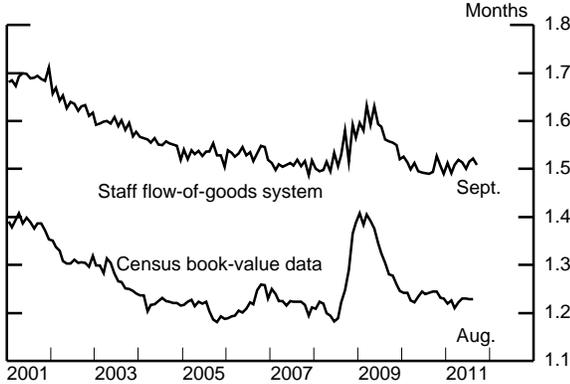
government policy would address important economic problems. Indeed, responses to the Michigan survey show that households' views of government economic policy dropped sharply over the summer, and the preliminary reading for October was at an all-time low (see figure below).

In our forecast, we expect weak sentiment to weigh on consumer spending in the near term. But over time—as information accumulates that the economy, while weak, is not deteriorating further, and that policymakers in the United States and Europe are addressing concerns about fiscal sustainability and financial stability—we expect that sentiment will move back up from its recent lows, albeit only to levels that are still relatively weak historically. This projected increase in consumer sentiment contributes to our expectation that consumer spending will accelerate next year.



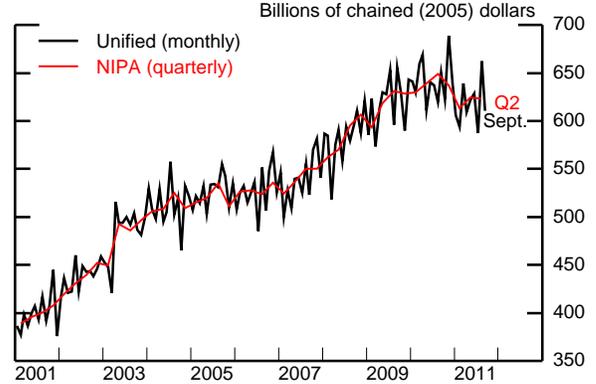
Recent Nonfinancial Developments (3)

Inventory Ratios ex. Motor Vehicles



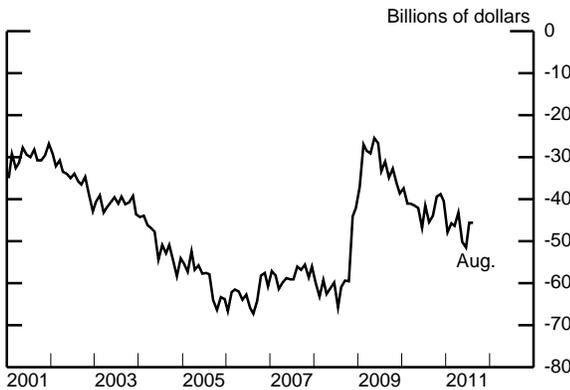
Note: Flow-of-goods system covers total industry ex. motor vehicles and parts, and inventories are relative to consumption. Census data cover manufacturing and trade ex. motor vehicles and parts, and inventories are relative to sales.
Source: U.S. Census Bureau; staff calculation.

Defense Spending



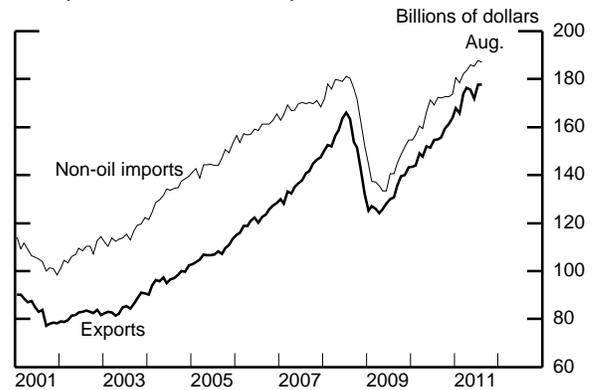
Note: The unified series is seasonally adjusted and deflated by BEA prices. The NIPA series excludes the consumption of fixed capital.
Source: *Monthly Treasury Statement*; U.S. Dept. of Commerce, Bureau of Economic Analysis.

Trade Balance



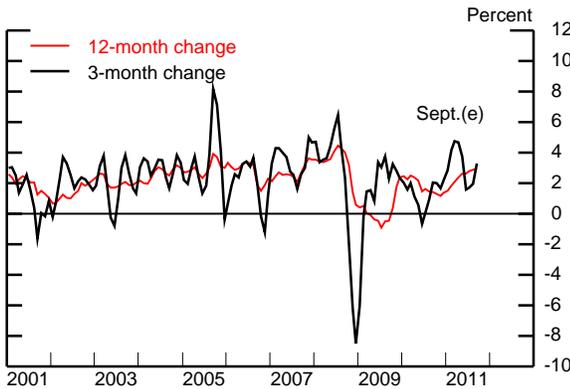
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; U.S. Census Bureau.

Exports and Non-Oil Imports



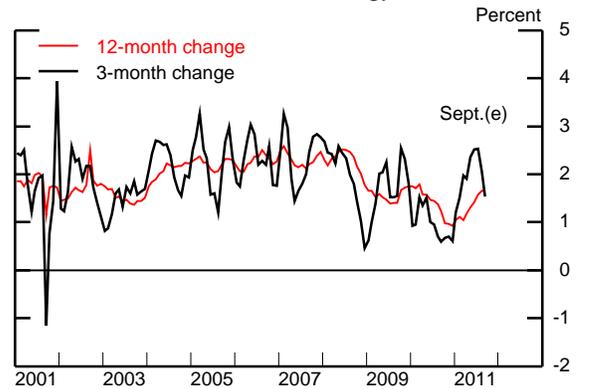
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; U.S. Census Bureau.

Total PCE Prices



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

Tealbook. We expect export growth to pick up to a 7½ percent pace in fourth quarter—about the same as in the September projection—supported by past dollar depreciation and continued growth in foreign demand. Real imports are estimated to have risen just 2¼ percent in the third quarter, less than previously projected, as a decline in real imports of oil partially offset a bounceback in automotive imports following the earthquake-related disruptions earlier in the year. We expect import growth to pick up to 5 percent in the fourth quarter, in part as real imports of oil rebound.

We estimate that the external sector added about ½ percentage point at an annual rate to real GDP growth in the third quarter, a bit more than expected in the September Tealbook. By contrast, we look for net exports to make only a small positive contribution to growth in the fourth quarter as import growth steps up a bit more than in the previous Tealbook.

Prices and Wages

Recent data on overall consumer prices have come in close to our expectations, on net, and the contour of our near-term projection is essentially the same as our September forecast. Total PCE price inflation is projected to slow from an annual rate of 3½ percent in the first half of this year to 1¾ percent in the second half as energy prices turn down after their first-half surge, and both food prices and core prices rise somewhat less quickly.

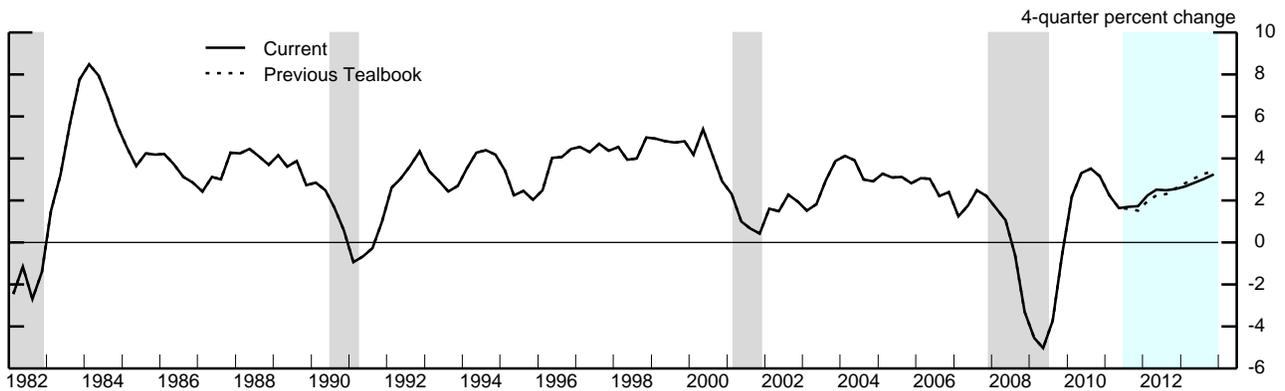
With regard to core consumer prices, we continue to think that the faster pace of inflation evident in the spring and summer was mainly due to transitory factors, including the pass-through of the first-half upswing in commodity and import prices as well as a boost to motor vehicle prices that stemmed from post-earthquake supply shortages. Indeed, the prices of new motor vehicles have decelerated noticeably, and apparel prices, which had moved up sharply during the first half of this year in response to a surge in cotton prices, turned back down in September and helped hold the rise in the core CPI in that month to less than 0.1 percent. As the slackening in commodity and import prices since the spring further passes into prices of final goods, core PCE inflation should slow from an annual rate of a little more than 2 percent in the second and third quarters to 1½ percent in the fourth quarter.

After moving up rapidly in the first half of the year, consumer energy prices decelerated considerably in the third quarter, and they are projected to decline in the

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

Measure	2011		2012	2013
	H1	H2		
Real GDP	.8	2.6	2.5	3.2
Previous Tealbook	.8	2.2	2.6	3.4
Final sales	.8	2.5	2.3	2.8
Previous Tealbook	.7	1.7	2.4	2.9
Personal consumption expenditures	1.4	2.1	2.4	3.1
Previous Tealbook	1.2	1.4	2.3	3.1
Residential investment	.8	2.2	6.2	9.2
Previous Tealbook	.6	-1.0	7.2	9.6
Nonresidential structures	2.5	4.0	-3.4	.3
Previous Tealbook	2.5	1.0	-3.4	.6
Equipment and software	7.5	8.0	5.3	6.7
Previous Tealbook	7.7	5.1	5.3	6.7
Federal purchases	-3.9	1.1	-.7	-4.1
Previous Tealbook	-3.9	1.5	-.7	-4.0
State and local purchases	-3.1	-.7	-.4	.8
Previous Tealbook	-3.1	-1.9	-.4	.8
Exports	5.7	6.8	6.8	6.7
Previous Tealbook	5.7	8.8	7.4	7.1
Imports	4.8	3.6	3.7	4.9
Previous Tealbook	4.8	4.1	3.4	4.9
Contributions to change in real GDP (percentage points)				
Inventory change	.0	.1	.2	.4
Previous Tealbook	.1	.5	.2	.5
Net exports	-.1	.3	.3	.1
Previous Tealbook	.0	.5	.5	.2

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.

fourth quarter. While this contour mainly reflects the rise and subsequent reversal in crude oil prices, the deceleration in retail energy prices has been attenuated somewhat by unusual supply conditions. (See the box “Why Haven’t Gasoline Prices Fallen as Much as Oil Prices?” for further discussion.) PCE food price increases also slowed in the third quarter, though to a still-elevated annual rate of 4¾ percent. We expect a further step-down in food price inflation in the fourth quarter as declines in crop prices since the spring begin to show through to the retail level.

Based on the available data, we estimate that compensation per hour increased at an annual rate of 1¾ percent in the third quarter, and we are looking for a similar rate of increase in the fourth quarter. This rate of increase would be a marked slowing from the 4 percent pace recorded in the first half of the year, when compensation appears to have been boosted by a sharp step-up in bonuses.

THE MEDIUM-TERM OUTLOOK

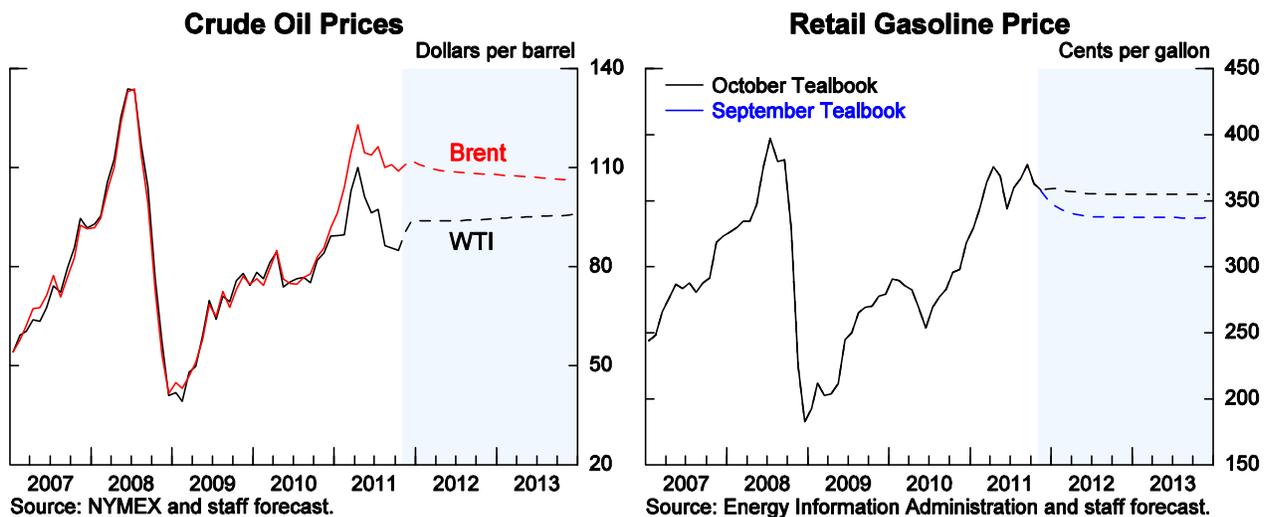
The fact that the recent data on household and business spending have been somewhat stronger than we expected has given us a little more confidence in our view that the economy is not currently slipping back into a recession. But indicators of labor market conditions and consumer and business confidence are tepid at best, and industrial activity outside the motor vehicle supply chain remains sluggish. Moreover, events of the intermeeting period underscored the still-vulnerable nature of the financial system. In light of these considerations, we have taken little signal from the incoming spending data about the broader thrust of economic activity. Thus, we continue to expect that real activity will firm only gradually over the next two years. In particular, we project that, after increasing 1¾ percent this year, real GDP growth will step up to 2½ percent next year and to about 3¼ percent in 2013, leaving its level little changed from our previous projection.

The projected pace of recovery remains quite disappointing relative to historical experience, even taking into account that the recession was sparked by a financial crisis and was of unusually long duration. We expect this disappointing performance to persist, notwithstanding the substantial stimulus being provided by monetary policy. Among other factors, the oversupply of houses and commercial structures shows little sign of abating in the near term; state and especially local governments appear likely to remain under substantial budgetary pressure in the near term as property-tax collections remain weak and federal support is withdrawn; and households and businesses look likely to

Why Haven't Gasoline Prices Fallen as Much as Oil Prices?

In recent months, gasoline prices have not fallen as much as would typically be expected given the decline in the main domestic benchmark grade of oil prices: Since April, the spot price of West Texas Intermediate (WTI) crude oil has fallen nearly \$20 per barrel (or 48 cents per gallon), while retail gasoline prices have declined only about 15 cents per gallon. The failure of gasoline prices to respond as much as usual this year to the decline in the price of WTI likely reflects a confluence of factors: First, owing to segmentation in the domestic market for crude oil and the sudden availability of more oil in the midsection of the country, the recent decline in the price of WTI overstates the fall in average crude input prices faced by domestic refiners. Second, localized capacity constraints in the refining sector have limited the pass-through of lower average crude input prices into gasoline prices. We anticipate that these factors will persist, and so are forecasting that the price of gasoline will remain high relative to the price of domestic crude over the forecast horizon.

Over the past year or so, unusual divergences between the prices of different types of crude oil have emerged. As shown in the lower-left figure, the typical close co-movement in the spot prices of WTI and Brent, another important benchmark crude, has broken down. Since April, the price of WTI has fallen much more than Brent, largely reflecting continued increases in the supply of oil, primarily from Canada and North Dakota, that is available to flow into Cushing, Oklahoma—the delivery point for the futures contract on WTI crude oil. The existing infrastructure is insufficient to fully integrate this region to global markets. As a result, the influx of additional landlocked crude has depressed the price of oil in the Midwest relative to the rest of the country, where refiners are more reliant on seaborne crude.

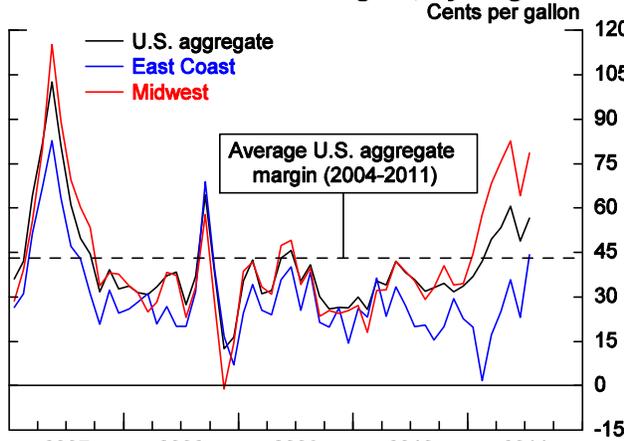


Unlike the market for crude oil, the U.S. gasoline market is relatively well integrated, and there is little dispersion in wholesale or retail gasoline prices across the country (other than those due to tax differentials and environmental regulations in certain metropolitan areas). With common output prices for gasoline, refineries in the Midwest, with access to cheaper WTI-priced crudes, have enjoyed sharp increases in profit margins (the red line in the lower-left figure below), whereas refineries in other regions that rely more heavily on higher priced seaborne crude, such as the East Coast (the blue line), have margins more in line with historical averages.

Normally, one would expect refineries with high margins to boost production, resulting in an increase in gasoline supply and a decline in national gasoline prices. However, as shown in the lower-right figure, refineries in the Midwest have been producing at utilization rates as high as they ever sustain, and thus are unable to increase output in the near term. Therefore, refineries outside the Midwest are the marginal producers at present, and with their margins near historical norms, these refineries have little or no incentive to boost production. Indeed, capacity utilization for refineries on the East Coast has fallen over the past year to low levels.

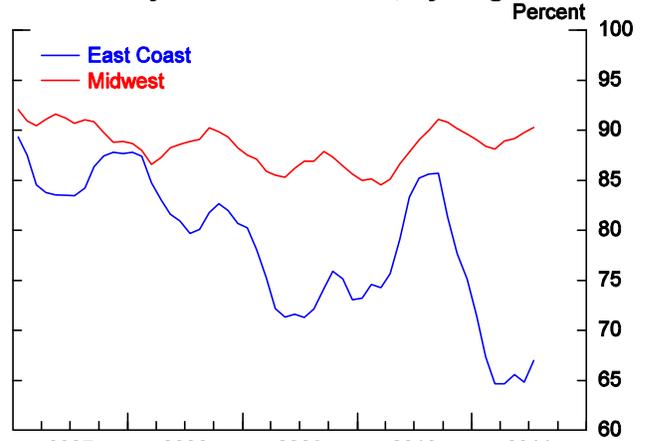
Going forward, we expect the price of seaborne crude oil (including Brent) to decline only slightly over the forecast period (lower-left figure on the facing page). The price of WTI is expected to move up gradually toward Brent's level as improvements in transportation infrastructure reduce the Midwest's relative supply glut by more closely linking landlocked WTI crude to global markets. Accordingly, input costs for noncapacity-constrained refineries outside the Midwest should stay high, and we project that retail gasoline prices will therefore remain in the vicinity of their current levels (lower-right figure on the facing page).

Wholesale Gasoline Margins, by Region



Note: Calculated as wholesale gasoline price minus composite refiner's acquisition cost of crude oil, by region.
Source: Energy Information Administration.

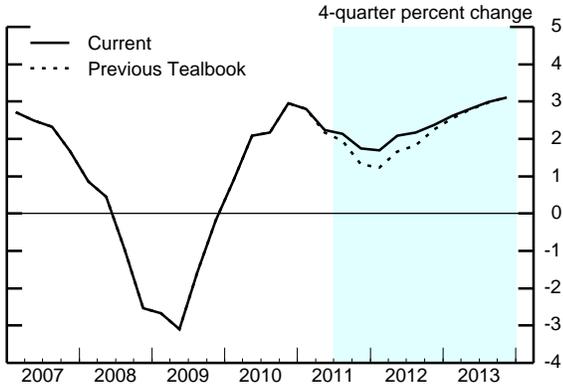
Refinery Utilization Rates, by Region



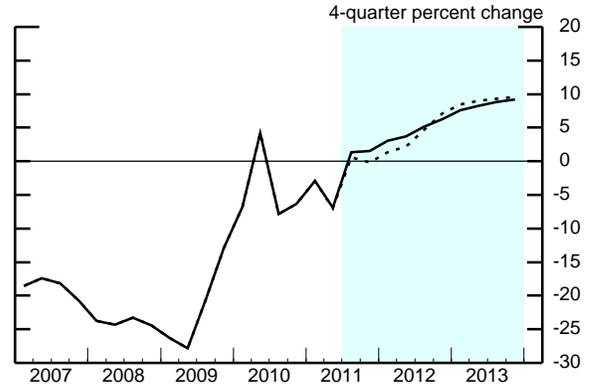
Note: 6-month moving average.
Source: Energy Information Administration.

Components of Final Demand

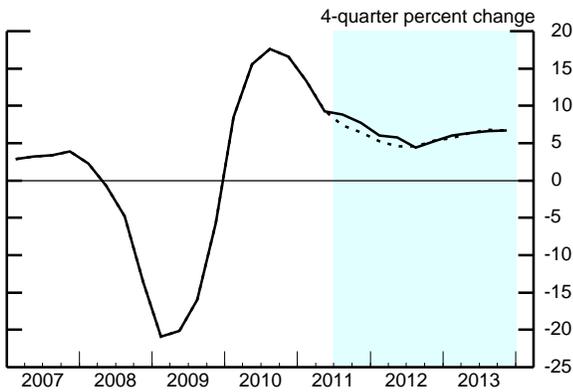
Personal Consumption Expenditures



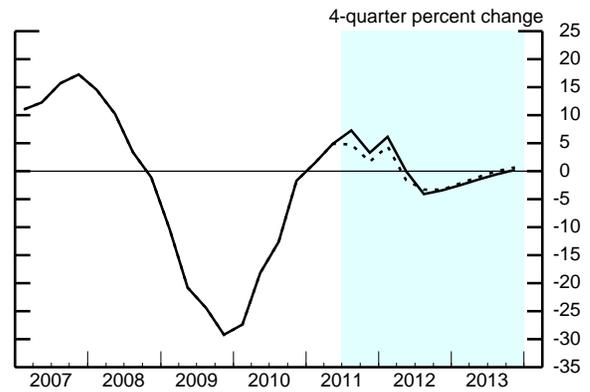
Residential Investment



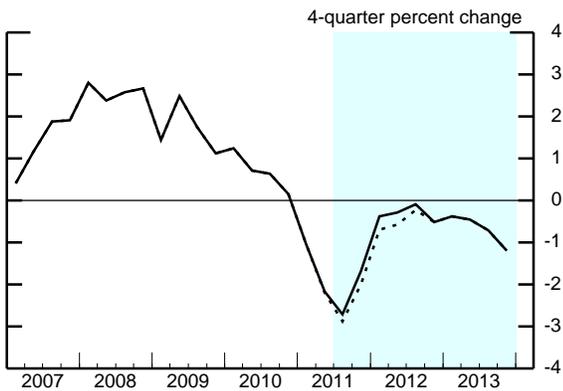
Equipment and Software



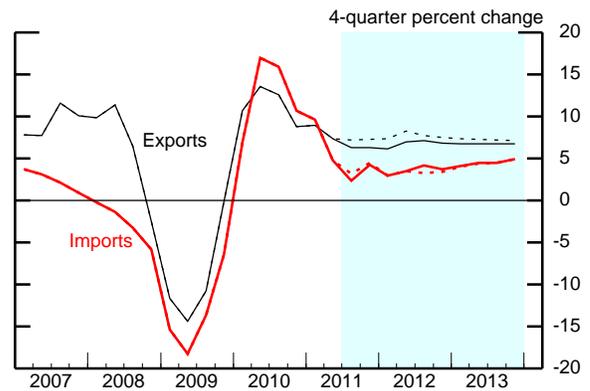
Nonresidential Structures



Government Consumption & Investment



Exports and Imports



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

remain relatively pessimistic in the face of persistently weak employment growth, ongoing turmoil in the financial sector, and unsettling news from Europe.

Consistent with previous projections, we continue to assume the current settings of the monetary policy dials are probably delivering less support for aggregate demand than might be expected based on historical norms. Residential construction provides the clearest example of the phenomenon. As has been the case for some time, the prevalence of underwater mortgages combined with tight lending standards are preventing many households from taking advantage of historically low mortgage rates.⁴ Similarly, tight credit for builders is limiting the supply response to such demand as there may be for new homes. In addition, households' uncertainty about their future income and employment prospects, concerns about the direction of house prices, and the large inventory of vacant single-family homes on the market (which suggests increases in housing demand will be satisfied by existing structures) continue to weigh on housing construction. While we expect the drag from many of these factors to diminish over time, albeit slowly, we do not expect credit conditions to improve materially. As a result, despite the high affordability of housing for many potential buyers, single-family housing starts are projected to move up to an annual rate of 560,000 units by the end of 2013—only 140,000 units higher than recent readings and far below the pace we think is consistent with the longer-run demand for housing.

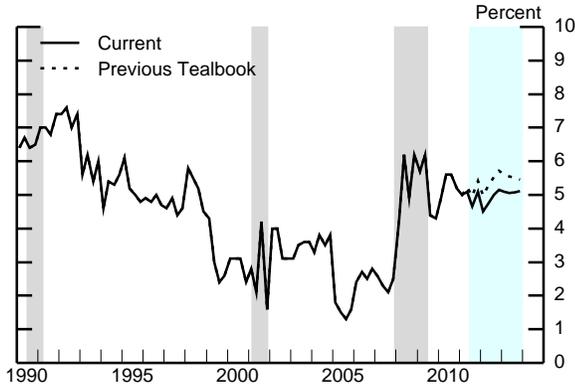
Similarly, we see few prospects for an appreciable gain in business spending on nonresidential structures over the medium term. The headwinds facing this sector—such as high vacancy rates, low property prices, and difficult financing conditions—have not diminished materially, nor do we expect them to do so in coming quarters. Thus, although business spending on structures is reported to have picked up in the middle quarters of this year, we expect spending to resume its downward trajectory in 2012 and then to flatten out at an extremely depressed level through 2013.

We expect the forces that currently are restraining household spending—depressed confidence, poor employment and income expectations, the lingering effects of earlier declines in household wealth, and diminished access to credit—to gradually ease as the economic recovery proceeds. Indeed, access to consumer credit already seems to

⁴ We anticipate that an increase in mortgage refinancing spurred by the recently announced changes to the Home Affordable Refinance Program will add only very slightly to household spending growth over the coming quarters.

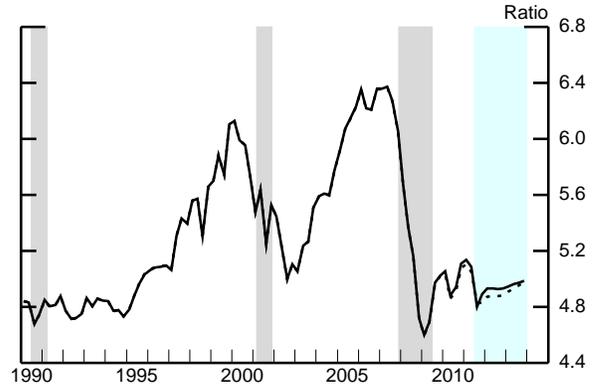
Aspects of the Medium-Term Projection

Personal Saving Rate



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

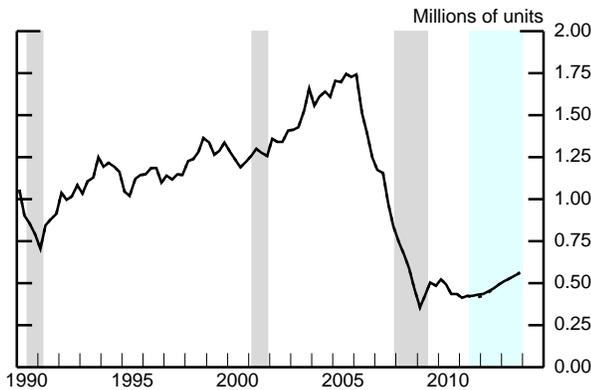
Wealth-to-Income Ratio



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

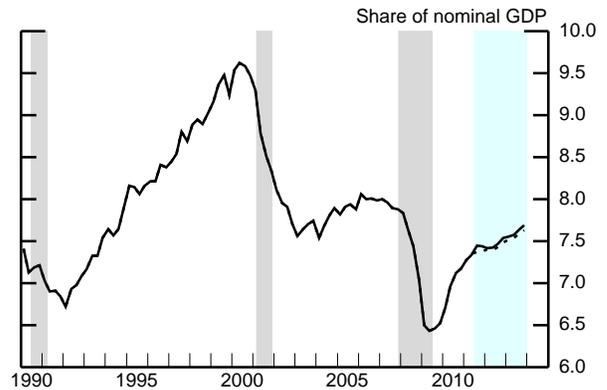
Source: For net worth, Federal Reserve Board, flow of funds data; for income, Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



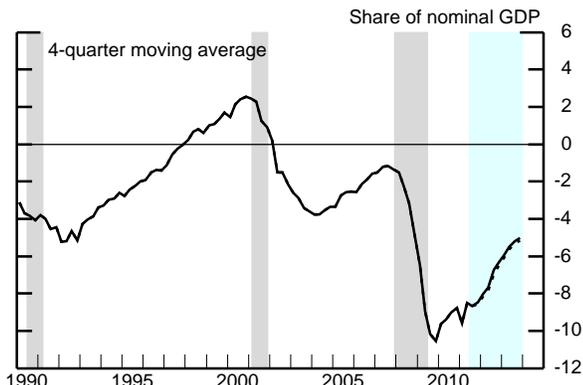
Source: U.S. Census Bureau.

Equipment and Software Spending



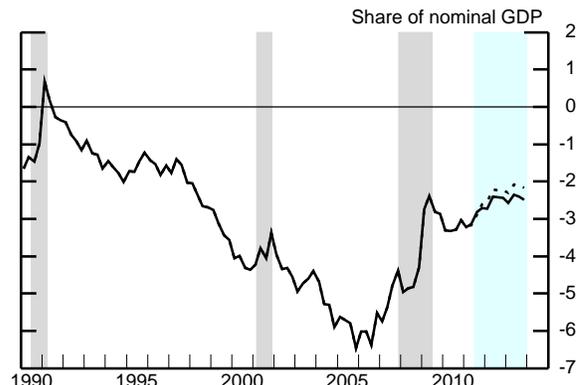
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

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.

be improving—for example, many households are now able to use credit to buy motor vehicles, and credit card solicitations have picked up markedly for those with high credit scores. All told, we expect growth in real PCE to pick up to 2½ percent in 2012 and 3 percent in 2013, about the same as the September forecast and a pace that keeps the saving rate roughly flat over the medium term.

The level of investment in equipment and software has been running only a little above the replacement level and, as a result, the growth rate of the capital stock is quite low by historical standards. Although many firms are flush with cash and have ready access to capital markets, allowing them to take advantage of low interest rates and increase spending for profitable investments, capital expenditures are likely being held back by a heightened degree of uncertainty. However, as the recovery proceeds and uncertainty about its durability diminishes, we expect business confidence will rise and businesses will be more willing to undertake increases in their productive capacity. All told, we anticipate that real outlays for equipment and software will increase 5¼ percent in 2012 and 6¾ percent in 2013.

We also expect continued restraint from the government sector. Given our fiscal assumptions, we anticipate federal purchases to decline modestly in 2012 and then to fall 4 percent in 2013 as discretionary spending is restrained by the caps in the Budget Control Act and spending related to overseas military operations is assumed to decline. With state and local budgets expected to remain tight, purchases by those jurisdictions should be about flat over the course of 2012 and 2013. Our projection for state and local purchases reflects modest increases in tax receipts—limited by the moderate expansion in economic activity and the damping effect of past house price depreciation on property taxes—but also the phasing out of stimulus-related federal payments and restrained levels of regular federal grants.

Finally, although we revised down our forecast for U.S. exports in this projection because of the higher assumed path for the dollar, real exports are nonetheless supported by the downward tilt in the dollar going forward and by continued foreign growth; we expect that real exports will increase 6¾ percent in both 2012 and 2013. Real imports are projected to increase just 3¾ percent in 2012, held back by both the modest gains in activity in the United States and the depreciation of the dollar, before picking up to a 5 percent pace in 2013, as U.S. GDP accelerates. All told, the external sector is projected

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

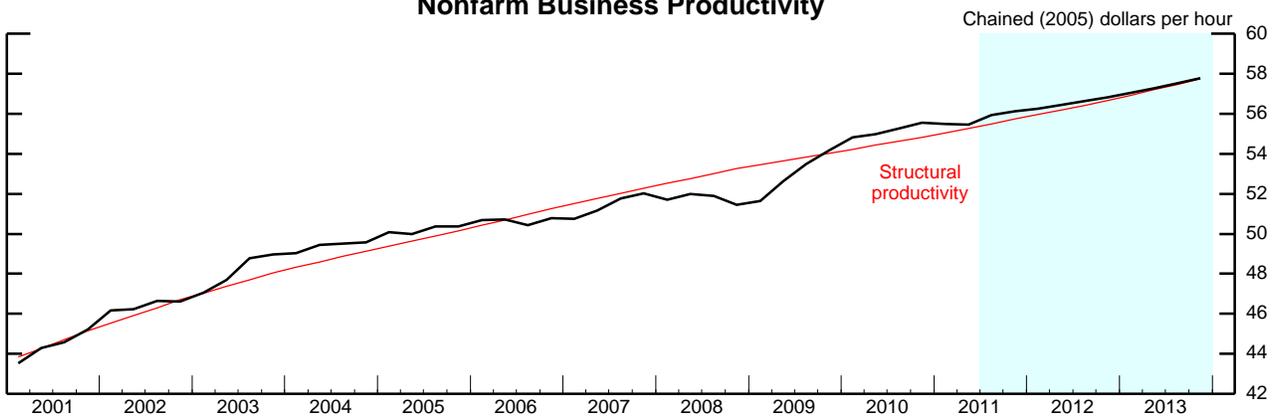
Measure	1974-1995	1996-2000	2001-2009	2010	2011	2012	2013
Potential GDP	3.0	3.5	2.4	1.7	2.1	2.1	2.2
Previous Tealbook	3.0	3.5	2.5	1.7	2.1	2.1	2.2
<i>Selected contributions¹</i>							
Structural labor productivity	1.5	2.7	2.4	1.5	1.7	1.7	1.9
Previous Tealbook	1.5	2.7	2.4	1.5	1.7	1.7	1.9
Capital deepening	.7	1.5	.8	.4	.5	.6	.8
Previous Tealbook	.7	1.5	.8	.4	.6	.6	.8
Multifactor productivity	.5	.9	1.4	1.0	1.0	1.0	1.0
Previous Tealbook	.5	.9	1.4	1.0	1.0	1.0	1.0
Trend 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.

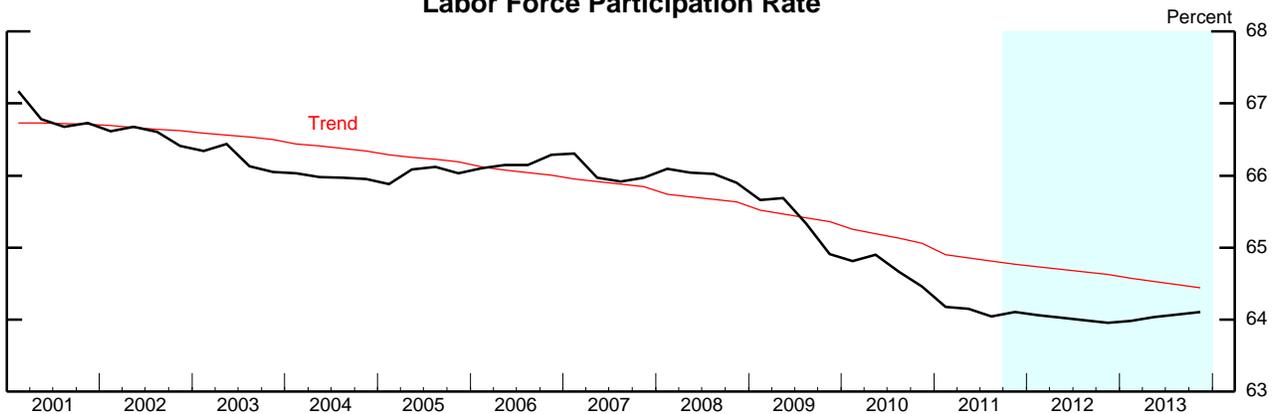
1. Percentage points.

Source: Staff assumptions.

Nonfarm Business Productivity



Labor Force Participation Rate



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

to add ¼ percentage point to GDP growth in 2012 and to make a smaller positive contribution in 2013.

AGGREGATE SUPPLY, THE LABOR MARKET, AND INFLATION

Potential GDP and the NAIRU

Our projections of aggregate supply are largely unchanged from the September Tealbook. We continue to assume that potential GDP will increase about 2 percent in both 2011 and 2012 and then accelerate slightly to 2¼ percent in 2013, as a pickup in the pace of capital deepening boosts structural labor productivity growth a bit. The NAIRU is assumed stay at 6 percent through 2013.⁵

Productivity and the Labor Market

After edging down in the first half of this year, labor productivity seems to have risen briskly in the third quarter. We expect it to increase a bit further this quarter, leaving the level of productivity somewhat above our estimate of its trend. We expect that the gap between actual labor productivity and its structural level will narrow over projection period as increased confidence in the durability of the recovery gradually induces firms to increase their staffing to more sustainable levels. Consequently, the gains in productivity over the next two years are projected to be a bit less than trend.

As the forecast for real GDP growth in 2012 and 2013 is little revised in this projection, so is the path of employment. We expect the pace of employment growth to pick up moderately over the medium term, reflecting the gradual acceleration in output as well as the additional hiring induced by improving business confidence. After averaging monthly gains of about 140,000 this year, private employment is projected to rise about 175,000 per month in 2012 and to quicken to 220,000 per month in 2013. Meanwhile, state and local employment is projected to decline further in 2012, though by less than in recent years, and to rise modestly in 2013, as budget pressures diminish somewhat.

Because employment gains are not much different from the September forecast, the unemployment rate projection is similarly little changed. The jobless rate is expected

⁵ Our estimate of the “effective” NAIRU, which includes the influence of extended and emergency unemployment benefits and is the level of the unemployment rate that we view as being consistent with no slack in resource utilization, is unrevised from the September projection and is about 6½ percent at present. We expect the gap between the effective NAIRU and the traditional NAIRU to essentially disappear by the end of 2012 when the extended and emergency unemployment benefit programs wind down.

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

Measure	2010	2011	2012	2013
Output per hour, nonfarm business	2.5	1.0	1.2	1.7
Previous Tealbook	2.5	.8	1.3	1.8
Nonfarm private employment	.9	1.6	1.8	2.3
Previous Tealbook	.9	1.5	1.8	2.3
Labor force participation rate ¹	64.5	64.1	64.0	64.1
Previous Tealbook	64.5	64.0	63.9	64.0
Civilian unemployment rate ¹	9.6	9.1	8.6	8.1
Previous Tealbook	9.6	9.1	8.7	8.1
Memo: GDP gap ²	-5.6	-6.0	-5.6	-4.7
Previous Tealbook	-5.6	-6.2	-5.8	-4.7

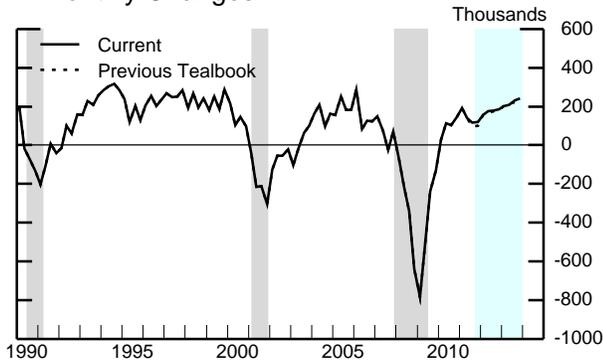
Note: A negative number indicates that the economy is operating below potential.

1. Percent, average for the fourth quarter.

2. Percent difference between actual and potential GDP in the fourth quarter of the year indicated.

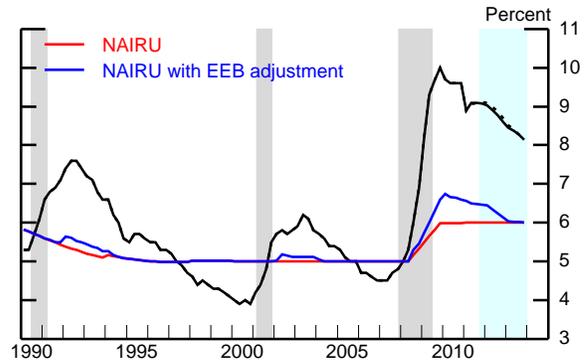
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

Private Payroll Employment, Average Monthly Changes



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

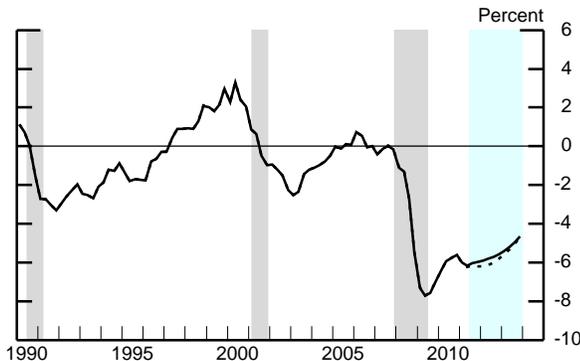
Unemployment Rate



Note: The EEB adjustment is the staff estimate of the effect of extended and emergency unemployment compensation programs on the NAIRU.

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

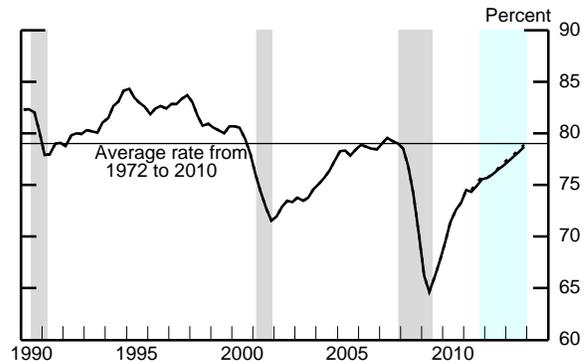
GDP Gap



Note: The GDP gap is the percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.

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

Manufacturing Capacity Utilization Rate



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

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

to edge down to about 8½ percent by the end of 2012, though this decline mainly stems from marginal workers leaving the labor force as extended and emergency unemployment benefits are phased out rather than from a material improvement in labor market conditions. We expect the unemployment rate to fall further in 2013 to about 8 percent, as GDP increases enough to narrow the GDP gap somewhat and the pace of hiring picks up.

Resource Utilization

The modest recoveries in output and employment are expected to whittle away only very slowly at the currently high margins of economic slack. The level of real GDP is expected to be nearly 6 percent below its potential level at the end of this year and still to be 4¾ percent below potential at the end of 2013. The unemployment rate gap closes similarly slowly: The jobless rate in the fourth quarter of this year is expected to be 2½ percentage points above our estimate of the effective NAIRU, and the gap is still 2 percentage points at the end of 2013. This extended period of labor market slack is likely to be associated with a continuation of other adverse aspects of the labor market seen during this episode, including below-trend labor force participation, a high percentage of workers who are involuntarily on part-time schedules, and an unusually large concentration of workers experiencing long-duration unemployment spells.

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

Prices and Compensation

Our current forecast for core PCE inflation over the four quarters of 2011—at 1¾ percent—is about the same as in the September Tealbook. Nonetheless, it is about ¾ percentage point above our forecast as of the beginning of this year. About one-half of this upward revision reflects changes in our conditioning assumptions, including unexpected increases in energy prices and import prices. In the baseline, we assume that the bulk of the remainder of the surprise owes to the pass-through to core prices from the sharp run-up in commodity prices having been greater than we expected as of a year ago.

Consistent with that hypothesis, upward revisions to our forecast for inflation of core goods prices—that is, the prices that are more likely to be affected by changes in commodity and import prices—account for more than one-half of the cumulative upward revision to overall core PCE inflation this year despite the fact that core goods account for only one-fourth of the core PCE price index. Thus, we continue to expect the downturn in commodity prices to show through to core prices in coming quarters.

Another possibility for the sequential upward revisions in our inflation forecast is that the margin of slack in resource utilization is narrower than we have assumed and so is putting less downward pressure on inflation than we had expected. However, the various labor market indicators that we reference while assessing our assumption for the NAIRU—such as the rate of permanent job loss, shifts in the Beveridge curve, and unemployment-to-employment transition rates—do not suggest a higher NAIRU than we have assumed. Nonetheless, we could be wrong about the NAIRU; we explore the implications of that possibility in an alternative scenario in the Risks and Uncertainty section.

The influence of the downturn in commodity prices in the middle of the year can be readily seen in the price index for core intermediate goods, which decelerated from an annual rate of increase of 8 percent in the three months ending in June to just 1 percent in the three months ending in September. The influence of commodity prices is also evident in the price index for core imports, which excludes fuels but includes many other raw commodities and goods at intermediate stages of production. Prices of imported core goods are estimated to have decelerated to an annual rate of less than 3 percent in the third quarter after increasing at a rate of nearly 8 percent in the first half of the year. Moreover, factoring in more-recent declines in nonfuel commodity prices and the recent appreciation of the dollar, we expect that core import prices will be about flat in the current quarter and in the first quarter of next year. Over the remainder of the projection period, core import price inflation is expected to run at about a 1¾ percent pace as commodity prices remain relatively flat and the dollar depreciates only modestly.

Various indicators suggest inflation expectations remain subdued. In particular, median 5- to 10-year-ahead expected inflation in the preliminary Michigan survey in October was 2.7 percent, down 0.2 percentage point from the September reading and at the lower end of the range seen over the past several years. The TIPS-based measures of

inflation compensation are little changed since the September Tealbook and are near the low end of their ranges over the past year.

Putting it all together, the medium-term projection for core inflation is little revised in this forecast. As noted above, the transitory pressures that have boosted inflation this year—namely, the pass through of earlier increases in commodity, import, and energy prices—are expected to fade in coming quarters. In addition, the ongoing wide margin of slack should continue to limit upward pressures on prices in an environment in which inflation expectations remain stable. All told, we expect core inflation to decrease from 1¾ percent this year to 1½ percent next year and to move down slightly further in 2013. With energy prices expected to be about flat next year, total PCE inflation is expected to be a little below core inflation in 2012 and then to run at about the same pace as core inflation in 2013.

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

THE LONG-TERM OUTLOOK

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

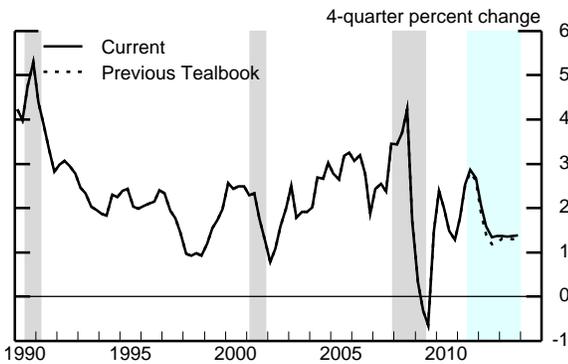
- Monetary policy aims to stabilize PCE inflation at 2 percent in the long run, consistent with the majority of longer-term inflation projections provided by FOMC participants at the June meeting.
- The Federal Reserve's holdings of securities follow the baseline portfolio projections reported in Book 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.

Inflation Projections (Percent change, Q4 to Q4)

Measure	2010	2011	2012	2013
PCE chain-weighted price index	1.3	2.7	1.4	1.4
Previous Tealbook	1.3	2.6	1.2	1.3
Food and beverages	1.3	5.3	1.2	1.2
Previous Tealbook	1.3	4.6	1.4	1.4
Energy	6.2	12.1	-4	1.2
Previous Tealbook	6.2	11.6	-3.1	.6
Excluding food and energy	1.0	1.8	1.5	1.4
Previous Tealbook	1.0	1.9	1.5	1.3
Prices of core goods imports ¹	2.6	4.4	1.2	1.7
Previous Tealbook	2.6	4.8	1.4	1.5

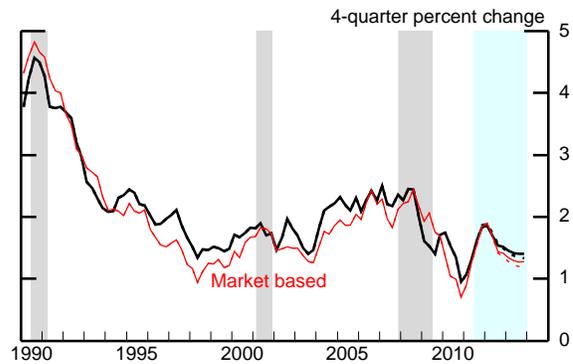
1. Core goods imports exclude computers, semiconductors, oil, and natural gas.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Total PCE Prices



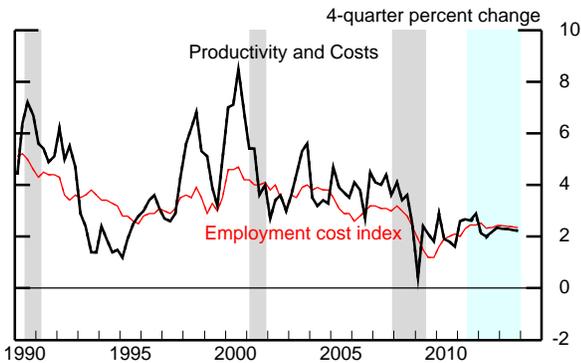
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

PCE Prices ex. Food and Energy



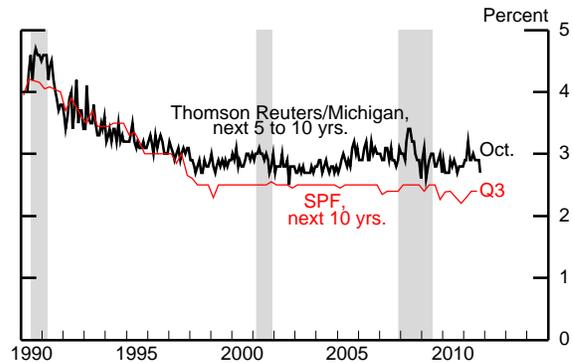
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Compensation per Hour



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

Long-Term Inflation Expectations



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

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

- Risk premiums on corporate equities and bonds decline gradually to normal levels, and banks ease their lending standards somewhat further.
- The federal government budget deficit (NIPA basis) narrows from 5 percent of GDP in 2013 to about 4 percent of GDP in 2016. This narrowing reflects both the effects of the economic recovery on tax receipts and budgetary restraint consistent with the Budget Control Act that was passed during the summer.
- The real foreign exchange value of the dollar is assumed to decline 1½ percent per year from 2014 to 2016. The price of WTI crude oil is roughly flat at around \$95 per barrel during the extension period. Foreign real GDP expands, on average, 3½ percent per year from 2014 through 2016, slightly above its trend rate.
- The NAIRU declines from 6 percent in late 2013 to 5¼ percent in late 2016 as the functioning of the labor market gradually improves. Potential GDP expands 2½ percent per year on average from 2014 to 2016.

The economy enters 2014 with output still considerably below its potential, the unemployment rate well above the projected NAIRU, and inflation below the assumed objective. In the long-run forecast, improving confidence, diminishing uncertainty, and supportive financial conditions enable real GDP to rise at an average annual rate of 3¾ percent from 2014 to 2016. With actual output expanding faster than potential, labor market conditions improve; nevertheless, the unemployment rate, at 6 percent at the end of 2016, is still ¾ percentage point above the assumed NAIRU. With downward pressures from slack on unit labor costs gradually abating after 2013, inflation edges up to 1.6 percent by 2016.

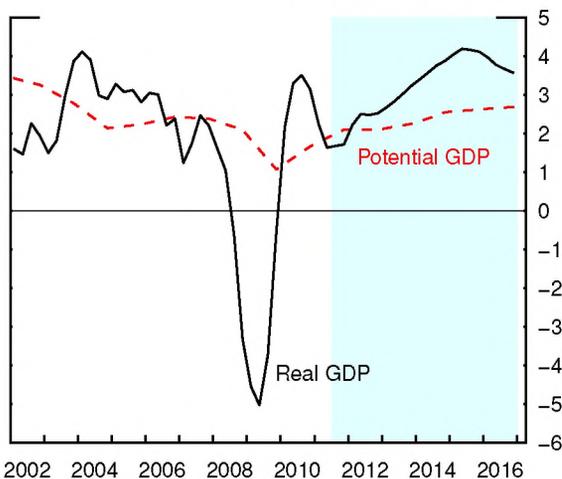
The Long-Term Outlook

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

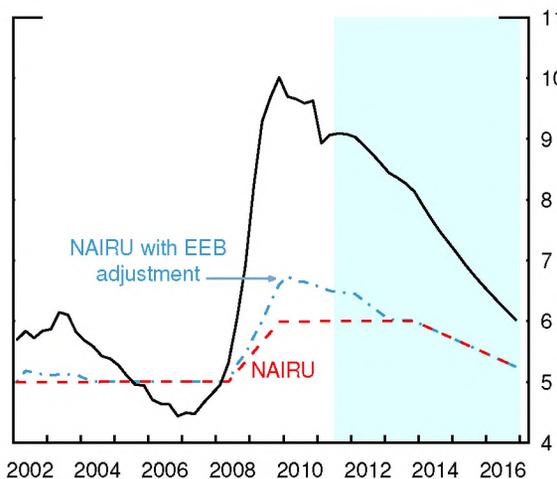
Item	2011	2012	2013	2014	2015	2016
Real GDP	1.7	2.5	3.2	3.9	4.1	3.6
Civilian unemployment rate ¹	9.1	8.6	8.1	7.3	6.6	6.0
PCE prices, total	2.7	1.4	1.4	1.5	1.5	1.6
Core PCE prices	1.8	1.5	1.4	1.4	1.5	1.6
Federal funds rate ¹	.1	.1	.1	.6	2.0	2.9
10-year Treasury yield ¹	2.3	3.2	3.8	4.0	4.3	4.4

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

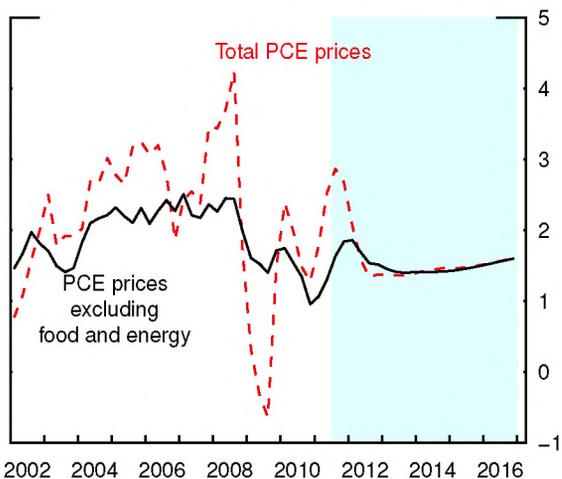
Real GDP
4-quarter percent change



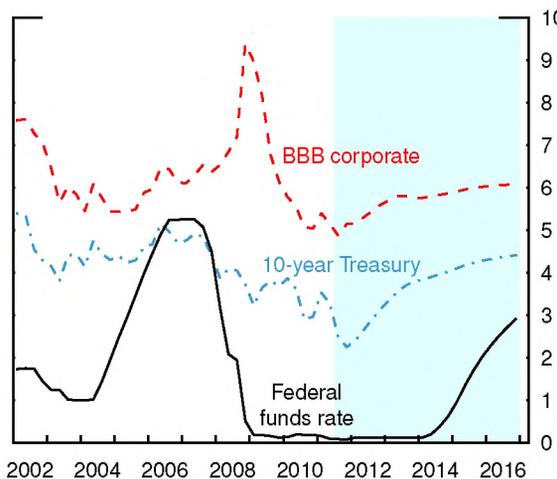
Unemployment Rate
Percent



PCE Prices
4-quarter percent change



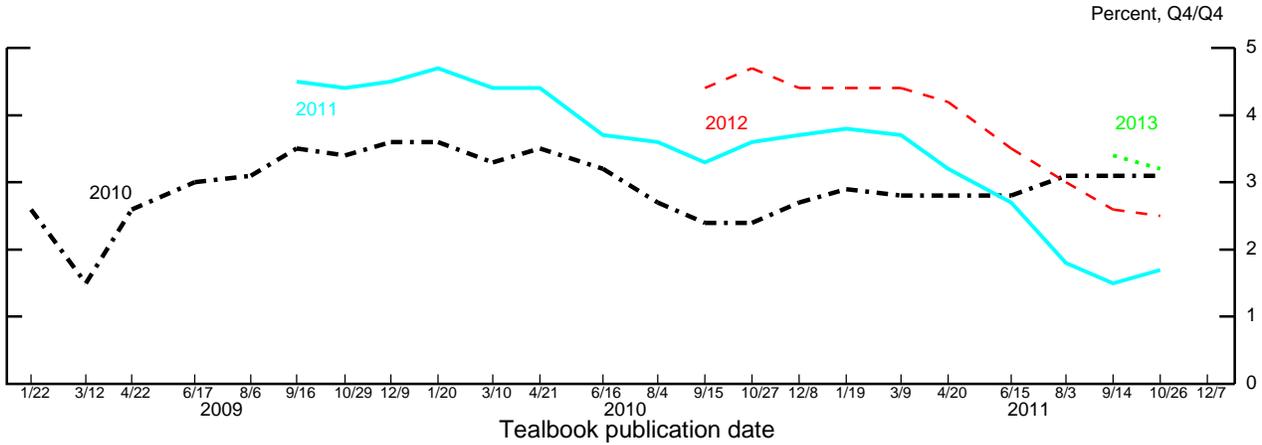
Interest Rates
Percent



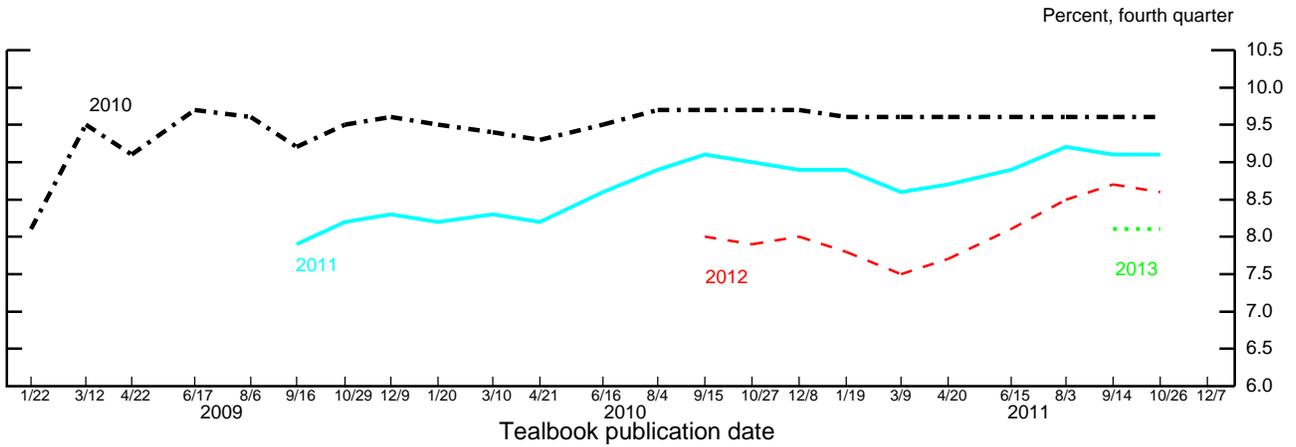
Note: In each panel, shading represents the projection period.

Evolution of the Staff Forecast

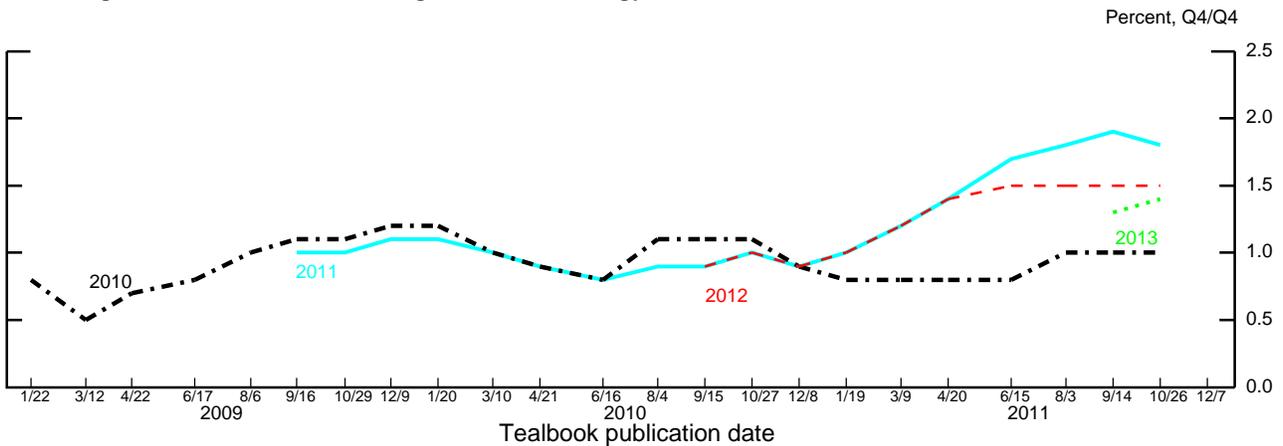
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy*



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

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International Economic Developments and Outlook

Foreign economic growth is estimated to have picked up by more than 1 percentage point to just over 3½ percent in the third quarter, in line with our expectations and largely reflecting the fading of the disruptions to production and supply chains that followed the Japanese disaster. However, recent data suggest that the underlying pace of expansion remains subdued, and with the effect of the bounceback diminishing, we see foreign GDP growth slackening to 2¾ percent in the current quarter, down about ¼ percentage point from the September Tealbook.

The downward revision has been most pronounced for the euro area, where economic activity is being hurt by fiscal consolidation, volatile financial conditions, and declining consumer and business confidence. We continue to assume that European authorities will reach agreement on measures to avert a full-blown financial crisis, but even so, financial and economic conditions in the region probably will remain strained for some time. The weakness in the European economies, along with modest GDP growth in the United States, is likely to constrain activity in other advanced foreign economies (AFEs) as well as in emerging market economies (EMEs). We expect foreign growth to average around 3 percent next year, and then to pick up to nearly 3½ percent in 2013, as financial stresses abate and the U.S. economy improves. This outlook is a little lower than in the previous Tealbook.

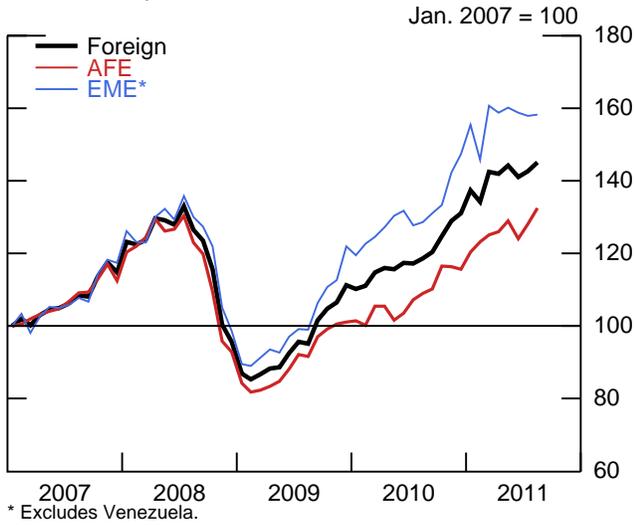
Foreign inflation remains contained, although recent rates in the advanced economies have not declined quite as much as we had expected, as the boost from previous energy price increases is fading more slowly than anticipated. We continue to expect inflation abroad to average a bit below 2½ percent over the next two years, down from 3¼ percent this year, as pressure from earlier run-ups in commodity prices diminishes and resource slack persists. Some central banks in advanced economies loosened policy during the intermeeting period, and we expect some further easing going forward. In EMEs, a few central banks have begun to ease policy in response to concerns about weakening external demand.

The outlook, especially for Europe, remains highly uncertain as we await the results of today's (October 26) summit of European leaders. These officials continue to wrestle with the terms of a Greek debt restructuring, the recapitalization of European

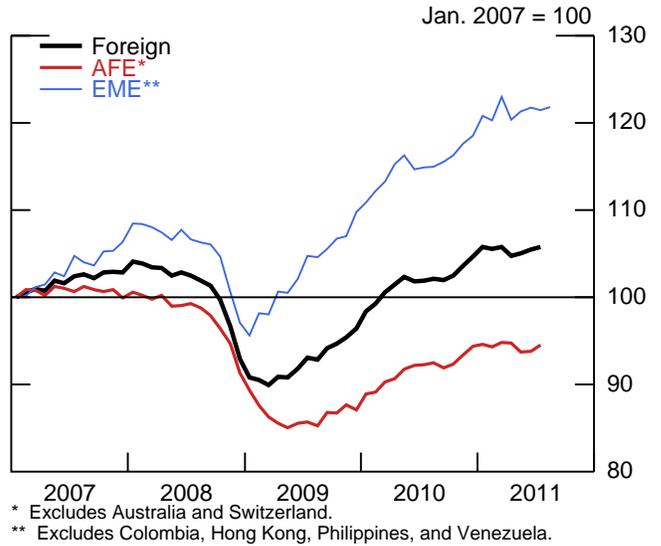
Recent Foreign Indicators

Int'l Econ Devel & Outlook

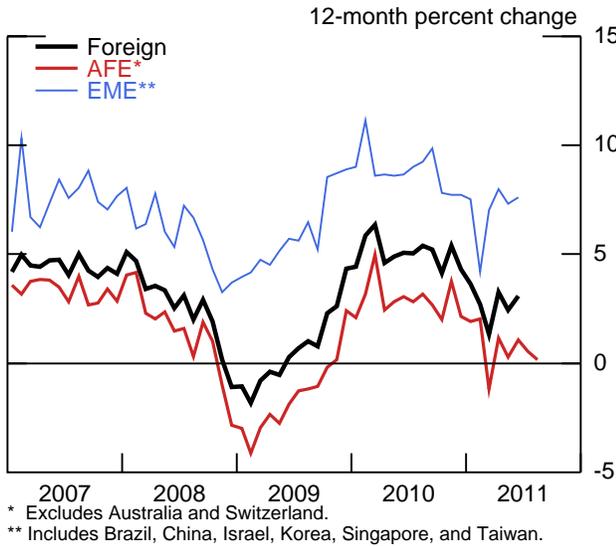
Nominal Exports



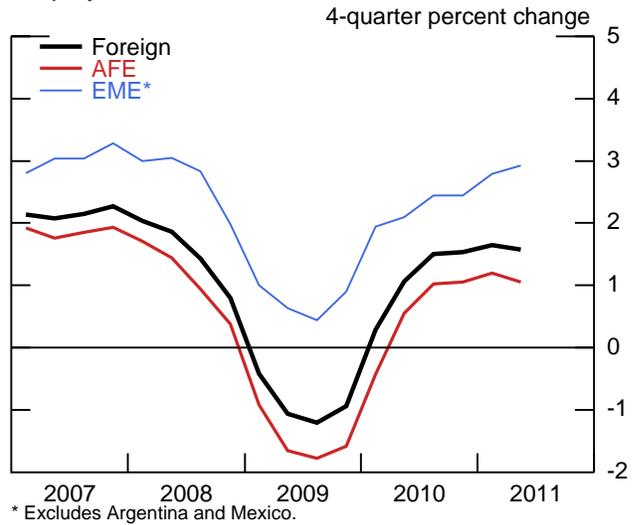
Industrial Production



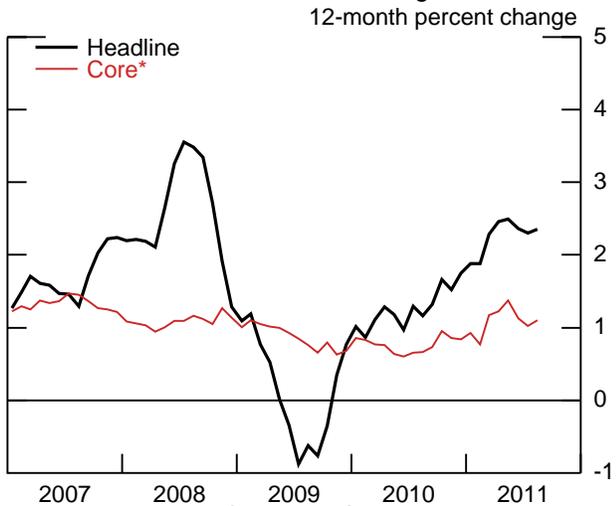
Retail Sales



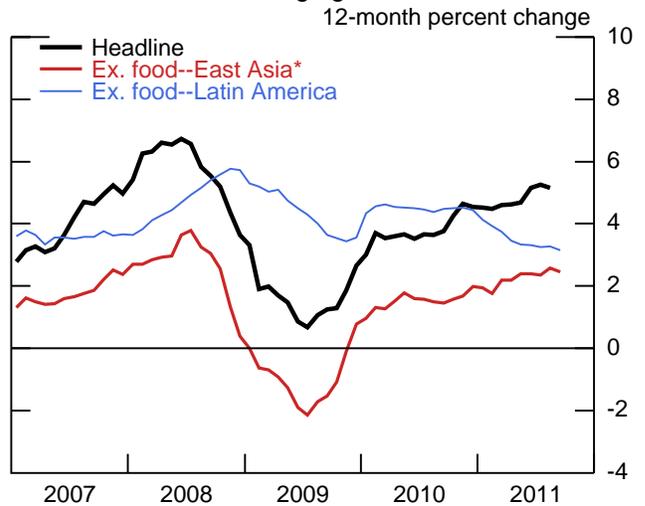
Employment



Consumer Prices: Advanced Foreign Economies



Consumer Prices: Emerging Market Economies



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

The Foreign Outlook

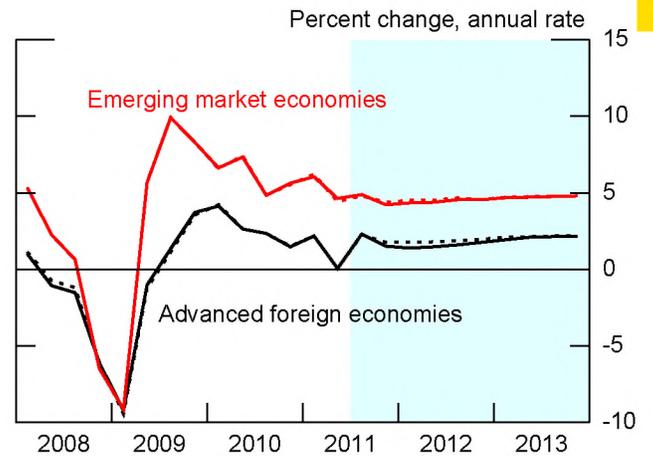
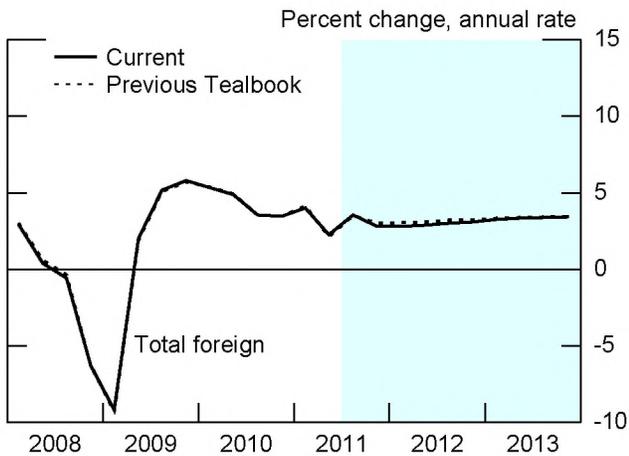
(Percent change, annual rate)

	2010	2011				2012	2013
		Q1	Q2	Q3	Q4		
Real GDP							
Total foreign	4.3	4.0	2.3	3.6	2.8	3.0	3.4
Previous Tealbook	4.3	4.1	2.2	3.5	3.0	3.2	3.4
Advanced foreign economies	2.7	2.2	.1	2.3	1.5	1.6	2.1
Previous Tealbook	2.7	2.2	.1	2.3	1.8	1.9	2.2
Emerging market economies	6.1	6.0	4.7	4.9	4.2	4.5	4.8
Previous Tealbook	6.1	6.2	4.4	4.8	4.4	4.6	4.8
Consumer Prices							
Total foreign	3.2	4.3	3.2	3.1	2.7	2.3	2.4
Previous Tealbook	3.2	4.3	3.2	2.9	2.2	2.3	2.4
Advanced foreign economies	1.7	3.2	2.1	1.1	1.7	1.2	1.5
Previous Tealbook	1.7	3.3	2.1	.8	1.3	1.3	1.4
Emerging market economies	4.4	5.1	4.0	4.7	3.6	3.2	3.2
Previous Tealbook	4.4	5.1	4.0	4.6	2.8	3.2	3.1

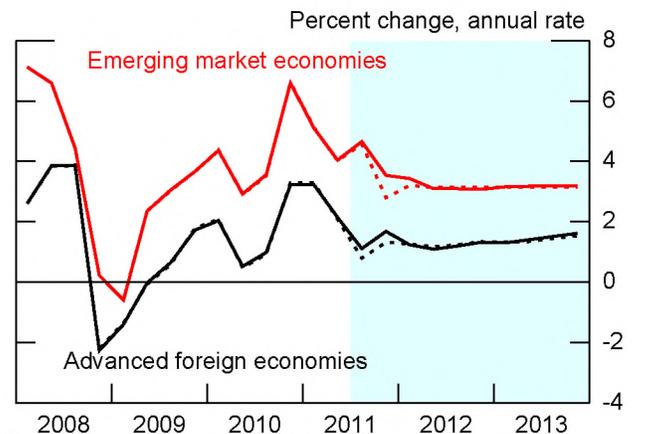
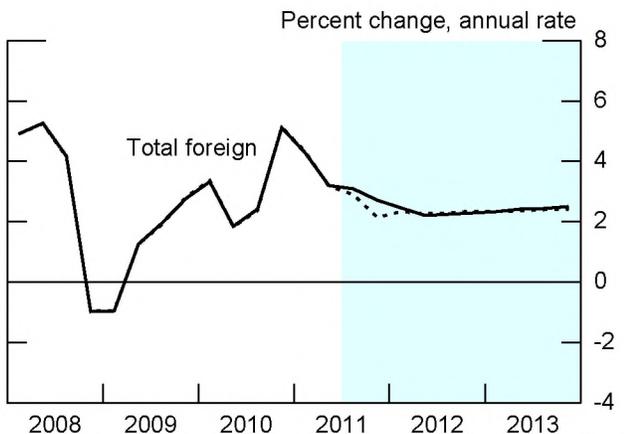
Note: Annualized percent change from final quarter of preceding period to final quarter of period indicated.

Int'l Econ Devel & Outlook

Real GDP



Consumer Prices



banks, and the especially difficult issue of how to provide a credible backstop for the larger vulnerable economies. (See the box “Recent Policy Developments in the Euro Area” for additional information). In the absence of an overarching solution to the region’s fiscal problems, any number of shocks could trigger a financial crisis of sufficient intensity to plunge economies throughout the world into recession. (See the “European Crisis with Severe Spillovers” scenario in the Risks and Uncertainty section.)

ADVANCED FOREIGN ECONOMIES

We estimate that real GDP growth in the AFEs rebounded from near zero in the second quarter to about 2¼ percent in the third quarter, as supply chain disruptions from the Japanese earthquake were largely resolved. However, weak recent indicators suggest that growth will step back down to a 1½ percent pace in the fourth quarter. We expect growth to remain around that rate in 2012 and to pick up to just above 2 percent in 2013, a somewhat weaker outlook than in the September Tealbook.

The largest downward revision has been for the euro area, reflecting both recent disappointing data as well as indications that banks are tightening lending standards. We now expect economic activity in the euro area to contract slightly this quarter and next, and we see a greater risk that lackluster growth in the United Kingdom also could turn into a recession. Elsewhere, the story is less bleak, and we have revised up our near-term outlook for economic activity in Canada, partly in response to a surprisingly resilient labor market. The Japanese economy appears to have rebounded sharply in the third quarter, but we expect growth to return to a more subdued pace in the current quarter.

AFE inflation declined from a recent peak of 3¼ percent in the first quarter to just above 1 percent in the third quarter. This pace was a little higher than we had expected, as retail energy prices have fallen less quickly than anticipated. With flat commodity prices and substantial output gaps, AFE inflation should remain subdued over the remainder of the forecast period. Faced with elevated financial stresses and a soft outlook, the European Central Bank (ECB) announced a series of measures to boost liquidity and the Bank of England (BOE) expanded the size of its quantitative easing program. We expect both central banks to ease monetary policy further over the coming year.

Euro Area

The fiscal and financial turmoil in the euro area remains the most important influence on the outlook both in Europe and beyond. Our baseline still assumes that European policymakers will avert a wider financial crisis, although there is a substantial risk that they will miscalculate and do too little, too late. In any case, we continue to expect financial conditions to remain strained for quite some time.

We estimate that real GDP rose only about 1 percent in the third quarter, as industrial production picked up in July and August but consumption indicators continued to disappoint and labor market conditions remained poor. Recent indicators suggest that growth will be much weaker this quarter. Business and consumer confidence declined sharply for the third consecutive month in September, while the composite PMI entered contractionary territory in September and fell further in October. Moreover, according to the ECB's latest bank lending survey, euro-area banks have reduced credit availability as funding pressures have increased. In response to the worsening conditions, we marked down euro-area output growth a full percentage point over the next three quarters and somewhat less over the rest of the forecast period. We now expect GDP to contract slightly in the current quarter and next before edging up to an anemic 1½ percent pace in 2013 as financial stresses gradually diminish.

Twelve-month euro-area inflation rose to 3 percent in September, although third-quarter inflation at an annual rate dropped to about 1¼ percent. However, the latter rate was somewhat higher than in the September Tealbook, as recent declines in energy prices have passed through to the consumer level somewhat more slowly than we had expected. Amid sizable resource slack, we expect inflation to remain near that rate in 2012 and to pick up to 1¾ percent in 2013. The ECB did not cut rates at its October meeting, but it announced a series of measures to provide liquidity, including a €40 billion covered bond purchase program and 12-month refinancing operations in October and December. Given the weaker outlook for growth and inflation, we now expect the ECB to cut its main refinancing rate 50 basis points by early 2012 to 1 percent.

Japan

Real GDP snapped back in the third quarter, rising at an estimated 6¾ percent rate, as a faster-than-expected resolution of supply chain disruptions led to a surge in exports. However, more-recent data suggest that the recovery lost some momentum toward the end of the summer. In September, auto registrations tumbled after rebounding

Recent Policy Developments in the Euro Area

Over the intermeeting period, European leaders intensified their efforts to find a comprehensive solution to the fiscal and financial stresses plaguing the euro area. A long-delayed aid disbursement to Greece was approved by European leaders, and national parliaments fully ratified increases in the effective capacity and flexibility of the euro-area financial backstop, the European Financial Stability Facility (EFSF), that leaders had negotiated in July. In addition, policymakers focused on making progress on three issues: restructuring Greece's debt to pave the way for a second loan package, shoring up European banks against losses on sovereign holdings, and building a larger financial backstop for the other vulnerable euro-area countries. Although acknowledging the urgency of the situation, policymakers have had difficulty coalescing around solutions. Leaders of the European Union (EU) are meeting today (October 26) and have made early announcements about plans to shore up European banks. Additional decisions regarding Greece's debt and the financial backstop are expected later today.

EU leaders recently approved their part of an €8 billion disbursement to Greece from its original EU-IMF loan package, which should enable the country to avoid near-term default, but if Greece is to meet its sizable debt service obligations going forward, agreement is urgently needed on the enhanced EU-IMF loan package announced by leaders in July. Complicating matters, disappointing growth and fiscal performance since July suggest that Greece's prospects for repaying its debt have deteriorated, increasing the need for more aggressive debt restructuring than was proposed in the summer. Recognizing this need, euro-area leaders are now in discussions with private creditors over larger "haircuts" on private creditors' claims than the 21 percent envisaged in the summer, possibly as high as 50 to 60 percent. These negotiations have reportedly been tense, and it is unclear whether a haircut of this size could be structured to avoid a credit event.

Larger haircuts would reduce Greece's crushing debt burden, but would also put further pressure on Europe's already beleaguered banks and raise the risk of contagion to other vulnerable sovereigns. In response, euro-area leaders have taken steps to address the loss of confidence in the European banking sector, including providing more details today on recapitalization plans. In July, the European Banking Authority's (EBA) 2011 stress tests—which were based on a core Tier 1 capital ratio benchmark of 5 percent and did not severely stress banks'

sovereign exposures—identified a total capital shortfall of only €2.5 billion. The EBA is conducting a follow-up review of banks' capital needs using a higher 9 percent core Tier 1 capital ratio benchmark and writing down exposures to stressed sovereigns based on market values on September 30, 2011. Most market estimates of the capital shortfall range from €100 billion to €200 billion, with indications that the EBA figure is likely to be toward the bottom of that range. Once the EBA has made its assessments, EU leaders announced today that banks will be given until the end of June 2012 to raise capital privately, after which national governments will be called upon to inject funds into them, financed by the EFSF, if necessary. In addition, European leaders agreed on the need for coordinated guarantees of bank liabilities to reduce banks' considerable funding risk in the current fragile financial environment.

Euro-area leaders are also working on constructing a more credible firewall for the larger vulnerable countries. The recently ratified changes to the EFSF increase its effective lending capacity to €440 billion. However, this capacity falls well short of market estimates of the figure needed to backstop Spain and Italy should they come under funding pressure. Given political opposition within northern European countries to further increasing the size of the EFSF, European leaders have considered a range of strategies to leverage existing EFSF funds to channel a much larger amount of financing to vulnerable governments. Leaders reportedly are supporting two options, one in which the EFSF bonds would be lent to collateralize guarantees of newly issued sovereign debt and another where the EFSF would provide capital for a special purpose vehicle designed to combine private and public funds to purchase sovereign debt. However, challenging legal and technical issues remain unresolved, and it is uncertain that these partial guarantees will be sufficient to convincingly backstop the vulnerable countries.

through August, and the manufacturing PMI fell into contractionary territory for the first time since March. In addition, a third supplementary budget, which is needed to fund reconstruction activities, has been delayed. All told, we have lowered our projection for fourth-quarter GDP growth by more than 1 percentage point to 2¼ percent. GDP growth is expected to average 2 percent in 2012, supported by reconstruction activity, and then to slow to 1½ percent in 2013.

We estimate that quarterly inflation turned slightly positive in the third quarter. However, the increase in prices was led by a temporary jump in food prices, while core prices, excluding all food and energy items, edged down. Accordingly, we project deflation to resume in the current quarter and to persist at a rate of negative ¼ percent through 2013. We continue to expect the Bank of Japan to keep policy on hold over the forecast period.

Canada

We estimate that Canadian GDP is rebounding a bit more strongly from its second-quarter slump than we had anticipated. The PMI for manufacturing ticked up to a solid 55 in September, and trade data point to a large contribution to GDP growth from exports in the third quarter. Moreover, the labor market appears especially robust, with full-time employment advancing through September. All told, we see Canadian GDP growth registering 2½ percent in the second half of this year before slowing to 2¼ percent on average in 2012 and 2013.

Inflation dipped to 1 percent in the third quarter, from an average of 3¼ percent in the first half of the year, reflecting both declines in energy prices and a transitory plunge in car prices. Going forward, inflation should bounce back to around 2 percent. We continue to expect the Bank of Canada to maintain its main policy rate at 1 percent through early 2013.

United Kingdom

Recent revisions to the U.K. national accounts showed that the economy expanded at a meager 1 percent pace in the first half of 2011, as consumption contracted while investment remained close to its recession trough. Although much of that weakness reflected temporary factors, notably the Royal Wedding holiday and parts shortages at automobile plants, recent indicators show little evidence of a bounceback in activity. The composite PMI stood barely above 50 in September, and average

employment from June to August fell more than ½ percent relative to the previous three-month period. In response to these data and the weaker euro-area outlook, we have lowered our forecast for the second half of 2011 more than ½ percentage point, to 1¼ percent.

Growth is projected to pick up to 1¾ percent in 2012 and to 2½ percent in 2013, supported by additional monetary easing. Faced with renewed financial stresses and a deteriorating outlook, the BOE announced a £75 billion (5 percent of GDP) expansion of its quantitative easing program in early October that will bring total asset holdings to £275 billion (19 percent of GDP) upon its completion in early February 2012. We believe the BOE is likely to boost asset purchases by another £50 billion by the middle of 2012 and keep the Bank Rate at 50 basis points over the forecast horizon.

The BOE's decision to implement further quantitative easing was made even though U.K. inflation is running well above the BOE's 2 percent target; 12-month headline inflation rose to 5.2 percent in September due to sharp hikes in electricity and gas tariffs. On a quarter-to-quarter basis, we expect inflation to move down from 3¼ percent at an annual rate in the third quarter to near 2 percent in 2012 and 2013 as energy prices flatten out and resource slack remains substantial.

EMERGING MARKET ECONOMIES

In the EMEs, we estimate that aggregate real GDP growth stepped up to nearly 5 percent in the third quarter, about unchanged from the September Tealbook projection, as stronger-than-expected economic growth in China was offset by weaker activity in some other countries. Although the underlying pace of expansion in the EMEs appears to have slowed from above-trend rates, we project that real GDP will rise at a rate of about 4¼ percent in the current quarter and about 4½ percent next year. Slower economic growth in the advanced economies likely will continue to weigh on external demand, but the EMEs appear to still have significant momentum in their domestic spending. By 2013, firming recovery in the advanced economies should help economic growth in the EMEs step up to a trend-like pace of 4¾ percent. The forecast over the next several quarters is revised down a little from the previous Tealbook, owing to weaker external demand.

Headline inflation in the EMEs came in at an annual rate of 4¾ percent in the third quarter, about as projected in the September Tealbook. We expect inflation to fall

to 3½ percent in the current quarter as supply-related spikes in food prices unwind and to step down further to about 3¼ percent over the next two years. The moderation of inflation in recent months, along with greater uncertainty about global economic prospects, has prompted some central banks (for example, Brazil, Indonesia, and Singapore) to loosen policy.

Heightened concerns over risks in the global economy and financial markets have led to sharp pullbacks from EME assets, as evidenced by large capital outflows from EME-dedicated investor funds. These pullbacks have raised concerns about funding and financial stability and also have put significant downward pressure on some EME exchange rates. In response, a number of countries intervened in the foreign exchange markets in September to support the value of their currencies. Lately, however, these pressures appear to have abated as global investor sentiment has improved a bit.

China

Chinese real GDP expanded at an annual rate of 9½ percent in the third quarter, about 1½ percentage points higher than anticipated in the September Tealbook. Domestic demand remains robust, with real retail sales up more than 10 percent from a year earlier and fixed-asset investment posting 25 percent growth. In contrast, exports fell modestly while imports rose, resulting in a narrowing of the trade surplus in the third quarter. Recent data suggest that Chinese domestic demand is stronger than we previously thought, but weaker prospects for Europe are expected to have a restraining effect on external demand. Balancing these competing forces, our forecast for Chinese GDP growth for the current quarter is a bit stronger at 8½ percent and for the remainder of the forecast period is little changed at about 8¼ percent.

Chinese headline consumer price inflation moved a bit higher in the third quarter to an annual rate of 6¼ percent, largely as a result of supply-related increases in food prices. As these pressures abate, inflation should fall to just over 3 percent in the current quarter and average a bit under 3 percent over the next two years.

On October 11, the U.S. Senate passed the Currency Exchange Rate Oversight Reform Act of 2011, which calls for specific actions to be taken by the U.S. government against countries that are found to keep their currencies persistently undervalued. The bill has not come up for a vote in the House. At this point, we do not expect these developments to have a material effect on the outlook for Chinese exchange rates. We

continue to project a gradual appreciation of the renminbi both against the dollar and on a real trade-weighted basis over the forecast period.

Other Emerging Asia

Elsewhere in emerging Asia, we estimate that the pace of economic activity picked up in the third quarter to 4½ percent, supported by a boost from Japan's recovery, including the restoration of supply chains. This estimate is down a bit from the previous Tealbook projection; recent data on exports and industrial production were surprisingly strong for some countries, including Korea and Thailand, but in other countries, notably Taiwan and Singapore, data surprised on the downside. As the boost from Japan's recovery wanes, the region's economic growth is projected to fall back to 3½ percent in the current quarter, before rising gradually to nearly 5 percent by the end of 2013. This projection is down a little from the September Tealbook, reflecting in part more pronounced weakness in Europe.

Inflation in the region has dropped back appreciably from a peak near 7 percent in the first quarter of this year to an annual rate of 3½ percent in the third quarter. We expect it to remain around that pace in the current quarter and to step down a bit more over the remainder of the forecast period. The general downward trend in inflation in recent quarters, along with concerns about the strength of the global economy, prompted central banks to loosen monetary policy in Indonesia and Singapore, while most other central banks refrained from tightening. In India, however, where inflationary pressures persist, the central bank raised its monetary policy rate 25 basis points at each of its past two meetings.

Latin America

Recent indicators suggest that Mexican real GDP growth edged down to a still-strong 4 percent in the third quarter, supported by a rebound in auto production. However, we expect growth to slow somewhat to an average pace of about 3¼ percent over the forecast period, in line with the contour of U.S. manufacturing output, and down a bit from the September Tealbook forecast.

Real GDP in South America appears to have moderated to 3 percent in the third quarter, ½ percentage point lower than we had expected, largely reflecting weakness in the Brazilian economy. In recent months, the PMI readings for Brazilian manufacturing have moved down sharply into the contractionary range, and exports have

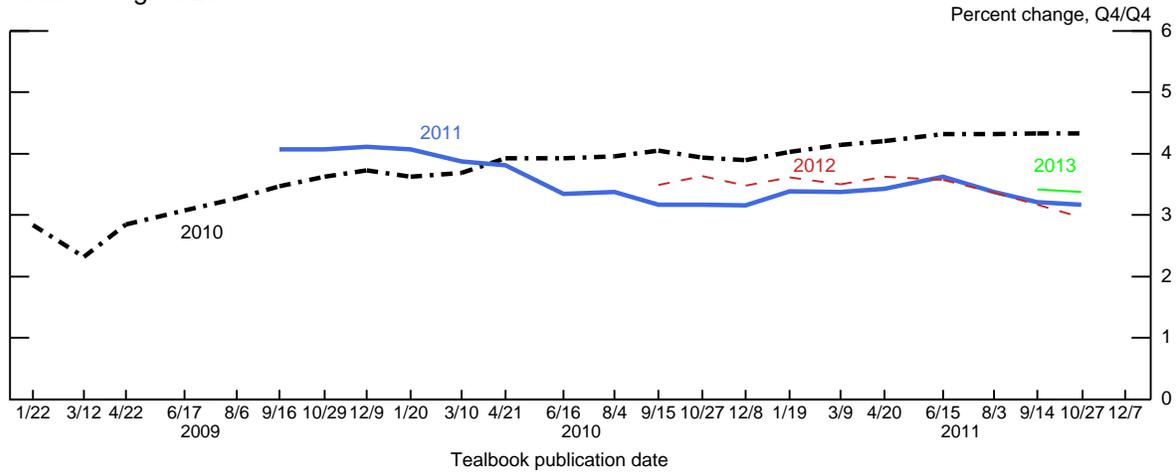
fallen. Accordingly, we have marked down our estimate for Brazil's economic growth by 1 percentage point to 2¼ percent in the third quarter. Thereafter, we expect Brazilian growth to pick up gradually to 4 percent by the end of 2013.

After having dipped to 2½ percent in the second quarter, headline inflation in Latin America picked back up to an annual rate of 3½ percent in the third quarter, as a temporary energy subsidy in Mexico ended. We expect inflation to average roughly 3¾ percent over the forecast period.

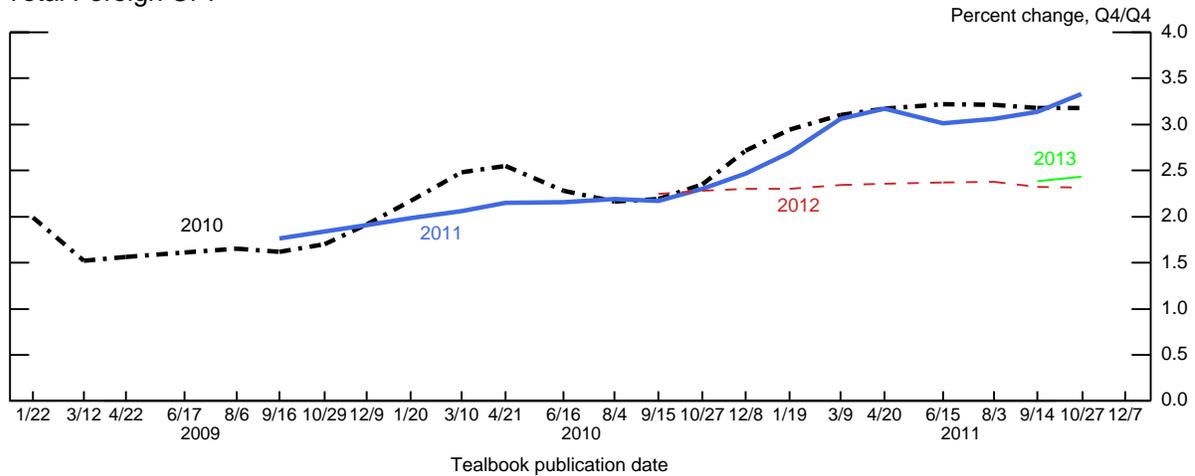
Reflecting concerns about the strength of the economy, the Brazilian central bank lowered the policy rate another 50 basis points at its most recent meeting, even though at 7.1 percent in early October, 12-month inflation is still running above the 6½ percent upper limit of its target range. The Bank of Mexico, which has not tightened monetary policy since before the global financial crisis, signaled at its latest meeting that it might loosen policy further.

Evolution of Staff's International Forecast

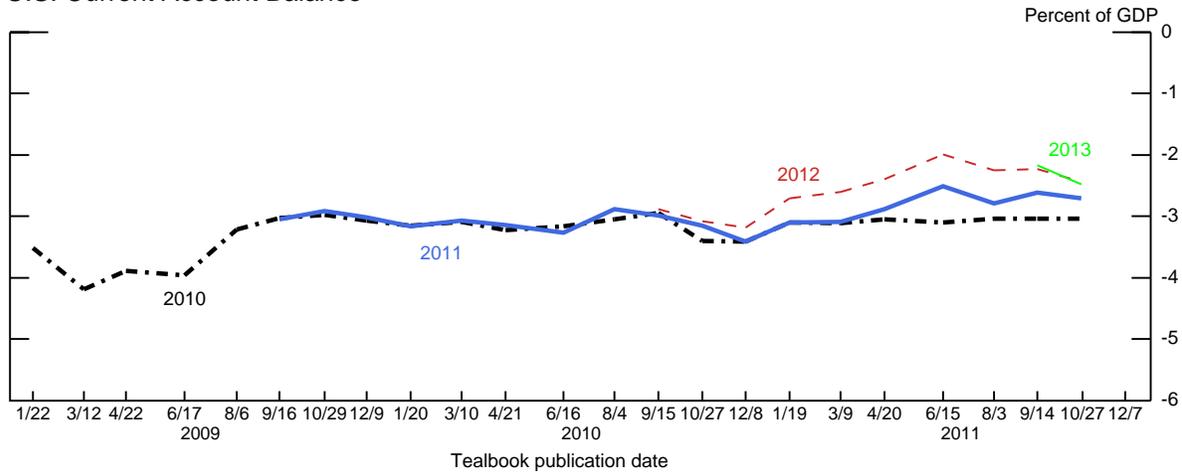
Total Foreign GDP



Total Foreign CPI



U.S. Current Account Balance



Int'l Econ Devel & Outlook

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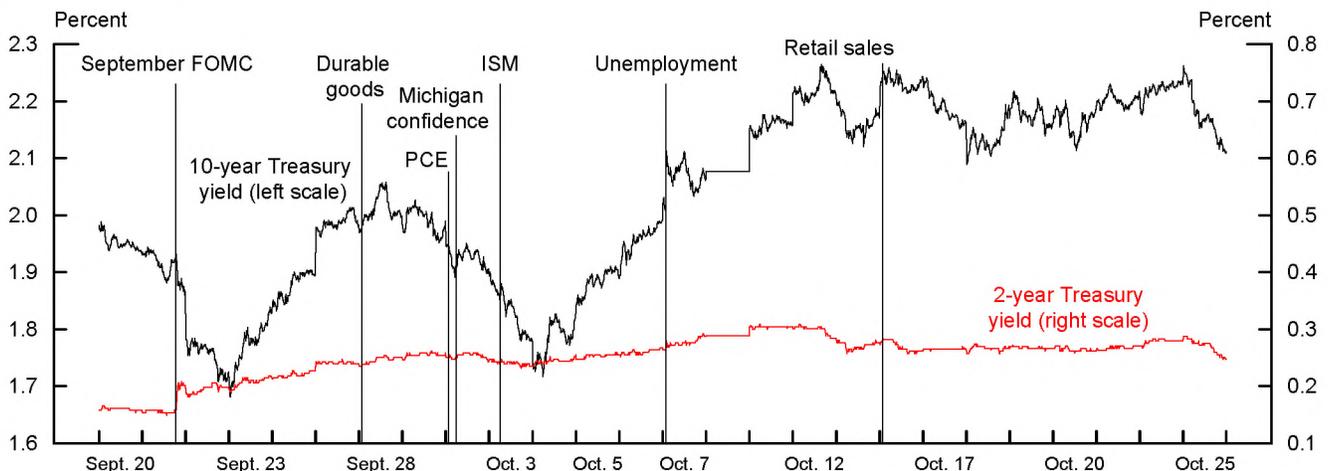
Financial Developments

Financial markets were volatile over the intermeeting period, but market sentiment improved in recent weeks as investors apparently saw promise in the extended discussions regarding steps to contain the European fiscal and banking crisis. The more positive tone in financial markets was reinforced by economic data releases that were, on balance, somewhat better than market participants had expected. Consistent with those developments and probably some easing of flight-to-safety demands, Treasury yields generally moved higher, on net, over the intermeeting period amid some downward pressure on long-term Treasury rates from the FOMC's announcement of the maturity extension program (MEP). Inflation compensation edged up and the expected path of the federal funds rate also increased some, on net, over the period. Corporate yields for investment-grade issuers rose about in line with those on comparable-maturity Treasury securities. In contrast, speculative-grade corporate yields decreased, on balance, leaving their spreads notably lower. Broad indexes of U.S. equity prices increased, on net, as stronger-than-expected third-quarter earnings reports added to the overall improvement in sentiment. Implied volatility on the S&P 500 index remained elevated. In the euro area, stock prices swung in a wide range but ended the period higher, while spreads on most peripheral sovereign bonds remained quite elevated. The dollar was little changed on balance.

The most recent data on credit flows in the United States have been mixed. Issuance of investment-grade bonds by nonfinancial corporations slowed some in October from its robust September pace, and issuance of high-yield bonds remained weak. In contrast, both nonfinancial commercial paper outstanding and C&I loans have increased briskly thus far in October, and conditions in the institutional leveraged loan market reportedly have improved some. In the household sector, consumer credit declined in August, while near-record-low interest rates on conforming home mortgages continued to elicit only modest refinancing activity. In the third quarter, bank loans registered their first quarterly increase since the fourth quarter of 2008, but the October Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS) suggested little net change in lending standards or overall loan demand over the past three months. In September and October, M2 slowed markedly following its surge earlier in the summer.

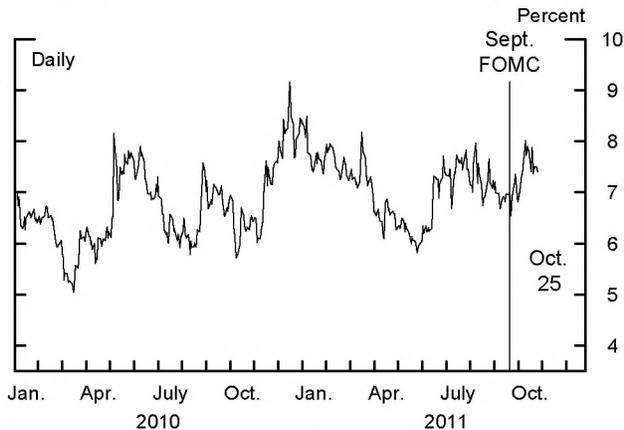
Policy Expectations and Treasury Yields

Selected Interest Rates



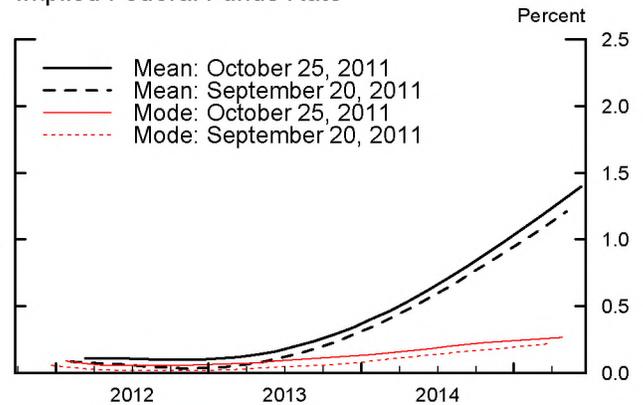
Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m. No adjustments for term premiums.
Source: Bloomberg.

Long-Term Interest Rate Implied Volatility



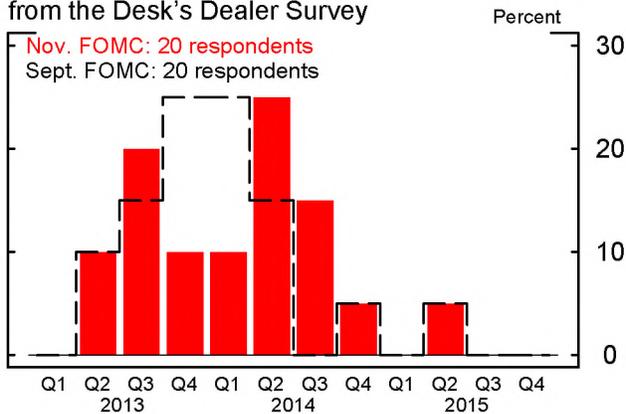
Note: Derived from options on 10-year Treasury note futures.
Source: Bloomberg.

Implied Federal Funds Rate



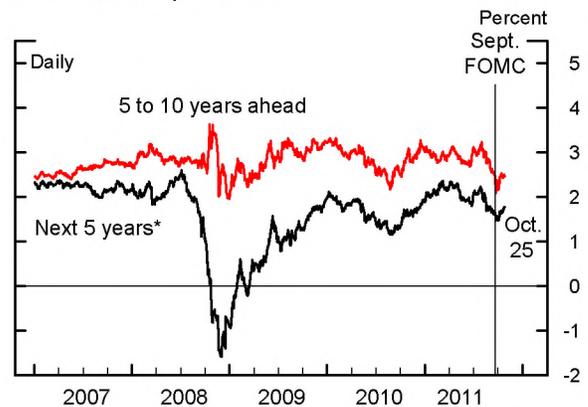
Note: Mean is estimated using overnight index swap quotes. Mode is estimated from the distribution of federal funds rate implied by interest rate caps. Both include a term premium of zero basis points per month.
Source: Bloomberg and CME Group.

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



Source: Desk's Dealer Survey from October 24, 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.

POLICY EXPECTATIONS AND TREASURY YIELDS

Yields on longer-dated nominal Treasury securities declined notably following the release of the September FOMC statement, while those on shorter-dated Treasury securities rose slightly. Although widely anticipated, the MEP was apparently somewhat larger in scale, and the distribution of purchases by maturity was skewed a bit more toward the long end of the curve, than some market participants had expected. The rise in shorter-term Treasury yields was reportedly driven to some extent by the prospect of sales of shorter-term securities under the MEP as well as by the FOMC's decision not to reduce the interest rate paid on reserves. Longer-term yields declined further in the wake of the announcement, reportedly in response to the Committee's assessment of the economic outlook, which was seen as more negative than previously thought. Investors also seemed to pay particular note to the statement's indication of significant downside risks to the outlook. Option-adjusted spreads of yields on current-coupon and other low-coupon agency mortgage-backed securities (MBS) over those on comparable-duration Treasury securities narrowed after the announcement of the Committee's decision to reinvest principal payments on agency debt and agency MBS securities into new MBS rather than longer-term Treasury securities.¹

Over the following weeks, 2- and 10-year Treasury yields were volatile but rose, on balance, and ended the period higher by about 10 basis points and 20 basis points, respectively, as investors' seemingly favorable assessment of the ongoing efforts to contain the European crisis appeared to trigger some reversal of flight-to-safety flows. Treasury yields were also boosted by U.S. economic data that were somewhat stronger than expected. The yield on 30-year Treasury bonds fell about 10 basis points over the period, leaving the long end of the Treasury yield curve somewhat flatter. Market reports indicate that liquidity in the Treasury market has remained stable since the introduction of the MEP; the Open Market Desk's purchase operations were well received, and sales of shorter-term securities met with very robust demand. In addition, option-adjusted spreads of yields on current-coupon and other low-coupon agency MBS ended the

¹ Gauging the response of MBS spreads to the FOMC announcement depends importantly on the MBS spread employed. The commonly quoted "current coupon" MBS spread presently captures the behavior of both the 3 percent and 3.5 percent coupon securities, and the former is quite illiquid. Based on the current-coupon series, MBS spreads dropped only a few basis points following the FOMC announcement. However, the drop in MBS spreads based on just the 3.5 percent coupon securities—the most actively traded securities and most closely connected to current production of mortgages—was considerably larger at about 20 basis points.

intermeeting period somewhat lower, on net, than they had been before the announced change in the reinvestment program after the September FOMC meeting.

Over the intermeeting period as a whole, the mean path of the expected federal funds rate over the next four years moved up appreciably. This path rises above the current target range in the third quarter of 2013, one quarter earlier than at the time of the September FOMC meeting.² The modal path for the federal funds rate derived from interest rate caps also shifted up some and now suggests that market participants think the federal funds rate is most likely to first rise above the current target range in the second quarter of 2014. (See the box “Expected Time and Pace of Tightening.”) However, measures of policy uncertainty also appear to have risen over the intermeeting period, suggesting that these increases may in part have been driven by higher term premiums.

Results from the Desk’s latest survey of primary dealers suggested that there was no overall change in the expected path of policy through the fourth quarter of 2013. However, the mass of the probability distribution of the expected quarter of the first rate liftoff shifted somewhat to the right, with more than half of the respondents now expecting that tightening would not commence until the first quarter of 2014 or later. Most respondents did not anticipate major changes in the language of the statement at the upcoming FOMC meeting, although a few dealers saw some chance that the Committee would make changes in its forward guidance with respect to the federal funds rate. Dealers revised up their forecasts for real GDP in 2011 on average; however, many noted that heightened uncertainty and concerns about Europe continued to weigh on their outlooks. Meanwhile, there was little change to the dealers’ forecasts of near-term core PCE inflation or longer-term headline CPI inflation.

Indicators of inflation expectations posted small mixed changes over the intermeeting period. TIPS-based inflation compensation over the next 5 years increased about 15 basis points, on net, reportedly due in part to the rise in commodity prices. However, forward inflation compensation 5 to 10 years ahead was little changed, on net, over the intermeeting period. Both measures remain close to their lows for the year.

² The effective federal funds rate averaged 7 basis points over the intermeeting period, with the intraday standard deviation averaging about 4.3 basis points. The Desk purchased a total of \$41 billion of Treasury securities during the intermeeting period and sold a total of \$28 billion of Treasury securities under the FOMC’s MEP. In addition, it purchased \$1 billion in Treasury securities with the proceeds of principal payments on its holdings of agency securities before shifting reinvestment into agency MBS, of which it purchased \$19 billion.

Swaps-based readings on inflation compensation moved about in line with their TIPS counterparts. In contrast, measures of short- and long-term inflation expectations from the Michigan survey decreased slightly over the period.

FINANCIAL INSTITUTIONS AND SHORT-TERM FUNDING MARKETS

Credit default swap (CDS) spreads and equity prices of large U.S. banking organizations were again volatile over the intermeeting period. Bank CDS spreads spiked in early October, reflecting in part concerns about the exposures of some U.S. firms to Europe and about the consequences for the broader financial system of a possible “stress event.” Investor sentiment improved in recent weeks amid discussions of plans to address pressures on euro-area sovereigns and recapitalize European banks. In addition, third-quarter U.S. bank earnings reports released in mid-October, while mixed, avoided large negative surprises and reportedly eased concerns of investors about the size of European exposures at the reporting institutions. Partly as a result, CDS spreads for U.S. banking firms retraced a large portion of their previous increases, and bank equity prices rose 3½ percent, on net, over the intermeeting period, a little more than the broader market.

In short-term bank funding markets over the period, U.S.-chartered financial institutions had little need for funding, while European institutions continued to face strained conditions. The three-month Libor–OIS spread widened a bit further, as did the spread between a three-month forward rate agreement and the OIS rate three to six months ahead, apparently reflecting continued strained funding conditions for European banks. The cost of dollar funding for euro-area financial institutions implied by FX basis swaps declined but remained at high levels. However, there were no reports of significant pressures related to funding over year-end.

Negotiable certificates of deposit and unsecured commercial paper outstanding from many European banks, especially French banks, fell further, and the average maturity of such paper remains below that of domestic issuers. The amount of AA-rated asset-backed commercial paper (ABCP) outstanding has also drifted down for programs with European sponsors; spreads of rates on such paper relative to those on AA-rated nonfinancial paper remained elevated. U.S. money market mutual funds and other investors continued to cut their exposures to French entities in September. Direct exposures of money funds to Italy, Spain, Greece, Portugal, and Ireland were essentially zero.

Expected Time and Pace of Tightening

In recent FOMC statements, the Committee has provided forward guidance concerning the period over which the federal funds rate is expected to remain at exceptionally low levels. Investors' expectations of the date on which tightening will begin and the anticipated trajectory of the federal funds rate once tightening is under way are two important elements influencing the level of intermediate-term rates. Market expectations concerning these two factors can be inferred from the daily OIS curve with the help of a simple model of policy expectations.¹

In that model, the policy paths are limited to those where the target federal funds rate remains at its current level until the beginning of tightening, and the target is then raised at a constant pace over time. The timing of the date of first tightening is uncertain and assumed to follow a standard statistical distribution. The model's parameters are estimated each day to fit the observed policy path implied by futures quotes on that day. By imposing this structure on the assumed path of policy expectations, one can estimate the expected timing of tightening (plotted in the top figure on the facing page) and the expected pace of tightening conditional on tightening having begun (plotted in the bottom figure on the facing page). The model also generates a probability distribution around the expected date of the onset of tightening, and the standard deviation of this distribution can be used as a measure of the uncertainty about the timing of first policy tightening (shown in the middle figure on the facing page).

As the figures show, these three measures appear to vary in response to changes in investors' assessment of the economic outlook and to FOMC communications. As assessments of the U.S. and global economic outlook deteriorated beginning in the second quarter of both 2010 and 2011, investors expected tightening to begin later and to proceed at a slower pace; in addition, uncertainty about the date of tightening increased. Following the FOMC announcements regarding large-scale asset purchase (LSAP) programs in March 2009 and November 2010, respectively, the expected pace of tightening trended higher, perhaps reflecting market participants' more optimistic assessment of the economic outlook; the expected time until tightening and the associated uncertainty declined following the announcement of the second LSAP.

More recently, over the months leading up to the September FOMC meeting, the expected time until tightening lengthened and uncertainty about the date of the onset of policy tightening spiked as the European debt crisis worsened and the economic outlook deteriorated again, while the expected pace of tightening hovered at around 7 basis points per month. That pace of tightening is rather slow by historical standards; during the 1994 and 2004 tightening episodes, for example, the federal funds rate was raised at an average pace of 25 and 18 basis points per month, respectively. In the past few weeks, however, the expected date of tightening has moved a bit closer and uncertainty has declined slightly amid some improvement in investor sentiment related to developments in Europe and somewhat better-than-expected U.S. economic data releases.

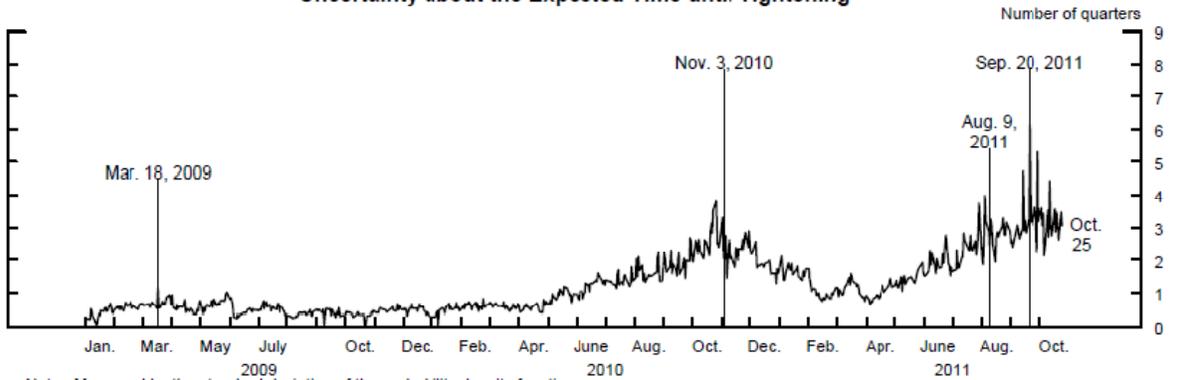
¹ For more details, see Bill Nelson and Mary Zaki (2003), "When Do Market Participants Expect the FOMC to Begin Tightening?" memorandum, Board of Governors of the Federal Reserve System, Division of Monetary Affairs, October 3.

Expected Time until Tightening (Time When the FFR Exceeds the 25-Basis-Point Threshold)



Source: Staff estimate.

Uncertainty about the Expected Time until Tightening



Note: Measured by the standard deviation of the probability density function.

Source: Staff estimate.

Expected Pace of Tightening

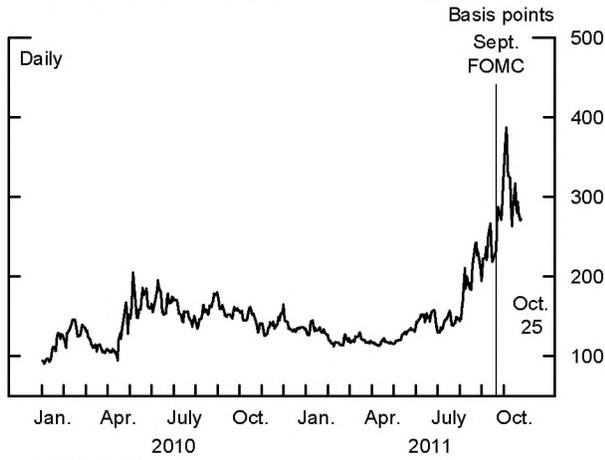


Source: Staff estimate.

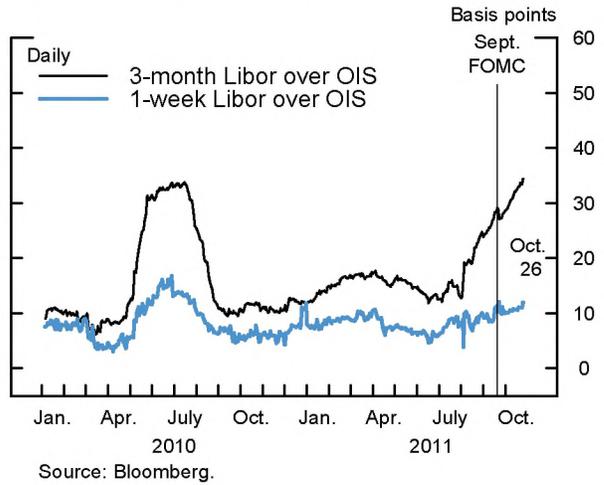
Financial Developments

Financial Institutions and Short-Term Funding Markets

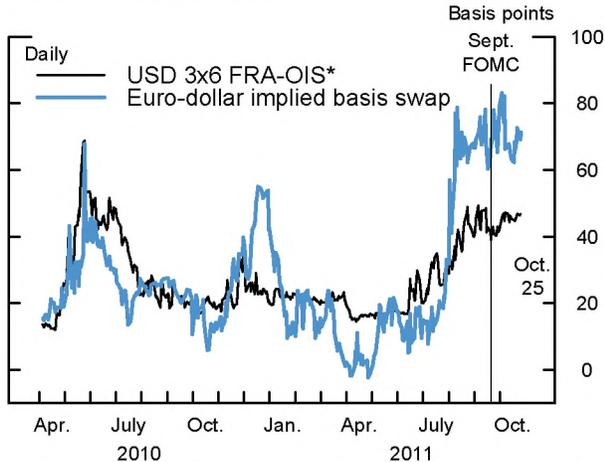
CDS Spreads of Large Bank Holding Companies



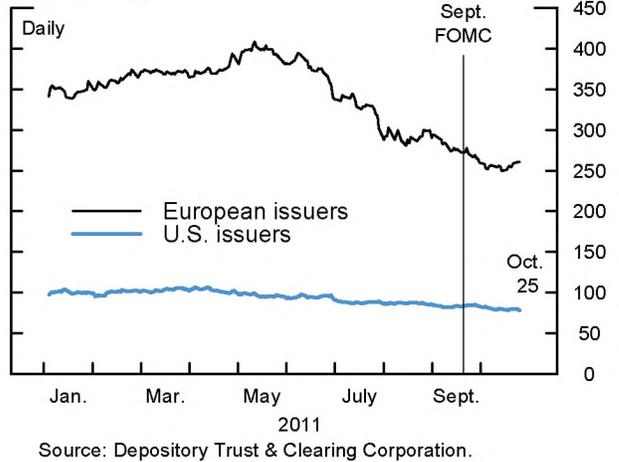
Selected Interest Rate Spreads



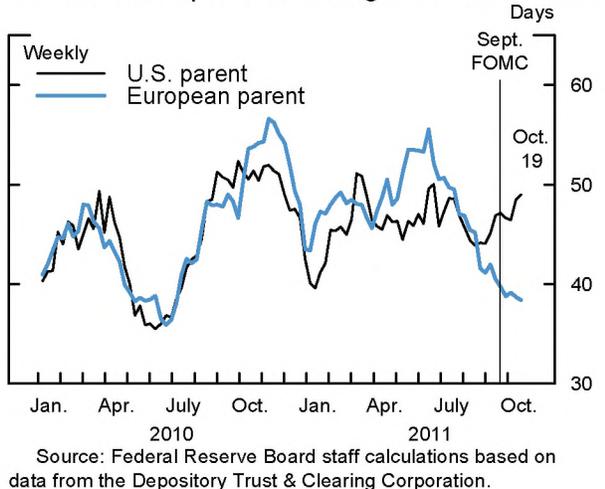
Dollar Funding Spreads



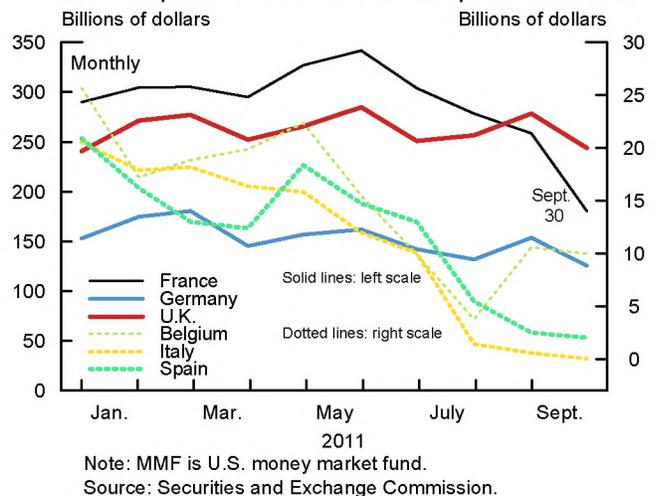
Unsecured Dollar Financial Commercial Paper Outstanding



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



MMF Exposures to Selected European Countries



Financial Developments

FOREIGN DEVELOPMENTS

Over the intermeeting period, foreign financial markets remained volatile and widespread funding pressures persisted. However, investor sentiment improved a bit, on net, as concerns about the European sovereign debt crisis eased somewhat. Although euro-area officials remained divided regarding proposals to leverage the funds available to the European Financial Stability Facility and to recapitalize European banks, global investors seemed heartened that European leaders were attempting to face these challenges more directly (see the box “Recent Policy Developments in the Euro Area” in the International Economic Developments and Outlook section). After falling sharply in August and early September, equity prices in the euro area outperformed those in most other economies over the intermeeting period. German and U.K. 10-year benchmark sovereign yields increased about 25 basis points and about 10 basis points, respectively. Some reversal of safe-haven flows led the dollar to give back in October most of the gains it had registered in late September, leaving the broad nominal foreign exchange value of the dollar little changed compared with its level at the time of the September FOMC meeting.

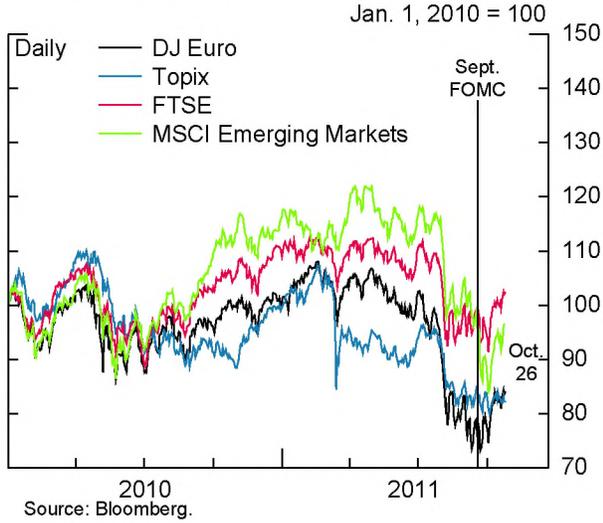
Despite the somewhat more positive sentiment, spreads of 10-year sovereign bonds of most vulnerable euro-area countries over German bunds were little changed, on net, over the intermeeting period. European funding markets also remained under pressure. Dexia, a Belgian and French bank, entered into a plan with national regulators to nationalize some of its operations and sell off others. The European Central Bank (ECB), the Bank of England (BOE), and the Swiss National Bank (SNB) had announced on September 15 that they would reintroduce 84-day U.S. dollar auctions.³ The first of these auctions was held in early October but saw only limited demand at the ECB and no demand at the BOE and the SNB. The weak demand may have reflected potential stigma associated with the auctions or a desire by some banks to wait until the November or December auction in order to better gauge their dollar funding needs over year-end.

Reflecting a deteriorating economic outlook and continued funding pressures, the BOE and the ECB announced additional policy easing. The BOE announced a larger-than-expected £75 billion expansion of its asset purchase program to £275 billion. U.K. gilt yields fell immediately after the announcement, but they were little changed, on net,

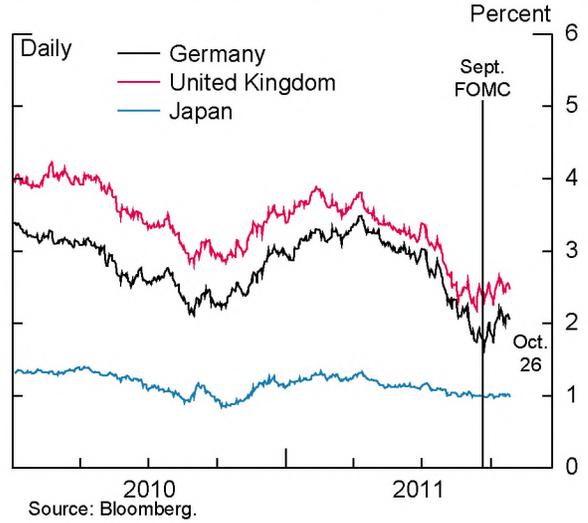
³ In coordination, the Bank of Japan announced an 84-day dollar auction covering year-end, which was added to its established monthly schedule of 84-day dollar operations.

Foreign Developments

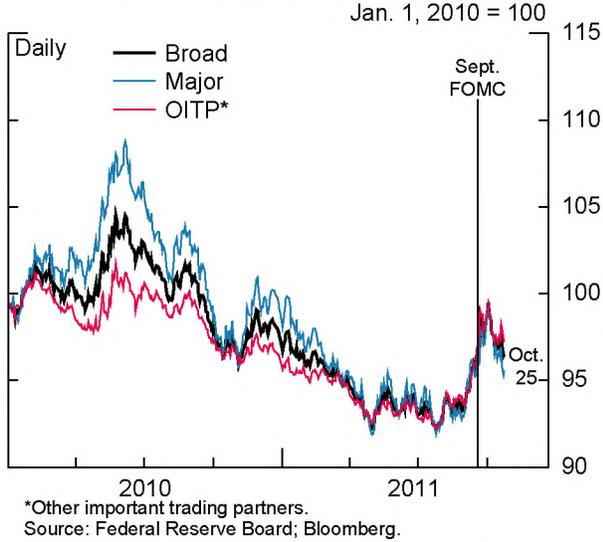
Stock Price Indexes



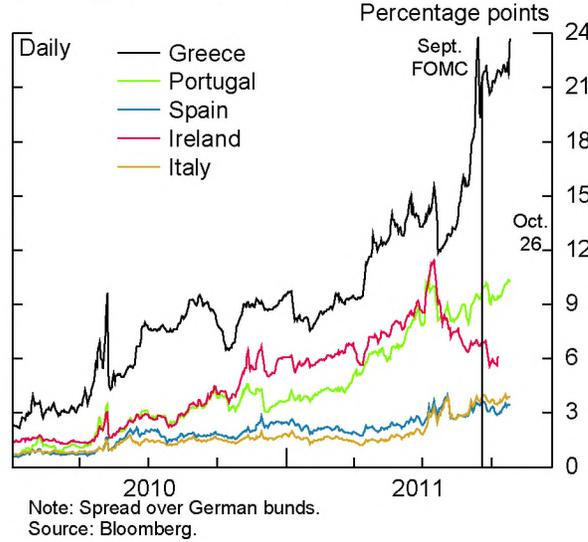
Nominal 10-Year Government Bond Yields



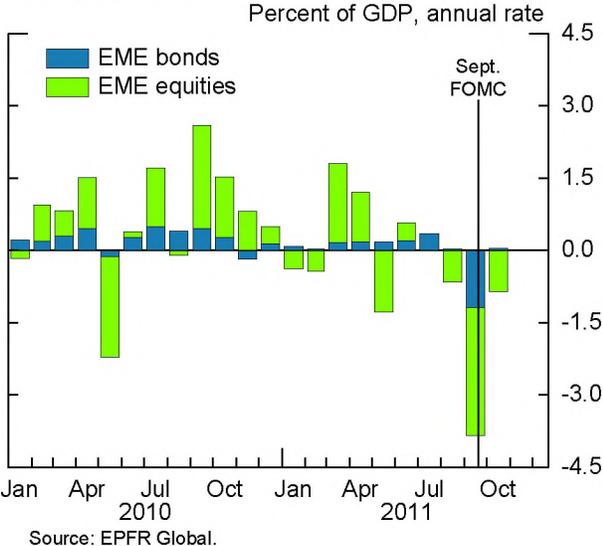
Nominal Trade-Weighted Dollar Indexes



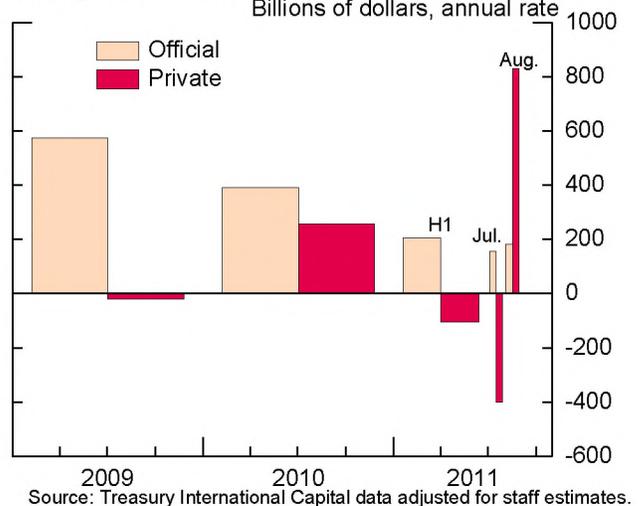
Euro-Area 10-Year Government Bond Spreads



Emerging Market Economies Fund Flows



Foreign Net Purchases of U.S. Treasury Securities



Financial Developments

by the end of the day and rose over the subsequent week. The ECB left its main refinancing rate unchanged at its October policy meeting but announced that it would conduct two new 12-month refinancing operations in October and December and that it will launch a second covered bond purchase program with an intended amount of purchases of €40 billion.⁴ To contain pressures on the funding costs of vulnerable European governments, the ECB maintained its purchases of sovereign debt, although these purchases slowed considerably from the pace seen in August.

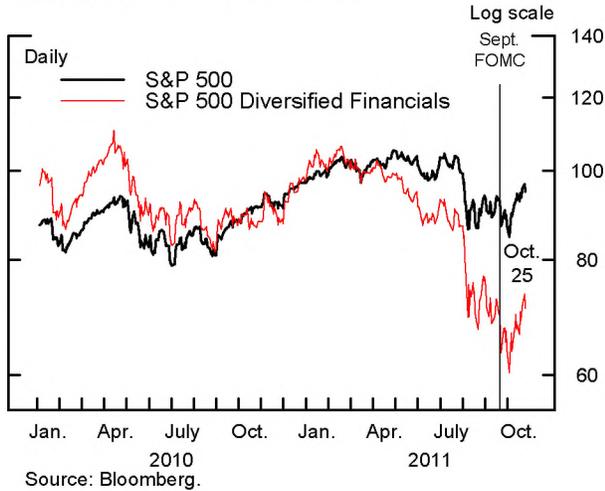
Emerging market stock prices fell sharply in September and rebounded over October, leaving them little changed, on net, over the intermeeting period. Emerging market equity and bond funds experienced large outflows in September, but these outflows slowed considerably in subsequent weeks. The central banks of Brazil, Indonesia, and Israel lowered their policy rates, citing a potential slowdown in global growth. Amid heightened concerns about potential funding pressures, Korea and Japan announced that they would increase the size and scope of their bilateral currency swap arrangements, expanding the size of their existing yen–won swap facilities and establishing a new \$30 billion yen–dollar swap facility.

In a reversal of the trend seen over the year through July, private foreign investors showed a revived appetite for U.S. Treasury securities in August, increasing their holdings substantially. Official holdings of U.S. Treasury securities rose only modestly, on net, but these movements masked large and offsetting flows. Total Chinese holdings of U.S. Treasury securities dropped substantially in August. In contrast, Japanese and Swiss holdings rose in line with currency interventions by authorities in these countries. With the pace of intervention slowing, more recent data on custody holdings at the Federal Reserve Bank of New York showed some decline. In addition, some countries in emerging Asia apparently sold U.S. Treasury securities in September as part of intervention efforts to support their currencies. Cross-border banking flows in August were modest, on net, the result of substantial inflows from European entities, which built up their cash holdings at the Federal Reserve, and outflows from U.S. entities, which shifted funds overseas.

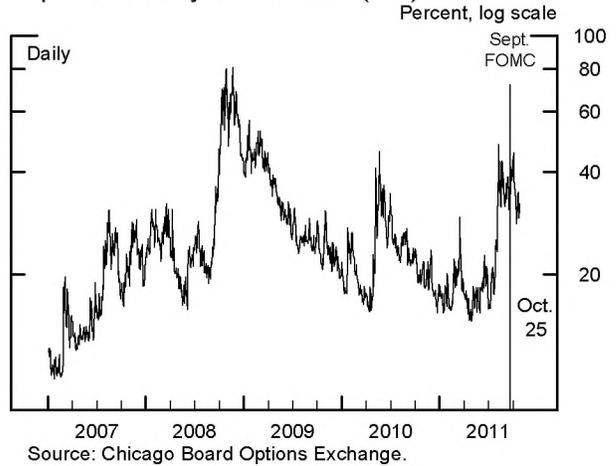
⁴ The first 12-month operation was held on October 26 and saw demand of €57 billion, which was in line with market expectations.

Domestic Asset Market Developments

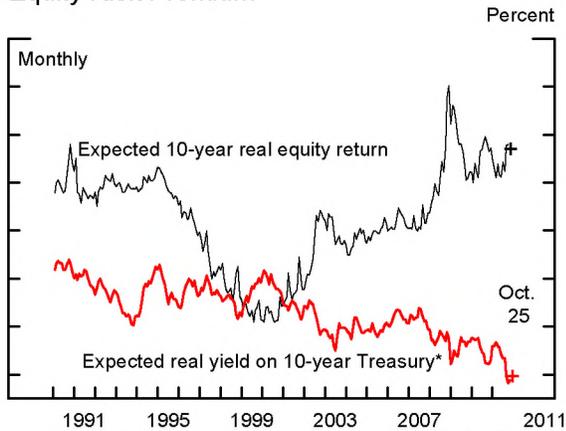
Selected Stock Price Indexes



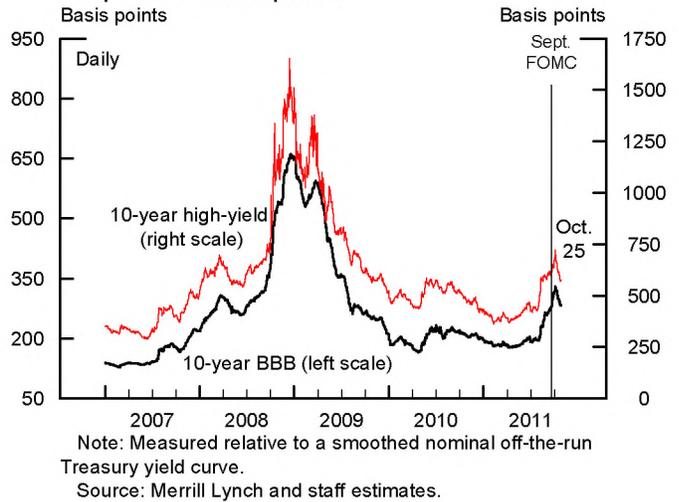
Implied Volatility on S&P 500 (VIX)



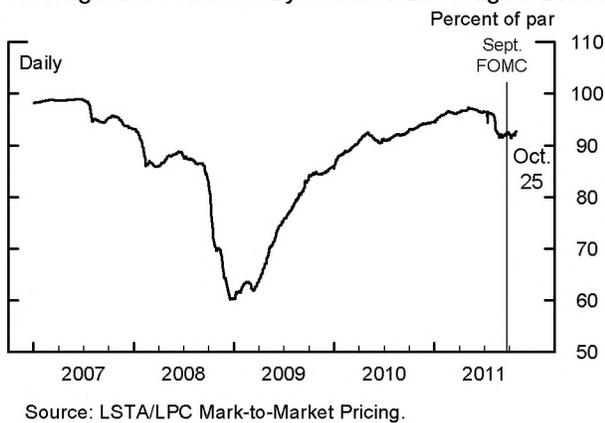
Equity Risk Premium



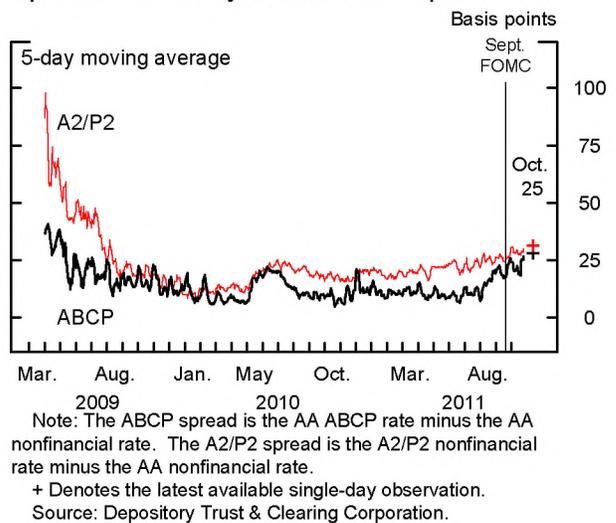
Corporate Bond Spreads



Average Bid Price for Syndicated Leveraged Loans



Spreads on 30-Day Commercial Paper



Financial Developments

DOMESTIC ASSET MARKET DEVELOPMENTS

Broad price indexes for U.S. equities increased about 2¼ percent, on net, over the intermeeting period, as declines early in the period were more than retraced over the past few weeks. Movements in share prices importantly reflected changes in investor confidence about efforts to contain the European crisis. Indeed, equity prices have remained unusually volatile, and option-implied volatility on the S&P 500 index fluctuated in a high range. Meanwhile, the spread between the 12-month forward trend earnings–price ratio for S&P 500 firms and an estimate of the real long-run Treasury yield—a rough measure of the equity premium in U.S. equity prices—was little changed, on net, and remained at an extraordinarily high level.

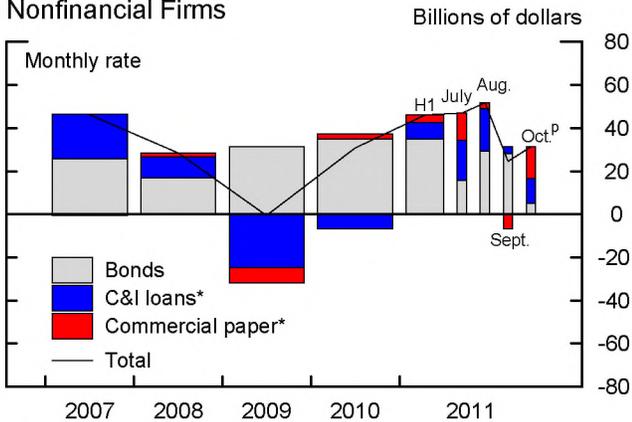
Corporate yields for BBB-rated issuers rose about in line with those on comparable-maturity Treasury securities over the period. In contrast, speculative-grade corporate yields were down a bit, on net, leaving their spreads notably lower. The levels of corporate bond spreads, however, remain near the upper ends of their ranges experienced since mid-2009. Moreover, measures of liquidity in the secondary market for speculative-grade corporate bonds worsened noticeably at times but changed little, on net, over the intermeeting period as a whole. In the secondary market for syndicated leveraged loans, average bid prices and bid-asked spreads were also little changed. The spread of yields on A2/P2-rated unsecured commercial paper issued by nonfinancial firms over yields on A1/P1-rated issues edged up, on net, but remained below its long-run average.

BUSINESS FINANCE

Credit flows for nonfinancial firms were mixed in September and October, with evidence of continued strains in some markets, particularly for credit to lower-rated firms. The pace of bond financing by investment-grade nonfinancial corporations slowed some in October from its robust September pace, while bond issuance by speculative-grade firms returned to a near-zero pace in October. Nonfinancial commercial paper outstanding posted solid growth in October, and C&I loans expanded briskly through the first part of the month. In the leveraged loan market, issuance financed by institutional investors slowed significantly in the third quarter, consistent with the broad reduction in risk appetite in late August and September. However, a few deals that had been underwritten earlier in the year, when conditions were more favorable, were successfully syndicated in early October.

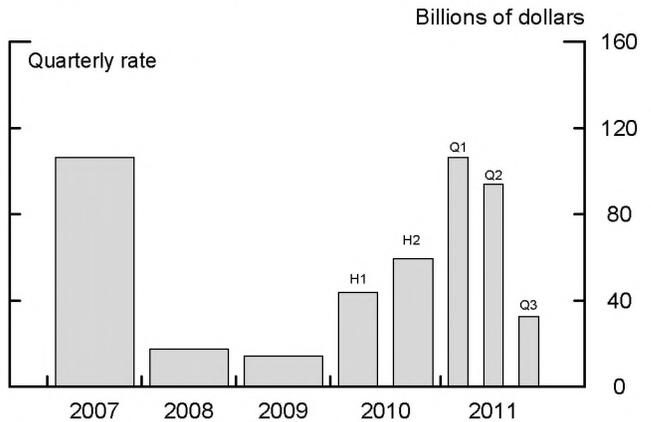
Business Finance

Selected Components of Net Debt Financing, Nonfinancial Firms

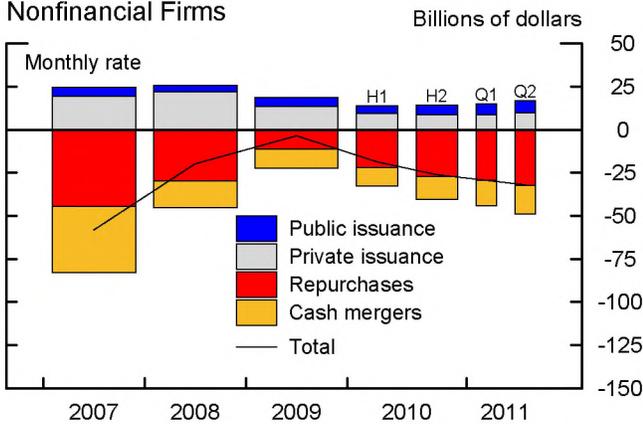


* Period-end basis, seasonally adjusted.
 p Preliminary.
 Source: Depository Trust & Clearing Corporation; Thomson Financial; Federal Reserve Board.

Institutional Leveraged Loan Issuance

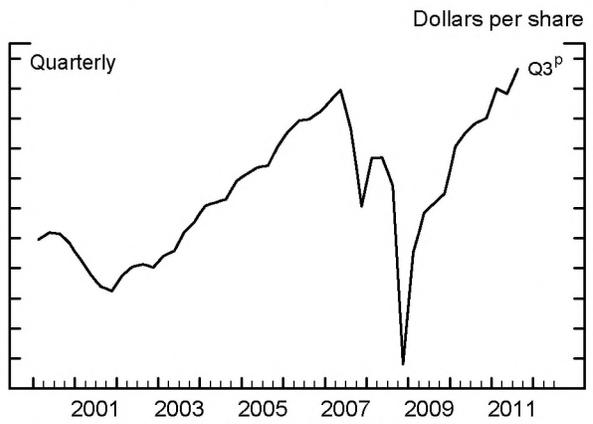


Selected Components of Net Equity Issuance, Nonfinancial Firms



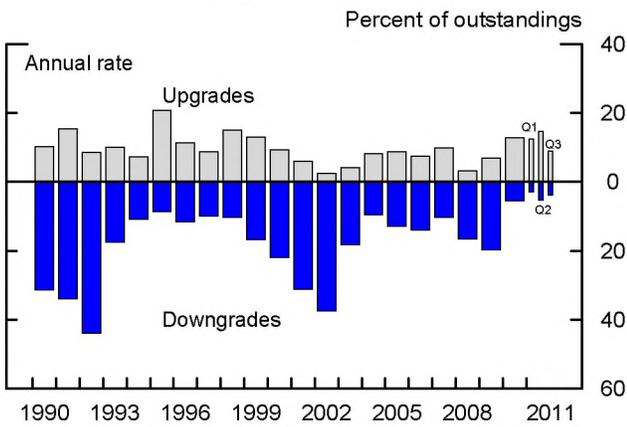
Source: Thomson Financial, Investment Benchmark Report; Money Tree Report by PricewaterhouseCoopers, National Venture Capital Association, and Venture Economics.

S&P 500 Earnings per Share



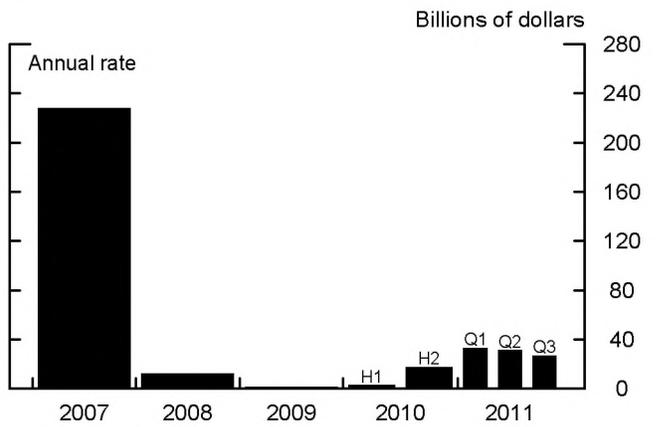
Note: Data are seasonally adjusted by Board staff.
 p Preliminary.
 Source: Thomson Financial.

Bond Ratings Changes of Nonfinancial Firms



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

CMBS Issuance



Source: Commercial Mortgage Alert.

Financial Developments

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

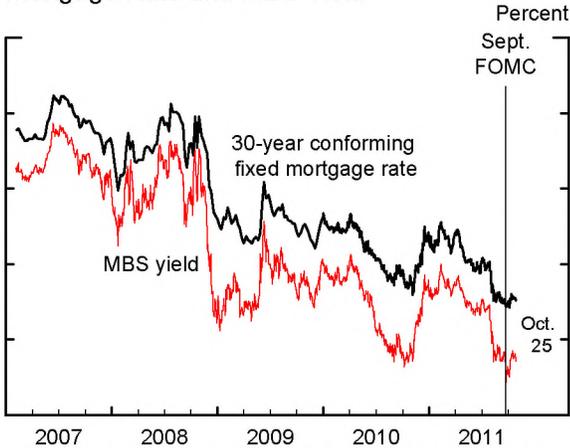
About 200 firms in the S&P 500 index have reported operating earnings for the third quarter. Based on those reports and Wall Street analysts' estimates for firms that have not yet reported, it appears that earnings per share for S&P 500 firms in the third quarter grew a solid 7 percent relative to the second quarter. However, the majority of that gain reflects the fact that the second quarter reading was depressed by a large loss at one financial institution. In addition, an index of revisions to analysts' forecasts of year-ahead earnings for S&P 500 firms fell deeper into negative territory over the four weeks ending in mid-October, a decline due in large part to substantial negative revisions for the financial and energy sectors.

Indicators of the credit quality of nonfinancial corporations have continued to be solid. The aggregate ratio of debt to assets stayed low in the second quarter, and the liquid asset ratio remained near its highest level in more than 20 years. The volume of corporate bonds of nonfinancial companies that Moody's upgraded in the third quarter substantially outpaced the volume that it downgraded. Although the six-month trailing bond default rate for nonfinancial firms rose slightly in September, it remained close to zero. The expected year-ahead default rate for such firms from the Moody's KMV model inched up further, reflecting higher stock price volatility.

Financing conditions for commercial real estate (CRE) markets appeared to have deteriorated in some respects over the intermeeting period. Issuance of commercial mortgage-backed securities (CMBS) slowed further in the third quarter amid widening CMBS spreads, and only a small number of deals are in the CMBS pipeline for the rest of the year. In contrast to this overall trend, life insurance companies have increased their holdings of CRE loans by targeting higher-quality borrowers. Prices of most types of commercial properties remained depressed, and aggregate vacancy and delinquency rates for commercial properties were close to their recent highs.

Household Finance

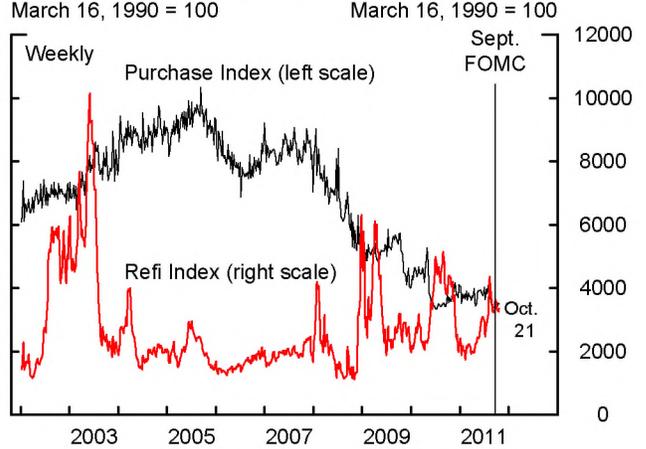
Mortgage Rate and MBS Yield



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.

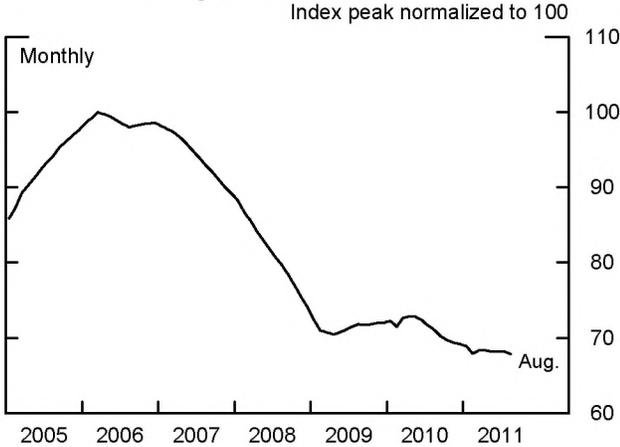
Source: For MBS yield, Barclays; for mortgage rate, Freddie Mac (before 2010) and Loansifter (after 2010).

Purchase and Refinance Activity



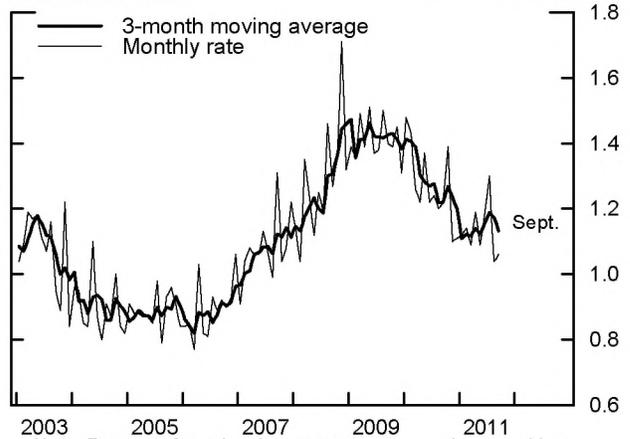
Note: Seasonally adjusted by FRB staff.
Source: Mortgage Bankers Association.

Prices of Existing Homes



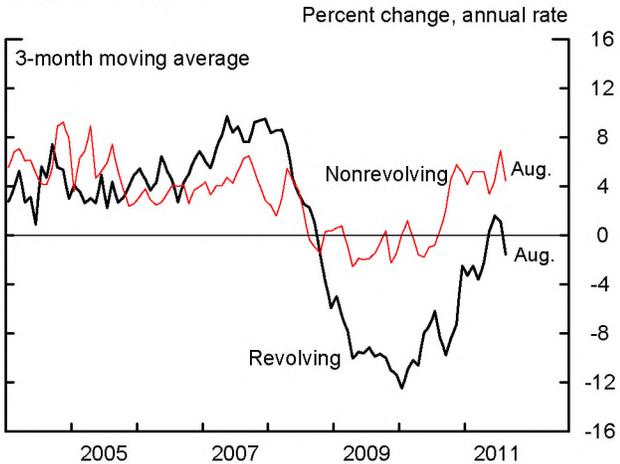
Source: CoreLogic.

Delinquencies on Prime Mortgages, Transition Rate



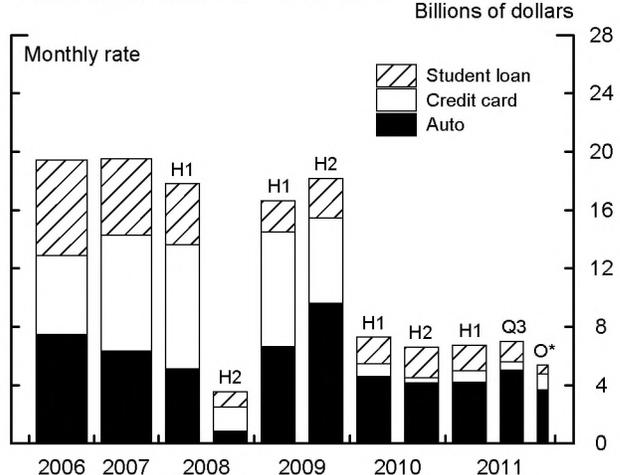
Note: Percent of previously current mortgages that transition to being at least 30 days delinquent each month.
Source: LPS Applied Analytics.

Consumer Credit



Source: Federal Reserve Board.

Gross Consumer ABS Issuance



* Through Oct. 21, 2011.
Source: Inside MBS & ABS; Merrill Lynch; Bloomberg; Federal Reserve Board.

HOUSEHOLD FINANCE

Interest rates on residential mortgages have moved up slightly, on net, over the intermeeting period but remain at historically low levels. The low rates have had a relatively modest effect on mortgage refinancing, as tight underwriting standards and low home equity continue to limit the access of many households to the mortgage market (see the box “Why Haven’t More Borrowers Refinanced?”). On October 24, the Federal Housing Finance Agency announced changes to the Home Affordable Refinance Program, or HARP, to expand eligibility and take-up among borrowers with mortgages backed by Fannie Mae and Freddie Mac. High-coupon MBS underperformed on the day of the announcement, suggesting that market participants may be expecting increases in refinancing activity in that segment.

Indicators of home prices and mortgage credit quality remained weak, as a large inventory of unsold properties and tepid demand for homes continued to put downward pressure on house prices. The seasonally adjusted repeat-sales house price index from CoreLogic inched down in August, leaving home prices about 4½ percent lower than a year earlier. The rate of newly delinquent prime mortgages—the pace at which mortgages transition from “current” to delinquent—rose over the summer but remained below last year’s levels.

Consumer credit decreased at an annual rate of about 5 percent in August, with declines in both revolving and nonrevolving credit. However, nonrevolving credit had grown briskly in July, with a shift in the timing of student loan originations from August into July apparently explaining much of the recent swing. Smoothing through this volatility, growth in nonrevolving credit has stepped down from earlier in the year but remained solid in recent months. Issuance of consumer credit ABS continued apace through mid-October. Delinquency rates for several categories of consumer loans remained low, with the delinquency rate on credit cards in securitized pools at a historical low. However, the decline in delinquency rates partly reflects tighter underwriting standards, which have shifted the composition of borrowers toward those with stronger credit histories.

GOVERNMENT FINANCE

Over the intermeeting period, the Treasury auctioned about \$235 billion of nominal coupon securities across the maturity spectrum and \$18 billion of TIPS. Overall

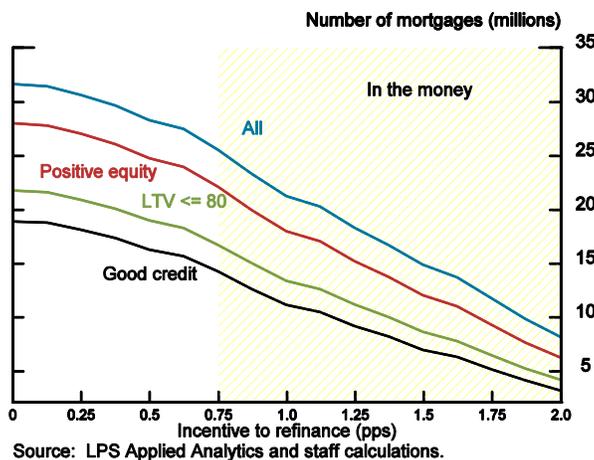
Why Haven't More Borrowers Refinanced?

In recent months, residential mortgage interest rates have fallen to historically low levels. As a result, mortgage refinancing has risen, but not as much as would have been expected based on historical relationships. Indeed, more borrowers refinanced in 2009 and 2010 than in recent months, even though mortgage rates have been 20 to 90 basis points lower this summer and fall. Here we examine the latest available data on the extent to which negative equity, impaired credit, and limited credit availability are obstacles to refinancing.

One way to measure the strength of the incentive to refinance is the difference between existing interest rates on outstanding mortgages and the current offer rate. When this difference is large—say, 75 basis points or more—existing mortgages are said to be “in the money” for a refinance. We compare the interest rate on prime first lien, fixed-rate mortgages outstanding to the offer rate as of the third week of October for new originations, taking account of the GSEs’ loan-level pricing adjustments. As shown by the height of the blue line at the left edge of the shaded “in the money” region in the figure below, about 26 million prime fixed-rate mortgages are currently in the money to refinance. Of those mortgages, 22 million have positive equity (the red line), and 17 million have estimated current loan-to-value (LTV) ratios of 80 percent or less (the green line). Of these, 14 million borrowers are current on their mortgage payments and likely have fairly good credit (the black line). Thus, all told, just over half of the in-the-money mortgages are likely eligible to be refinanced but could face additional difficulties in refinancing.

Other data sources on refinancing confirm that impaired credit and negative equity have hampered refinancing. First, estimates from the Federal Reserve Bank of New York Consumer Credit Panel/Equifax suggest that mortgage refinancing in 2010 was highest among consumers with pristine credit scores and was lower for those in the five states that experienced the sharpest house price declines. Second, performance data on GSE

“In the Money” Mortgages

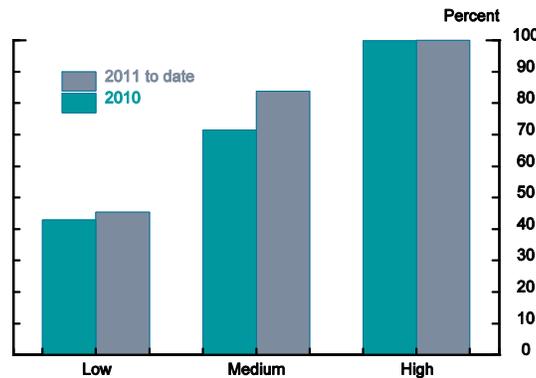


mortgage pools suggest that borrowers who took out mortgages in 2006 or 2007 made up only a small share of total refinancing in the third quarter of 2011, despite facing average interest rates of over 6 percent. Borrowers who obtained mortgages during these years experienced the largest cumulative house price declines and are thus more likely to have negative equity.

One final piece of evidence is that many lenders appear not to be offering mortgages to borrowers with lower credit quality. The figure below reports the percent of lenders posting offer rates on mortgages eligible for GSE purchase, albeit with different loan quality, ranging from the lowest quality in the left-most bars to the highest quality in the right-most bars.¹ Even though all of these loans have remained eligible for sale to the GSEs, many mortgage lenders have seemingly not been offering them, possibly because of the “putback” or litigation risks that might still be associated with new loans to borrowers with less-than-pristine credit histories. That said, lenders appear to have become more willing to extend credit to borrowers with medium credit quality compared with a year ago.

On October 24, the Federal Housing Finance Agency (FHFA) announced changes to the Home Affordable Refinance Program (HARP) to expand eligibility and take-up among borrowers with mortgages backed by Fannie Mae and Freddie Mac. Specifically, the changes remove the maximum LTV ceiling; reduce risk-based fees, particularly for borrowers refinancing into shorter-term mortgages; permit the use of automated valuation models instead of new property appraisals; and extend the duration of HARP to December 31, 2013. Also, the announcement suggested that the FHFA may waive many representations and warranties for lenders, which has the potential to significantly reduce the risks lenders assume when refinancing loans under HARP and may further encourage lenders to offer more medium- and low-quality mortgages. The FHFA estimates that an additional 1 million mortgages will be refinanced and stated that additional details about the HARP expansion would be released in mid-November.

Percent of Lenders Offering GSE-Eligible Loans by Credit Quality

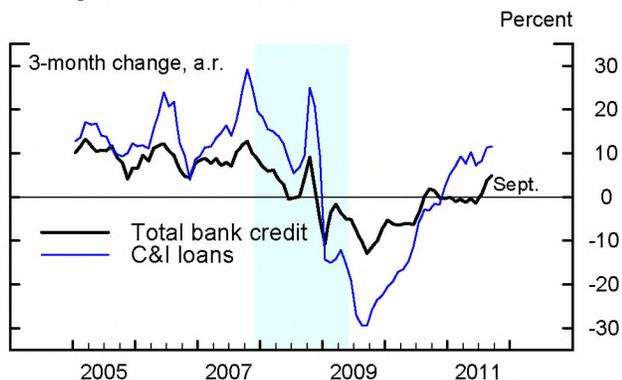


Notes: For a hypothetical owner-occupied 30-year conventional fully documented mortgage.
Source: Loansifter.

¹ Low (medium) credit quality is defined as having a low (mediocre) credit score and an LTV ratio of 90. High credit quality is defined as having a good credit score and an LTV ratio of 80.

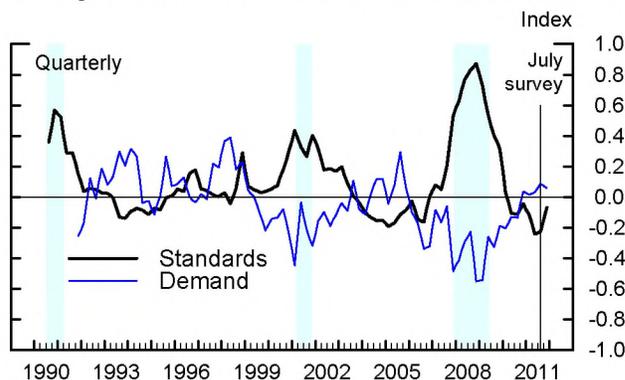
Commercial Banking and Money

Changes in Bank Credit



Source: Federal Reserve Board.

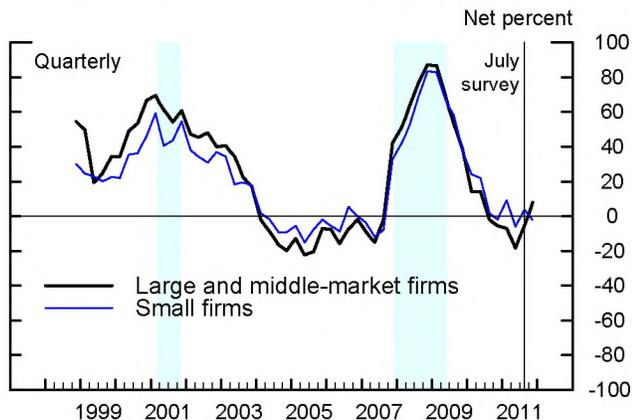
Changes in Standards and Demand for Bank Loans



Note: A composite index that represents the net percentage of loans on respondents' balance sheets that were in categories for which banks reported tighter lending standards or stronger loan demand over the past 3 months.

Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

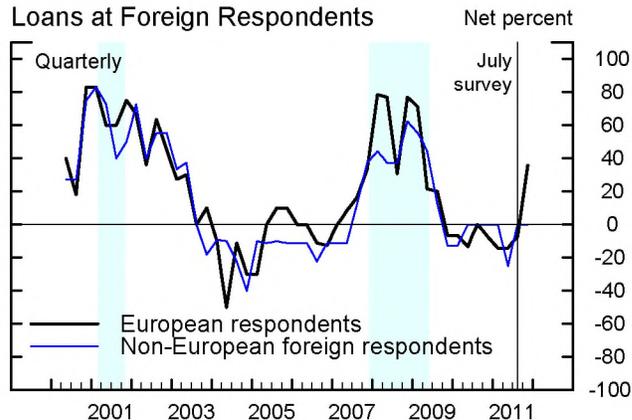
Change in Premiums on Riskier C&I Loans



Note: Net percent of respondents that raised premiums on riskier loans over the past 3 months.

Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Changes in Standards on C&I Loans at Foreign Respondents



Note: Net percent of respondents that tightened lending standards over the past 3 months.

Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

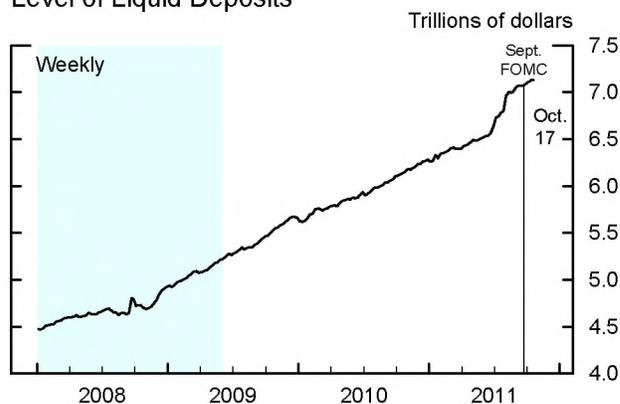
Financial Developments

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	-18.8	-6.7	10.1
2011:Q3	19.8	27.9	-20.6	11.2	7.9
Aug.	30.0	39.1	-22.8	33.5	8.0
Sept.	5.9	9.7	-21.4	-1.2	6.4
Oct.(e)	4.3	6.5	-21.5	13.3	2.8

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.

demand at the auctions remained strong, and bid-to-cover ratios were near or above recent averages. Foreign participation was robust early in the period, although indirect bidding was a little below recent averages at the 10- and 30-year reopenings in mid-October.

For state and local governments, financing conditions were mixed. While gross long-term issuance of municipal bonds remained robust in September and October on strong refunding activity, the pace of new capital issuance continued to lag behind. Moody's ratings downgrades of municipal bonds again substantially outpaced upgrades in the second quarter, and higher-frequency data on ratings changes suggest that this trend is likely to persist in the third quarter. CDS spreads for states increased further over the intermeeting period. 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 around levels that are comparable to those seen in early 2009.

COMMERCIAL BANKING AND MONEY

Bank credit expanded at an annual rate of 3 percent in the third quarter, supported by the first quarterly expansion in loans since the fourth quarter of 2008. However, much of the increase was attributable to a surge in noncore loans, which are volatile and tend to increase during periods of financial distress. That growth was concentrated at a few large institutions and reflected particularly rapid expansion in reverse repos with nonbank financial firms. Banks' securities holdings edged down during the third quarter, as a steep decline in Treasury and agency debt securities was mostly offset by increases in agency MBS and other securities.

Core loans expanded slightly, though with uneven movement across subcategories. C&I loans accelerated in the third quarter following the already strong increases seen over the first half of the year. That growth has been fairly concentrated among large domestic banks and branches and agencies of non-European foreign banks. Consumer loans, which include credit card loans and other consumer loans, advanced modestly in the third quarter, ending a two-year string of quarterly declines. Closed-end residential mortgage loans held on banks' books increased amid the moderate pickup in refinancing activity, but home equity loans declined further. CRE loans contracted for the 11th consecutive quarter.

The Senior Loan Officer Opinion Survey on Bank Lending Practices conducted in October showed noticeably less net easing of lending standards by domestic banks than in the previous surveys. In particular, fewer domestic banks eased standards and terms on C&I loans over the third quarter compared with the previous several quarters, particularly for loans to large and middle-market firms. Moreover, about one-third, on net, of the branches and agencies of European banks that participated in the survey reported having tightened lending standards on C&I loans, with most of those institutions attributing the change at least partly to concerns about their liquidity positions. In response to a special question, a large number of both domestic and foreign respondents indicated considerable tightening of standards on loans to European banks and their affiliates or subsidiaries. Standards for commercial and residential real estate loans changed little over the past three months, while a modest net fraction of banks indicated that they had eased standards on consumer loans.

Demand for loans was little changed over the third quarter on balance. Although a moderate net fraction of all SLOOS respondents reported that demand for C&I loans had weakened, some large banks reported stronger demand for such loans. Several large banks also reported increased demand for CRE loans. On the household side, demand for loans to purchase homes reportedly improved, but we suspect respondents do not distinguish between purchase loans and refinancings, and the gain likely reflects the moderate increase in refinancing activity in recent months. Demand for home equity loans decreased, and that for consumer loans reportedly was little changed. (See the appendix on the survey at the end of this section.)

Third-quarter earnings reports of large banking institutions were mixed. Revenues from investment banking activities declined, as debt and equity underwriting fees fell substantially. Lower net interest margins also continued to put downward pressure on earnings. These effects, however, were offset by unusually large gains from downward adjustments to the fair values of certain liabilities at a few institutions on the basis of the significant net increase in banks' own credit spreads at the end of the third quarter. Finally, banks continued to run off their loan loss reserves amid ongoing improvements in the performance of their outstanding loans and leases.

M2 grew at an average annual rate of 5 percent in September and October, well below the rapid pace seen in July and August. Some of the factors contributing to M2 growth over the summer, such as concerns about European financial developments and

equity market volatility, persisted, supporting elevated levels of M2 deposits but not triggering additional sizable inflows. Liquid deposit growth averaged a solid 8 percent at an annual rate in September and October, and retail money market mutual funds also expanded over the past two months on balance. Small time deposits continued to run off amid extremely low yields that offered little benefit to investors over keeping funds in more-liquid savings deposits. In September and October, on average, currency growth was somewhat below its historical rate. The monetary base grew at an average annual rate of $2\frac{3}{4}$ percent as its major components—reserve balances and currency—increased over the period. (See the box “Balance Sheet Developments over the Intermeeting Period.”)

Balance Sheet Developments over the Intermeeting Period

Over the intermeeting period, total assets of the Federal Reserve were little changed at \$2,858 billion (see table on facing page), but the Federal Reserve began to take steps to extend the average maturity of its securities holdings.

Consistent with the September 21, 2011, FOMC decision, the Open Market Desk at the Federal Reserve Bank of New York (FRBNY) conducted 16 permanent operations over the period, purchasing \$41 billion in Treasury securities with remaining maturities of 6 to 30 years and selling \$28 billion in Treasury securities with maturities of 3 years or less.¹ Notably, sale operations thus far have resulted in large bid-to-cover ratios, and the awards have been somewhat concentrated among dealers. On October 3, the Desk began reinvesting principal payments from its agency debt securities and agency MBS securities into agency MBS and, to date, has reinvested \$19 billion. Due to agency MBS market conventions, settlements of these transactions can occur well after trade execution; most October MBS purchases will settle in December and do not yet appear on the balance sheet.

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 remained around \$11 billion. Foreign central bank liquidity swaps increased about \$1 billion, reflecting an 84-day draw by the European Central Bank, but remained very low.

On the liability side of the Federal Reserve's balance sheet, the other deposits category increased \$43 billion over the period, reflecting relatively high GSE balances at the end of the intermeeting period, consistent with a buildup of funds in this account prior to payment of principal and interest (P&I) on MBS. These funds tend to reverse the day of the P&I payment date. Federal Reserve notes in circulation increased \$5 billion over the period. The Treasury's General Account decreased \$12 billion. Reserve balances of depository institutions decreased \$20 billion over the period. Reverse repurchase transactions with foreign official and international accounts decreased \$16 billion, reflecting an unwind of central bank intervention-related flows. The \$5 billion Term Deposit Facility auction conducted on September 19, 2011, matured on October 20 and so had no net effect over the period.

On October 4, 2011, the FRBNY added BMO Capital Markets Corporation and Bank of Nova Scotia, New York Agency, to its list of primary dealers, bringing the current number of primary dealers to 22.

¹ Purchases of \$7 billion conducted on October 24, 2011, and October 25, 2011, are not reflected in the table, as settlement occurred after October 24, 2011. The Desk also conducted two previously announced purchase operations totaling \$1 billion as part of the earlier policy of reinvesting principal payments from agency securities into Treasury securities.

Federal Reserve Balance Sheet
Billions of dollars

	Change since last FOMC	Current (10/24/11)
Total assets	-3	2,858
Selected assets:		
Liquidity programs for financial firms	1	2
Primary, secondary, and seasonal credit	-0	+0
Foreign central bank liquidity swaps	1	2
Term Asset-Backed Securities Loan Facility (TALF)	-0	11
Net portfolio holdings of Maiden Lane LLCs	-3	44
Maiden Lane	-2	13
Maiden Lane II	-0	10
Maiden Lane III	-0	21
Securities held outright*	-10	2,640
U.S. Treasury securities	8	1,671
Agency debt securities	-1	108
Agency mortgage-backed securities	-18	862
Total liabilities	-3	2,806
Selected liabilities:		
Federal Reserve notes in circulation	5	1,000
Reverse repurchase agreements	-16	79
Foreign official and international accounts	-16	79
Others	0	0
Reserve balances of depository institutions**	-20	1,521
Term deposits held by depository institutions	0	0
U.S. Treasury, General Account	-12	68
U.S. Treasury, Supplementary Financing Account	0	0
Other deposits	43	118
Total capital	+0	52

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

* Par value.

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

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Appendix

Senior Loan Officer Opinion Survey on Bank Lending Practices

In the October Senior Loan Officer Opinion Survey on Bank Lending Practices, domestic banks, on balance, reported little net change in lending standards or demand over the past three months.¹ Foreign respondents, which mainly lend to businesses, reported a noticeable net tightening of their lending standards.² In response to a special question, a large number of both domestic and foreign respondents indicated considerable tightening of standards on loans to European banks and their affiliates or subsidiaries.

Regarding lending standards, fewer domestic banks eased standards and terms on C&I loans over the third quarter compared with recent quarters, particularly on loans to large and middle-market firms.³ Moreover, about one-third of the 15 branches and agencies of European banks that participated in the survey reported that they had tightened lending standards on C&I loans, with most of those institutions attributing the change at least partly to concerns about their liquidity positions. Standards for commercial and residential real estate loans changed little over the past three months, but a small net fraction of banks indicated that they had eased standards on several types of consumer loans.

According to the survey, demand for loans was roughly unchanged on balance. Although a moderate net fraction of banks reported weaker demand for C&I loans—in contrast to the increased demand reported in the previous three surveys—some of the largest banks reported stronger demand.⁴ Several large banks also reported increased demand for commercial real estate loans. On the household side, demand for loans to purchase homes reportedly improved, though those reports likely reflected the moderate increase in refinancing activity.⁵ Demand for home equity loans decreased and demand for consumer loans reportedly was little changed.

¹ The October 2011 survey addressed changes in the supply of and demand for loans to businesses and households over the past three months. This appendix is based on responses from 51 domestic banks and 22 U.S. branches and agencies of foreign banks. Respondent banks received the survey on or after October 4, 2011, and responses were due by October 18, 2011.

² For questions that ask about lending standards or terms, reported net fractions equal the fraction of banks that reported having tightened standards minus the fraction of banks that reported having eased standards. For questions that ask about demand, reported net fractions equal the fraction of banks that reported stronger demand minus the fraction of banks that reported weaker demand.

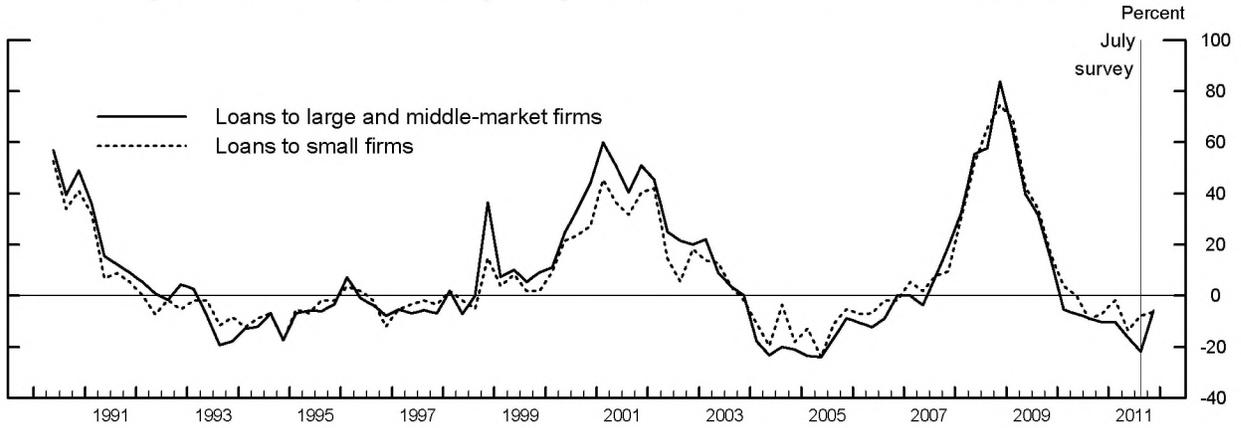
³ *Large and middle-market firms* are generally defined as firms with annual sales of \$50 million or more and *small firms* as those with annual sales of less than \$50 million.

⁴ *Large banks* are defined as banks with assets greater than or equal to \$20 billion as of March 31, 2011, and *other banks* as those with assets of less than \$20 billion.

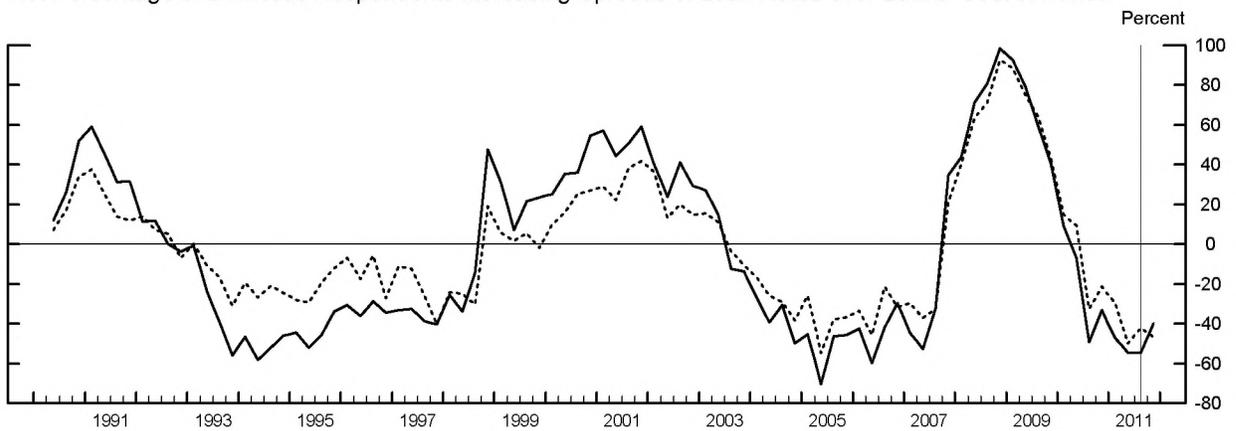
⁵ Survey respondents are instructed to consider only demand for new originations as opposed to the refinancing of existing mortgages. However, the responses to this question are highly correlated with measures of refinancing activity.

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

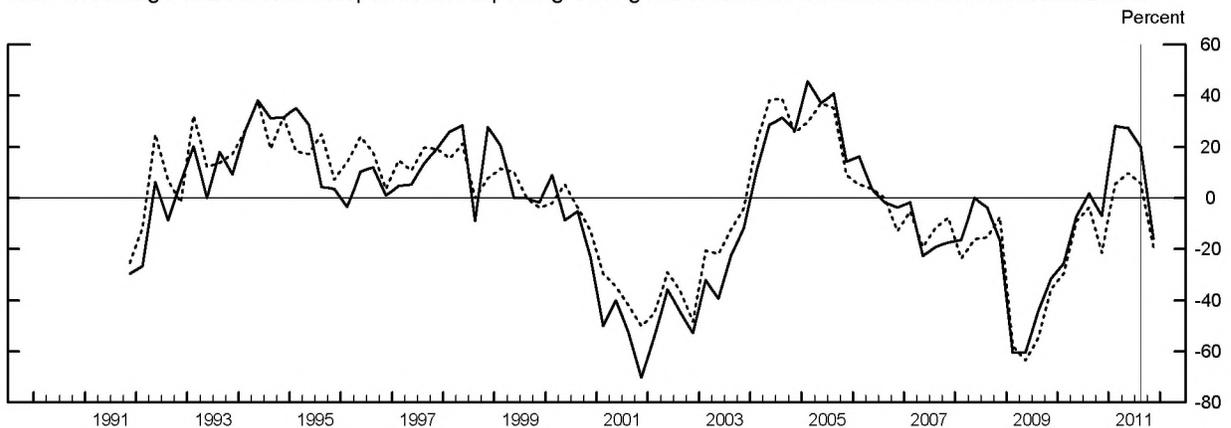
Net Percentage of Domestic Respondents Tightening Standards for Commercial and Industrial Loans



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



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



LENDING TO BUSINESS

Questions on Commercial and Industrial Lending

Only a small net fraction of domestic banks reported having eased standards on C&I loans during the third quarter, in contrast to more widespread reports in previous quarters. This moderate net reduction in easing was concentrated in loans to large and middle-market firms rather than in loans to smaller firms. Moreover, branches and agencies of foreign banks, which generally only lend to larger firms, reported a tightening of standards on C&I loans for the first time in several quarters. Foreign survey respondents included subsidiaries of both European and non-European banks, but this tightening was limited to subsidiaries of European banks, especially French banks, and partly reflected funding pressures at those banks. Domestic banks continued to ease some terms on C&I loans to both large and small firms, including by cutting loan rate spreads over banks' costs of funds and by reducing the use of interest rate floors. However, the fraction of banks reporting such easing of terms on loans to larger firms declined somewhat, and premiums on riskier loans reportedly increased on net. Foreign banks tightened all terms on C&I loans on net. Taken together, these developments are roughly consistent with reports elsewhere of a tightening of terms in the syndicated loan market over the third quarter.

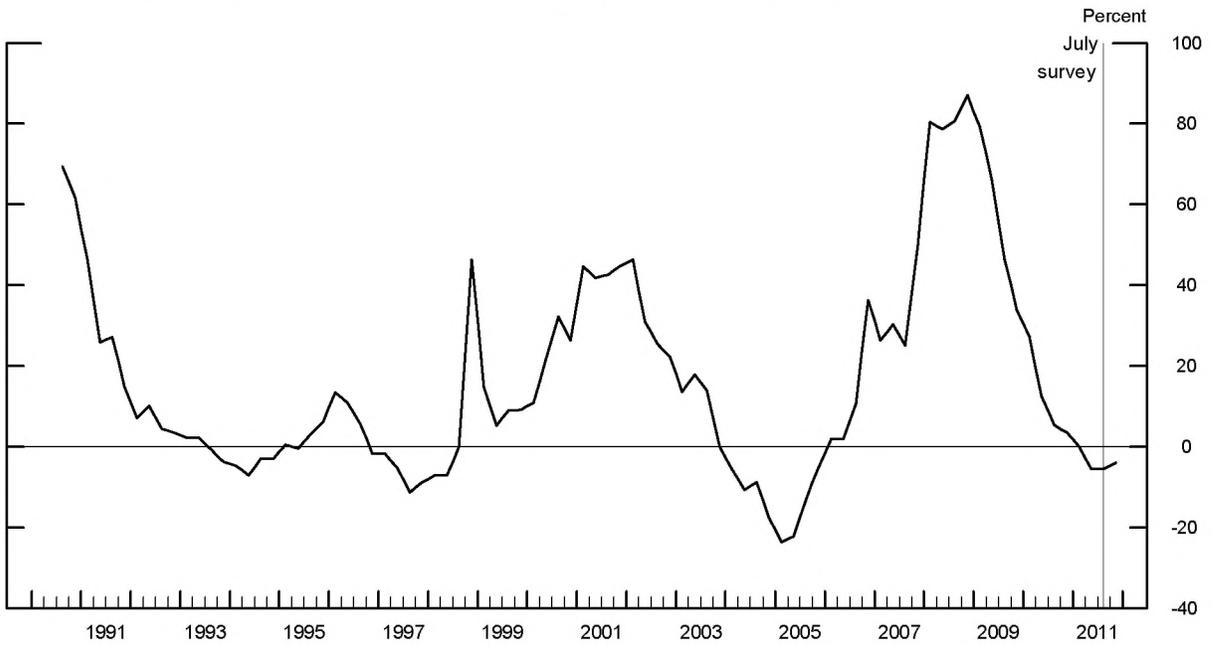
Banks that reported having eased standards or terms on C&I loans continued to widely cite more-aggressive competition from other banks or nonbank lenders. Fewer banks cited a more favorable or less uncertain economic outlook as a reason for easing compared with the previous survey. In contrast, banks that reported having tightened standards unanimously cited a less favorable or more uncertain economic outlook. These banks also noted reduced tolerances for risk, decreased liquidity in the secondary market, and increased concerns about government policies (legislative, supervisory, or accounting). There is some evidence that dollar funding pressures contributed to the tightening at subsidiaries of European banks; most respondents cited a deterioration in their liquidity positions as a reason for tightening loan standards.

Reports of weaker demand for C&I loans outnumbered reports of stronger demand in a noticeable reversal from recent quarters, particularly with respect to demand from large and middle-market firms. However, a couple of the largest banks reported that demand had increased somewhat, and demand actually rose a bit on a weighted basis.⁶ Reports of increased inquiries from potential business borrowers for new credit lines also decreased significantly and, for the first time in several quarters, were outnumbered by reports of decreased inquiries; this strong net shift was also apparent on a weighted basis. Banks that saw stronger demand for C&I loans cited many of the same determinants of demand as banks that saw weaker demand, perhaps reflecting the particular and varying needs of their customers. These factors included the need to finance inventories, accounts receivable, investments in plants and equipment, and merger and acquisition activities. Banks that saw weaker demand for C&I loans were much more likely to cite an

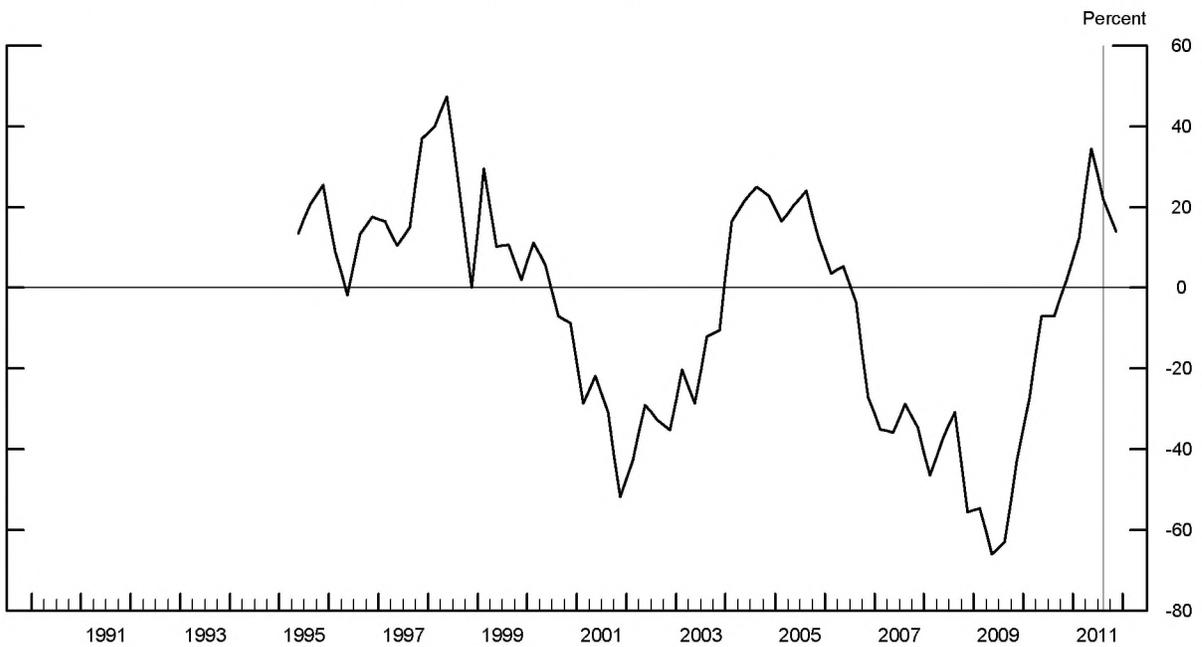
⁶ Responses are weighted by survey respondents' holdings of the relevant loan type, as reported on the June 30, 2011 Call Report.

Measures of Supply and Demand for Commercial Real Estate Loans

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



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



increase in customers' internally generated funds, and banks that saw stronger demand were more likely to cite a shift in borrowing from other bank or nonbank sources.

Special Questions on Lending to Firms with European Exposures

A set of special questions in the October survey asked respondents about lending to banks headquartered in Europe and their affiliates and subsidiaries (regardless of the location of the affiliates and subsidiaries) and to nonfinancial firms that have operations in the United States and significant exposures to European economies (regardless of whether the firms are domestic or foreign).

About one-half of the domestic bank respondents, mostly large banks, indicated that they make loans or extend credit lines to European banks or their affiliates or subsidiaries, and about two-thirds of the foreign respondents indicated the same. Among those domestic and foreign respondents, a large amount—about two-thirds—reported having tightened standards on loans to European banks over the third quarter. Many indicated that the tightening was considerable.

About three-fifths of the domestic respondents, mostly large banks, and all foreign respondents indicated that they make loans or extend credit lines to nonfinancial firms that have operations in the United States and significant exposures to European economies. Among these domestic and foreign respondents, a moderate fraction indicated that they had tightened standards on C&I loans to such firms. These loans reportedly constituted a small portion—less than 5 percent—of outstanding C&I loans at a majority of domestic respondents, although the largest regional and national banks reported greater exposures. Such loans typically accounted for larger portions of the foreign respondents' lending.

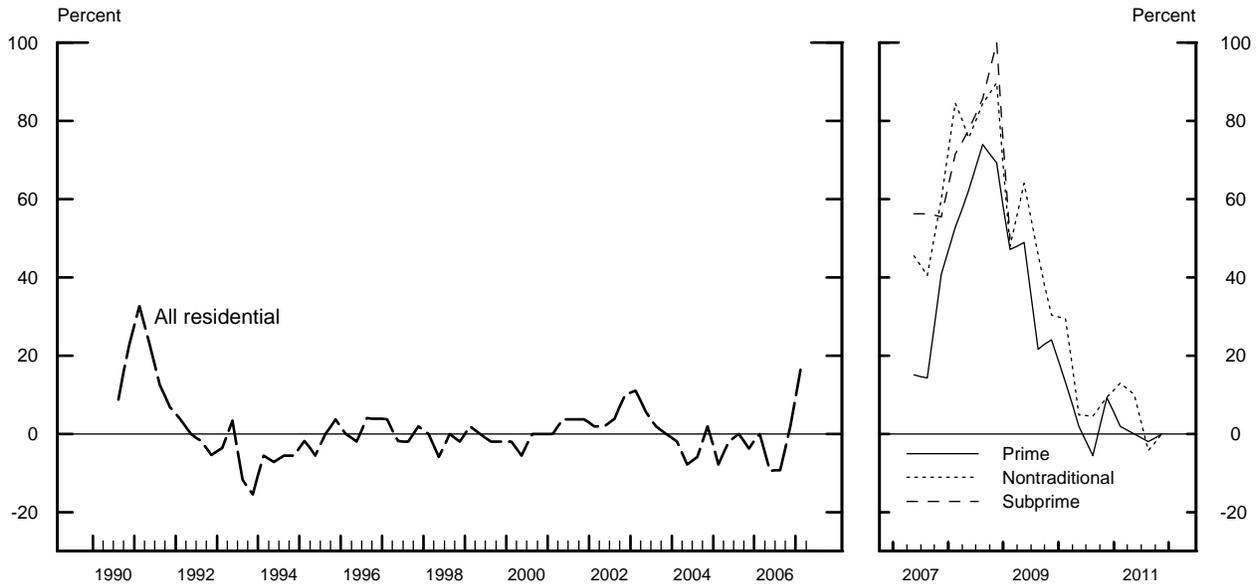
Small net fractions of domestic respondents indicated weaker demand for credit from European banks (and their affiliates or subsidiaries) and from nonfinancial firms with significant exposures to European economies.

Questions on Commercial Real Estate Lending

Domestic banks continued to report little change in their standards on CRE loans, which were widely described in the previous survey as being at or near their tightest levels since 2005. In contrast, a large fraction of foreign respondents reported having tightened standards on CRE loans, in a substantial shift from the net easing reported by those institutions in the prior two surveys. Modest fractions of domestic banks continued to report strengthening of demand for CRE loans, on net, although these reports were a bit less widespread than in the two previous surveys. Also, fewer foreign respondents reported that CRE demand had strengthened than in the previous survey.

Measures of Supply and Demand for Residential Mortgage Loans

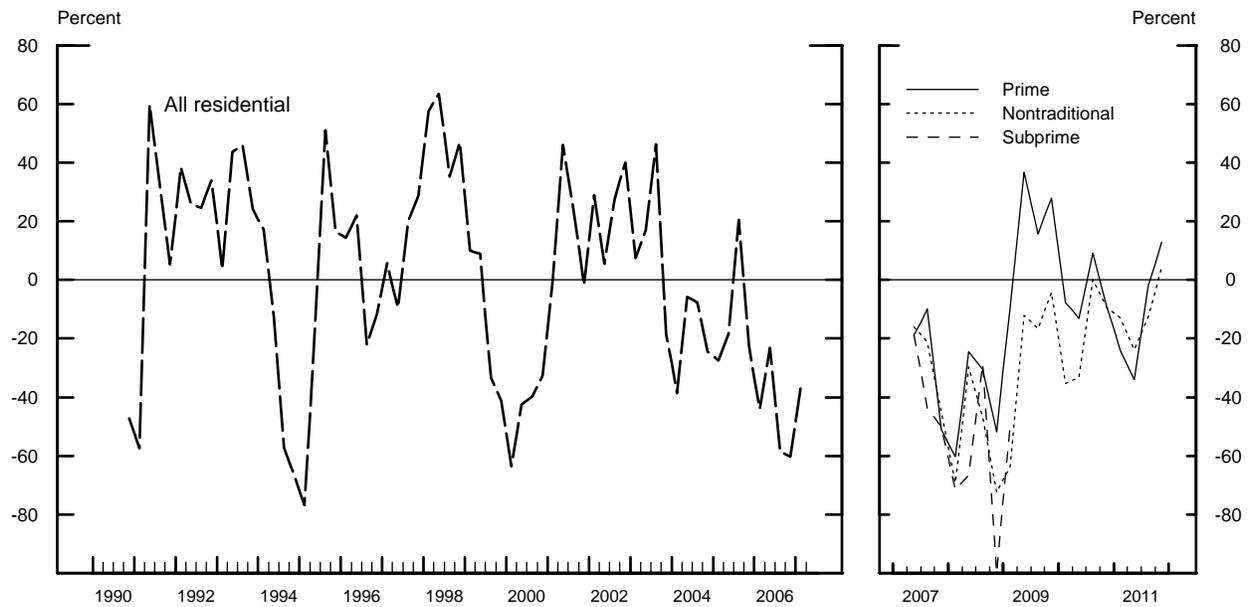
Net Percentage of Domestic Respondents Tightening Standards for Residential Mortgage Loans



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

Financial Developments

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



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

LENDING TO HOUSEHOLDS

Questions on Residential Real Estate Lending

Reports of strengthened demand for mortgage loans to purchase homes outnumbered reports of weaker demand for the first time since early 2010. However, this series tends to respond to increased refinancing activity, as occurred in the third quarter, suggesting that loan officers may have difficulty distinguishing demand for refinancing from demand for mortgages to purchase homes. On a weighted basis, the net change in demand was slightly negative, although noticeably less negative than in recent surveys. The number of banks reporting weaker demand for home equity lines of credit increased notably in the third quarter, particularly among smaller banks.

Few banks reported changes in standards on prime or nontraditional closed-end residential real estate loans, in line with the past several surveys. Therefore, standards likely remain tighter than their average level since 2005 (as reported in the July survey). Similarly, very few banks reported any change in standards for home equity lines of credit, also in line with recent surveys.

Questions on Consumer Lending

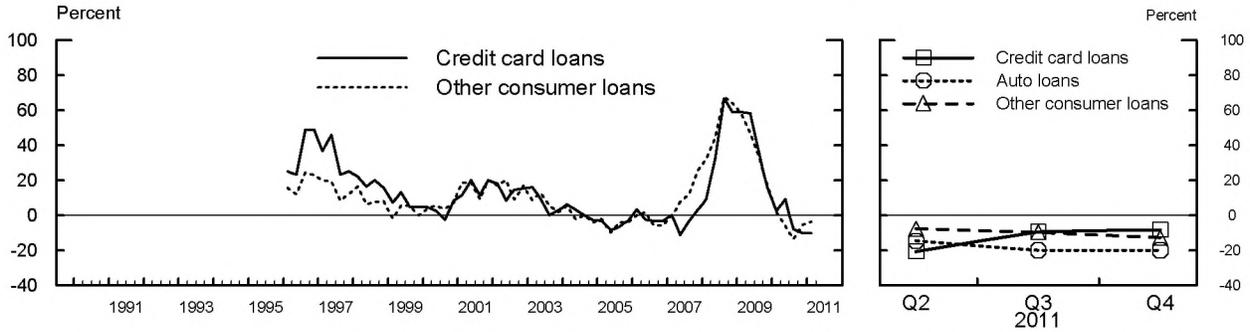
Modest fractions of banks reported having eased standards on consumer credit card loans and on other non-auto loans. As in the previous survey, somewhat larger fractions of banks reported having eased standards on auto loans. These reports suggest a continued modest unwinding of banks' lending standards for these loans, as the July survey had indicated that standards on consumer loans were generally the same as or tighter than the middle of the range of such standards since 2005.

Banks, on net, continued to report having narrowed the spreads of interest rates on auto loans and other non-credit card loans over their cost of funds, though these reports have been volatile over the past few quarters. A modest net fraction of banks also reported lengthening maximum maturities and lowering minimum required credit scores on auto loans. Small numbers of banks reported having eased some terms on credit card loans and other non-auto loans.

A small number of banks, on net, reported a strengthening of demand for consumer credit card and auto loans, in line with the past few quarters. Few banks reported any change in demand for other consumer loans.

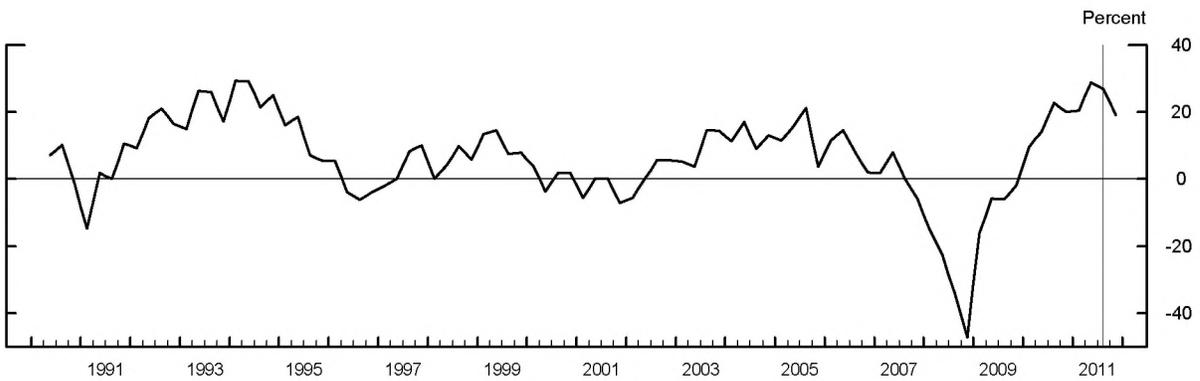
Measures of Supply and Demand for Consumer Loans

Net Percentage of Domestic Respondents Tightening Standards for Consumer Loans

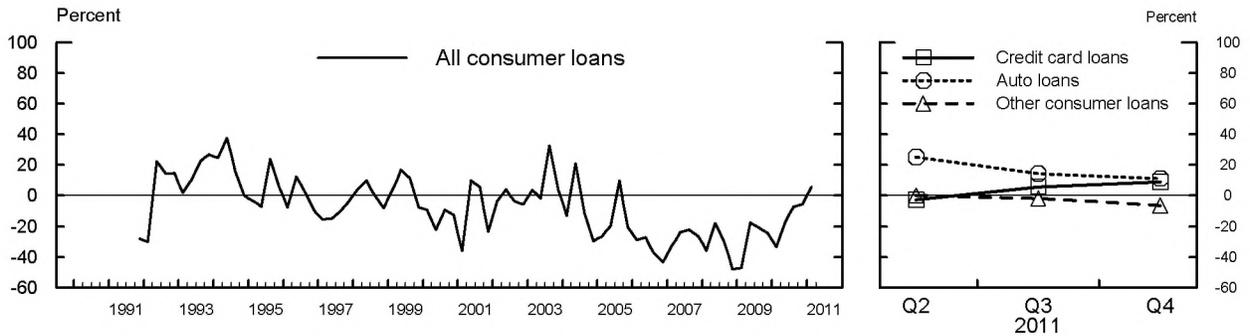


Note: For data starting in 2011:Q2, changes in standards for auto loans and consumer loans excluding credit card and auto loans are reported separately. In 2011:Q2 only, new and used auto loans are reported separately and equally weighted to calculate the auto loans series.

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



Net Percentage of Domestic Respondents Reporting Stronger Demand for Consumer Loans



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

Risks and Uncertainty

ASSESSMENT OF FORECAST UNCERTAINTY

We continue to see the risks around our projection for real economic activity as skewed to the downside and as elevated relative to the average experience of the past 20 years (the benchmark used by the FOMC Committee). The financial crisis and the subsequent recession were both large and historically unusual, making it difficult to judge the relative influences of supply and demand in generating the contraction as well as the likely pace of the recovery going forward. In addition, uncertainty about the ability of domestic monetary and fiscal policy to address near-term economic weakness is high and magnified, in the case of fiscal policy, by the fact that current policies are not sustainable over the longer run. In fact, relative to the June Tealbook, when we last reported our views on this issue, our uncertainty about the outlook for real activity has increased somewhat. Some of this heightened uncertainty reflects the increased strains in European financial markets and the attendant question of whether policymakers there will successfully resolve the situation. In addition, the domestic financial system appears more vulnerable to adverse developments now than it did in June.

We continue to see the risks around our baseline projection for inflation as somewhat elevated relative to the experience of the past 20 years, but—unlike the case with real activity—we view them as roughly balanced. With regard to balance, very low levels of resource utilization, small increases in labor costs, the federal funds rate having reached its effective lower bound, and more-pessimistic views on the economic outlook could, on the one hand, cause inflation to drift down over time. On the other hand, concerns related to the size of the Federal Reserve's balance sheet and the viability of executing a timely exit from the current stance of policy could cause inflation to move up, as might renewed increases in commodity prices, a more-pronounced weakening in the exchange value of the dollar, and concerns about undisciplined fiscal policy. With regard to the overall degree of uncertainty, difficulties associated with gauging economic slack in the wake of an unusually deep recession imply risks—in both directions—to our assessment of the role that slack will play in influencing inflation going forward. Nevertheless, we see the relative stability of inflation expectations over the past four years (and before) as limiting the risks in this area.

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	2.5	3.2	3.9	3.8
Recession	-2.5	-1.9	3.7	4.6	5.5
Lost decade	2.3	1.9	1.9	2.1	2.4
Greater supply-side damage	2.3	1.6	1.8	1.8	2.2
Faster snapback	2.9	3.2	3.7	3.8	3.0
Faster global recovery	2.7	3.3	4.1	3.7	3.3
European crisis with severe spillovers	1.6	-3.8	.4	4.6	5.3
<i>Unemployment rate¹</i>					
Extended Tealbook baseline	9.1	8.6	8.1	7.3	6.0
Recession	9.6	11.6	11.5	10.4	7.3
Lost decade	9.2	9.0	8.9	9.1	9.3
Greater supply-side damage	9.1	8.6	8.4	8.5	8.9
Faster snapback	9.1	8.2	7.3	6.4	5.9
Faster global recovery	9.1	8.3	7.4	6.6	5.6
European crisis with severe spillovers	9.2	10.9	11.8	10.9	8.3
<i>Total PCE prices</i>					
Extended Tealbook baseline	1.8	1.4	1.4	1.5	1.6
Recession	1.8	1.0	.3	-.2	-.1
Lost decade	1.8	1.4	1.3	1.3	1.0
Greater supply-side damage	1.8	2.0	2.6	2.7	2.5
Faster snapback	1.8	1.4	1.5	1.8	2.0
Faster global recovery	1.9	2.2	2.2	1.6	1.4
European crisis with severe spillovers	1.1	-1.4	-.1	1.1	2.1
<i>Core PCE prices</i>					
Extended Tealbook baseline	1.8	1.5	1.4	1.4	1.5
Recession	1.8	1.1	.3	-.3	-.2
Lost decade	1.8	1.5	1.3	1.2	.9
Greater supply-side damage	1.8	2.1	2.6	2.6	2.4
Faster snapback	1.8	1.5	1.5	1.7	1.9
Faster global recovery	1.8	1.8	1.9	1.6	1.5
European crisis with severe spillovers	1.6	-.3	.1	.9	1.8
<i>Federal funds rate¹</i>					
Extended Tealbook baseline	.1	.1	.1	.6	2.9
Recession	.1	.1	.1	.1	.3
Lost decade	.1	.1	.1	.1	.1
Greater supply-side damage	.1	.1	1.0	1.7	1.8
Faster snapback	.1	.1	.7	1.7	2.9
Faster global recovery	.1	.1	.1	1.3	3.3
European crisis with severe spillovers	.1	.1	.1	.1	1.9

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

ALTERNATIVE SCENARIOS

To illustrate some of the risks to the outlook, we construct several alternatives to the baseline projection using simulations of staff models. In the first scenario, we assume that the economy is slipping into recession and that the fragile condition of many households and some financial institutions, in conjunction with the limited capacity of policymakers to buffer the downturn, cause what would otherwise be a modest recession to escalate into a sizable retrenchment in economic activity. In the second simulation, we assume that several factors, such as the capacity of the financial system to support the expansion, are more restrictive than in the baseline and will markedly restrain the pace of economic recovery for many years, resulting in a “lost decade” reminiscent of the Japanese experience. The third scenario builds on the second one by assuming that substantial damage to the supply side of the economy has already been sustained, implying that the margin of slack is narrower than assumed in the baseline, and that gradual recognition of these less favorable supply-side conditions by policymakers cause long-run inflation expectations to increase appreciably. The next two scenarios consider upside risks to real activity, with the first featuring a vigorous snapback in domestic demand, and the second centering on faster foreign economic growth that sets off a virtuous cycle domestically and abroad. The final scenario considers the risk of a severe financial crisis in Europe, with significant spillovers to the United States and the rest of the world.

We generate the first four scenarios using the FRB/US model and an estimated policy rule that responds to core PCE inflation and the staff concept of economic slack. The last 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.¹

Recession

While the recent spending data have had a somewhat firmer tone, the economic recovery has nonetheless been disappointingly slow and remains precarious. In particular, a moribund housing sector, restricted access to credit, and ongoing balance

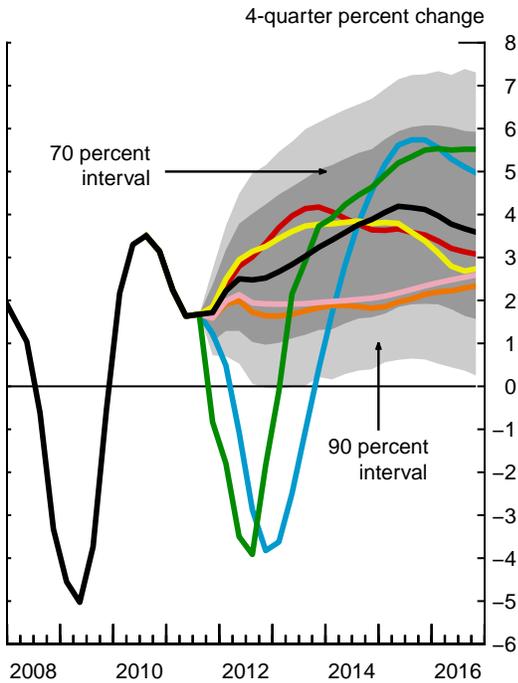
¹ In the simulations using the FRB/US model, the federal funds rate follows the outcome-based rule described in the appendix on policy rules in Book B. In the simulations using SIGMA, the policy rule is broadly similar, but uses a measure of slack equal to the difference between actual output and the model’s estimate of the level of output that would occur in the absence of a slow adjustment in wages and prices.

Forecast Confidence Intervals and Alternative Scenarios

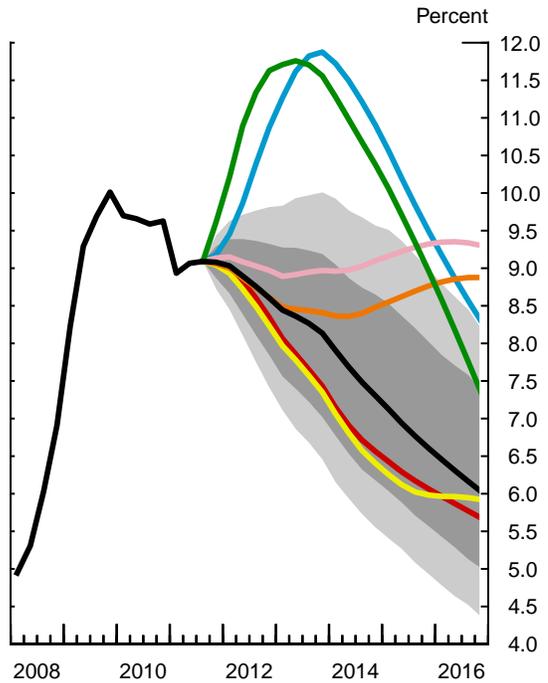
Confidence Intervals Based on FRB/US Stochastic Simulations

- Extended Tealbook baseline
- Greater supply-side damage
- Faster global recovery
- Recession
- Faster snapback
- European crisis with severe spillovers
- Lost decade

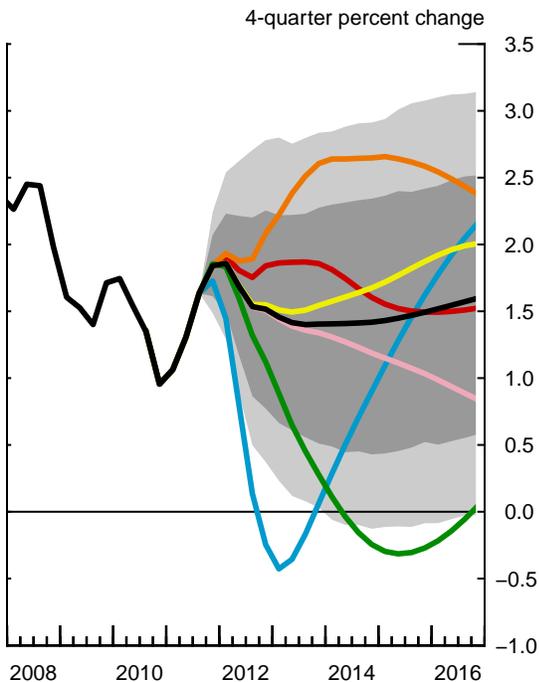
Real GDP



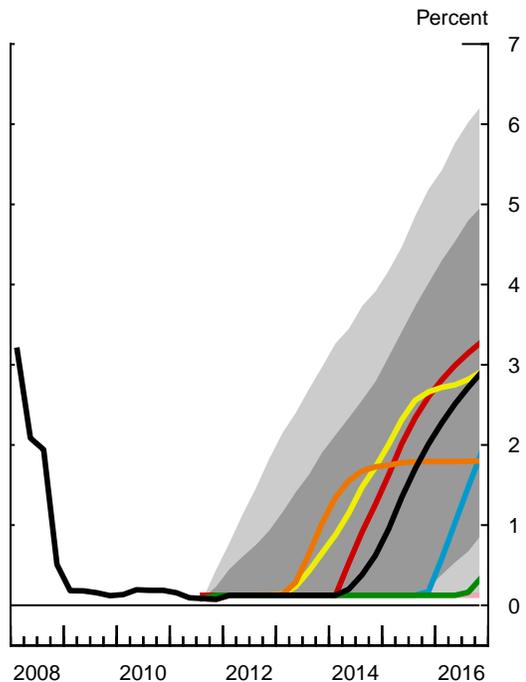
Unemployment Rate



PCE Prices excluding Food and Energy



Federal Funds Rate



Risks & Uncertainty

sheet repair continue to weigh heavily on the spending decisions of households and firms. We assume in this scenario that, going forward, these factors contribute to an unusually high degree of pessimism and place further strains on financial institutions, thereby tipping the economy into recession. Moreover, the downturn is markedly exacerbated by the limited ability of monetary and fiscal policy to counteract the weakness. Real GDP contracts 2 percent in 2012, causing the unemployment rate to rise to 11½ percent. Thereafter, the economy gradually recovers but the unemployment rate falls only to 7¼ percent in late 2016. Such a persistent and elevated degree of economic slack puts substantial downward pressure on inflation, and consumer prices decline modestly from 2014 to 2016. Under these conditions, the federal funds rate remains near zero until late 2016.

Lost Decade

Our baseline forecast depends importantly on steady improvements in the balance sheet positions of households and financial institutions, credit availability, consumer and business confidence, and the willingness of firms to hire. In this scenario, these improvements are much slower to materialize than in the baseline and cause the pace of recovery to remain exceedingly slow, resulting in a “lost decade.” Moreover, the persistently sluggish growth in spending and output has a corrosive effect on the supply side of the economy because, with unemployment remaining very high for many years, the skills and labor force attachment of unemployed workers erode more than in the baseline. As a result, the downward trend in labor force participation steepens relative to the baseline and the NAIRU edges up to 6¼ percent by 2014 (½ percentage point above baseline) and thereafter falls at a slower pace. In all, potential GDP expands about ½ percentage point more slowly per year through 2016. Under these conditions, real GDP expands at only a 2¼ percent annual rate on average through the middle of the decade. Because the expansion in aggregate demand barely outpaces the growth of potential output on average, the unemployment rate remains close to 9 percent through 2016 and inflation eventually falls below 1 percent. With real activity so weak and inflation so low, the federal funds rate remains at its effective lower bound beyond 2016.

Greater Supply-Side Damage

Although the previous scenario incorporated weaker growth in potential output over the projection period, it assumed that the staff’s estimate of the current level of economic slack is correct. However, we may have underestimated how much damage

**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>						
<i>(percent change, Q4 to Q4)</i>						
Projection	1.7	2.5	3.2	3.9	4.1	3.6
Confidence interval						
Tealbook forecast errors	1.2–2.2	.8–4.2	1.5–5.0	...	...	...
FRB/US stochastic simulations	1.0–2.4	1.0–4.2	1.3–5.1	1.6–5.5	1.9–6.1	1.6–5.9
<i>Civilian unemployment rate</i>						
<i>(percent, Q4)</i>						
Projection	9.1	8.6	8.1	7.3	6.6	6.0
Confidence interval						
Tealbook forecast errors	9.0–9.2	7.9–9.3	6.9–9.3	...	...	...
FRB/US stochastic simulations	8.9–9.3	7.8–9.3	7.0–9.2	6.2–8.6	5.6–8.0	5.0–7.4
<i>PCE prices, total</i>						
<i>(percent change, Q4 to Q4)</i>						
Projection	2.7	1.4	1.4	1.5	1.5	1.6
Confidence interval						
Tealbook forecast errors	2.4–2.9	.1–2.6	.2–2.6	...	...	...
FRB/US stochastic simulations	2.2–3.1	.3–2.5	.1–2.6	.1–2.8	.1–2.8	.2–2.9
<i>PCE prices excluding food and energy</i>						
<i>(percent change, Q4 to Q4)</i>						
Projection	1.8	1.5	1.4	1.4	1.5	1.6
Confidence interval						
Tealbook forecast errors	1.6–2.1	.8–2.2	.6–2.2	...	...	...
FRB/US stochastic simulations	1.6–2.1	.8–2.3	.5–2.3	.4–2.3	.5–2.4	.6–2.5
<i>Federal funds rate</i>						
<i>(percent, Q4)</i>						
Projection	.1	.1	.1	.6	2.0	2.9
Confidence interval						
FRB/US stochastic simulations	.1–.2	.1–.9	.1–1.9	.1–2.8	.2–4.0	.9–5.0

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.

has already occurred to the economy's productive potential, and this scenario builds on the previous one by further assuming that the current output gap is half as wide as in the baseline, reflecting both lower potential labor input and smaller multifactor productivity gains over the past few years. Accordingly, real GDP rises at an annual rate of about 1¾ percent for the next three years and about 2¼ percent thereafter. Owing to the weaker supply conditions in this scenario, the rate of increase in real GDP is sufficient to push the unemployment rate down a bit next year and in 2013; thereafter, the weak economy causes the unemployment rate to settle in at slightly below 9 percent. Because policymakers are assumed to recognize only gradually the less favorable supply-side conditions, long-run inflation expectations gradually drift up. Reflecting the upward movement in inflation expectations, as well as the effects of lower productivity and a smaller margin of slack, core PCE inflation moves above 2½ percent in 2013 and stays near that level through 2016.

Faster Snapback

Recent spending data have been stronger than expected, suggesting some upside risks to the outlook. In this scenario, the effects of the adverse factors that have held back the recovery to date dissipate more rapidly than in the baseline, leading to a more robust expansion. Real GDP rises at an annual rate of about 3 percent in the second half of this year and 3½ percent on average in 2012 and 2013, bringing the unemployment rate down to 7¼ percent by the end of 2013, about ¾ percentage point below baseline. Initially, the stronger pace of recovery has little effect on inflation because higher investment increases labor productivity (thereby holding down unit labor costs) and because long-run inflation expectations are well anchored. In time, however, tighter labor and product markets cause inflation to move up more than in the baseline. Largely in response to the stronger pace of real activity, the federal funds rate begins to rise in mid-2013.

Faster Global Recovery

In this scenario, output growth across our major trading partners turns out to be modestly stronger than we expect, as favorable real-side developments contribute to, and are reinforced by, a more rapid return of confidence and improvement in the tone of financial markets. Specifically, foreign output expands about 1 percentage point faster than in the baseline through the end of 2013, as sentiment improves, consumption picks up, and corporate risk spreads fall; in addition, the broad real dollar depreciates about

5 percent relative to baseline due to a reversal of safe-haven flows and faster removal of monetary accommodation abroad. The stronger foreign activity and the weaker dollar cause U.S. real net exports to rise relative to the baseline. Moreover, a modest decline in U.S. corporate risk spreads, which are assumed to fall about 50 basis points relative to baseline, also helps to boost domestic spending. All told, U.S. real GDP rises 3¼ percent in 2012 and 4 percent in 2013, and the unemployment rate falls to 7½ percent by the end of 2013. Higher import prices and stronger activity boost core PCE inflation to nearly 2 percent in 2012 and 2013, and induce the federal funds rate to rise in early 2014, about two quarters sooner than in the baseline.

European Crisis with Severe Spillovers

In this scenario, Europe's financial difficulties intensify markedly, perhaps due to a disorderly sovereign default or the failure of a large financial institution. Given substantial cross-border financial and macroeconomic linkages, Europe's financial difficulties are assumed to have large spillovers to the United States and throughout the world. Specifically, European sovereign and private borrowing costs soar, with corporate bond spreads rising 400 basis points above baseline. European real GDP declines almost 9 percent relative to baseline by the second half of 2012, notwithstanding a 20 percent depreciation of the euro. Financial market spillovers to the United States push U.S. corporate spreads up by over 300 basis points relative to baseline. U.S. domestic demand contracts sharply in response to higher borrowing costs, a weaker stock market, and eroding 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 nearly 4 percent next year and the unemployment rate rises to nearly 12 percent by mid-2013.² This greater resource slack, coupled with lower import prices, pushes core PCE inflation below zero in 2012. Under these conditions, the federal funds rate remains near zero until the third quarter of 2015.

OUTSIDE FORECASTS

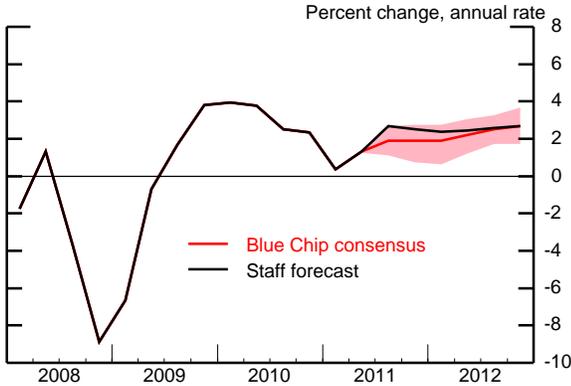
In the October 10 survey, the Blue Chip consensus forecast for the increase in real GDP in the second half of this year was 1.9 percent, somewhat below the current staff

² The contraction in U.S. GDP is much larger than in the "Very Severe Financial Stress in Europe" scenario presented in the September Tealbook because this scenario assumes significantly larger financial spillovers to the United States and a greater decline in household and business confidence. (By contrast, the shocks to Europe are essentially identical to those included in the September Tealbook scenario.)

projection. The consensus projection showed real GDP rising 2.3 percent over the four quarters of 2012, just a touch below the staff projection. The Blue Chip forecast for the unemployment rate at the end of 2012 was 8.9 percent, which was above the staff projection of 8.6 percent. Regarding inflation, the Blue Chip panelists anticipated that the overall CPI will increase 3.4 percent over the four quarters of 2011 and 2 percent in 2012, in line with the staff projection for 2011, but more than $\frac{1}{2}$ percentage point higher in 2012.

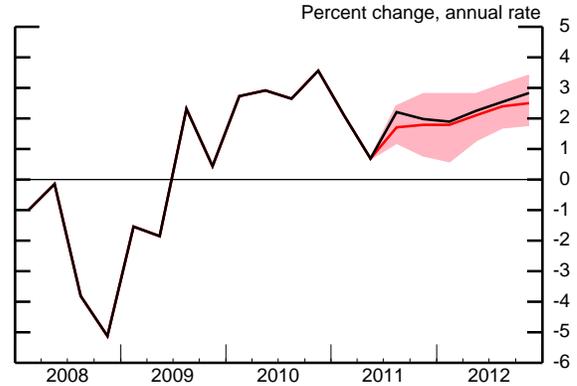
Tealbook Forecast Compared with Blue Chip (Blue Chip survey released October 10, 2011)

Real GDP

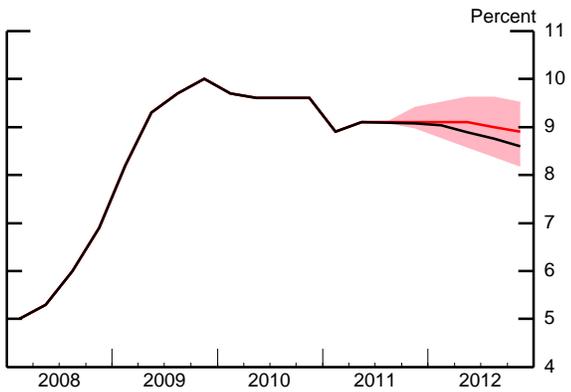


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

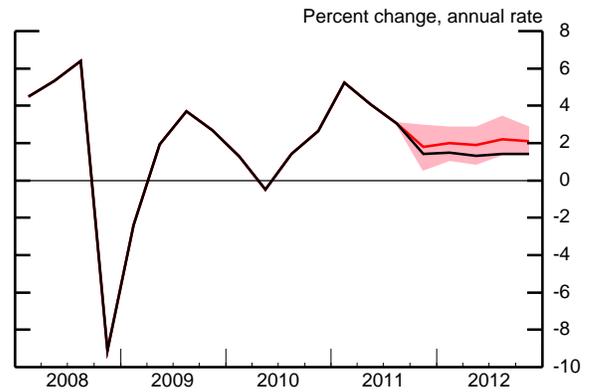
Real PCE



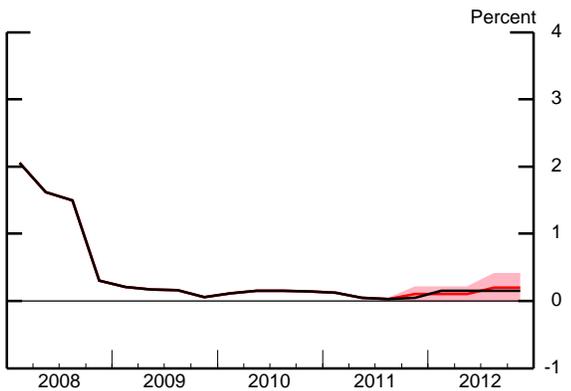
Unemployment Rate



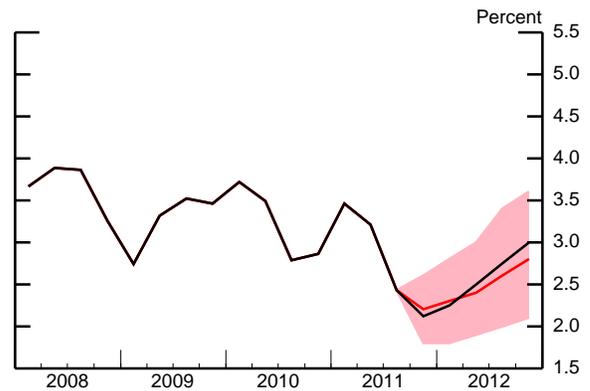
Consumer Price Index



Treasury Bill Rate



10-Year Treasury Yield



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

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

Interval	Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate ¹	
	09/14/11	10/26/11	09/14/11	10/26/11	09/14/11	10/26/11	09/14/11	10/26/11	09/14/11	10/26/11
<i>Quarterly</i>										
2011:Q1	3.1	3.1	.4	.4	3.9	3.9	1.6	1.6	8.9	8.9
Q2	3.8	4.0	1.2	1.3	3.2	3.3	2.2	2.3	9.1	9.1
Q3	5.3	5.2	2.5	2.7	2.2	2.3	2.1	2.1	9.1	9.1
Q4	3.9	3.9	2.0	2.5	1.2	1.2	1.7	1.5	9.1	9.1
2012:Q1	2.9	3.5	2.2	2.4	.9	1.4	1.6	1.6	9.1	9.0
Q2	4.5	5.0	2.3	2.5	1.3	1.4	1.5	1.6	9.0	8.9
Q3	4.0	4.0	2.7	2.6	1.3	1.3	1.4	1.5	8.9	8.8
Q4	4.2	3.9	3.0	2.7	1.3	1.3	1.4	1.4	8.7	8.6
2013:Q1	4.1	4.0	3.2	2.9	1.3	1.4	1.3	1.4	8.5	8.4
Q2	5.5	5.5	3.3	3.1	1.3	1.4	1.3	1.4	8.4	8.4
Q3	4.9	4.8	3.5	3.4	1.3	1.4	1.3	1.4	8.3	8.3
Q4	4.8	4.8	3.6	3.5	1.3	1.4	1.4	1.4	8.1	8.1
<i>Two-quarter²</i>										
2011:Q2	3.5	3.5	.8	.8	3.6	3.6	1.9	1.9	-5	-5
Q4	4.6	4.6	2.2	2.6	1.7	1.8	1.9	1.8	.0	.0
2012:Q2	3.7	4.2	2.3	2.4	1.1	1.4	1.6	1.6	-1	-2
Q4	4.1	4.0	2.9	2.6	1.3	1.3	1.4	1.4	-3	-3
2013:Q2	4.8	4.7	3.2	3.0	1.3	1.4	1.3	1.4	-3	-2
Q4	4.9	4.8	3.5	3.4	1.3	1.4	1.3	1.4	-3	-3
<i>Four-quarter³</i>										
2010:Q4	4.7	4.7	3.1	3.1	1.3	1.3	1.0	1.0	-4	-4
2011:Q4	4.0	4.1	1.5	1.7	2.6	2.7	1.9	1.8	-5	-5
2012:Q4	3.9	4.1	2.6	2.5	1.2	1.4	1.5	1.5	-4	-5
2013:Q4	4.8	4.8	3.4	3.2	1.3	1.4	1.3	1.4	-6	-5
<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	4.0	1.7	1.8	2.4	2.5	1.5	1.5	9.0	9.0
2012	3.9	4.2	2.3	2.4	1.4	1.6	1.7	1.6	8.9	8.8
2013	4.6	4.5	3.1	2.9	1.3	1.4	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.

Changes in Real Gross Domestic Product and Related Items

(Percent, annual rate except as noted)

Item	2011				2012				2013				2011 ¹	2012 ¹	2013 ¹
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
	Real GDP	.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
<i>Previous Tealbook</i>	.4	1.2	2.5	2.0	2.2	2.3	2.7	3.0	3.2	3.3	3.5	3.6	1.5	2.6	3.4
Final sales	.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
<i>Previous Tealbook</i>	.0	1.5	1.7	1.8	2.0	2.2	2.4	3.0	2.8	3.0	3.0	2.8	1.2	2.4	2.9
Priv. dom. final purch.	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
<i>Previous Tealbook</i>	2.0	1.7	2.1	1.2	1.8	2.2	2.7	3.2	3.2	3.5	3.7	3.8	1.7	2.5	3.5
Personal cons. expend.	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
<i>Previous Tealbook</i>	2.1	.4	1.7	1.1	1.7	2.1	2.4	2.7	2.9	3.1	3.2	3.4	1.3	2.3	3.1
Durables	11.7	-5.3	9.4	10.7	4.8	6.2	6.6	7.7	7.8	8.5	8.6	8.7	6.4	6.3	8.4
Nondurables	1.6	.2	-2.1	.6	1.1	1.4	1.6	1.8	1.8	1.9	2.3	2.5	.1	1.5	2.1
Services	.8	1.9	2.6	1.1	1.7	1.9	2.2	2.4	2.4	2.5	2.7	2.7	1.6	2.0	2.6
Residential investment	-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
<i>Previous Tealbook</i>	-2.4	3.8	-1.3	-8	3.8	7.2	8.7	9.1	8.8	9.7	9.7	10.3	-2	7.2	9.6
Business fixed invest.	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
<i>Previous Tealbook</i>	2.1	10.7	5.4	2.6	1.6	1.9	3.6	4.7	4.0	5.2	5.9	5.4	5.1	2.9	5.1
Equipment & software	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
<i>Previous Tealbook</i>	8.7	6.7	6.0	4.2	4.0	3.9	6.1	7.1	5.5	6.7	7.7	7.0	6.4	5.3	6.7
Nonres. structures	-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
<i>Previous Tealbook</i>	-14.3	22.6	3.7	-1.6	-4.8	-3.6	-3.2	-1.8	-1	.8	.9	1.0	1.7	-3.4	.6
Net exports ²	-424	-416	-403	-397	-382	-369	-366	-354	-348	-342	-338	-336	-410	-368	-341
<i>Previous Tealbook²</i>	-424	-416	-405	-384	-361	-344	-337	-322	-313	-304	-297	-293	-407	-341	-302
Exports	7.9	3.6	6.0	7.6	7.2	6.8	6.6	6.6	6.8	6.9	6.7	6.5	6.2	6.8	6.7
Imports	8.3	1.4	2.2	5.0	3.2	3.3	5.0	3.4	4.7	4.7	4.9	5.2	4.2	3.7	4.9
Gov't. cons. & invest.	-5.9	-9	-1.2	1.4	-8	-5	-4	-3	-3	-8	-1.5	-2.2	-1.7	-5	-1.2
<i>Previous Tealbook</i>	-5.9	-1.0	-1.8	.8	-8	-5	-4	-3	-3	-8	-1.5	-2.2	-2.0	-5	-1.2
Federal	-9.4	1.9	-2.2	4.6	-7	-6	-8	-8	-1.4	-3.0	-5.0	-6.8	-1.4	-7	-4.1
Defense	-12.6	7.0	-2	5.1	-5	.2	.0	.1	-8	-3.1	-6.0	-8.7	-5	-1	-4.7
Nondefense	-2.7	-7.6	-6.2	3.6	-1.1	-2.2	-2.6	-2.6	-2.6	-2.7	-2.7	-2.7	-3.3	-2.2	-2.7
State & local	-3.4	-2.8	-6	-8	-8	-5	-2	.0	.5	.7	.9	.9	-1.9	-4	.8
Change in bus. inventories ²	49	39	34	47	67	73	80	72	81	91	105	130	42	73	102
<i>Previous Tealbook²</i>	49	45	69	75	79	83	92	93	105	114	132	158	59	87	127
Nonfarm ²	60	51	36	49	66	72	79	71	80	90	104	129	49	72	101
Farm ²	-8	-9	-2	-2	1	1	1	1	1	1	1	1	-5	1	1

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

2. Billions of chained (2005) dollars.

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

Item	2005	2006	2007	2008	2009	2010	2011	2012	2013
Real GDP	2.8	2.4	2.2	-3.3	-5	3.1	1.7	2.5	3.2
<i>Previous Tealbook</i>	2.8	2.4	2.2	-3.3	-5	3.1	1.5	2.6	3.4
Final sales	2.7	2.8	2.4	-2.6	-8	2.4	1.7	2.3	2.8
<i>Previous Tealbook</i>	2.7	2.8	2.4	-2.6	-8	2.4	1.2	2.4	2.9
Priv. dom. final purch.	3.2	2.4	1.2	-4.5	-2.5	3.6	2.3	2.5	3.5
<i>Previous Tealbook</i>	3.2	2.4	1.2	-4.5	-2.5	3.6	1.7	2.5	3.5
Personal cons. expend.	2.8	3.2	1.7	-2.5	-2	3.0	1.7	2.4	3.1
<i>Previous Tealbook</i>	2.8	3.2	1.7	-2.5	-2	3.0	1.3	2.3	3.1
Durables	2.8	7.0	4.6	-13.0	3.0	10.9	6.4	6.3	8.4
Nondurables	3.1	2.9	.8	-3.1	.6	3.5	.1	1.5	2.1
Services	2.7	2.6	1.4	-.5	-.9	1.6	1.6	2.0	2.6
Residential investment	5.3	-15.7	-20.7	-24.4	-12.9	-6.3	1.5	6.2	9.2
<i>Previous Tealbook</i>	5.3	-15.7	-20.7	-24.4	-12.9	-6.3	-.2	7.2	9.6
Business fixed invest.	4.5	7.8	7.9	-9.4	-14.4	11.1	6.5	2.9	5.0
<i>Previous Tealbook</i>	4.5	7.8	7.9	-9.4	-14.4	11.1	5.1	2.9	5.1
Equipment & software	6.2	6.0	3.9	-13.6	-5.8	16.6	7.7	5.3	6.7
<i>Previous Tealbook</i>	6.2	6.0	3.9	-13.6	-5.8	16.6	6.4	5.3	6.7
Nonres. structures	-.1	13.0	17.3	-1.2	-29.3	-1.8	3.2	-3.4	.3
<i>Previous Tealbook</i>	-.1	13.0	17.3	-1.2	-29.3	-1.8	1.7	-3.4	.6
Net exports ¹	-723	-729	-649	-495	-359	-422	-410	-368	-341
<i>Previous Tealbook</i> ¹	-723	-729	-649	-495	-359	-422	-407	-341	-302
Exports	6.7	10.2	10.1	-2.5	-.1	8.8	6.2	6.8	6.7
Imports	5.2	4.1	.8	-5.9	-6.5	10.7	4.2	3.7	4.9
Gov't. cons. & invest.	.7	1.5	1.9	2.7	1.1	.1	-1.7	-.5	-1.2
<i>Previous Tealbook</i>	.7	1.5	1.9	2.7	1.1	.1	-2.0	-.5	-1.2
Federal	1.2	2.2	3.1	8.8	4.6	2.9	-1.4	-.7	-4.1
Defense	.4	4.4	2.6	9.8	3.5	1.5	-.5	-.1	-4.7
Nondefense	2.6	-2.3	4.2	6.8	6.9	5.7	-3.3	-2.2	-2.7
State & local	.4	1.2	1.2	-.9	-1.1	-1.7	-1.9	-.4	.8
Change in bus. inventories ¹	50	59	28	-36	-145	59	42	73	102
<i>Previous Tealbook</i> ¹	50	59	28	-36	-145	59	59	87	127
Nonfarm ¹	50	63	29	-38	-144	61	49	72	101
Farm ¹	0	-4	-1	1	-1	-1	-5	1	1

1. Billions of chained (2005) dollars.

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

Item	2011				2012				2013				2011 ¹	2012 ¹	2013 ¹	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
	Real GDP <i>Previous Tealbook</i>	.4	1.3	2.7	2.5	2.4	2.5	2.6	2.7	2.7	2.9	3.1				3.4	3.5	1.7	2.5	3.2
Final sales <i>Previous Tealbook</i>	.0	1.6	3.0	2.1	1.7	2.3	2.3	2.9	2.9	2.7	2.8	2.9	2.8	1.7	2.3	2.8
Priv. dom. final purch. <i>Previous Tealbook</i>	1.6	1.6	2.8	1.6	1.5	2.0	2.4	2.6	2.6	2.6	2.8	3.1	3.2	1.9	2.1	2.9
Personal cons. expend. <i>Previous Tealbook</i>	1.5	.5	1.6	1.4	1.4	1.6	1.8	2.0	2.0	2.0	2.1	2.3	2.4	1.2	1.7	2.2
Durables	.9	-4	.7	.8	.4	.5	.5	.6	.6	.6	.7	.7	.7	.5	.5	.6
Nondurables	.3	.0	-3	.1	.2	.2	.3	.3	.3	.3	.3	.4	.4	.0	.2	.3
Services	.4	.9	1.2	.5	.8	.9	1.0	1.1	1.1	1.1	1.2	1.3	1.3	.7	1.0	1.2
Residential investment <i>Previous Tealbook</i>	-1	.1	.0	.1	.1	.2	.2	.2	.2	.2	.2	.2	.2	.0	.1	.2
Business fixed invest. <i>Previous Tealbook</i>	.2	1.0	1.2	.1	.0	.3	.4	.5	.5	.3	.5	.6	.6	.6	.3	.5
Equipment & software <i>Previous Tealbook</i>	.6	.4	.9	.3	.2	.2	.4	.5	.5	.4	.5	.6	.6	.5	.3	.5
Nonres. structures <i>Previous Tealbook</i>	-4	.5	.4	-1	-1	-1	-1	-1	-1	.0	.0	.0	.0	.1	-1	.0
Net exports <i>Previous Tealbook</i>	-3	.2	.4	.2	.4	.4	.1	.3	.2	.2	.2	.1	.0	.1	.3	.1
Exports	-3	.3	.3	.6	.7	.5	.2	.4	.4	.2	.3	.2	.1	.2	.5	.2
Imports	1.0	.5	.8	1.0	1.0	.9	.9	.9	.9	1.0	1.0	1.0	.9	.8	1.0	1.0
Gov't. cons. & invest. <i>Previous Tealbook</i>	-1.4	-2	-4	-9	-6	-6	-9	-6	-6	-8	-8	-9	-9	-7	-7	-9
Federal	-1.2	-2	-2	.3	-2	-1	-1	-1	-1	.0	-1	-3	-4	-3	-1	-2
Defense	-1.2	-2	-4	.2	-2	-1	-1	-1	-1	-2	-1	-3	-4	-4	-1	-2
Nondefense	-8	.2	-2	.4	-1	.0	-1	-1	-1	-1	-2	-4	-5	-1	-1	-3
State & local	-7	.4	.0	.3	.0	.0	.0	.0	.0	.0	-2	-3	-5	.0	.0	-3
Change in bus. inventories <i>Previous Tealbook</i>	-1	-2	-2	.1	.0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Nonfarm	-4	-3	-1	-1	-1	-1	.0	.0	.0	.1	.1	.1	.1	-2	.0	.1
Farm	.3	-3	-3	.4	.6	.2	.2	-2	-2	.3	.3	.4	.7	.0	.2	.4
	.3	-2	.8	.2	.1	.1	.3	.0	.0	.4	.3	.6	.8	.3	.2	.5
	.4	-3	-5	.4	.5	.2	.2	-2	-2	.3	.3	.4	.7	.0	.2	.4
	-1	.0	.2	.0	.1	.0	.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 ¹	2012 ¹	2013 ¹
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
	GDP chain-wt. price index <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 <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 <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 <i>Previous Tealbook</i>	40.7	15.0	2.2	-6.1	-9.5	-2.6	-3	.3	.7	.6	.4	.5	11.6	-3.1	.6
Ex. food & energy <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, market based <i>Previous Tealbook</i>	6.5	6.4	3.3	2.2	1.4	1.3	1.4	1.4	1.4	1.4	1.3	1.4	4.6	1.4	1.4
CPI <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 <i>Previous Tealbook</i>	1.6	2.2	2.1	1.7	1.6	1.5	1.4	1.4	1.3	1.3	1.3	1.4	1.9	1.5	1.3
ECI, hourly compensation ² <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
Nonfarm business sector Output per hour <i>Previous Tealbook</i>	1.3	2.4	2.2	1.5	1.5	1.4	1.3	1.3	1.2	1.1	1.2	1.2	1.9	1.4	1.2
Compensation per hour <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
Unit labor costs <i>Previous Tealbook</i>	5.2	4.1	2.7	1.2	.6	1.2	1.4	1.4	1.4	1.4	1.3	1.4	3.3	1.2	1.4
Core goods imports chain-wt. price index ³ <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
	1.7	2.5	2.6	2.0	1.7	1.6	1.6	1.5	1.4	1.4	1.4	1.4	2.2	1.6	1.4
	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
	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
	-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
	-6	-3	3.0	1.0	.8	1.2	1.6	1.7	1.7	1.6	1.8	1.8	.8	1.3	1.8
	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
	5.6	2.7	1.4	1.7	2.4	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.8	2.3	2.2
	6.2	2.8	-1.6	.2	1.5	1.0	1.0	.9	.7	.5	.5	.5	1.9	1.1	.6
	6.2	3.0	-1.6	.8	1.6	1.0	.8	.6	.5	.6	.4	.4	2.1	1.0	.5
	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
	8.3	7.4	2.6	1.0	.9	1.4	1.6	1.6	1.6	1.5	1.4	1.4	4.8	1.4	1.5

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 <i>Previous Tealbook</i>	3.5 3.5	2.9 2.9	2.6 2.6	2.1 2.1	.7 .7	1.6 1.6	2.2 2.4	1.5 1.3	1.5 1.4
PCE chain-wt. price index <i>Previous Tealbook</i>	3.2 3.2	1.9 1.9	3.5 3.5	1.7 1.7	1.5 1.5	1.3 1.3	2.7 2.6	1.4 1.2	1.4 1.3
Energy <i>Previous Tealbook</i>	21.5 21.5	-3.7 -3.7	19.3 19.3	-8.8 -8.8	2.6 2.6	6.2 6.2	12.1 11.6	-4 -3.1	1.2 .6
Food <i>Previous Tealbook</i>	1.5 1.5	1.7 1.7	4.7 4.7	7.0 7.0	-1.7 -1.7	1.3 1.3	5.3 4.6	1.2 1.4	1.2 1.4
Ex. food & energy <i>Previous Tealbook</i>	2.3 2.3	2.3 2.3	2.4 2.4	2.0 2.0	1.7 1.7	1.0 1.0	1.8 1.9	1.5 1.5	1.4 1.3
Ex. food & energy, market based <i>Previous Tealbook</i>	2.0 2.0	2.2 2.2	2.1 2.1	2.2 2.2	1.7 1.7	.7 .7	1.8 1.9	1.4 1.4	1.3 1.2
CPI <i>Previous Tealbook</i>	3.7 3.7	2.0 2.0	4.0 4.0	1.6 1.6	1.5 1.5	1.2 1.2	3.4 3.3	1.4 1.2	1.5 1.4
Ex. food & energy <i>Previous Tealbook</i>	2.1 2.1	2.7 2.7	2.3 2.3	2.0 2.0	1.7 1.7	.6 .6	2.2 2.2	1.6 1.6	1.5 1.4
ECI, hourly compensation ¹ <i>Previous Tealbook</i> ¹	2.9 2.9	3.2 3.2	3.0 3.0	2.4 2.4	1.2 1.2	2.1 2.1	2.5 2.5	2.4 2.4	2.3 2.3
Nonfarm business sector Output per hour <i>Previous Tealbook</i>	1.6 1.6	.8 .8	2.5 2.5	-1.1 -1.1	5.3 5.3	2.5 2.5	1.0 .8	1.2 1.3	1.7 1.8
Compensation per hour <i>Previous Tealbook</i>	3.5 3.5	4.5 4.5	3.6 3.6	2.5 2.5	1.8 1.8	1.6 1.6	2.9 2.8	2.3 2.3	2.2 2.2
Unit labor costs <i>Previous Tealbook</i>	1.9 1.9	3.6 3.6	1.1 1.1	3.7 3.7	-3.3 -3.3	-9 -9	1.9 2.1	1.1 1.0	.6 .5
Core goods imports chain-wt. price index ² <i>Previous Tealbook</i> ²	2.2 2.2	2.5 2.5	2.9 2.9	3.7 3.7	-1.7 -1.7	2.6 2.6	4.4 4.8	1.2 1.4	1.7 1.5

1. Private-industry workers.

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

Other Macroeconomic Indicators

Item	2011				2012				2013				2011 ¹	2012 ¹	2013 ¹
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
	<i>Employment and production</i>	4	.5	.2	.3	.4	.4	.5	.5	.6	.6	.7			
Nonfarm payroll employment ²	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
Unemployment rate ³	8.9	9.1	9.1	9.1	9.1	9.0	8.9	8.7	8.5	8.4	8.3	8.1	9.1	8.7	8.1
<i>Previous Tealbook³</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
NAIRU ³	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
<i>Previous Tealbook³</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
GDP gap ⁴	-6.0	-6.2	-6.2	-6.2	-6.2	-6.1	-6.0	-5.8	-5.6	-5.3	-5.0	-4.7	-6.2	-5.8	-4.7
<i>Previous Tealbook⁴</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
Industrial production ⁵	4.8	1.0	5.9	4.2	1.2	2.4	3.7	3.0	3.4	3.7	3.5	3.6	4.0	2.6	3.5
<i>Previous Tealbook⁵</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
Manufacturing industr. prod. ⁵	7.1	1.0	5.1	4.0	.6	2.6	4.5	3.6	3.7	4.1	3.9	3.9	4.3	2.8	3.9
<i>Previous Tealbook⁵</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
Capacity utilization rate - mfg. ³	74.5	74.5	75.3	75.8	75.7	76.0	76.6	77.1	77.5	78.0	78.4	78.9	75.8	77.1	78.9
<i>Previous Tealbook³</i>	.6	.6	.6	.6	.7	.7	.8	.8	.9	.9	1.0	1.0	.6	.7	.9
Housing starts ⁶	13.0	12.1	12.5	13.2	13.2	13.3	13.5	13.8	14.0	14.3	14.5	14.7	12.7	13.5	14.4
Light motor vehicle sales ⁶	3.1	4.0	5.2	3.9	3.5	5.0	4.0	3.9	4.0	5.5	4.8	4.8	4.1	4.1	4.8
<i>Income and saving</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
Nominal GDP ⁵	1.2	.9	.4	3.2	-1	3.4	3.8	3.7	2.4	2.9	3.0	3.1	1.4	2.7	2.9
Real disposable pers. income ⁵	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
Personal saving rate ³	5.0	5.2	5.0	5.4	5.0	5.3	5.5	5.7	5.6	5.6	5.5	5.5	5.4	5.7	5.5
<i>Previous Tealbook³</i>	4.2	13.7	10.8	2.7	-2.6	.2	-2.6	2.3	3.2	6.3	4.2	5.1	7.7	-7	4.7
Corporate profits ⁷	12.4	12.7	12.8	12.8	12.6	12.5	12.3	12.2	12.2	12.3	12.2	12.3	12.8	12.2	12.3
Profit share of GNP ³	-1,201	-1,265	-1,185	-1,194	-1,004	-980	-962	-939	-863	-836	-812	-777	-1,211	-971	-822
Net federal savings ⁸	-57	-40	-63	-68	-65	-53	-53	-48	-48	-38	-41	-42	-57	-55	-42
Net state & local saving ⁸	12.6	12.7	12.9	13.0	13.2	13.4	13.5	13.6	13.7	13.9	13.9	14.1	13.0	13.6	14.1
Gross national saving rate ³	-1	-1	.4	.5	.7	1.0	1.0	1.1	1.3	1.5	1.6	1.9	.5	1.1	1.9
Net national saving rate ³															

1. Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise indicated.

2. Change, millions.

3. Percent; annual values are for the fourth quarter of the year indicated.

4. Percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.

Annual values are for the fourth quarter of the year indicated.

5. Percent change, annual rate.

6. Level, millions; annual values are annual averages.

7. Percent change, annual rate, with inventory valuation and capital consumption adjustments.

8. Billions of dollars; annual values are annual averages.

Greensheets

Other Macroeconomic Indicators

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

Item	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Employment and production</i>									
Nonfarm payroll employment ¹	2.4	2.1	1.2	-2.8	-5.6	.7	1.4	1.8	2.7
Unemployment rate ²	5.0	4.5	4.8	6.9	10.0	9.6	9.1	8.6	8.1
<i>Previous Tealbook</i> ²	5.0	4.5	4.8	6.9	10.0	9.6	9.1	8.7	8.1
NAIRU ²	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0	6.0
<i>Previous Tealbook</i> ²	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0	6.0
GDP gap ³	.1	.0	-.2	-5.4	-7.0	-5.6	-6.0	-5.6	-4.7
<i>Previous Tealbook</i> ³	.1	.0	-.1	-5.4	-6.9	-5.6	-6.2	-5.8	-4.7
Industrial production ⁴	2.3	2.3	2.5	-9.1	-5.5	6.2	3.7	2.6	3.5
<i>Previous Tealbook</i> ⁴	2.3	2.3	2.5	-9.1	-5.5	6.2	4.0	2.6	3.5
Manufacturing industr. prod. ⁴	3.4	2.0	2.8	-11.8	-6.1	6.1	3.9	2.8	3.9
<i>Previous Tealbook</i> ⁴	3.4	2.0	2.8	-11.8	-6.1	6.1	4.3	2.8	3.9
Capacity utilization rate - mfg. ²	78.5	78.4	79.0	70.1	67.7	73.3	75.5	76.8	78.7
<i>Previous Tealbook</i> ²	78.5	78.4	79.0	70.1	67.7	73.3	75.8	77.1	78.9
Housing starts ⁵	2.1	1.8	1.4	.9	.6	.6	.6	.7	.9
Light motor vehicle sales ⁵	16.9	16.5	16.1	13.1	10.3	11.5	12.7	13.5	14.4
<i>Income and saving</i>									
Nominal GDP ⁴	6.4	5.3	4.9	-1.2	.0	4.7	4.1	4.1	4.8
Real disposable pers. income ⁴	.6	4.6	1.6	1.0	-2.4	3.5	1.5	2.5	3.1
<i>Previous Tealbook</i> ⁴	.6	4.6	1.6	1.0	-2.4	3.5	1.4	2.7	2.9
Personal saving rate ²	1.6	2.8	2.5	6.2	4.3	5.2	5.1	5.1	5.1
<i>Previous Tealbook</i> ²	1.6	2.8	2.5	6.2	4.3	5.2	5.4	5.7	5.5
Corporate profits ⁶	19.6	3.7	-8.1	-33.5	61.8	18.2	7.7	-7.7	4.7
Profit share of GNP ²	11.8	11.6	10.1	6.8	11.0	12.4	12.8	12.2	12.3
Net federal saving ⁷	-283	-204	-245	-613	-1218	-1274	-1211	-971	-822
Net state & local saving ⁷	26	51	12	-72	-78	-25	-57	-55	-42
Gross national saving rate ²	15.6	16.5	13.9	12.6	11.3	12.3	13.0	13.6	14.1
Net national saving rate ²	3.6	4.4	1.7	-6	-1.9	-4	.5	1.1	1.9

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 ^a	2011 ^a	2012	2013	Q1 ^a	Q2 ^a	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Unified budget																	
Receipts ¹	2163	2302	2578	2776	488	714	568	571	552	797	659	638	572	854	712	665	
Outlays ¹	3456	3601	3626	3621	949	855	897	921	959	894	852	937	929	892	863	947	
Surplus/deficit ¹	-1293	-1299	-1048	-845	-460	-141	-328	-350	-408	-98	-193	-298	-357	-38	-152	-282	
<i>Previous Tealbook</i>																	
On-budget	-1293	-1296	-1083	-865	-460	-141	-325	-369	-409	-108	-198	-302	-358	-47	-157	-286	
Off-budget	-1370	-1366	-1079	-886	-451	-202	-313	-366	-395	-150	-168	-330	-340	-88	-127	-311	
	77	67	31	41	-10	61	-15	16	-13	52	-25	32	-17	50	-25	30	
Means of financing																	
Borrowing	1474	1110	1048	925	260	93	389	339	378	118	213	318	377	58	172	302	
Cash decrease	-35	252	8	0	225	-19	79	-32	40	-0	0	0	0	0	0	0	
Other ²	-146	-63	-8	-80	-24	67	-140	43	-10	-20	-20	-20	-20	-20	-20	-20	
Cash operating balance, end of period	310	58	50	50	118	137	58	90	50	50	50	50	50	50	50	50	
NIPA federal sector																	
Receipts	2379	2538	2794	3014	2528	2564	2588	2619	2818	2853	2886	2925	3002	3044	3085	3127	
Expenditures	3648	3772	3829	3877	3729	3829	3772	3813	3821	3833	3848	3864	3865	3881	3897	3905	
Consumption expenditures	1042	1068	1098	1104	1059	1078	1075	1091	1099	1101	1103	1105	1109	1106	1098	1085	
Defense	697	713	743	752	701	723	726	736	742	745	748	751	756	754	747	736	
Nondefense	346	355	356	352	358	354	350	355	357	356	355	353	353	352	350	349	
Other spending	2606	2704	2730	2772	2670	2752	2697	2721	2723	2745	2745	2759	2756	2775	2800	2820	
Current account surplus	-1269	-1235	-1035	-863	-1201	-1265	-1185	-1194	-1004	-980	-962	-939	-863	-836	-812	-777	
Gross investment	165	164	162	161	161	160	160	162	162	162	162	163	162	161	158	153	
Gross saving less gross investment ³	-1305	-1263	-1053	-872	-1227	-1288	-1205	-1215	-1023	-998	-977	-953	-874	-844	-815	-773	
Fiscal indicators⁴																	
High-employment (HEB) surplus/deficit	-937	-919	-695	-533	-893	-933	-853	-857	-660	-639	-624	-605	-528	-508	-493	-468	
Change in HEB, percent of potential GDP	1.1	-3	-1.6	-1.1	-7	2	-6	0	-1.2	-2	-1	-1	-5	-1	-1	-2	
Fiscal impetus (FI), percent of GDP	0.5	-0.1	-0.9	-0.8	-0.6	0.4	-0.4	0.2	-1.4	-0.9	-0.7	-0.7	-0.8	-0.6	-0.8	-0.8	
<i>Previous Tealbook</i>	0.5	-0.1	-1.0	-0.8	-0.6	0.4	-0.1	0.1	-1.4	-0.9	-0.8	-0.7	-0.8	-0.6	-0.8	-0.8	

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

Change in Debt of the Domestic Nonfinancial Sectors
(Percent)

Period ¹	Total	Households			Business	State and local governments	Federal government	Memo: Nominal GDP
		Total	Home mortgages	Consumer credit				
<i>Year</i>								
2006	9.0	10.0	11.1	4.1	10.6	8.3	3.9	5.3
2007	8.6	6.7	6.8	5.8	13.1	9.5	4.9	4.9
2008	6.0	.1	-5	1.5	5.6	2.3	24.2	-1.2
2009	3.1	-1.6	-1.4	-4.4	-2.7	4.9	22.7	.0
2010	4.2	-2.0	-2.9	-1.8	.3	4.5	20.2	4.7
2011	3.7	-6	-1.8	3.0	3.3	-5	11.5	4.1
2012	4.3	1.2	-2	5.1	3.3	2.9	9.8	4.1
2013	4.3	1.7	.1	6.4	4.0	2.8	7.9	4.8
<i>Quarter</i>								
2010:1	3.6	-3.1	-4.9	-3.9	-6	4.5	20.6	5.5
2	3.9	-2.1	-2.5	-3.3	-1.7	-3	22.5	5.4
3	3.9	-2.1	-2.5	-2.2	1.4	4.8	16.0	3.9
4	5.1	-7	-1.8	2.3	2.2	8.9	16.4	4.2
2011:1	1.9	-2.0	-2.7	2.2	2.8	-4.2	7.9	3.1
2	3.0	-6	-2.4	3.4	4.0	-3.1	8.6	4.0
3	4.9	-1	-1.2	2.5	3.3	1.8	14.1	5.2
4	5.0	.3	-1.0	3.8	3.2	3.7	13.6	3.9
2012:1	4.6	.7	-5	4.2	2.9	3.0	11.6	3.5
2	4.0	1.1	-2	4.7	3.2	2.8	8.6	5.0
3	3.4	1.3	.0	5.3	3.3	2.8	6.2	4.0
4	5.2	1.6	.1	6.0	3.7	2.8	11.6	3.9
2013:1	5.0	1.6	.1	6.2	3.8	2.8	10.5	4.0
2	3.6	1.7	.1	6.2	3.9	2.7	5.8	5.5
3	3.2	1.7	.1	6.3	4.1	2.7	4.3	4.8
4	5.0	1.7	.1	6.3	4.1	2.7	10.1	4.8

Note: Quarterly data are at seasonally adjusted annual rates.

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

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

Measure and country	2011				2012				2013			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP ¹												
Total foreign	4.0	2.3	3.6	2.8	2.8	2.9	3.0	3.1	3.3	3.4	3.4	3.4
<i>Previous Tealbook</i>	4.1	2.2	3.5	3.0	3.1	3.1	3.2	3.2	3.4	3.4	3.4	3.5
Advanced foreign economies	2.2	.1	2.3	1.5	1.4	1.5	1.6	1.8	1.9	2.1	2.1	2.2
Canada	3.6	-4	2.4	2.5	2.1	2.1	2.1	2.2	2.4	2.4	2.5	2.5
Japan	-3.7	-2.1	6.7	2.2	2.3	2.0	1.8	1.7	1.6	1.6	1.6	1.6
United Kingdom	1.6	.4	1.6	1.0	1.4	1.7	1.9	2.1	2.4	2.5	2.6	2.6
Euro area	3.1	.7	.9	-2	-2	.2	.5	.8	1.2	1.5	1.6	1.6
Germany	5.5	.5	1.6	.7	.7	.9	1.2	1.6	1.9	2.2	2.4	2.4
Emerging market economies	6.0	4.7	4.9	4.2	4.4	4.4	4.6	4.6	4.7	4.7	4.8	4.8
Asia	8.3	5.1	6.1	5.2	5.5	5.5	5.7	5.7	5.9	5.9	6.0	6.0
Korea	5.4	3.6	4.3	3.6	3.6	3.7	3.8	3.8	3.9	4.1	4.3	4.5
China	8.2	10.0	9.5	8.5	8.2	8.1	8.1	8.1	8.2	8.2	8.3	8.3
Latin America	3.8	4.4	3.7	3.2	3.2	3.2	3.4	3.4	3.4	3.4	3.4	3.5
Mexico	2.4	4.5	4.0	3.2	3.1	3.1	3.3	3.3	3.3	3.3	3.3	3.3
Brazil	5.0	3.1	2.2	2.7	3.2	3.3	3.3	3.3	3.7	3.8	3.8	4.0
Consumer prices ²												
Total foreign	4.3	3.2	3.1	2.7	2.5	2.2	2.3	2.3	2.3	2.4	2.5	2.5
<i>Previous Tealbook</i>	4.3	3.2	2.9	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4
Advanced foreign economies	3.2	2.1	1.1	1.7	1.3	1.1	1.2	1.3	1.3	1.4	1.5	1.6
Canada	3.6	3.1	1.0	2.3	2.2	1.8	1.9	1.9	1.9	2.0	2.0	2.0
Japan	.4	-8	.4	-3	-4	-3	-3	-3	-3	-3	-3	-2
United Kingdom	7.5	3.8	3.3	4.0	1.8	1.3	1.5	2.9	1.9	1.7	1.9	3.2
Euro Area	3.6	2.8	1.3	1.8	1.1	1.1	1.2	1.3	1.4	1.7	1.9	2.0
Germany	3.6	2.2	1.6	1.8	1.5	1.6	1.6	1.6	1.6	1.8	1.9	2.0
Emerging market economies	5.1	4.0	4.7	3.6	3.4	3.1	3.1	3.1	3.2	3.2	3.2	3.2
Asia	5.3	4.7	5.3	3.3	3.2	2.9	2.9	2.8	3.0	3.0	3.0	3.0
Korea	5.7	2.2	6.1	4.0	3.1	2.9	2.9	2.9	3.0	2.9	2.9	2.9
China	4.6	5.8	6.2	3.2	3.2	2.7	2.7	2.7	2.8	2.9	2.9	2.9
Latin America	4.3	2.5	3.6	4.3	4.1	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Mexico	3.6	1.8	3.3	4.0	3.8	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Brazil	9.5	7.5	5.6	6.1	5.7	5.3	4.9	4.9	5.3	5.1	4.9	4.9

¹ Foreign GDP aggregates calculated using shares of U.S. exports.

² Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

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

Measure and country	-----Projected-----									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Real GDP ¹										
Total foreign	4.1	4.2	4.4	-9	.8	4.3	3.2	3.0	3.4	
<i>Previous Tealbook</i>	4.0	4.2	4.3	-8	.7	4.3	3.2	3.2	3.4	
Advanced foreign economies	2.8	2.6	2.6	-1.9	-1.4	2.7	1.5	1.6	2.1	
Canada	3.1	1.9	2.5	-7	-1.4	3.3	2.0	2.1	2.4	
Japan	2.9	2.1	1.8	-4.7	-1.8	2.5	.7	2.0	1.6	
United Kingdom	2.8	2.1	4.1	-5.4	-8	1.3	1.2	1.8	2.5	
Euro area	2.1	3.8	2.4	-2.1	-2.1	1.9	1.1	.3	1.5	
Germany	1.6	4.9	2.4	-1.9	-2.2	3.8	2.0	1.1	2.2	
Emerging market economies	5.8	6.3	6.7	.4	3.4	6.1	5.0	4.5	4.8	
Asia	7.6	7.8	8.8	.9	7.9	7.5	6.2	5.6	6.0	
Korea	5.2	4.6	5.8	-3.2	6.3	4.7	4.2	3.7	4.2	
China	10.3	12.8	13.7	7.7	11.4	9.6	9.1	8.1	8.2	
Latin America	3.9	4.8	4.4	-4	-9	4.5	3.8	3.3	3.4	
Mexico	3.6	4.1	3.5	-1.2	-2.3	4.2	3.5	3.2	3.3	
Brazil	2.2	4.8	6.6	.8	5.0	5.0	3.3	3.3	3.8	
Consumer prices ²										
Total foreign	2.3	2.2	3.7	3.3	1.3	3.2	3.3	2.3	2.4	
<i>Previous Tealbook</i>	2.3	2.2	3.7	3.3	1.3	3.2	3.1	2.3	2.4	
Advanced foreign economies	1.6	1.4	2.2	2.0	.2	1.7	2.0	1.2	1.5	
Canada	2.3	1.4	2.5	1.8	.8	2.2	2.5	2.0	2.0	
Japan	-7	.3	.5	1.0	-2.0	-3	-1	-4	-3	
United Kingdom	2.1	2.7	2.1	3.9	2.1	3.4	4.6	1.9	2.2	
Euro Area	2.3	1.8	2.9	2.3	.4	2.0	2.4	1.2	1.7	
Germany	2.2	1.3	3.1	1.7	.3	1.6	2.3	1.6	1.8	
Emerging market economies	3.0	2.9	5.1	4.6	2.1	4.4	4.3	3.2	3.2	
Asia	2.5	2.4	5.5	3.6	1.3	4.3	4.7	2.9	3.0	
Korea	2.5	2.1	3.4	4.5	2.4	3.6	4.5	2.9	2.9	
China	1.4	2.1	6.7	2.5	.6	4.7	4.9	2.8	2.9	
Latin America	3.8	4.2	4.2	6.7	3.9	4.4	3.6	3.8	3.7	
Mexico	3.1	4.1	3.8	6.2	4.0	4.3	3.2	3.5	3.4	
Brazil	6.1	3.2	4.3	6.2	4.2	5.4	7.1	5.2	5.1	

¹ Foreign GDP aggregates calculated using shares of U.S. exports.

² Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

Abbreviations

ABCP	asset-backed commercial paper
ABS	asset-backed securities
AFE	advanced foreign economy
BEA	Bureau of Economic Analysis, Department of Commerce
BOE	Bank of England
CD	certificate of deposit
CDS	credit default swap
C&I	commercial and industrial
CMBS	commercial mortgage-backed securities
CPI	consumer price index
CRE	commercial real estate
ECB	European Central Bank
EDO Model	Estimated Dynamic Optimization-Based Model
EME	emerging market economy
EPS	earnings per share
E&S	equipment and software
EUC	Emergency Unemployment Compensation
FOMC	Federal Open Market Committee; also, the Committee
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
PCE	personal consumption expenditures
PMI	purchasing managers index
repo	repurchase agreement
SFA	Supplementary Financing Account
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices
SNB	Swiss National Bank
SOMA	System Open Market Account
TALF	Term Asset-Backed Securities Loan Facility
TGA	Treasury's General Account
TIPS	Treasury inflation-protected securities
WTI	West Texas Intermediate