

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

August 3, 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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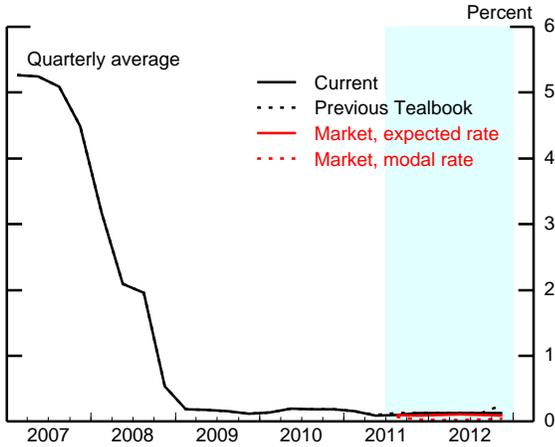
Domestic Economic Developments and Outlook

The information on economic activity that we have received since the June Tealbook has been notably weaker than we had expected, extending a string of several months of disappointing economic news. Real GDP is now estimated to have increased at an average annual rate of only 1 percent in the first half of this year, compared with our estimate of 2 percent in the previous projection. Consumer spending outside of motor vehicles has been quite sluggish in recent months, consumer confidence has slumped again, indicators of business sentiment and production have softened noticeably, and the housing market remains depressed. Moreover, the labor market appears to be in worse shape than earlier in the year, with employment growth stepping down sharply in May and June and the unemployment rate edging up.

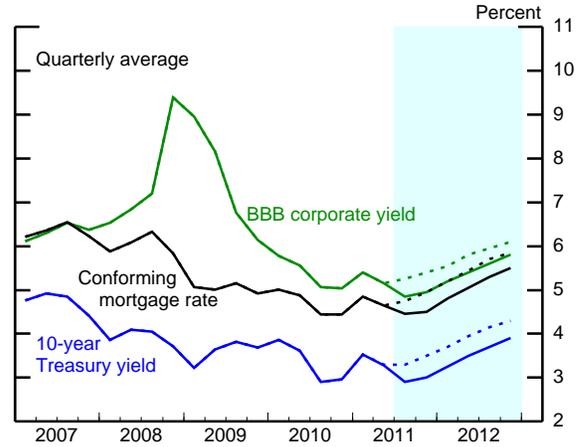
The specific identity of the forces imposing greater-than-expected restraint on the expansion is not readily apparent. One possibility is that the shocks that have hit the economy are more severe and more persistent in their effects on aggregate demand than we previously recognized. Another possibility is that the self-equilibrating tendency of the economy has been greatly weakened by the damage resulting from the financial crisis. A third possibility is that the economic weakness reflects structural factors—and a lower path of potential GDP—to a greater degree than we had been assuming. We have, in fact, put greater weight on all of these possibilities and have adjusted the forecast accordingly. Thus, while we continue to anticipate that a rebound in motor vehicle production will produce a noticeable acceleration in the near term, we have marked down our forecast for the growth of real GDP over the second half of the year to 2¾ percent at an annual rate, about ¾ percentage point weaker than we anticipated in the June Tealbook, and for 2012, we now project real GDP to increase 3 percent, ½ percentage point less than in the June Tealbook. On the supply side of the projection, we have interpreted the BEA's downward revisions to real GDP over the past three years as implying a slower growth rate of potential GDP, both during those years and in 2011 and 2012. (The appendix at the end of this section provides a summary of the annual revisions to the NIPA.) With output growth revised down both this year and next by more than our adjustment to potential growth, the unemployment rate is projected to decline even more gradually than in the June Tealbook, remaining close to 9¼ percent for the remainder of this year before falling to 8½ percent—about ½ percentage point above the June projection—by the end of 2012.

Key Background Factors underlying the Baseline Staff Projection

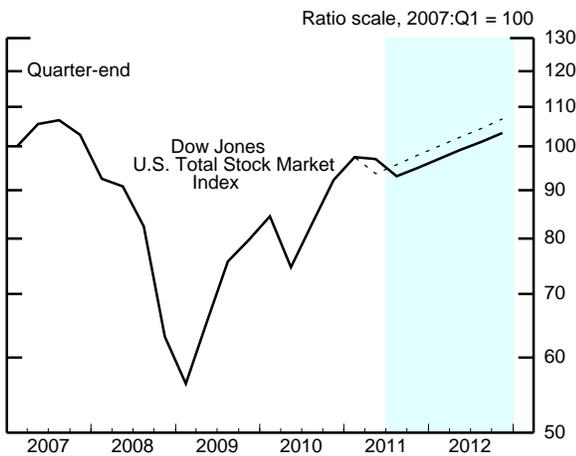
Federal Funds Rate



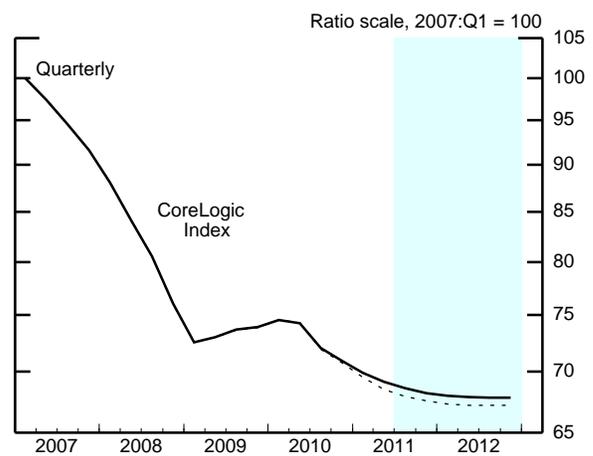
Long-Term Interest Rates



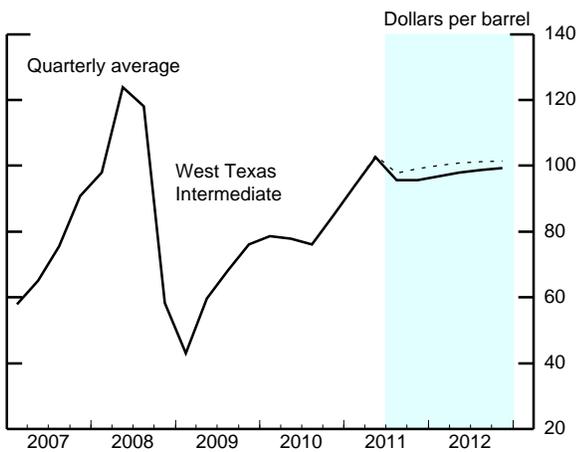
Equity Prices



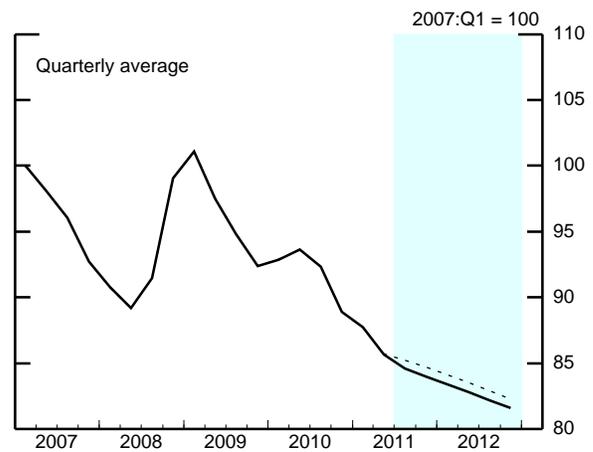
House Prices



Crude Oil Prices



Broad Real Dollar



The incoming data on consumer price inflation have been above our expectations on balance. We continue to think that much of the recent acceleration in core consumer prices reflects transitory factors. But we have also propagated forward to some extent the surprises of the past few months, putting some upward pressure on our core inflation projection over the second half of this year and early next year. Going the other way, the larger margin of resource slack in this forecast is expected to exert slightly greater downward pressure on inflation over the medium term than in the June Tealbook. In all, we revised up our projection of total PCE inflation slightly to 2½ percent this year but left it unrevised in 2012 at 1½ percent. The projected step-down in total PCE price inflation next year reflects an expected deceleration in energy and food prices as well as a lower rate of core inflation, as the pass-through from the earlier run-ups in commodity and import prices wanes.

KEY BACKGROUND FACTORS

Monetary Policy

In light of the appreciably weaker outlook for real GDP and the little-changed projection for inflation this round, we now assume that the FOMC will hold the target federal funds rate in the current range of 0 to ¼ percent until the third quarter of 2013, three quarters later than we assumed in June. Regarding nonconventional monetary policy, our forecast is conditioned on the assumption that the FOMC will not undertake any further expansion of its portfolio and that it will continue to reinvest principal payments from its securities holdings until the first quarter of 2013—also three quarters later than we assumed in the previous round. In the first quarter of 2013, we assume that the FOMC will begin allowing principal payments to reduce its securities holdings, and we expect the Federal Reserve to begin selling assets in early 2014.

Financial Conditions

Earlier this week, legislation was enacted that raised the statutory debt limit and restrains expected budget deficits by a total of about \$2¼ trillion over the next decade. While those actions are sufficient to avoid a default by the Treasury, the magnitude of the deficit reduction over the longer term may well be insufficient to prevent a one-notch downgrade to Treasury debt by one or more of the major credit rating agencies in the months ahead.

We think a downgrade would not come as a surprise to market participants in light of the extensive news coverage given to the issue, as well as the well-publicized pronouncements by the credit rating agencies. Thus, while speculation about the timing or specific elements of a credit rating downgrade could spark a period of heightened volatility across U.S. financial markets, we have assumed that, over the medium term, a downgrade will not leave a lasting imprint on intermediate-term Treasury yields or risk spreads on investment-grade corporate bonds or mortgage rates relative to what is already priced into the market. That said, while such a relatively benign outcome seems most likely to us at this point, we cannot rule out the tail risk that even a one-notch downgrade of Treasury debt could end up destabilizing financial markets, resulting in much higher interest rates and much lower stock prices, with significant adverse effects on economic activity.

Since the time of the June Tealbook, the yield on 10-year Treasury securities has decreased 45 basis points, on net, as market participants—like the staff—shifted their expectations down significantly for the federal funds rate over the medium term. As a result, we lowered the projected trajectory for the 10-year Treasury yield noticeably this round. As in June, we expect this yield to rise markedly over the next year and a half; this expectation reflects the movement of the valuation window through the period of near-zero short-term interest rates, as well as an increase in the term premium associated with the gradual normalization of the Federal Reserve's balance sheet and with some investors gradually shifting their portfolios away from the safest assets as the economic recovery gains a firmer footing over time.

Yields on investment-grade corporate bonds have decreased about in line with Treasury yields since the June Tealbook, leaving their implied risk spreads about unchanged at a level that remains somewhat elevated by historical standards. With the pace of economic growth picking up over the medium term, we expect the spread for investment-grade bond yields to decrease a little through the end of next year, so that yields on these bonds rise only slightly less than Treasury yields. Since mid-June, interest rates on conforming fixed-rate mortgages have stayed close to 4½ percent and their spreads to intermediate-term Treasury yields have moved up some. In June, we expected mortgage spreads to increase in coming months, but they came up sooner than we had anticipated. Looking ahead, we see conforming mortgage rates rising to just under 5½ percent by the end of 2012, somewhat less than what was projected in the previous round.

The Dow Jones U.S. Total Stock Market Index has decreased about 2 percent since the June Tealbook, including a fairly sharp recent decline amid some weaker-than-expected economic data and heightened concerns about global growth. Although we have marked down the projected level of stock prices this round, we expect them to rise at an average annual rate close to 9 percent through the end of 2012. That pace of stock price appreciation should bring the equity premium down gradually toward longer-run norms.

The latest data from CoreLogic showed existing home prices falling through June at about the pace we had anticipated in the June Tealbook. We continue to expect prices to decrease about 4 percent this year and to edge down a bit further in 2012.

Fiscal Policy

Our fiscal policy assumptions are unchanged in this projection. The June Tealbook already incorporated an assumption that the Congress would enact legislation sufficient to reduce federal deficits by a total of about \$2¼ trillion over the next 10 years—an outcome that is in line with the recent budget legislation. We continue to expect federal fiscal policy actions to be a roughly neutral influence on aggregate demand in 2011. In 2012, federal fiscal actions are expected to impose a drag of about 1 percent of GDP as the payroll tax cuts lapse, the Emergency Unemployment Compensation program is phased out, the stimulus grants for states and localities are essentially exhausted, real federal purchases decline, and the expensing provision for business investment is scaled back.

Our projections for the federal deficit are essentially unchanged since the June Tealbook. The deficit is projected to narrow from \$1.3 trillion (about 8½ percent of GDP) in fiscal year 2011 to \$1.1 trillion in fiscal 2012 (around 7 percent of GDP), primarily reflecting the further waning of stimulus-related policies. Federal debt is projected to rise to more than 70 percent of GDP by the end of fiscal 2012, up from 36 percent at the end of fiscal 2007 at the start of the financial crisis.

Foreign Activity and the Dollar

We estimate that foreign real GDP growth slowed from 4¼ percent in the first quarter to 2¼ percent in the second, held down by the direct and spillover effects of the earthquake in Japan, ongoing financial stresses in Europe, and a downshift in many

economies toward more sustainable growth rates. Although the deceleration in foreign economic activity was somewhat more pronounced than we expected in June, we anticipate that a bounceback in Japan's economy, together with a pickup in U.S. growth, will boost foreign real GDP growth to about 3½ percent in the second half of this year and next. The projected pace of growth this year and next is nearly ¼ percentage point slower than in the June Tealbook, mainly reflecting the weaker U.S. outlook.

The starting point of our projected path for the broad real dollar is nearly 1 percent lower than we anticipated in the June forecast. From this slightly lower level, the dollar is assumed to depreciate at an annual rate of about 2¾ percent over the forecast period, a pace similar to what we wrote down in June. Most of the dollar's projected decline occurs against the currencies of the emerging market economies.

Oil and Other Commodity Prices

The spot price of West Texas Intermediate (WTI) crude oil closed on August 2 at \$94 per barrel, \$3.50 lower than the closing price in the previous forecast.¹ We project that the spot price of WTI will edge up to almost \$100 per barrel by the end of 2012. Compared with the June Tealbook projection, that path is about \$3.50 lower in the second half of this year and about \$2 lower by the end of next year. In contrast, we revised up our projection for the price of imported oil by an average of almost \$6 per barrel. The spread of the price of imported oil over the price of WTI was much wider in May than we anticipated in the June Tealbook, and recent indicators suggest that the wider spread persisted in June. We carried some of this widening forward in our forecast.

Prices for nonfuel commodities have changed little in the aggregate over the past six weeks despite large movements in the prices of individual commodities. For example, cotton prices have declined 30 percent since the June Tealbook and are now only about half of the peak value reached in March. Although U.S. growing conditions have been unfavorable for cotton, global cotton production is projected to be strong.

¹ Starting with this forecast, we have adopted a new methodology for projecting the prices of oil and other commodities (see the box "Forecasting Commodity Prices" in the June Tealbook for details). Whereas previously we had based our forecasts directly on quotes from futures markets, we now adjust futures prices in light of the divergences between private and staff forecasts for global economic growth and exchange rates, with the assumption that private forecasters believe that exchange rates follow a random walk. The adjusted forecast for crude oil prices is slightly lower than the forecast based solely on the futures markets, largely reflecting the fact that the staff's projection for economic growth is lower than that reported in the *Consensus Forecasts*, our proxy for the market expectation of global growth.

Metals prices, in contrast, have moved up since mid-June. Although recent disruptions to copper production may account for some of this run-up, the increase in metals prices has been broad based, suggesting an important role for demand. Given quotes from futures markets, combined with our adjustments for divergences between staff and private economic forecasts, we project that nonfuel commodity prices will remain near their current elevated levels over the forecast period.

RECENT DEVELOPMENTS AND THE NEAR-TERM OUTLOOK

We have marked down our near-term projection of economic activity yet again. Much of the downward revision reflects a reduction in our forecast of consumer spending in response to weaker-than-expected recent readings on spending itself, as well as real incomes, employment, and sentiment. But we have also marked down our expectation for the increase in business spending over the second half of this year. We have not materially changed our estimates of the effects of the Japan disaster on U.S. real GDP since the June Tealbook, and we continue to expect that most of the Japan-related hit to second-quarter production will be unwound this quarter. As a result, we currently project real GDP growth to step up to an annual rate of 3 percent this quarter. Excluding the effects of the Japan disaster, we estimate that real GDP would have increased roughly 2 percent in both the second and third quarters, about $\frac{3}{4}$ percentage point lower, on average, than we expected in June. Of course, the labor market report that we will receive at the end of the week will play an important role in shaping our near-term outlook.

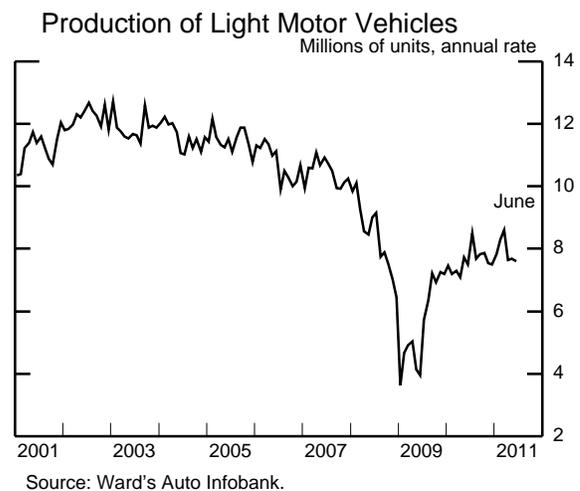
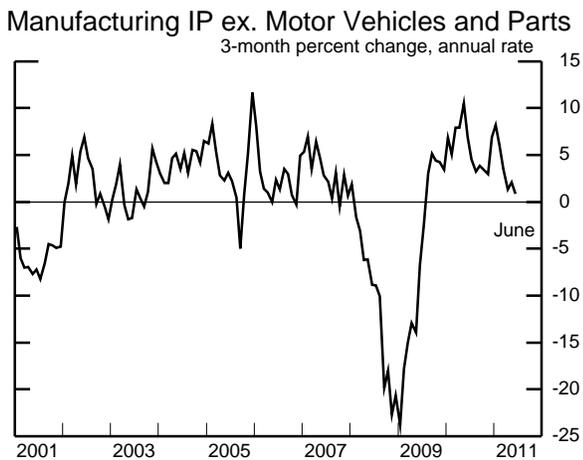
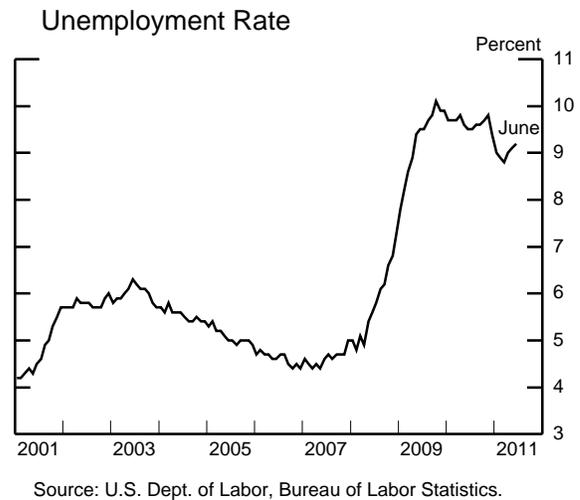
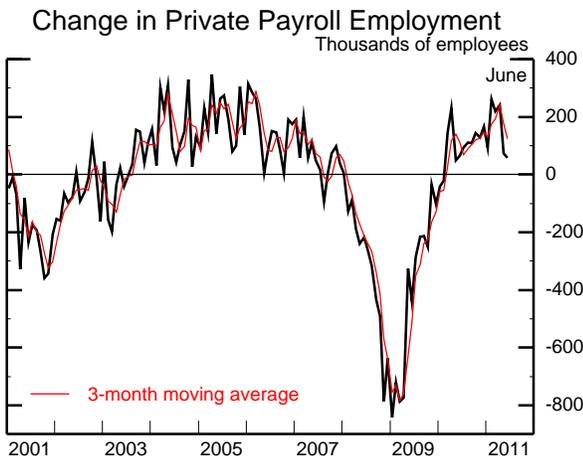
The Industrial Sector

Manufacturing production decelerated from a $7\frac{1}{4}$ percent rate of increase in the first quarter to a gain of only $\frac{1}{4}$ percent in the second. Although the slowdown mainly reflected the effects of the Japan disaster on the motor vehicle producers and the firms that supply them, the pace of manufacturing activity also slowed appreciably among industries that were unlikely to have been affected by supply chain disruptions. Moreover, indicators of near-term manufacturing activity—such as diffusion indexes of new orders from the manufacturing ISM survey and the various regional manufacturing surveys—have softened considerably in recent months to levels consistent with only meager gains in production in coming months. Manufacturing IP is expected to increase at an annual rate of $4\frac{3}{4}$ percent in the second half of this year, supported in large part by the scheduled rebound in motor vehicle assemblies and the associated boost to production

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

Measure	2011:Q2		2011:Q3	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
Real GDP	1.9	1.4	3.9	2.9
Private domestic final purchases	2.1	1.1	3.4	1.9
Personal consumption expenditures	1.5	.1	2.6	1.6
Residential investment	1.3	3.5	1.6	3.1
Nonres. structures	6.1	15.2	-.6	-2.0
Equipment and software	7.0	5.6	13.2	6.3
Federal purchases	2.1	2.2	4.7	1.9
State and local purchases	-2.3	-2.9	-1.3	-1.8
Contribution to change in real GDP (percentage points)				
Inventory investment	-.6	.1	1.2	1.4
Net exports	.9	.6	-.4	.0

Recent Nonfinancial Developments (1)



in upstream industries. (See the box “The Near-Term Outlook for Light Motor Vehicle Production” for further discussion.) Outside of motor vehicles and related industries, production is expected to post only sluggish gains during the next few months.

The Labor Market

Labor demand appears to have slowed noticeably in recent months. After increasing an average of 200,000 in the first four months of the year, private nonfarm payroll employment rose only 73,000 in May and 57,000 in June. The step-down in private employment gains was widespread across industries. In addition, employment in the state and local government sector fell 35,000 on average in May and June, as governments continued to trim payrolls in response to budget pressures. Meanwhile, initial claims for unemployment insurance have come down in recent weeks but remain elevated, while the latest indicators of hiring show no signs of improvement. Taking into account these signals from within the labor market as well as the evidence of weaker economic activity more generally, we now expect private employment to increase about 130,000 per month during the second half of the year, about 80,000 less than we had written down in the June Tealbook. The unemployment rate edged up further in June to 9.2 percent; with labor demand projected to increase only modestly in the near term, we expect the unemployment rate to stay near this level through the end of the year.

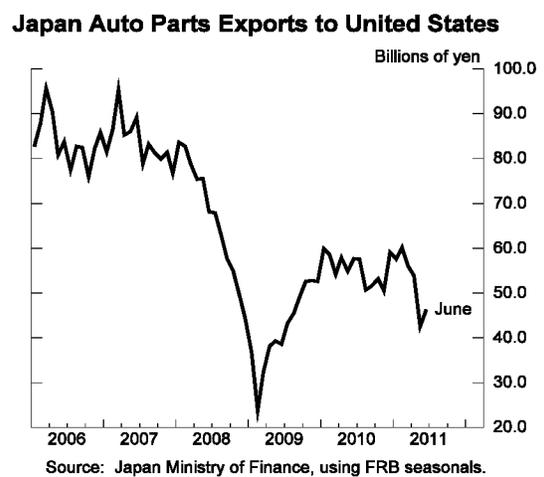
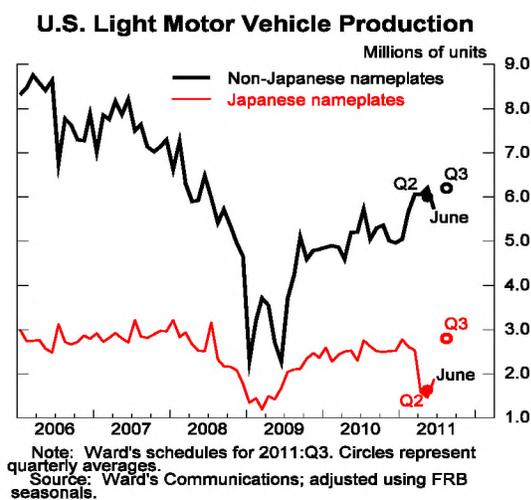
Household Spending

After having increased at an annual rate of about 2 percent in the first quarter, real PCE was nearly unchanged last quarter and looks to be rising at a significantly slower pace in the current quarter than we expected in the June Tealbook. Much of the second-quarter deceleration in consumer spending reflected a drop in outlays for motor vehicles that we expect to be largely reversed this quarter as the availability of models affected by supply chain disruptions improves. Spending on other goods and services, however, has also been quite soft in recent months. In addition, the latest readings on sentiment, income, and employment have been more downbeat than we were expecting. In particular, the Michigan index of consumer sentiment dropped sharply in July to levels last seen in early 2009, while the disappointing data on the labor market led us to mark down our forecast of real disposable income in the second half of this year. All told, we now project that real PCE will rise at an annual rate of about 1¾ percent over the second half, ¾ percentage point less than our projection in the June Tealbook.

The Near-Term Outlook for Light Motor Vehicle Production

A significant portion of the acceleration in real GDP in the third quarter projected by the Board staff can be traced to an expected sizable increase in motor vehicle assemblies. As the supply chain disruptions resulting from the earthquake in Japan that restrained production in the second quarter continue to fade, U.S. automakers plan to step up their assembly rates to replenish their current extremely low level of dealer inventories. Indeed, given the tight level of inventories at present, we believe that automakers' near-term production goals would not be affected even if vehicle sales failed to increase this quarter.

Although the planned increase in vehicle assemblies is historically large, three factors suggest that the anticipated increase in third-quarter production is attainable. First, while the projected pace of production for the third quarter stands 1½ million units above second-quarter production, it would exceed the pre-earthquake pace by only about ½ million units. As shown by the red circle in the lower-left figure, production of Japanese nameplate vehicles is scheduled to rise only a bit above pre-earthquake levels in the third quarter. Scheduled production for the non-Japanese nameplates, the black circle, is boosted by a modest increase in light truck assemblies at General Motors and Chrysler—who have announced plans to add production shifts at several plants this quarter—and additional output from a newly opened Volkswagen plant in Tennessee. Second, U.S. automakers' capacity is not binding at present: A rate of production at about 9 million units in the third quarter remains well below U.S. production capacity of more than 12 million units. Moreover, at the firm level, almost all automakers would have a noticeable margin of slack capacity if production were to proceed in the third quarter at the forecasted rate. (The only exception is Toyota, for which the implied utilization rate for autos, but not light trucks, would be somewhat elevated.) Finally, while reliable data on production in July are not yet available, industry contacts and the business press remain confident that parts availability has improved and that increases in assemblies along the lines of what we envision are already in progress.¹ Consistent with that view, as shown in the lower-right figure, exports of auto parts from Japan to the United States began to recover in June.



¹ Reports on Toyota and Nissan indicate that assemblies in both Japan and the United States are recovering more quickly than originally expected; however, the resumption of normal production at Honda is reportedly lagging a bit.

Housing activity remains exceptionally weak. Although single-family housing starts moved up to an annual rate of 453,000 units in June, a low level of permit issuance in the sector suggests that most of this gain will be reversed in the next few months. Similarly, sales of new and existing single-family homes have failed to gain traction in recent months. The overhang of unsold existing homes, tight underwriting standards for mortgage loans, and uncertainty about future home prices will likely continue to constrain demand for new homes over the near term, while limited availability of credit for builders is reportedly impeding supply in the few areas where demand is improving. As a result, we expect single-family housing starts to remain relatively flat over the second half of the year at an annual rate of about 420,000 units, a level similar to our projection in the June Tealbook. In contrast, starts in the multifamily sector are expected to continue edging up, as rising demand for apartments has pushed down vacancy rates and put upward pressure on rents.

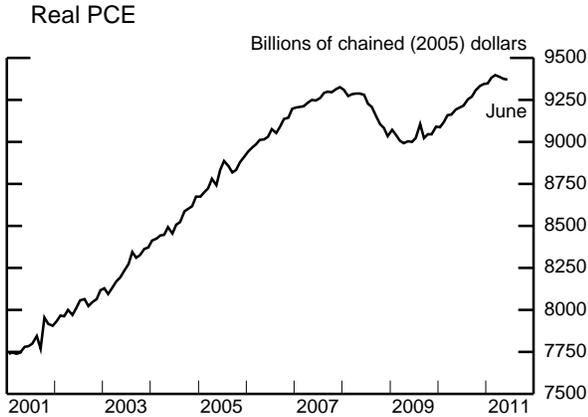
Business Investment

We have downgraded our near-term projection for equipment and software (E&S) spending considerably. In the first half of this year, real E&S outlays rose about 1½ percentage points more slowly than we had previously estimated, primarily due to downward revisions to software expenditures. In addition, orders and shipments of nondefense capital goods through June came in modestly below our expectations, and indicators of business sentiment have deteriorated considerably in recent months. These softer data, in conjunction with the much weaker business output growth—both in recent history and in our projection—led us to revise down our projection for E&S growth in the second half of this year to an annual rate of about 6 percent, compared with an 11 percent pace in the June Tealbook.

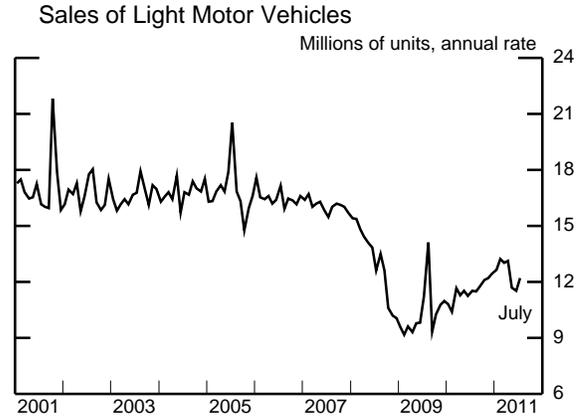
Real business outlays on nonresidential structures appear to have stabilized at a very low level in recent months. In the first half of this year, outlays for buildings continued to decline on average. And with vacancies elevated, construction financing still tight, and architectural billings having softened some, we expect building outlays to slip a bit further in the second half of this year. In contrast, outlays for drilling and mining structures surged in the first half of this year, and high oil prices and recent increases in indicators of drilling activity point to further solid gains in the second half.

As noted previously, the supply disruptions associated with the earthquake in Japan led to a sharp drop in motor vehicle inventories in the second quarter, but the

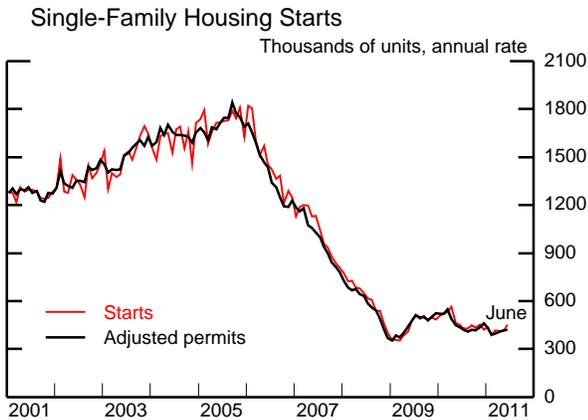
Recent Nonfinancial Developments (2)



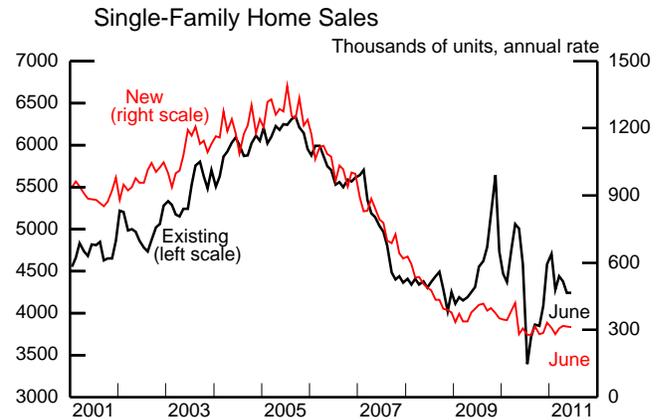
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.



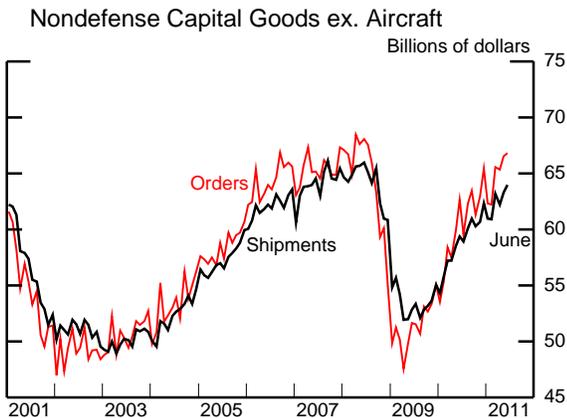
Source: Ward's Auto Infobank.



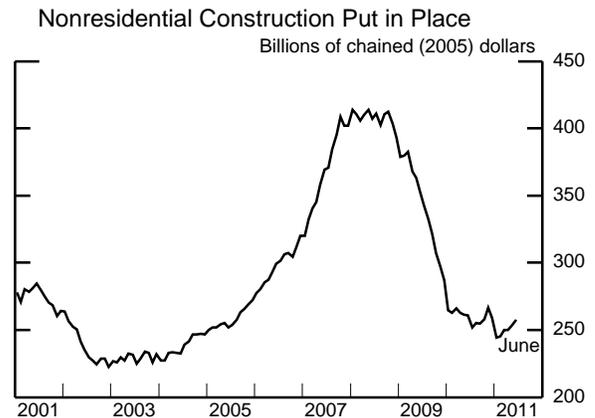
Note: Adjusted permits equal permits plus starts outside of permit-issuing areas.
Source: U.S. Census Bureau.



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



Source: U.S. Census Bureau.



Source: U.S. Census Bureau.

projected rebound in production is expected to result in a substantial rebuilding of these stocks this quarter and next. Elsewhere, the available data suggest that inventory investment picked up in the second quarter by more than we were expecting. Given the sluggish pace of business sales last quarter, we suspect that this run-up was at least partially unintended. Indeed, the ISM survey responses suggest some businesses may have become less comfortable with the current level of inventories. We expect that stockbuilding will slow over the second half of this year as businesses work to keep inventory imbalances from emerging.

Government

Real federal purchases turned up in the second quarter and are expected to increase moderately in the second half of this year. Earlier this year, defense purchases were well below the level of appropriations, but real defense expenditures rose briskly in the second quarter. We expect similar increases in the current quarter as spending moves back in line with appropriations and then no further change in the fourth quarter.

At the state and local level, real purchases have continued to decline in response to budgetary pressures. Real state and local purchases fell at an annual rate of about 3 percent in the second quarter, a decline about $\frac{1}{2}$ percentage point larger than we had expected in the June Tealbook, as governments continued to trim payrolls and construction outlays fell sharply. We expect job cuts to continue at close to their recent pace through autumn, whereas declines in construction spending are anticipated to start to taper off. As a result, total real state and local purchases are projected to contract further in the second half of this year, albeit less rapidly than in the first half.

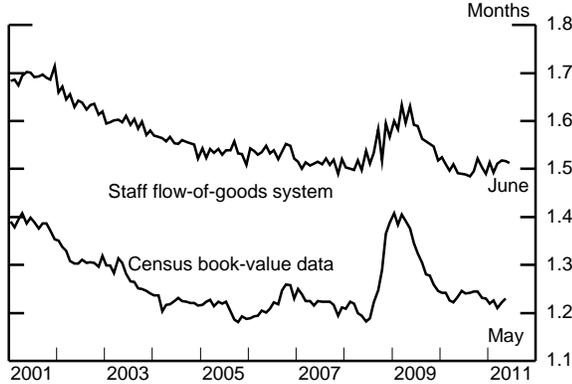
Foreign Trade

Real exports of goods and services rose at an annual rate of 6 percent in the second quarter, down from an 8 percent rate in the first quarter and $4\frac{1}{4}$ percentage points slower than we anticipated in the June Tealbook. We view this weakness as transitory and expect export growth to pick up to a 10 percent pace in the second half of this year, supported by solid foreign growth and the lower value of the dollar.

Real imports of goods and services increased a modest $1\frac{1}{4}$ percent in the second quarter of this year, about $1\frac{1}{4}$ percentage points lower than previously estimated on account of weaker-than-expected real imports of oil. In the current quarter, we expect

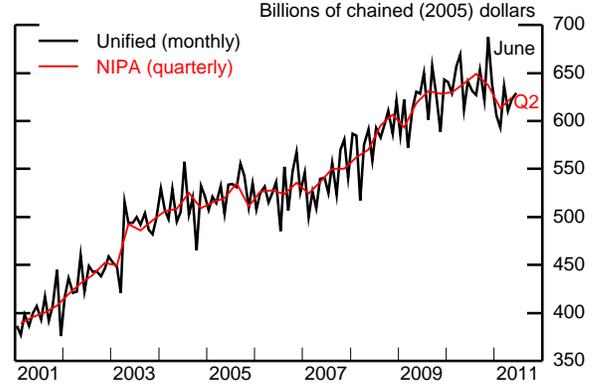
Recent Nonfinancial Developments (3)

Inventory Ratios ex. Motor Vehicles



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

Defense Spending



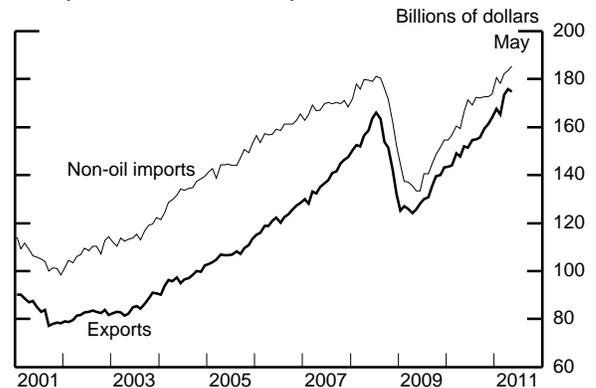
Note: The unified series is seasonally adjusted and deflated by BEA prices. The NIPA series excludes the consumption of fixed capital.
Source: *Monthly Treasury Statement*; U.S. Dept. of Commerce, Bureau of Economic Analysis.

Trade Balance



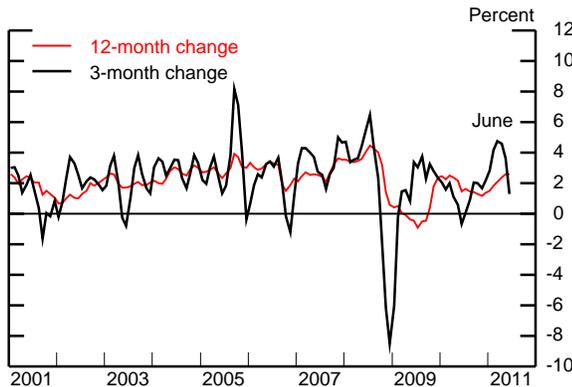
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; U.S. Census Bureau.

Exports and Non-Oil Imports



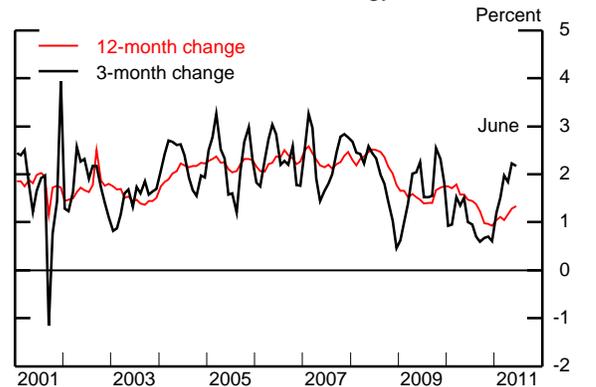
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; U.S. Census Bureau.

Total PCE Prices



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

PCE Prices ex. Food and Energy



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

imports to rise more than 8 percent, pushed up by a rebound in automotive imports from Japan, before flattening out in the fourth quarter as the surge in auto imports fades. Our forecast for import growth in the second half of the year is about 1½ percentage points lower than in the June Tealbook, reflecting the markdown in U.S. GDP growth and the lower path for the dollar.

With exports outpacing imports, the external sector added roughly ½ percentage point to real GDP growth in the second quarter, about ¼ percentage point less than estimated in the June Tealbook because of weaker exports. We expect net exports to make another ½ percentage point contribution to GDP growth in the second half of this year, ¼ percentage point higher than in the June Tealbook, as slower U.S. demand restrains imports.

Prices and Wages

The incoming data on inflation have been somewhat higher than we expected on balance. In the June CPI release, the increases in prices for both core goods and services were a bit larger than we anticipated—a third month of upward surprises—and these data were reflected in higher market-based core PCE inflation in June. However, the effect of that miss on core PCE inflation was masked by a large, unexpected decline in nonmarket-based PCE prices that month. On net, core PCE prices are estimated to have increased at an annual rate of a little more than 2 percent in the second quarter, in line with the June Tealbook; core PCE inflation is expected to remain near 2 percent in the current quarter. We continue to think that the midyear bulge in core inflation reflects temporary factors to a large degree. For example, tight supplies have boosted motor vehicle prices in recent months, and this influence should lessen as inventories are rebuilt. In addition, increases in import and commodity prices have helped push up other goods prices, particularly apparel, this year. However, given the striking drop in cotton prices in recent weeks and the projected deceleration in import prices, these pressures should start to fade in coming months. As a result, we have core PCE inflation slowing to a 1¾ percent pace in the fourth quarter. Nonetheless, our forecast for core inflation in the second half is ¼ percentage point higher than in the previous Tealbook, as we now expect some of these transitory factors to unwind more slowly. Meanwhile, total PCE price inflation is expected to slow from an average annual rate of 3½ percent in the first half of this year to about 1¼ percent in the second half, reflecting an outright decline in consumer energy prices and a significant slowing in food price inflation.

We now estimate that compensation per hour in the nonfarm business sector increased at an annual rate of 2¾ percent in the first half of this year, and the ECI measure of hourly compensation rose at an annual rate of 2½ percent over the same period. Both increases are up a little from their pace in 2010 but remain moderate. Increases in the first half were boosted in part by a surge in employer contributions to retirement and savings plans and a large increase in nonproduction bonuses, neither of which are likely to be repeated in the near term. In addition, the monthly data on wages and salaries through June suggest that compensation is on a lower trajectory going into the second half of this year than we had projected previously; these data, coupled with the weaker outlook for the labor market, led us to nudge down our forecast for compensation growth in the third and fourth quarters.

THE MEDIUM-TERM OUTLOOK

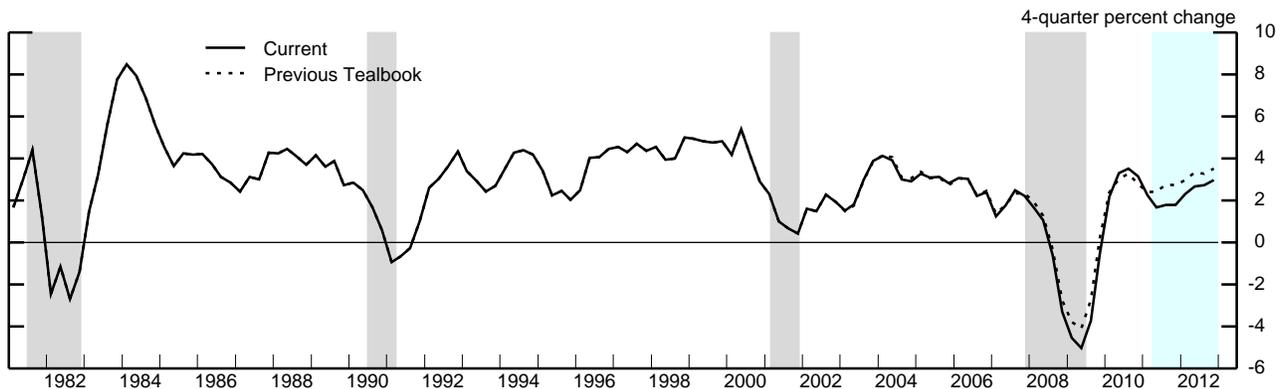
Broadly speaking, the forces shaping the recovery and its general contour of a gradual and modestly paced upturn are the same as in recent projections. In an environment of highly accommodative monetary policy, we still expect a gradual improvement in credit availability and a pickup in consumer confidence from today's extraordinarily low levels to generate an increase in economic growth. But the further accumulation of weaker data on spending, production, and the labor market during the intermeeting period, together with the recent deterioration in measures of business and consumer sentiment, have led us to project a persistently weaker trajectory for economic growth in the second half of this year and in 2012. All told, excluding the effects of the earthquake in Japan, we now project real GDP growth to move up from a downward-revised annual rate of 1¼ percent in the first half of this year to 2 percent in the second half and 3 percent in 2012. On this basis, our projection for real GDP growth is nearly 1 percentage point lower than in the June Tealbook in the second half and ½ percentage point lower next year.

Perhaps the most significant area of concern on the spending side of the picture is the household sector. The disappointing news on consumer spending, employment, income, and sentiment suggest that consumers will remain on the sidelines until a more substantial recovery materializes in the labor market. As in previous projections, we assume that as job growth begins to improve and energy prices level out, real household incomes should gradually rise and confidence should improve, driving a modest acceleration in consumption over the medium term. But relative to the June Tealbook,

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

Measure	2010	2011		2012
		H1	H2	
Real GDP	3.1	.9	2.7	3.0
Previous Tealbook	2.8	2.0	3.4	3.5
Final sales	2.4	.7	2.3	2.9
Previous Tealbook	2.4	1.7	3.1	3.2
Personal consumption expenditures	3.0	1.1	1.8	2.5
Previous Tealbook	2.6	1.9	2.5	2.8
Residential investment	-6.3	.5	1.8	6.1
Previous Tealbook	-4.6	-8	2.2	6.0
Nonresidential structures	-1.8	-.7	-1.1	-1.3
Previous Tealbook	-4.0	-5.1	.0	-8
Equipment and software	16.6	7.1	6.3	5.6
Previous Tealbook	16.9	8.6	11.4	8.0
Federal purchases	2.9	-3.8	1.6	-.9
Previous Tealbook	4.8	-3.0	2.1	-.8
State and local purchases	-1.7	-3.1	-1.3	-.2
Previous Tealbook	-1.3	-3.1	-.9	.1
Exports	8.8	6.9	10.0	9.0
Previous Tealbook	9.0	9.1	10.0	9.0
Imports	10.7	4.7	4.4	3.3
Previous Tealbook	11.0	4.0	5.8	4.0
Contributions to change in real GDP (percentage points)				
Inventory change	.7	.2	.4	.0
Previous Tealbook	.4	.4	.3	.3
Net exports	-.6	.1	.6	.7
Previous Tealbook	-.6	.5	.4	.6

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.

we have marked down our projection for real PCE growth by $\frac{3}{4}$ percentage point this year to $1\frac{1}{2}$ percent and by $\frac{1}{4}$ percentage point next year to $2\frac{1}{2}$ percent. We have the personal saving rate remaining fairly flat over the medium term.

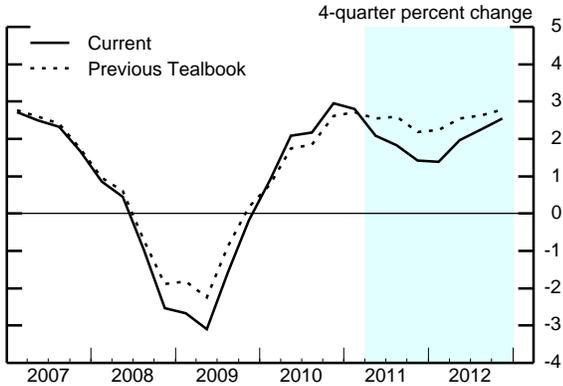
We continue to see no meaningful recovery in the housing sector within the projection period. Eventually, rising income and confidence, along with improving credit availability, should support some pickup in the demand for housing. But with house prices likely to continue declining through most of next year, demand is projected to be restrained by fears of purchasing into a falling market. Moreover, much of the expected increase in housing demand will likely be satisfied by the large stock of low-priced vacant homes and less-expensive dwellings in multiunit buildings rather than new single-family housing. As a result, single-family starts are projected to inch up to an annual rate of only 500,000 units by the end of next year, less than half of the average rate over the past 40 years.

Spending by all levels of government is projected to remain subdued over the medium term. At the federal level, the recently enacted legislation raising the debt ceiling imposes a tight environment for discretionary appropriations, as we expected, and with stimulus-related nondefense spending phasing out and outlays related to overseas military operations expected to wind down, real federal purchases are projected to decelerate from a modest increase in the second half of 2011 to a small decline in 2012. At the state and local level, tight budgets will continue to restrain spending over the medium term, and we expect real state and local purchases to decrease at an annual rate of $1\frac{1}{4}$ percent in the second half of this year, a slightly weaker projection than in the June Tealbook, and to be about flat in 2012. Although states' tax receipts have posted solid gains in recent quarters, federal stimulus payments will mostly wind down next year, and further increases in tax revenues will be limited by the relatively subdued expansion in economic activity in our current forecast.

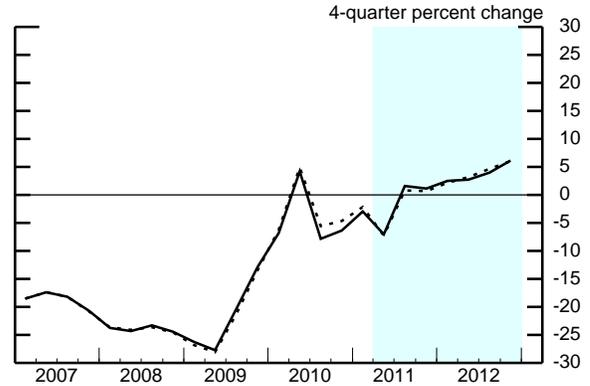
In the business sector, elevated vacancy rates, as well as tight financing for construction, are expected to continue to restrain outlays for nonresidential buildings over the medium term. In addition, because of substantial planning lags and other factors, the sector typically trails the rest of the economy, and we expect this pattern to hold in the current recovery as well. As a result, we project investment in nonresidential structures to continue to edge lower through 2012.

Components of Final Demand

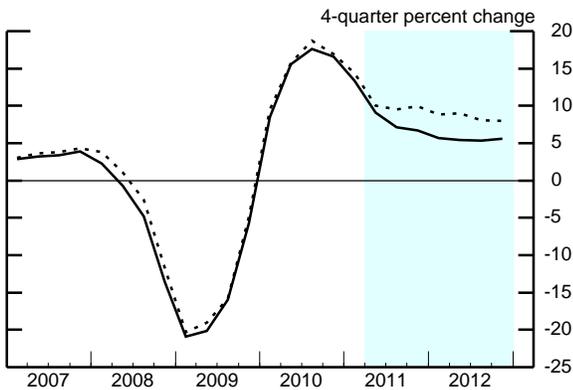
Personal Consumption Expenditures



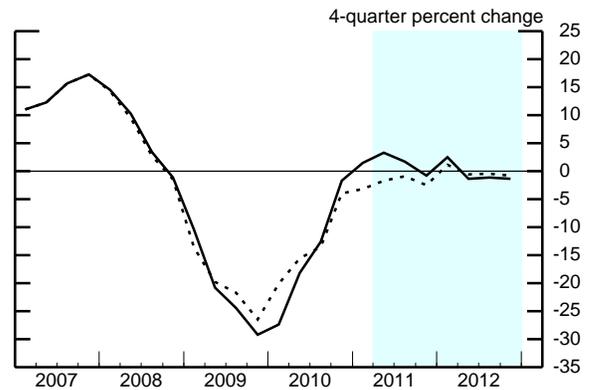
Residential Investment



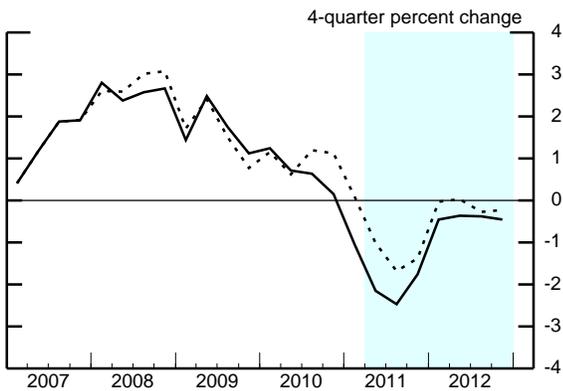
Equipment and Software



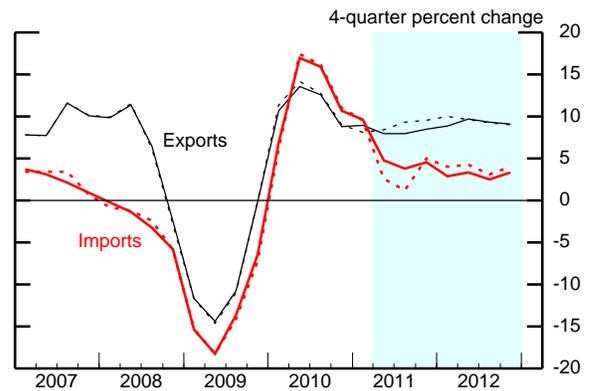
Nonresidential Structures



Government Consumption & Investment



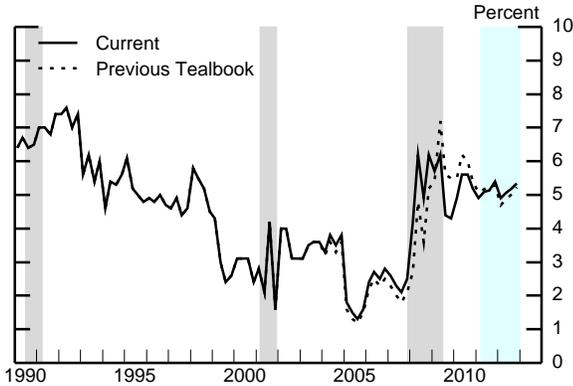
Exports and Imports



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

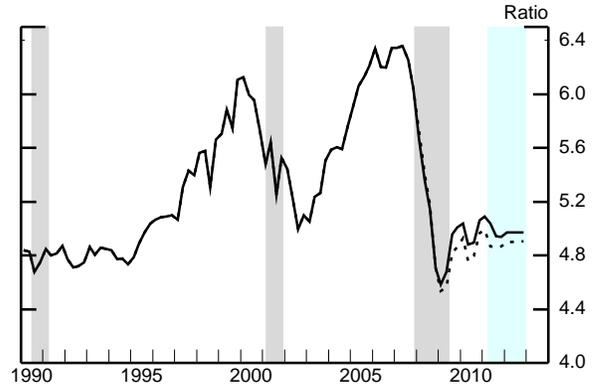
Aspects of the Medium-Term Projection

Personal Saving Rate



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

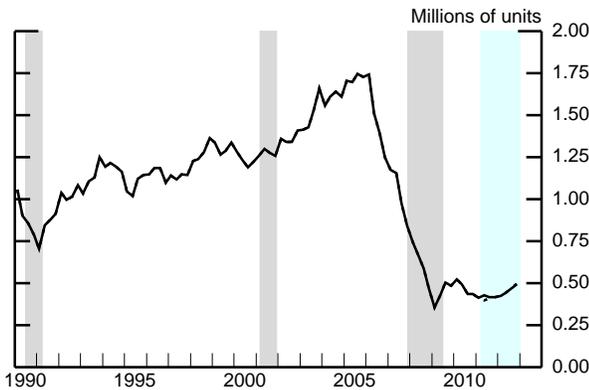
Wealth-to-Income Ratio



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

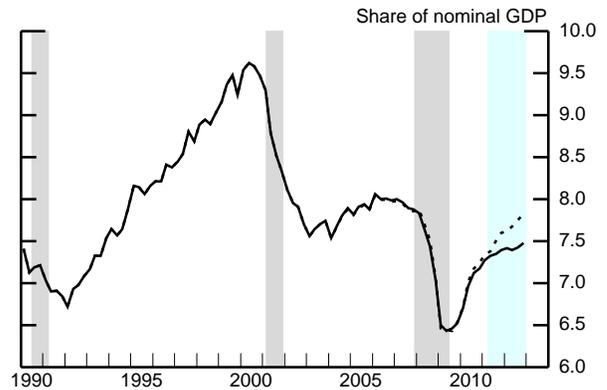
Source: For net worth, Federal Reserve Board, flow of funds data; for income, Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



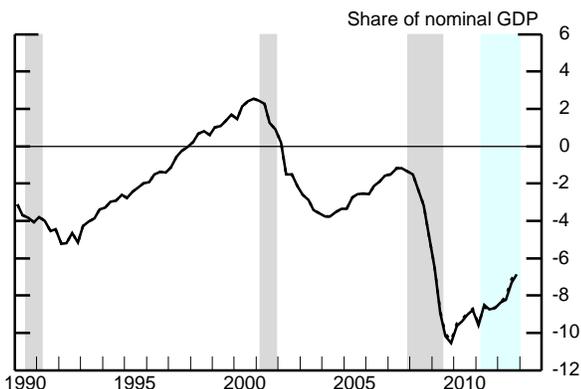
Source: U.S. Census Bureau.

Equipment and Software Spending



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

Federal Surplus/Deficit

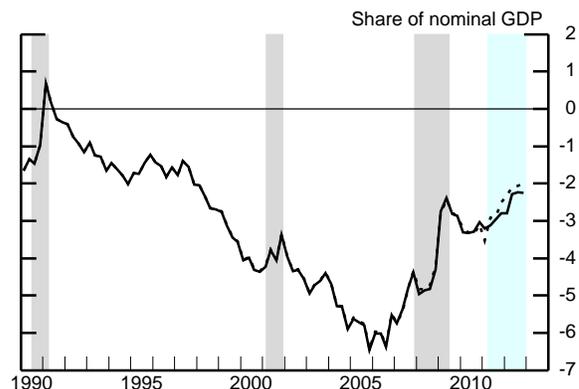


Note: Share of federal government surplus/deficit is shown as a 4-quarter moving average.

Source: *Monthly Treasury Statement*.

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

Current Account Surplus/Deficit



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

Since the business-cycle trough, the stock of E&S has been increasing less rapidly than is typical during a recovery period. The subpar rate of increase likely reflects the tepid pace of the overall recovery and the climate of uncertainty that businesses are facing. To be sure, business outlays on E&S have registered several quarters of brisk increases over the past two years, but the level of investment remains low enough that, after accounting for the rapid pace at which E&S depreciates, the expansion of productive capacity has been fairly subdued. Of course, as business prospects improve and uncertainty diminishes, businesses with access to capital markets or with substantial retained earnings seem well positioned to expand capacity more rapidly. That said, we have marked down our forecast for E&S spending over the forecast period in response to the recent retrenchment in business sentiment and the weaker outlook for sales growth in our projection. In particular, we now project growth in real E&S investment to average about 5½ percent next year, about 2½ percentage points less than in the June Tealbook projection.

Foreign demand is projected to provide an important source of support to real activity. Real exports are projected to rise 9 percent in 2012, supported by solid foreign growth—especially in the emerging market economies—and by past and projected dollar depreciation. We estimate that real imports will increase 3¼ percent next year, with the pull of U.S. economic activity restrained somewhat by the weak dollar. In all, net exports are expected to contribute ¾ percentage point to real GDP growth in 2012, a slightly larger contribution than in the June Tealbook, primarily due to the effect of the weaker U.S. outlook on import growth.

AGGREGATE SUPPLY, THE LABOR MARKET, AND INFLATION

Potential GDP and the NAIRU

With no reason to doubt our prior estimate of the unemployment rate gap, we responded to the BEA's downward revisions to actual GDP in recent years by marking down our estimates of potential GDP from 2008 to 2010 by an equal amount, thus preserving our previous estimate of the GDP gap at the end of 2010. We implemented this revision to potential GDP growth by adjusting our estimate of multifactor productivity (MFP) growth. Previously, the data indicated that output per hour held up surprisingly well during the recession, which we had interpreted as partly reflecting structural factors. However, with actual productivity growth revised down, there no longer appears to have been a substantial pickup in the underlying trend in MFP growth.

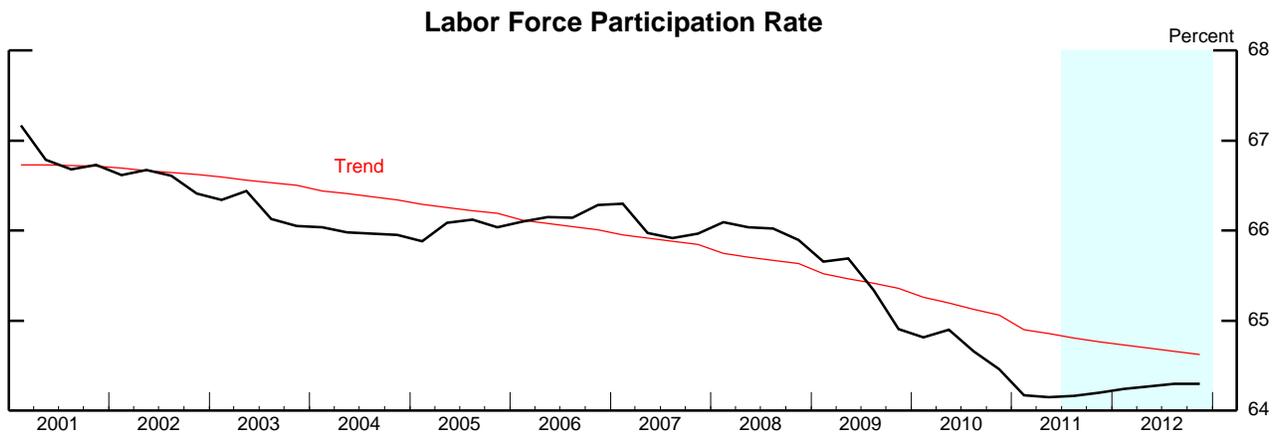
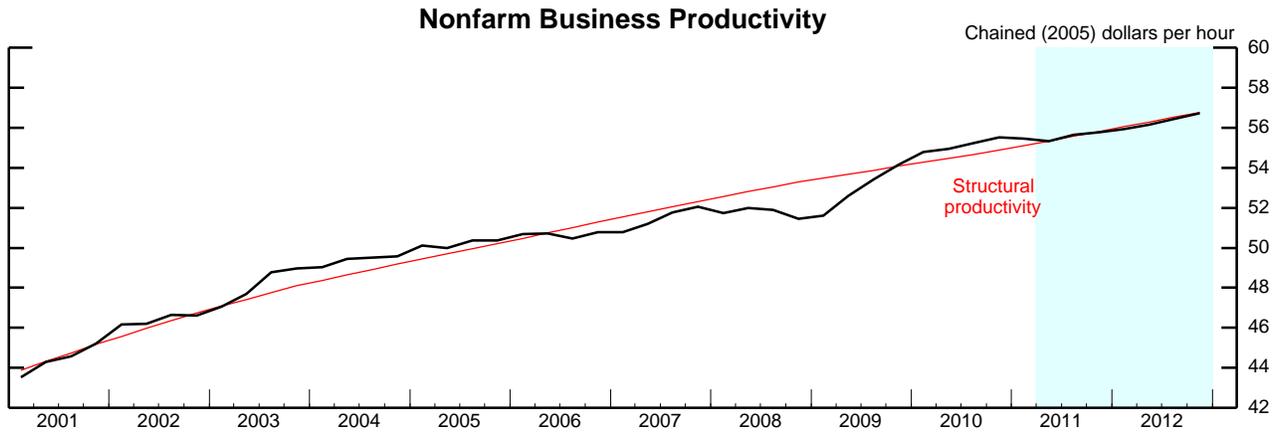
Decomposition of Potential GDP
(Percent change, Q4 to Q4, except as noted)

Measure	1974-1995	1996-2000	2001-2008	2009	2010	2011	2012
Potential GDP	3.0	3.5	2.6	1.1	1.7	2.1	2.1
Previous Tealbook	3.0	3.5	2.6	1.9	1.9	2.3	2.4
<i>Selected contributions¹</i>							
Structural labor productivity	1.5	2.7	2.5	1.4	1.5	1.7	1.7
Previous Tealbook	1.5	2.7	2.5	2.3	2.0	2.0	2.1
Capital deepening	.7	1.5	.8	.2	.4	.6	.6
Previous Tealbook	.7	1.5	.8	.3	.4	.5	.7
Multifactor productivity	.5	.9	1.4	1.0	1.0	1.0	1.0
Previous Tealbook	.5	.9	1.5	1.9	1.4	1.3	1.3
Trend hours	1.5	1.0	.6	-.2	.5	.6	.7
Previous Tealbook	1.5	1.0	.6	-.2	.5	.6	.7
Labor force participation	.4	.0	-.2	-.4	-.4	-.3	-.2
Previous Tealbook	.4	.0	-.2	-.4	-.4	-.3	-.2

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

1. Percentage points.

Source: Staff assumptions.



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

Indeed, we now estimate that structural MFP has been increasing at about a 1 percent annual pace since 2005 and assume that a similar rate will prevail over the forecast period. As a result, we have potential GDP increasing just over 2 percent in 2011 and 2012, $\frac{1}{4}$ percentage point lower than in the June Tealbook. We have maintained our assumption that the NAIRU will remain at 6 percent through 2012.²

Productivity and the Labor Market

In line with the weaker outlook for output growth, we have adjusted down our forecast for employment growth. Specifically, we now project that average monthly private employment gains will edge up from about 130,000 in the second half of this year to about 200,000 in 2012; next year's projected pace is about 30,000 per month lower than in our previous projection. We also expect government employment to trend lower through the middle of next year. With job opportunities expected to be more limited over the medium term, the projected path for the unemployment rate is higher than anticipated in the June Tealbook, while the path for the labor force participation rate is a little lower.

We judge the current level of labor productivity to be roughly in line with our estimate of its structural level. As a result, our forecast calls for job growth that strengthens with the projected acceleration in production over the medium term and for labor productivity to increase roughly in line with its structural rate of growth.

Resource Utilization

We now expect greater economic slack to prevail over the projection period than was anticipated in the June Tealbook. We judge the unemployment rate to be $2\frac{3}{4}$ percentage points above the "effective" NAIRU in the current quarter, and our projection has the unemployment gap barely narrowing—to about $2\frac{1}{2}$ percentage points—by the end of 2012; at that point, it would be about $\frac{1}{2}$ percentage point wider than in the June Tealbook. We have also increased our estimate of the GDP gap over the projection period, with the output gap at the end of 2012 at $5\frac{1}{4}$ percent, 1 percentage point wider than in the June Tealbook. Likewise, we lowered our forecast for capacity utilization in the manufacturing sector, but it returns fairly close to its longer-run average

² 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 June projection and is now about $6\frac{1}{2}$ percent. As before, we expect the effective NAIRU to decline to around 6 percent 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	2009	2010	2011	2012
Output per hour, nonfarm business	5.3	2.5	.5	1.7
Previous Tealbook	6.5	2.0	1.3	1.7
Nonfarm private employment	-5.0	.9	1.6	2.1
Previous Tealbook	-5.0	.9	2.1	2.4
Labor force participation rate ¹	64.9	64.5	64.2	64.3
Previous Tealbook	64.9	64.5	64.3	64.4
Civilian unemployment rate ¹	10.0	9.6	9.2	8.5
Previous Tealbook	10.0	9.6	8.9	8.1
Memo: GDP gap ²	-6.9	-5.6	-5.9	-5.2
Previous Tealbook	-6.4	-5.7	-5.2	-4.2

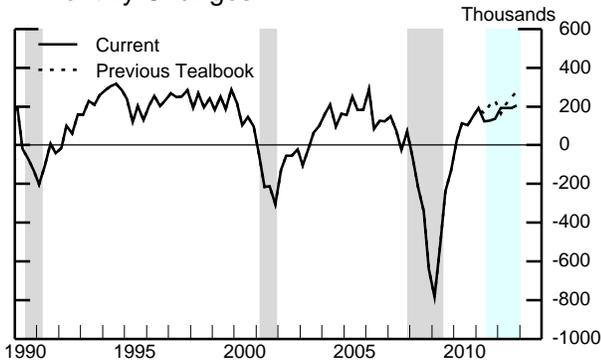
Note: A negative number indicates that the economy is operating below potential.

1. Percent, average for the fourth quarter.

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

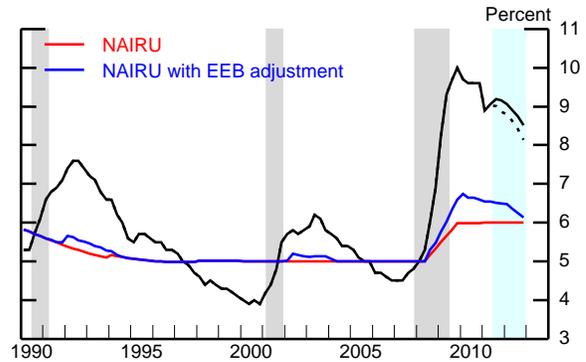
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

Private Payroll Employment, Average Monthly Changes



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

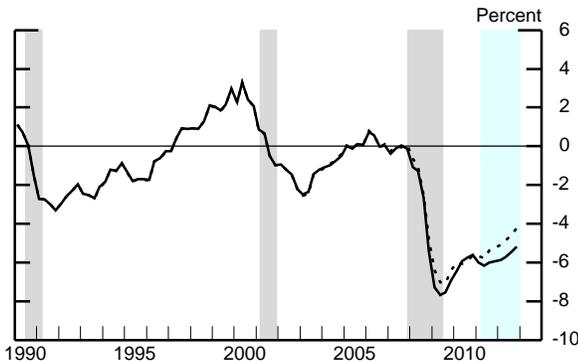
Unemployment Rate



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

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

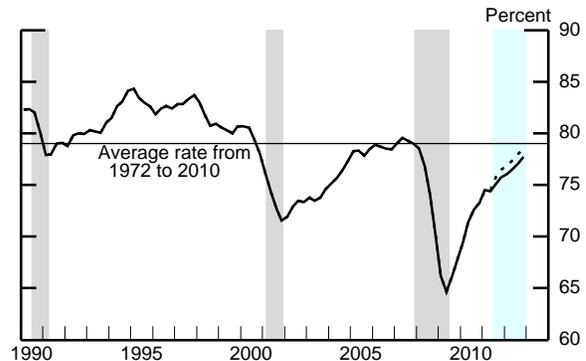
GDP Gap



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

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

Manufacturing Capacity Utilization Rate



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

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

by the end of 2012. The difference in gaps between the industrial sector and the economy as a whole reflects more-modest increases in industrial capacity relative to potential output over the recovery period, as well as faster growth in industrial output than in the rest of the economy.

Compensation and Prices

With the unemployment rate projected to be higher than in the previous forecast, we have lowered our projection of the increase in compensation per hour in the second half of 2011 and in 2012, to 1¾ percent and 2¼ percent, respectively. We have also made a small downward revision to our projection of changes in the employment cost index. As in the June Tealbook, the projected increases in compensation, combined with our forecast for productivity, imply little change, on average, in unit labor costs over the forecast period.

Prices for imported core goods (all goods excluding fuels, computers, and semiconductors) are projected to rise 3 percent in the current quarter, considerably slower than the 6¼ percent increase recorded in the second quarter, as foreign inflation steps down, commodity prices flatten out, and dollar depreciation slows. Over the remainder of the projection period, core import price inflation is expected to run at about a 1½ percent pace as commodity prices remain relatively flat and the dollar depreciates only modestly.

Recent readings on inflation expectations have been mixed but generally suggest that longer-term expectations have remained stable. Median 5-to-10-year-ahead expected inflation from the Michigan survey was 2.9 percent in July, a touch below the 3 percent reading in June and in the middle of the range seen over the past decade. TIPS-based measures of inflation compensation over the next 5 years and 5 to 10 years ahead have both increased nearly ¼ percentage point since the June Tealbook, but changes in those measures have been particularly hard to interpret in light of safe-haven flows.

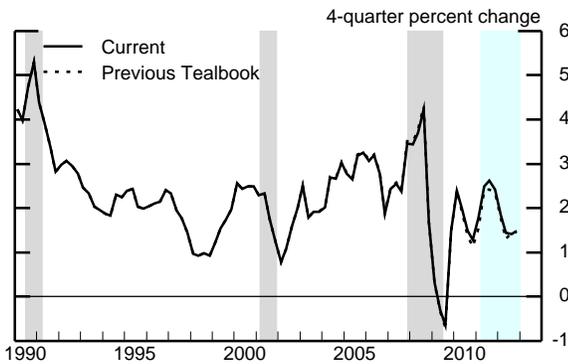
The contour of our core inflation projection over the medium term reflects the anticipated fading of transitory pressures that have boosted inflation this year. We assume that inflation expectations will remain stable and that the unemployment rate gap will decline only slightly next year. As a result, with pressures from commodity and import prices fading, core inflation is expected to slow from about 1¾ percent this year to 1½ percent in 2012. Given this step-down in core inflation and an expected deceleration

Inflation Projections (Percent change, Q4 to Q4)

Measure	2009	2010	2011	2012
PCE chain-weighted price index	1.5	1.3	2.4	1.5
Previous Tealbook	1.5	1.1	2.3	1.5
Food and beverages	-1.7	1.3	4.3	1.4
Previous Tealbook	-1.6	1.3	4.5	1.4
Energy	2.6	6.2	9.3	1.4
Previous Tealbook	2.7	5.9	9.6	1.0
Excluding food and energy	1.7	1.0	1.8	1.5
Previous Tealbook	1.7	.8	1.7	1.5
Prices of core goods imports ¹	-1.7	2.6	4.9	1.5
Previous Tealbook	-1.9	2.7	5.0	1.4

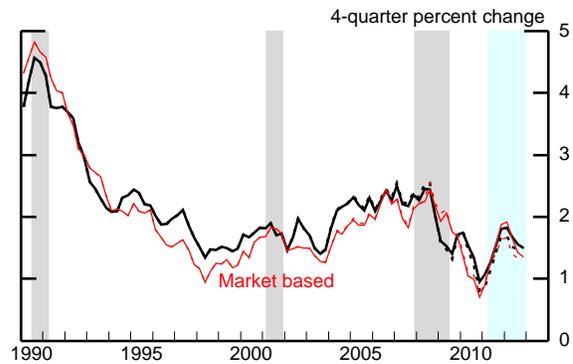
1. Core goods imports exclude computers, semiconductors, oil, and natural gas.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Total PCE Prices



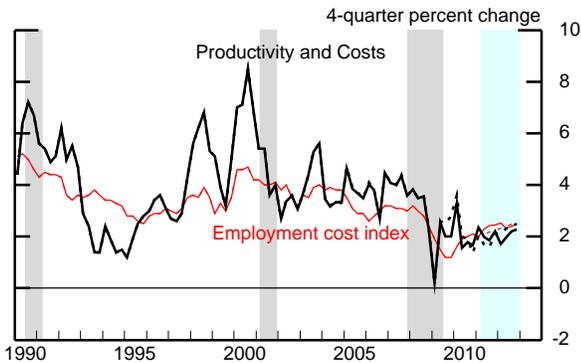
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

PCE Prices ex. Food and Energy



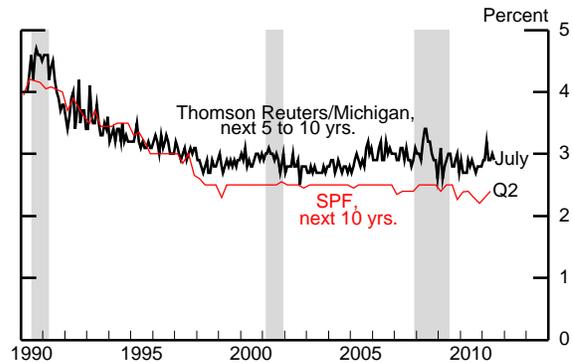
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

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.

in consumer energy and food prices, headline PCE price inflation is projected to slow from 2½ percent in 2011 to 1½ percent in 2012. Relative to the June Tealbook, our topline inflation forecast is a little higher this year in response to the higher-than-expected incoming data on core prices. However, the small resulting inflationary impetus to our forecast next year is offset by the lower level of resource utilization.

THE LONG-TERM OUTLOOK

We have extended the staff forecast to 2015 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 25 basis points to the rise in the 10-year Treasury yield over the period from 2013 to 2015.
- The modest effects of the anticipated credit rating downgrade that we assume are already priced into yields on U.S. Treasury securities persist beyond 2012; those effects are also assumed to lift private yields somewhat. In addition, risk premiums on corporate equities decline gradually to normal levels, and banks ease their lending standards somewhat further.
- The federal government budget deficit (NIPA basis) narrows from 6¾ percent of GDP in 2012 to 4½ percent of GDP in 2015. While the effects of the economic recovery on tax receipts make a large contribution to this narrowing of the deficit, about 1 percentage point of the narrowing reflects our assumption of policy actions starting in 2013 that are consistent with the recent budget legislation.
- The real foreign exchange value of the dollar is assumed to depreciate 2¼ percent in 2013 and then decline 1 percent in both 2014 and 2015. The price of WTI crude oil is roughly flat at slightly more than \$100 per

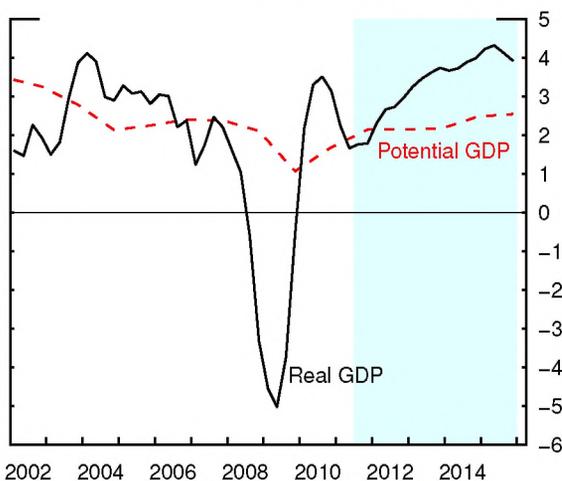
The Long-Term Outlook

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

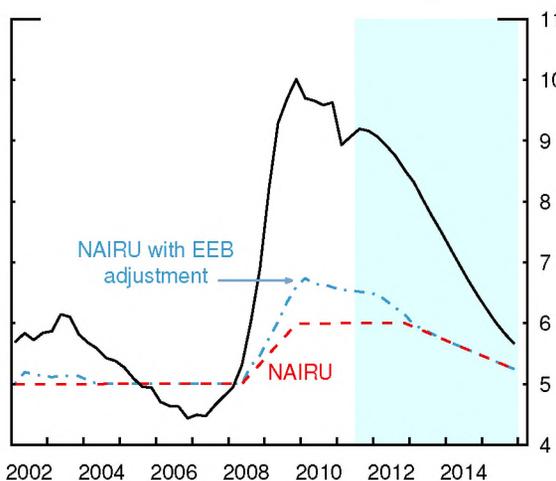
Item	2010	2011	2012	2013	2014	2015
Real GDP	3.1	1.8	3.0	3.7	4.0	3.9
Civilian unemployment rate ¹	9.6	9.2	8.5	7.5	6.5	5.7
PCE prices, total	1.3	2.4	1.5	1.4	1.5	1.6
Core PCE prices	1.0	1.8	1.5	1.4	1.5	1.6
Federal funds rate ¹	.2	.1	.1	.7	1.7	3.2
10-year Treasury yield ¹	3.0	3.0	3.9	4.3	4.6	4.8

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

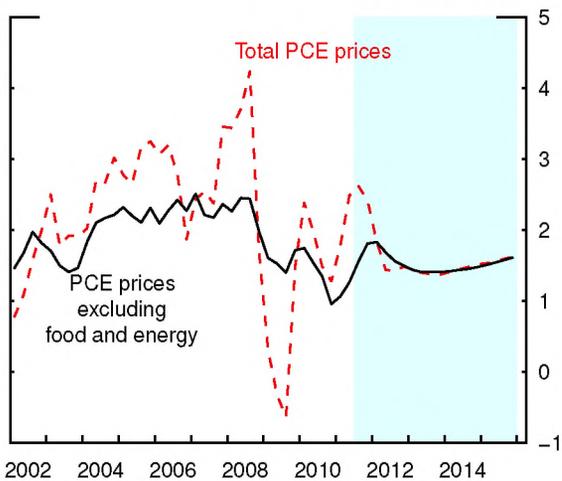
Real GDP
4-quarter percent change



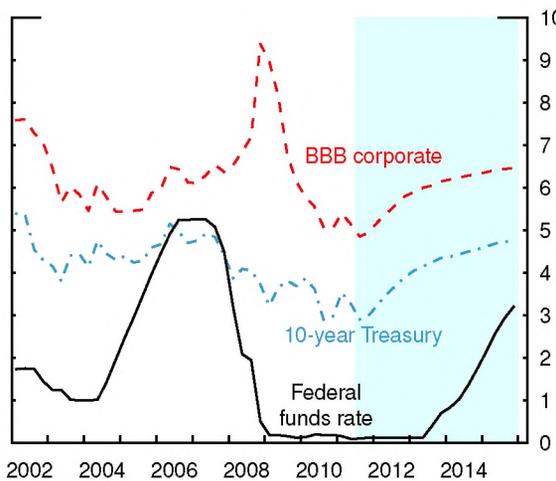
Unemployment Rate
Percent



PCE Prices
4-quarter percent change



Interest Rates
Percent



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

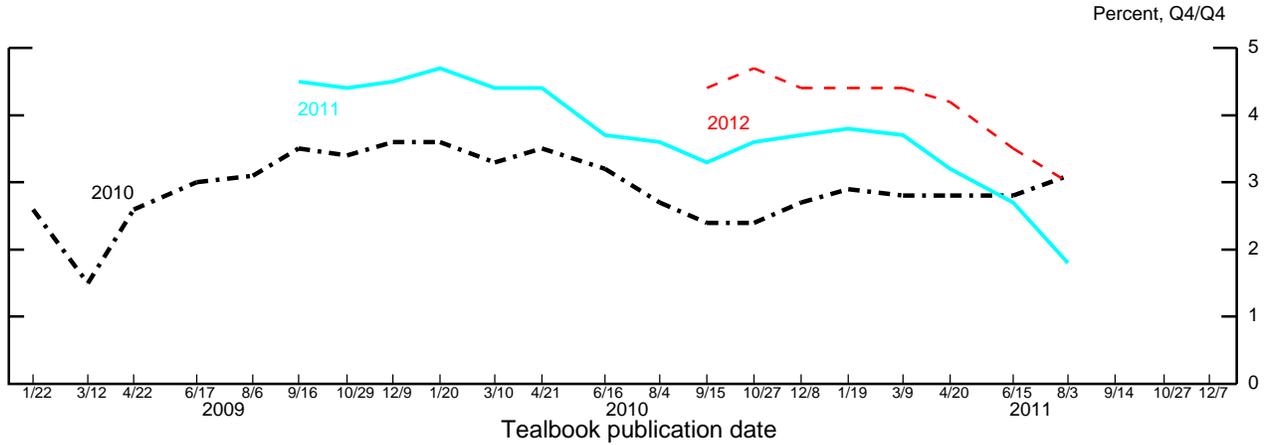
barrel during the extension period, consistent with futures prices adjusted for divergences between staff and market expectations for economic activity and exchange rates. Foreign real GDP expands, on average, 3½ percent per year from 2013 through 2015, above its trend rate.

- The NAIRU declines from 6 percent in late 2012 to 5¼ percent by 2015 as the functioning of the labor market improves. Potential GDP expands almost 2½ percent per year, on average, over the 2013–15 period.

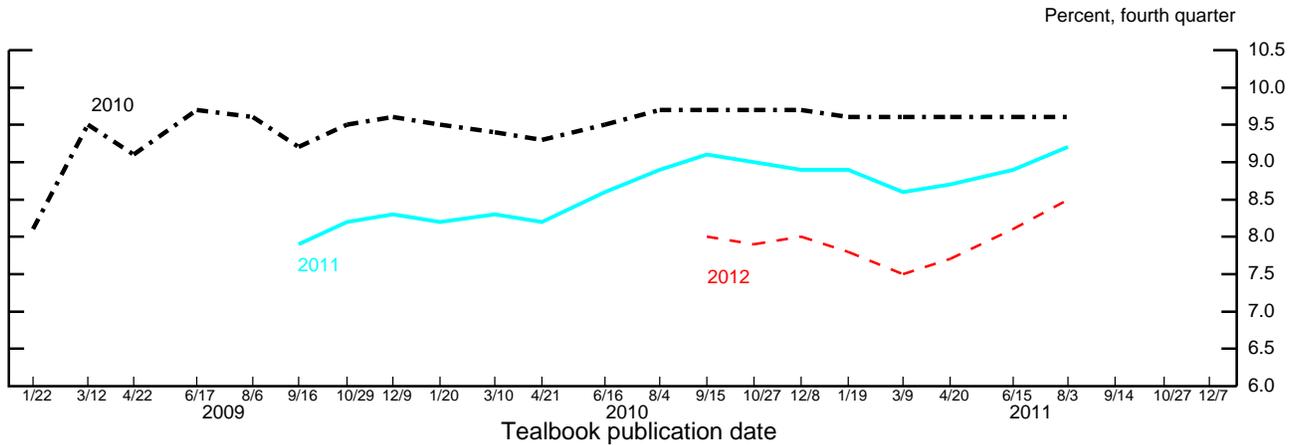
The economy enters 2013 with output still considerably below its potential, the unemployment rate well above the projected NAIRU, and inflation below the assumed objective. In the long-run forecast, improving confidence, diminishing uncertainty, and supportive financial conditions eventually enable the level of aggregate demand to approach aggregate supply. In this environment, real GDP rises at an average annual rate of almost 4 percent from 2013 to 2015, faster than its potential pace; as a result, unemployment declines appreciably, reaching 5¾ percent by late 2015, while inflation edges up to 1.6 percent in 2015.

Evolution of the Staff Forecast

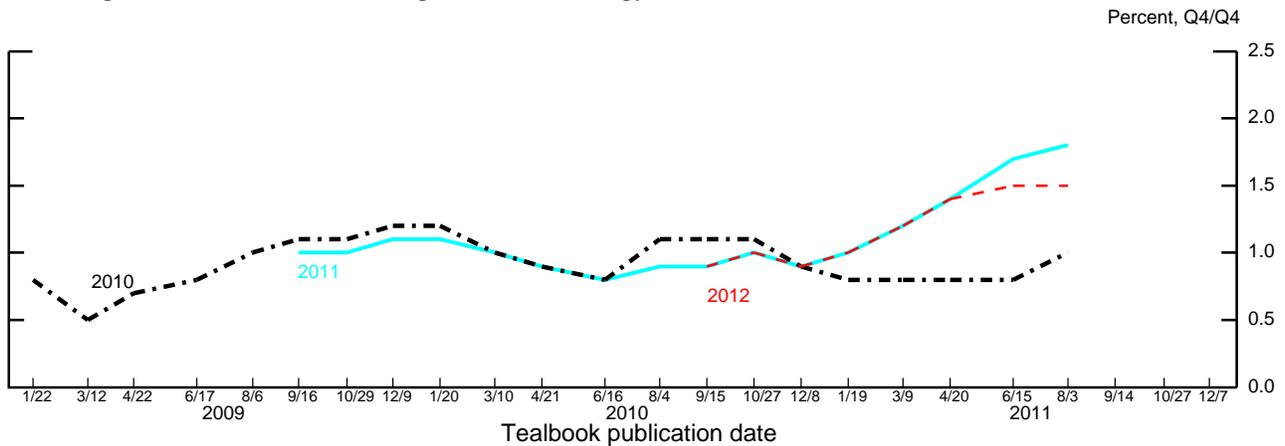
Change in Real GDP



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.

Appendix

Annual Revision of the National Income and Product Accounts

On July 29, the Bureau of Economic Analysis (BEA) released its annual revision to the national income and product accounts (NIPA). The adjusted estimates incorporate newly available or revised data—such as the Census Bureau’s annual surveys and tabulations from the Internal Revenue Service (IRS)—as well as some changes in methodology. These revisions mainly affected historical NIPA estimates from 2008 to 2010.¹ The four-quarter change in real GDP was revised down ½ percentage point in 2008 and ¾ percentage point in 2009, while the four-quarter change in 2010 was revised up about ¼ percentage point.

These estimates indicate that the recent cyclical downturn was deeper than previously reported and that the recovery proceeded at a slightly slower pace through the first quarter of 2011. Although the dates of the peak (2007:Q4) and trough (2009:Q2) of real GDP remain the same, the contraction from peak to trough is now estimated to have been about 5 percent—1 percentage point larger than in previous estimates and nearly 1½ percentage points steeper than the next-largest postwar contraction in late 1957 and early 1958. Moreover, in contrast to previous estimates, it now appears that as of the second quarter of 2011, real GDP remained slightly below its peak level in the fourth quarter of 2007. Quarterly estimates of real gross domestic income (GDI) were also marked down a little, on net, and these revisions now place real GDP and real GDI on very similar growth trajectories from 2008 to 2010.

The pattern of revisions to real GDP between 2008 and 2010 largely resulted from revised estimates for private domestic final expenditures. Most notably, real PCE is now estimated to have fallen more substantially in both 2008 and 2009 than previously thought and to have rebounded at a somewhat faster rate in 2010.² The downward revision to real PCE in recent years was widespread across major spending categories and was accompanied by a downward revision to real disposable personal income (DPI). These revisions left the personal saving rate at the end of 2010—5¼ percent—only a little below the previous estimate, and still well above the rate that had prevailed at the end of 2007. The downward revision to DPI is mainly explained by much lower estimates of personal interest income, reflecting newly available IRS tabulations through 2009 and changes to the methodology used to calculate mortgage interest. In addition,

¹ This release marked the debut of “flexible annual revisions” wherein the BEA may choose to revise NIPA estimates further back in history than the traditional three-year window in order to incorporate new source data or changes in methodology. In this year’s revision, relatively small changes were made to current-dollar estimates for some series—such as GDP, PCE, and fixed investment—from 2003 to 2007, and chained-dollar estimates for these series were revised throughout history.

² Revisions to fixed investment followed a similar yearly pattern as those to PCE and were concentrated in the nonresidential sector. Changes to estimates of government spending, inventory investment, and net exports were fairly modest on balance.

employee compensation was marked down somewhat, on net, mostly in response to downward-revised estimates of employer contributions to employee pensions and insurance funds.

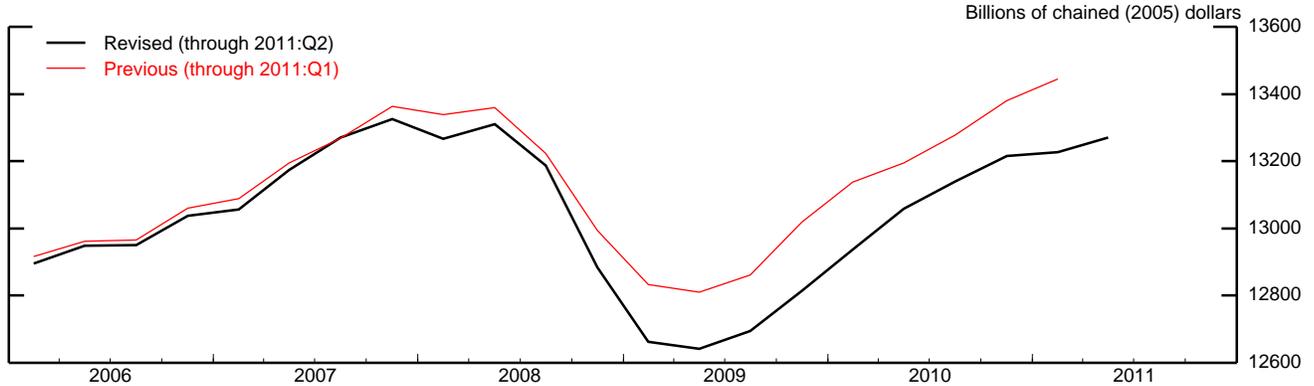
By contrast, corporate profits were marked up substantially in both 2009 and 2010. These latest estimates place the share of economic profits in gross national product at the end of 2010 at nearly 12½ percent, about 1¼ percentage points above the previous estimate. Both domestic financial and nonfinancial profits were revised up noticeably on balance.

Revisions to the BEA's estimates of consumer prices were modest and were largely concentrated in 2010. Estimated rates of increase in both total and core PCE prices were unchanged in 2008 and 2009 but were revised up about ¼ percentage point in 2010, reflecting upward-revised price increases in the nonmarket category. Revisions to the market-based component of PCE prices were minor.

The annual NIPA revision also provided information about the likely magnitude of the upcoming revision to estimates of productivity and hourly compensation in the nonfarm business sector. Working from the updated NIPA data, the Board staff estimates that output per hour in the nonfarm business sector dropped 1¼ percent over the four quarters of 2008 before jumping 5¼ percent in 2009 and rising 2½ percent in 2010; the new figures would leave the productivity level in the fourth quarter of 2010 about 1½ percent below the previous estimate. The downward-revised estimates of employee compensation imply somewhat smaller increases in hourly compensation in recent years, on balance, with the level of compensation per hour in the fourth quarter of 2010 down about ½ percent from previous estimates. Taken together, these revised productivity and compensation figures would imply that the level of unit labor costs at the end of 2010 was about 1 percent higher than previously thought.

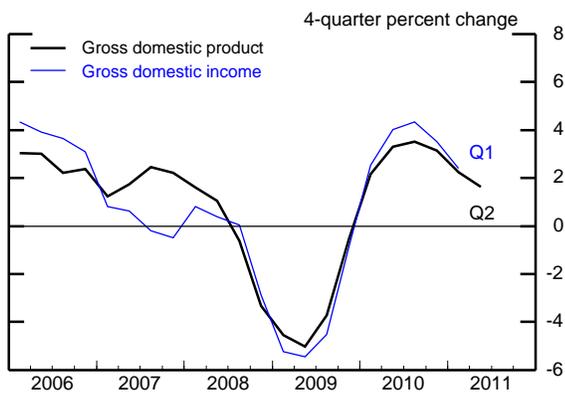
Annual Revision to the National Income and Product Accounts

Real GDP



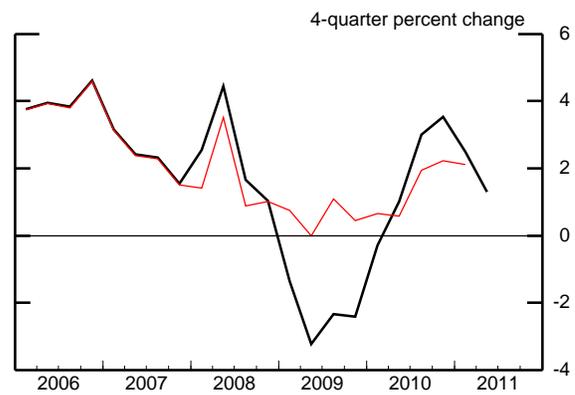
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Real GDP and GDI



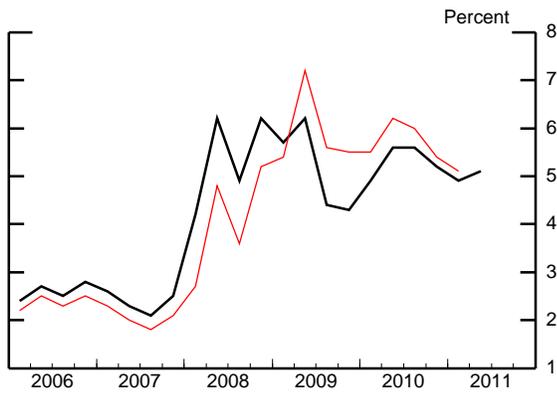
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Real DPI



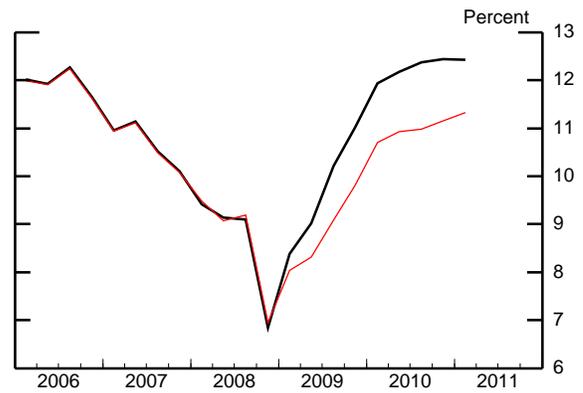
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Personal Saving Rate



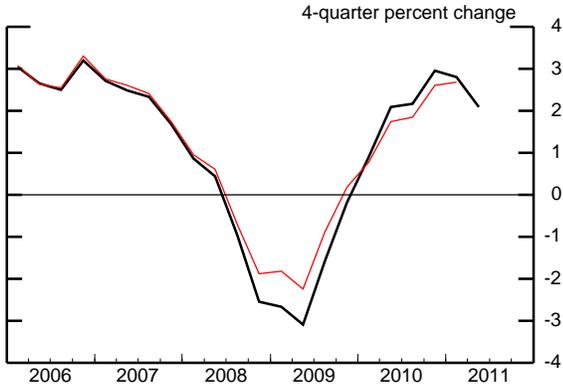
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Profits as a Share of GNP



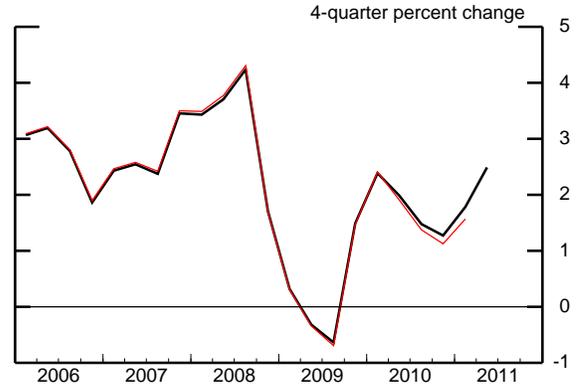
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Real Personal Consumption Expenditures



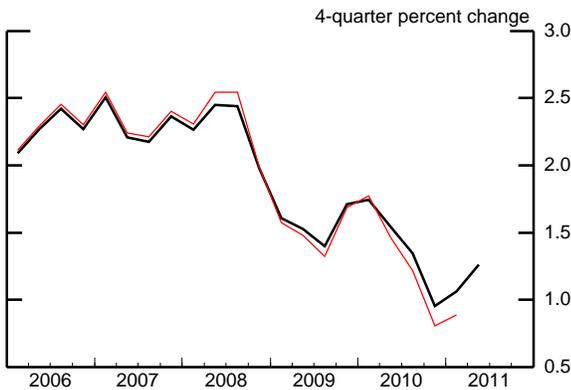
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Total PCE Prices



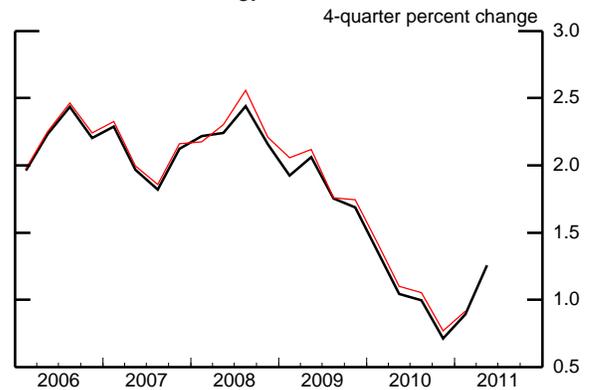
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

PCE Prices Ex. Food and Energy



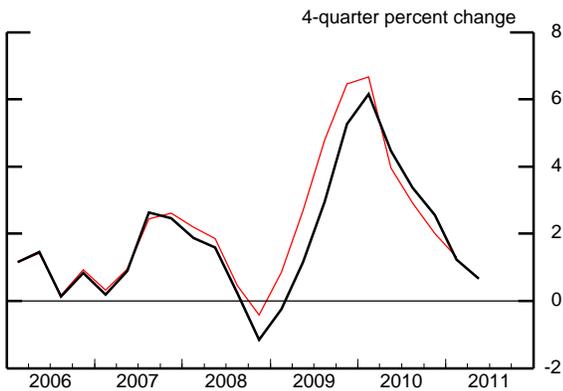
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Market-Based PCE Prices Ex. Food and Energy



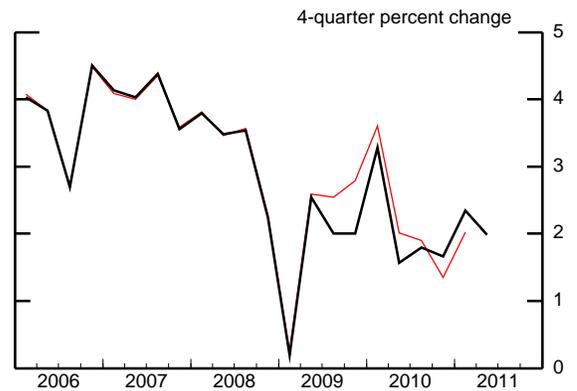
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Productivity (Nonfarm business)



Note: Revised values are staff estimates.
Source: U.S. Department of Labor, Bureau of Labor Statistics;
U.S. Department of Commerce, Bureau of Economic Analysis.

Compensation per Hour (Nonfarm business)



Note: Revised values are staff estimates.
Source: U.S. Department of Labor, Bureau of Labor Statistics;
U.S. Department of Commerce, Bureau of Economic Analysis.

International Economic Developments and Outlook

As expected at the time of the June Tealbook, foreign activity slowed significantly in the second quarter, but data indicate a somewhat larger deceleration than anticipated. We estimate that real GDP growth fell from 4¼ percent at an annual rate in the first quarter to 2¼ percent in the second, about ½ percentage point below our previous forecast. The step-down in foreign GDP growth reflected a slowing of many economies toward more sustainable growth rates, the spillover effects of the Japanese earthquake and tsunami, and anemic growth in the United States. So far, we are not interpreting the step-down in foreign economic performance as reflecting a persistent and deep-seated softening of private domestic demand, but staff will be alert to signs of such weakness in the coming quarters.

The contour of our forecast remains roughly the same as in June, with economic growth rebounding in the second half of this year, as the downdrafts from Japan's earthquake abate and the U.S. economy accelerates. However, increased headwinds—from a weaker U.S. outlook and greater concerns over sovereign debt in Europe—have led us to mark down real GDP growth abroad about ¼ percentage point over the forecast period. Foreign aggregate real GDP is now projected to increase 3½ percent at an annual rate both in the second half of this year and in 2012.

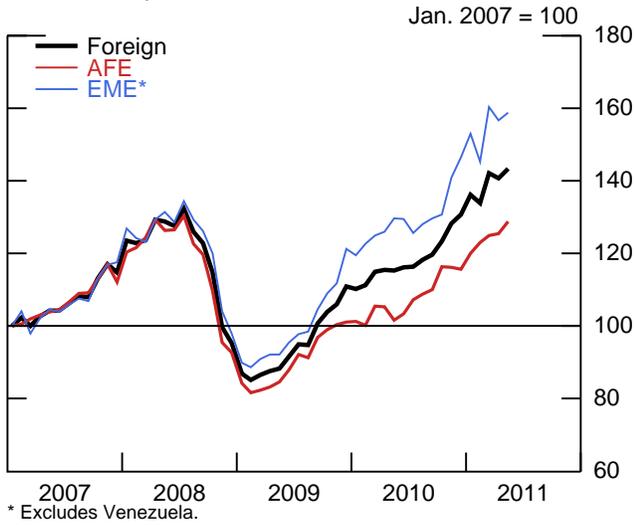
Since the June Tealbook, financial conditions in Europe have worsened, despite the passage of Greece's fiscal austerity program and the announcement of measures designed to shore up vulnerable countries. Most troubling has been the increase in market scrutiny of Italy and Spain. Our baseline forecast assumes that Europe will manage to avoid a major crisis but that continued financial stresses and more stringent fiscal consolidation will weigh on economic growth. Moreover, the risk of severe financial disruptions in Italy, Spain, and perhaps other euro-area countries has increased since June.

Foreign inflation was 3¼ percent at an annual rate in the second quarter, down from its peak of 5¼ percent in the fourth quarter of last year, and is expected to continue to edge lower as the effects of previous food and energy price increases dissipate. Inflation is projected to fall to just under 2½ percent in 2012, contingent on the staff's expectation that commodity prices flatten out.

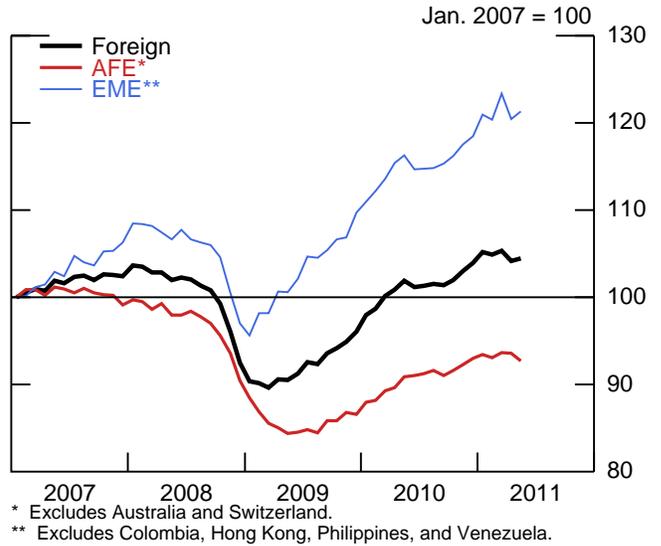
Recent Foreign Indicators

Int'l Econ Devel & Outlook

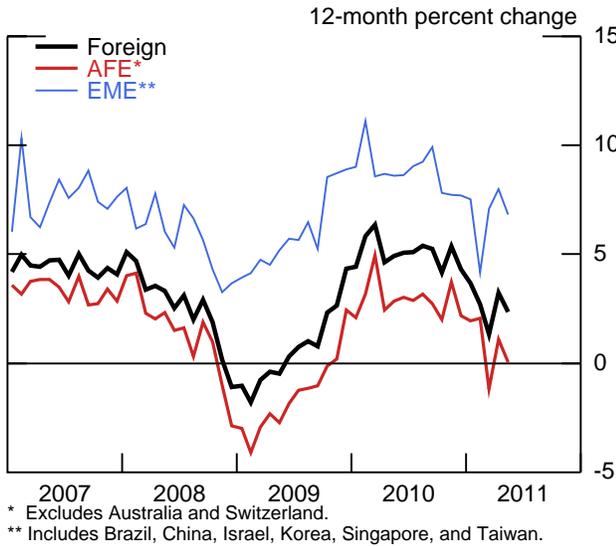
Nominal Exports



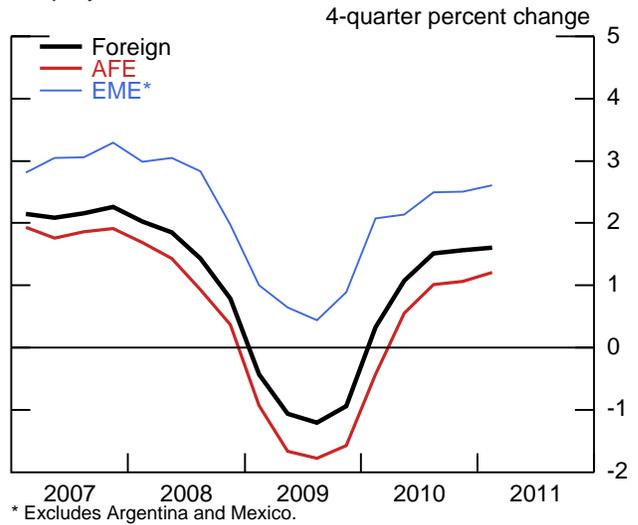
Industrial Production



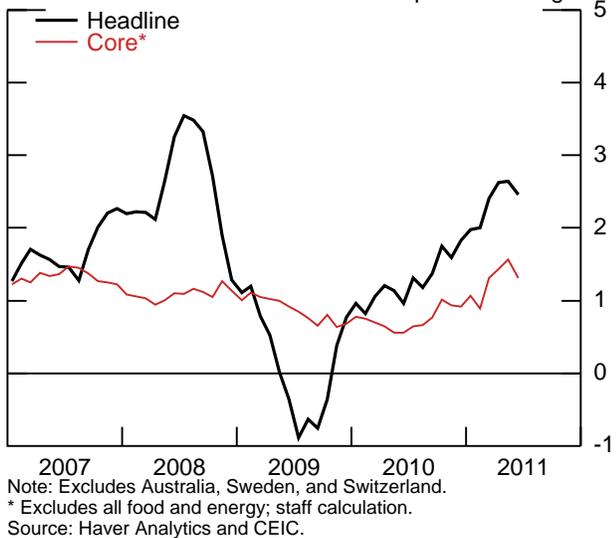
Retail Sales



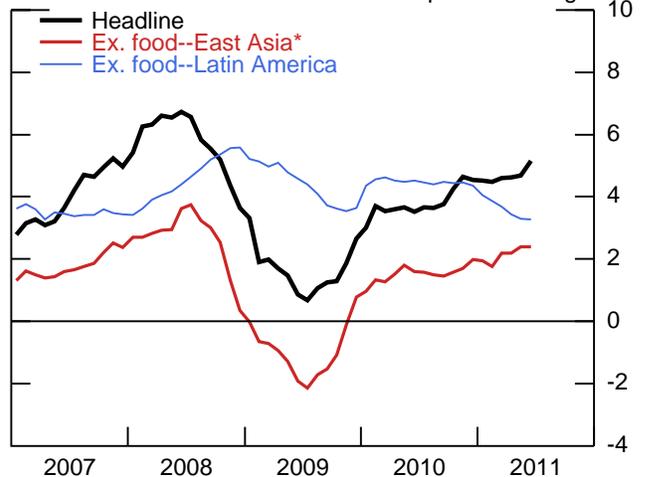
Employment



Consumer Prices: Advanced Foreign Economies



Consumer Prices: Emerging Market Economies



The Foreign Outlook

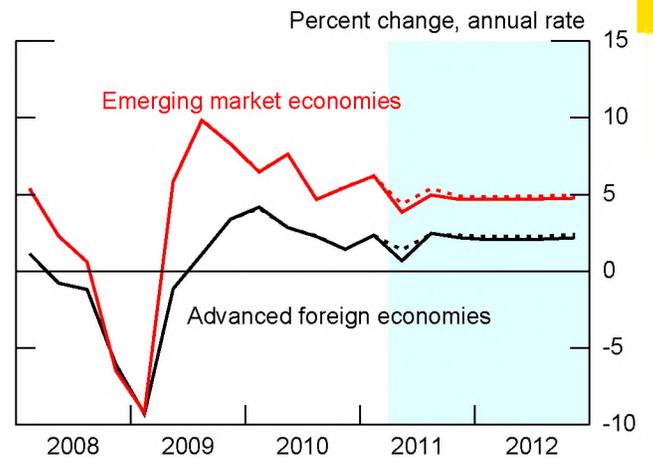
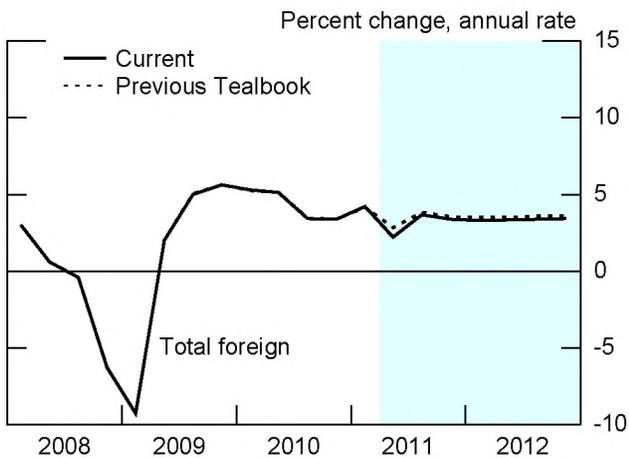
(Percent change, annual rate)

	2010			2011			2012
	H1	Q3	Q4	Q1	Q2	H2	
Real GDP							
Total foreign	5.2	3.4	3.4	4.2	2.2	3.5	3.4
Previous Tealbook	5.2	3.5	3.4	4.2	2.8	3.7	3.6
Advanced foreign economies	3.5	2.3	1.4	2.4	.7	2.3	2.1
Previous Tealbook	3.5	2.3	1.4	2.4	1.4	2.4	2.3
Emerging market economies	7.1	4.7	5.5	6.2	3.9	4.8	4.7
Previous Tealbook	7.1	4.7	5.5	6.2	4.4	5.2	4.9
Consumer Prices							
Total foreign	2.6	2.5	5.3	4.3	3.2	2.4	2.4
Previous Tealbook	2.6	2.4	5.3	4.4	2.9	2.4	2.4
Advanced foreign economies	1.2	1.1	3.5	3.3	2.2	1.0	1.4
Previous Tealbook	1.2	1.1	3.5	3.3	2.4	1.3	1.4
Emerging market economies	3.7	3.5	6.6	5.1	4.0	3.4	3.2
Previous Tealbook	3.7	3.5	6.7	5.2	3.3	3.3	3.1

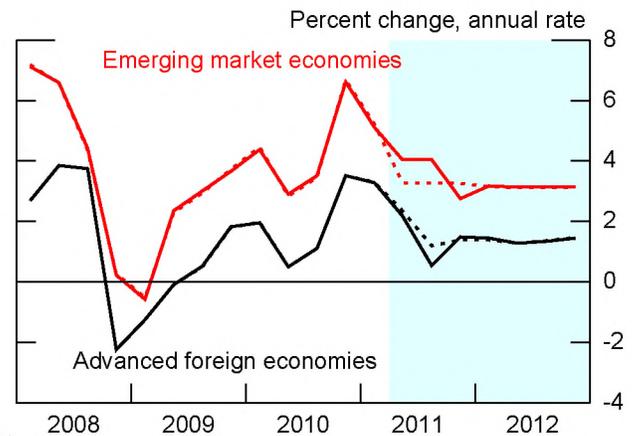
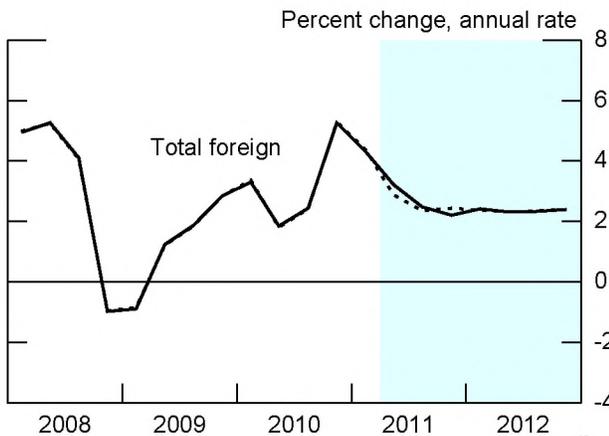
Note: Annualized percent change from final quarter of preceding period to final quarter of period indicated.

Int'l Econ Devel & Outlook

Real GDP



Consumer Prices



ADVANCED FOREIGN ECONOMIES

We estimate that GDP growth in the advanced foreign economies (AFE) slowed sharply from 2½ percent in the first quarter to a meager ¾ percent in the second. Although we had built in some moderation, the step-down was nearly ¾ percentage point greater than we had projected in June, reflecting downward surprises related to temporary factors in Canada and the United Kingdom. We expect the pace of growth to recover to a modest 2½ percent in the third quarter, as Japan's economy snaps back, and then to hover around a 2¼ percent pace through 2012. This pace is ¼ percentage point lower than that in the June Tealbook in view of the weaker trajectory for U.S. growth and the intensification of financial stresses in Europe. Greece's near-term prospects improved over the intermeeting period, but the spread of contagion to Spain and Italy, and the failure of the European leaders' summit agreement to address that problem, point to continued risks to the outlook in Europe. We expect Italy and Spain now will enact greater austerity measures to try to assuage market concerns.

We estimate that AFE inflation fell from 3¼ percent at an annual rate in the first quarter to 2¼ percent in the second, partly reflecting the waning influence of the earlier jump in energy prices. Going forward, with energy and food prices projected to flatten and output gaps closing slowly, we have AFE inflation stabilizing near 1½ percent over the remainder of the forecast period. Given greater concerns about economic growth, we now expect the major central banks to conduct somewhat more accommodative monetary policies than previously anticipated.

Japan

The Japanese economy is recovering from the March earthquake and tsunami more rapidly than we had expected. Exports and industrial production have already retraced much of their substantial losses, while significant progress has been made to restart operations in the hard-hit automobile industry. Survey data also have been encouraging, with the June PMI indicating that supply chain bottlenecks have largely waned. We now estimate that real GDP fell 3 percent last quarter, a contraction that was ¾ percentage point smaller than projected in the June Tealbook. Going forward, we have output rising at a 4½ percent pace in the second half of the year, an estimate which has been revised up a bit as downside risks have receded. GDP growth should then slow to 2½ percent in 2012, down ¼ percentage point from the previous Tealbook, in line with somewhat weaker U.S. growth and a stronger yen.

The swift Japanese recovery has been facilitated by government relief programs. On July 15, the Japanese Diet approved a ¥2 trillion (about \$25 billion, or nearly ½ percent of GDP) disaster-relief package, which followed the ¥4 trillion supplementary budget enacted in May. We expect that a third and larger supplementary budget will be passed before the end of the year. Although Japan has continued to run large budget deficits—with gross debt reaching an estimated 200 percent of GDP in 2010—sovereign yields have actually edged down, and financial markets expect the rate on 10-year JGBs to remain below 1.5 percent over the forecast period. We assume that the Bank of Japan will increase the size of its asset purchase program from ¥10 trillion to ¥15 trillion by year-end.

Consumer prices resumed declining in the second quarter, as expected, after rising ½ percent at an annual rate in the first. As the output gap narrows, deflation should moderate from ½ percent in the second half of 2011 to ¼ percent at the end of 2012.

Euro Area

Our assessment of economic conditions in the euro area has worsened over the intermeeting period. We had expected economic growth to step down in the second quarter after an unsustainably strong first-quarter performance in the largest euro-area economies, and this view has been supported by incoming indicators. Industrial production barely edged up in May, and retail sales were down in the second quarter. Business confidence and the composite PMI also weakened in the second quarter and fell further in July.

The sharp decline in sentiment in July likely reflected the ratcheting up of financial tensions in Europe. Sovereign spreads initially declined in response to the successful passage of Greek austerity measures, which secured official financing needed to avert a disorderly Greek default in July. But subsequently, spreads soared to new heights amid contentious and protracted negotiations about a second rescue package for Greece. Even more worrisome, spreads for Spain and Italy ran up substantially, in part reflecting concerns about the coherence of the regional crisis management strategy, and have climbed even higher in early August. On July 21, euro-area leaders announced the rescue package for Greece, which was intended to cover much of Greece's funding needs for the next decade and to elicit some debt relief from private creditors. In addition to €109 billion in new official financing for Greece, the leaders agreed to significantly reduce the costs and extend the maturities of euro-area financing to Greece, Ireland, and

Portugal and to broaden the scope and flexibility of the European Financial Stability Facility (EFSF).

While the package offered Greece some clear help in meeting its obligations, several risks remain for Greece and for the euro area. The extent to which the private sector will participate in the debt restructuring and how successful Greece will be in achieving its fiscal and privatization targets are not clear. The willingness of the official sector to make up any future financing shortfalls is also not certain, and regaining market access is doubtful given that Greek sovereign debt is still not on a convincingly sustainable trajectory. In addition, the package did not increase the overall size of the EFSF, leaving it inadequate to backstop Italy and Spain should financial troubles intensify there.

On balance, since the June forecast financial conditions have improved somewhat for Greece but are demonstrably worse for Italy and Spain, where sovereign, bank, and corporate spreads are well above levels observed in mid-June. Over the next several years, we expect that financial conditions in the euro area will remain strained with occasional bouts of more pronounced turbulence. These stresses will keep borrowing costs elevated, weigh on consumer and business confidence, and add to pressures for near-term fiscal consolidation. Although we assume European policymakers will manage to avert a deeper crisis that generates global financial spillovers, such a crisis remains a distinct possibility. (See the Risks and Uncertainty section for a discussion of the implications of a severe crisis in Italy and Spain.) Moreover, Greece will require more drastic private-sector restructuring, more official funds, or both, by 2014 (when Greece is slated to return to private financial markets for additional financing), if not earlier.

With tighter financial conditions, more-restrictive fiscal policy, and weaker external demand, we have lowered our projection for euro-area output and now expect GDP growth to be only 1 percent in the second half of 2011 before it rises to 1¾ percent by the end of 2012. This forecast is about ¼ percentage point lower than in the June Tealbook.

Euro-area inflation, after surging to an annual rate of 3¾ percent in the first quarter on the back of higher energy prices, fell to 2¾ percent in the second, and the July data are consistent with a sharp further decline this quarter. Amid persistent slack, we expect inflation to average about 1½ percent over the forecast period, a touch lower than that in the June Tealbook. On July 7, the ECB raised its benchmark policy rate 25 basis

points to 1½ percent. Given the weaker outlook for economic growth and inflation, we now expect the ECB to raise its policy rate only once more by the end of 2012, to 1¾ percent.

Canada

We significantly lowered our estimate of second-quarter GDP growth to ¾ percent at an annual rate in response to weaker external demand and lower oil production in May, the latter a result of maintenance operations and forest fires that limited access to oil fields. Nonetheless, incoming indicators for domestic activity have remained positive overall, with employment posting strong gains through June, investment activities continuing at a solid pace, and credit conditions easing further. We expect GDP growth to snap back to almost 3 percent in the third quarter, higher than projected in the June Tealbook, as oil production recovers and part shortages at auto plants are resolved. Thereafter, output is projected to rise at a moderate 2¼ percent pace over the remainder of the forecast period. Relative to the previous Tealbook, GDP growth is down ¼ percentage point this year and next, reflecting the recent appreciation of the Canadian dollar and the weaker U.S. outlook.

Inflation was 3 percent in the second quarter, ½ percentage point less than projected in the previous Tealbook, as core prices decelerated noticeably in June. The June surprise is largely attributable to aggressive discounts on automobiles that are expected to last through most of the summer, prompting us to revise down our third-quarter inflation forecast to an annual pace of ½ percent. Thereafter, inflation should move back up to around the Bank of Canada's (BOC) 2 percent target over the remainder of the forecast period. Given subdued inflation and somewhat softer external demand, we have lowered the BOC's path of monetary tightening and now expect its main policy rate to rise to 1½ percent by the end of 2012, ½ percentage point less than in the previous Tealbook.

United Kingdom

According to the preliminary estimate, U.K. GDP grew only ¾ percent at an annual rate in the second quarter, significantly less than we projected in June. The downside surprise is attributable to a greater-than-expected drag on activity associated with the Royal Wedding holiday and production disruptions following the Japanese earthquake. Accordingly, we expect GDP growth to bounce back to 2½ percent in the

third quarter as these factors abate before settling down to a roughly 2¼ percent pace over the remainder of the forecast period. This forecast is a touch lower than in June due to weaker external demand.

Amid weaker-than-expected core prices, second-quarter inflation declined to 3½ percent, ½ percentage point less than projected in the June Tealbook. Inflation should decline further to 1¾ percent in the current quarter. However, hikes in energy tariffs have been announced for later this year, prompting us to bump up our forecast to 2½ percent on average over the forecast period, although underlying price pressures should remain contained. Given recent and prospective softer economic growth, and despite year-on-year inflation readings exceeding 4 percent for the next couple of quarters, we now assume that the Bank of England will wait until the middle of 2012 before raising the Bank Rate to ¾ percent.

EMERGING MARKET ECONOMIES

We estimate that real GDP growth in the emerging market economies (EMEs) slowed from an annual rate of 6¼ percent in the first quarter to about 4 percent in the second, restrained by the effects of the earthquake in Japan and weak U.S. growth, and reflecting a return to a more sustainable pace of activity. Although these factors were largely built into the June Tealbook, the tone of the incoming data was weaker than we had anticipated, leading us to push down our estimate of second-quarter growth about ½ percentage point. In the current quarter, we see growth in the EMEs moving up to 5 percent with the restoration of supply chains that were disrupted by the crisis in Japan. Real GDP growth is then projected to average 4¾ percent over the remainder of the forecast period, roughly at its trend pace, but about ¼ percentage point lower than forecast in June, primarily reflecting the weaker U.S. outlook.

Headline consumer price inflation in the EMEs slowed from 5 percent at an annual rate in the first quarter to about 4 percent in the second. Inflation over the near term is projected to be a little higher than anticipated at the time of the June Tealbook, primarily reflecting a renewed burst of food price inflation in China. Nonetheless, we expect that inflation in the EMEs will moderate to about 3 percent next year, as the effects of earlier increases in commodity prices recede and as authorities in many countries continue to tighten monetary policy.

China

Chinese real GDP increased 9 percent at an annual rate in the second quarter, around the same pace as in the first, but other data suggest that the economy is slowing a touch. The PMI edged down in recent months, and industrial production growth moderated in the second quarter. Domestic demand also appears to have softened somewhat, with retail sales slowing and imports falling in the second quarter. We have lowered our projection of Chinese growth about $\frac{1}{4}$ percentage point in the second half of this year, to $8\frac{1}{4}$ percent, reflecting the weaker outlook in the advanced economies. We project growth will remain at about that pace in 2012 as Chinese authorities try to modulate fiscal and monetary policy to keep growth solid while preventing the economy from overheating. The possibility that the authorities will be unable to fine tune its Goldilocks policy, such that the economy either overheats or slows sharply, is a risk to the forecast.

Chinese headline consumer price inflation surged to $6\frac{1}{2}$ percent on a 12-month basis in June, up from $5\frac{1}{2}$ percent in May. Although the authorities remain concerned about inflation, the most recent run-up appears to almost entirely reflect rising pork prices. Anecdotes suggest that a supply response is already in train and that pork prices should come down by the end of the summer. In response to the higher inflation and as part of ongoing efforts to normalize monetary policy, Chinese authorities raised the one-year lending and deposit rates to 6.56 percent and 3.5 percent, respectively. As the most recent bout of food price increases reverses, we expect Chinese inflation to move down to $2\frac{3}{4}$ percent early next year and then stay at about that level thereafter.

Other Emerging Asia

Elsewhere in emerging Asia, indicators suggest that real GDP growth moved down to only $2\frac{1}{2}$ percent in the second quarter from nearly $8\frac{1}{2}$ percent in the first, a more pronounced slowing than we anticipated at the time of the June Tealbook. In Korea, real GDP growth moderated to $3\frac{1}{2}$ percent, as expected, with external demand weakening but domestic demand remaining robust. However, advance GDP releases in Taiwan and Singapore were below what we had projected. For the rest of the region, we do not yet have second-quarter GDP figures in hand, but PMIs softened and industrial-sector output declined. Late in the second quarter, the effects of the Japanese earthquake appear to have abated; for example, auto production has mostly normalized in Thailand, a regional hub for Japanese automakers. Going forward, real GDP growth is projected to bounce

back to a 4½ percent pace through the end of 2012. This forecast is somewhat lower than in the June Tealbook, as a weaker outlook for the advanced economies—especially the United States—is projected to weigh on Asian exporters.

Latin America

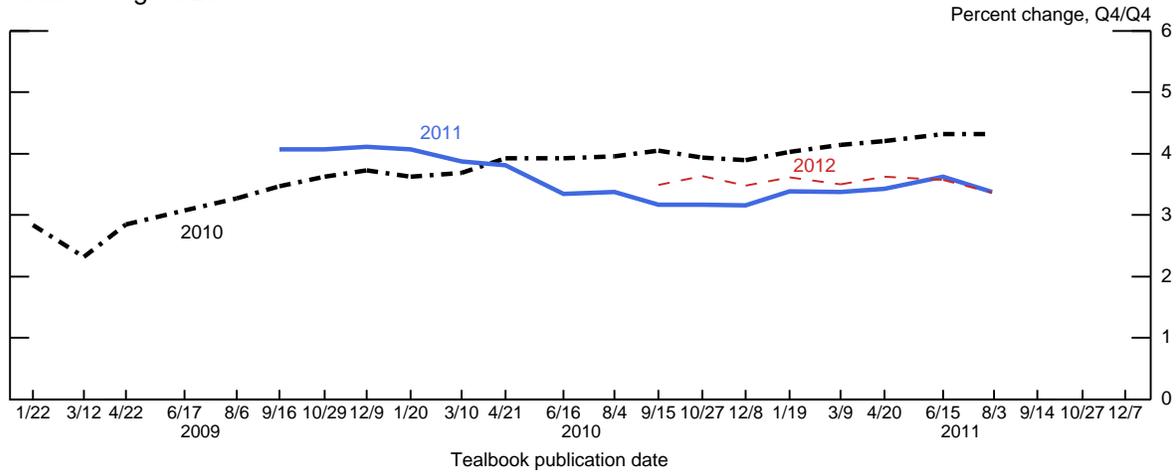
Mexico is one of the few EMEs to retain an appreciable degree of resource slack, and little progress in eroding that slack was made in the first half of this year. We now estimate that real GDP in Mexico expanded only 2½ percent in the second quarter, slightly above its anemic first-quarter rate. This estimate is ½ percentage point below our projection in the June Tealbook, in large part reflecting a downward revision to U.S. industrial production, which is an important influence on Mexican activity. Looking ahead, we expect a rebound in Mexican industrial production, mirroring that in the United States, to temporarily boost Mexican growth to 4¼ percent in the second half of the year, with growth then stepping down to about 3½ percent in 2012.

In South America, where economic performance has been far more robust, boosted by high commodity prices, data point to a moderation of activity, from 7½ percent in the first quarter to 4 percent in the second, roughly in line with that in the June Tealbook. We expect GDP growth to moderate further, to 3½ percent in 2012, a pace which is somewhat weaker than our June Tealbook forecast, owing largely to the markdown in global activity.

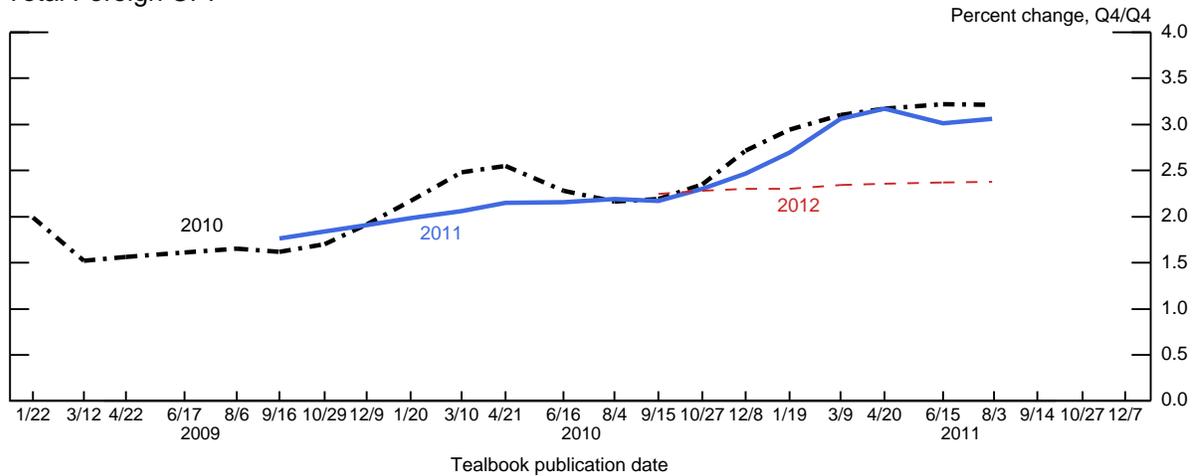
Inflation in Mexico fell in the second quarter to 1¾ percent at an annual rate, reflecting a temporary energy subsidy. Inflation is projected to pick up to 3 percent in the current quarter and to then settle at 3¾ percent over the remainder of the forecast period, within the upper bound of the central bank's target range of 2 to 4 percent. In Brazil, inflation edged down to a still-high 7½ percent in the second quarter. Since the June Tealbook, the central bank of Brazil has raised its benchmark policy rate 25 basis points to 12½ percent in continuing efforts to damp inflation pressures and slow the economy. Partly as a result of these efforts, we project inflation to average 5 percent over the forecast period. However, with credit growth still strong, the risk of overheating persists in Brazil.

Evolution of Staff's International Forecast

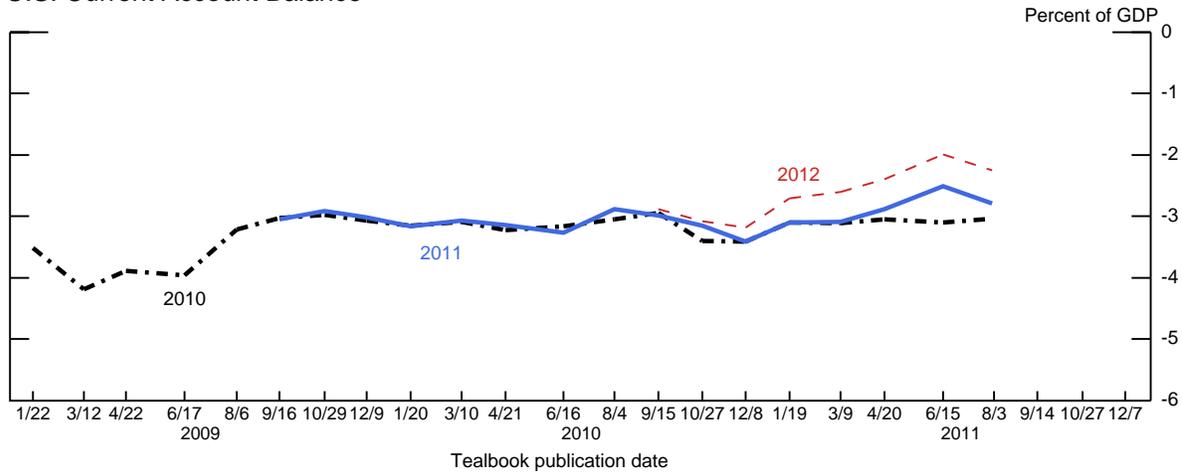
Total Foreign GDP



Total Foreign CPI



U.S. Current Account Balance



Int'l Econ Devel & Outlook

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Financial Developments

U.S. financial markets were buffeted over the intermeeting period by a number of developments regarding the fiscal situation in the United States and Europe and by readings on domestic economic activity that were almost uniformly disappointing. For most of July, investor sentiment mainly swung in response to news about the severity of the European sovereign debt crisis, alternating between disappointment and relief. Later in the period, market participants focused on the debate over the U.S. fiscal situation, and as the wrangling dragged on and the apparent deadline for raising the debt ceiling neared, investors became increasingly anxious. For a time, a number of money markets exhibited significant strains, and there was a surge in the level of domestic bank deposits, sizable declines in equity prices, and some pullback in the provision of credit to both the business and household sectors. The strains in U.S. money markets eased notably in response to the legislation to raise the debt ceiling and cut the federal budget deficit that was signed into law on August 2. Nonetheless, investors' concerns about the long-term fiscal outlook in the United States and Europe persisted, particularly in light of the apparent slowing in global economic activity, and stock prices and Treasury yields dropped.

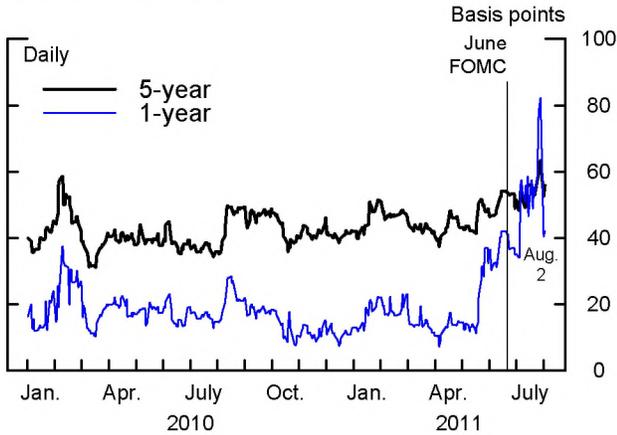
On balance over the intermeeting period, financial markets reflected a growing sense of pessimism regarding the prospects for global economic growth. Broad U.S. equity price indexes ended the period down about 3 percent. Interest rates declined markedly—the 2-year nominal Treasury yield decreased 9 basis points, the 10-year Treasury yield declined 34 basis points, and the 10-year TIPS yield dropped 53 basis points. Moreover, the expected path for the federal funds rate flattened substantially, with Eurodollar futures rates two years hence down about 60 basis points. The foreign exchange value of the dollar declined about 1 percent on net.

EFFECTS OF SOVEREIGN FISCAL STRESSES ON U.S. FINANCIAL MARKETS

For much of the intermeeting period, investors' concerns about the fiscal situation in Europe were a major driver of U.S. asset prices. In late June, relief was evident in financial markets when Greece appeared to have narrowly avoided a disorderly default. However, over the first half of July, investors generally pulled back from riskier assets as scrutiny of sovereign funding needs in the euro area intensified and concerns about Italy and Spain ratcheted up. Later in July, the retreat from risk-taking abated in reaction to

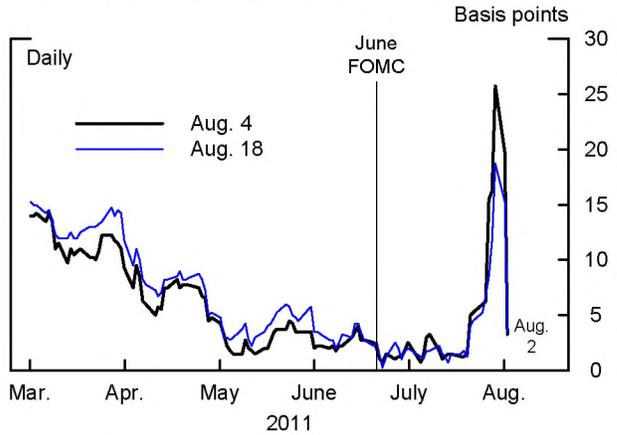
Effects of U.S. Fiscal Stresses on U.S. Financial Markets

U.S. CDS Spreads



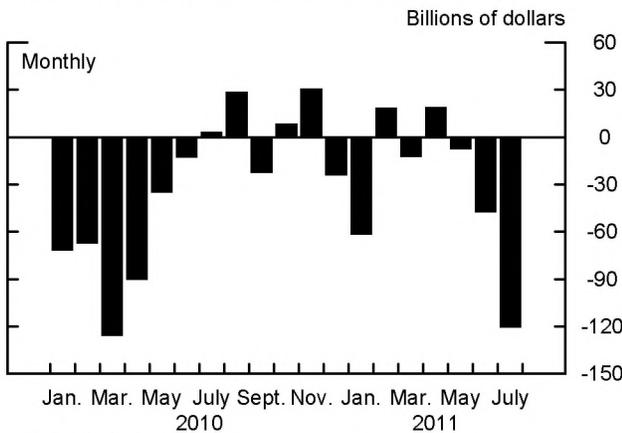
Source: Markit.

Treasury Bill Yields over Projected Breach Date



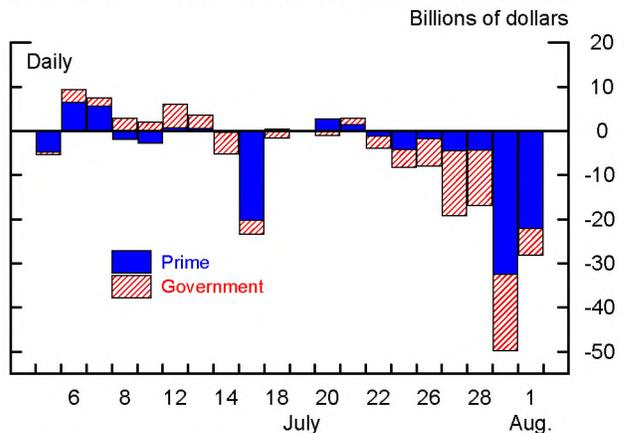
Source: Federal Reserve Bank of New York.

Net Flows to Institutional MMMFs



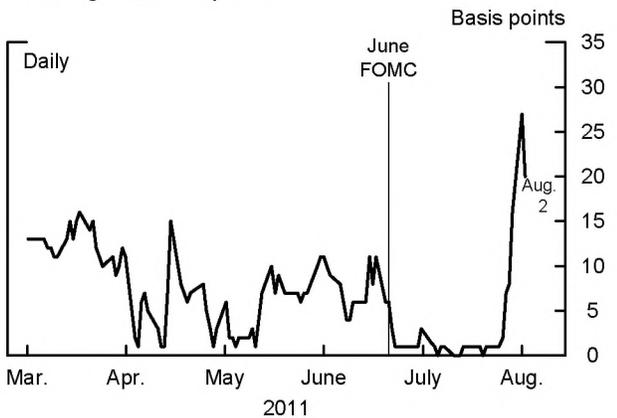
Note: MMMFs are money market mutual funds.
Source: Investment Company Institute and iMoneyNet.

Recent Net Flows to Taxable Institutional MMMFs



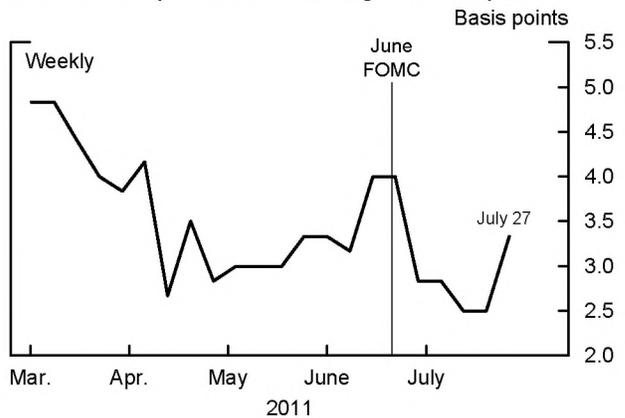
Note: MMMFs are money market mutual funds.
Source: Investment Company Institute and iMoneyNet.

Overnight GC Repo Rate



Note: A GC repo is a repurchase agreement backed by general collateral.
Source: Federal Reserve Bank of New York.

Bid-Asked Spreads on Overnight GC Repos



Note: A GC repo is a repurchase agreement backed by general collateral.
Source: Federal Reserve Bank of New York.

the agreement reached among European leaders on July 21 to provide assistance to financially vulnerable European countries. But concerns about the fiscal situation in Europe resurfaced amid signs of a slowdown in global activity. Further analysis of the imprint that these events left on U.S. financial markets over the intermeeting period is presented in the box “The European Fiscal Crisis and U.S. Asset Prices.”

In late July, investors’ focus turned to the debate over raising the U.S. debt ceiling and the potential for delayed or missed debt service payments by the Treasury Department, the possibility of a downgrade of U.S. sovereign debt, and the prospects for significant longer-term fiscal consolidation. Up until the last week in July, these concerns were not especially evident in financial markets. But investor sentiment changed markedly that week, and short-dated CDS premiums on Treasury debt climbed. At the same time, against the backdrop of investors’ continuing anxiety about European exposures, outflows from institutional money market mutual funds (MMMFs) ramped up, accumulating to about 8 percent of institutional taxable MMMF assets. Amid surging net outflows, fund managers reportedly shortened their investment maturities, pulled back from investing in some money markets, and increasingly chose to park cash at their custodian banks.

Reflecting these developments, liquidity and functioning in money markets deteriorated for a time. Interest rates on a host of short-term funding instruments—including federal funds, yields on short-dated Treasury bills, repurchase agreements backed by general collateral (GC repos), agency discount notes, and commercial paper—increased markedly.¹ Markets for secured funding backed by government-issued or government-guaranteed collateral were the most affected, as evidenced by elevated bid-asked spreads on GC repos at a range of tenors, including overnight, and a sharp decline in transactions volume. The spreads between Libor and overnight index swap (OIS) rates increased at one- and three-month horizons but remained within their recent ranges, while spreads between forward rate agreements and OIS rates rose, and euro Libor–OIS spreads

¹ The effective federal funds rate averaged 8 basis points over the intermeeting period, with the intraday standard deviation averaging about 4 basis points. Late in the period, federal funds traded in the high end of their recent range, and the daily effective rate touched 17 basis points on August 1, a rate not seen since March.

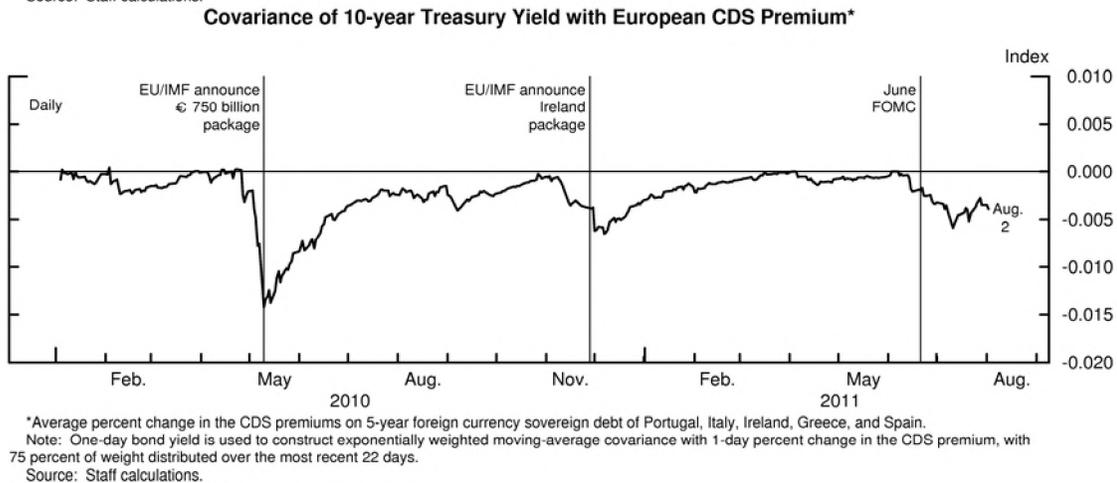
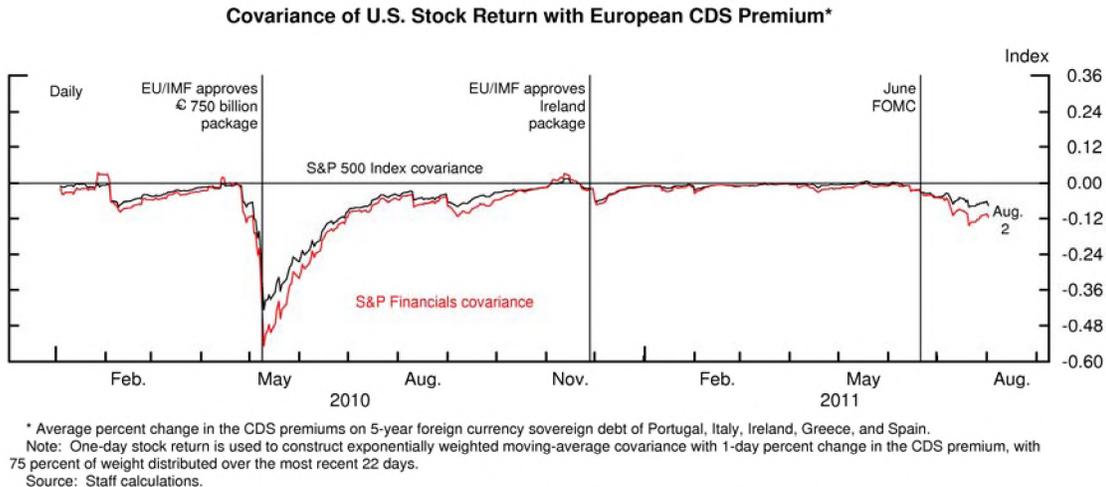
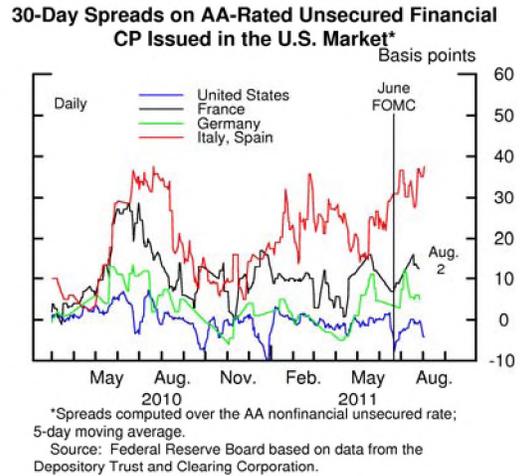
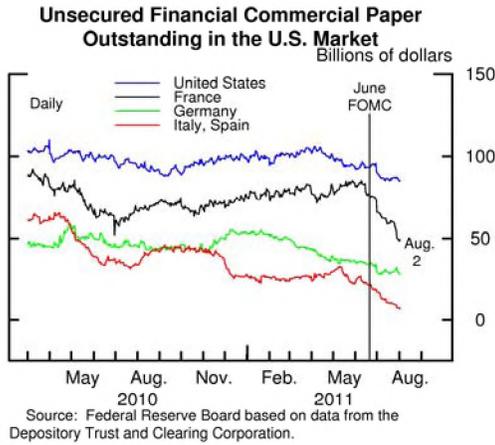
In contrast to the conditions in Treasury bill markets, yields on 10- and 30-year nominal Treasury securities declined over the same time frame, and liquidity in the markets for longer-term Treasury securities generally remained robust. Partial and confidential data on custody accounts at the Federal Reserve Bank of New York show a slight pickup in U.S. Treasury holdings by foreign official investors in July.

The European Fiscal Crisis and U.S. Asset Prices

The intensification of the European sovereign debt crisis over the intermeeting period exacerbated conditions in some U.S. financial markets. Most notably, the U.S. commercial paper (CP) market experienced substantial strains as money market funds reportedly increased their cash positions and sought to decrease exposures to CP issued by entities with less-than-stellar credit. As concerns over the European crisis worsened, the level of U.S. CP outstanding from institutions with European parents contracted substantially. Although these slides have been something of an ongoing trend in recent months, the intermeeting declines of some issuers with parents from core European countries were much steeper than in previous months (see top-left panel on the facing page). In particular, the CP outstanding of a few large French banks contracted sharply after Moody's placed the banks on watch for credit rating downgrades. Moreover, the share of CP issuance accounted for by tenors of four days or less increased markedly for European issuers.

To date, price adjustments in the CP market have generally been orderly. The market exhibited increased rate tiering, with spreads on paper issued by institutions with Italian and Spanish parents widening to levels that prevailed last summer (see top-right panel on the facing page). However, spreads on paper issued by institutions from other European nations remained generally low. A similar pattern was evident in the federal funds market (not shown), where affected European banks experienced higher borrowing costs than their peers.

Developments in Europe also affected U.S. financial markets more broadly. As indicated by the negative covariance between the change in the average sovereign credit default swap (CDS) premium of the most debt-burdened European countries and the daily percentage change in the S&P 500 stock price index (see middle panel on the facing page), on many days during the intermeeting period, U.S. equity prices fell when concerns about the European sovereign debt crisis intensified and rose when they eased. The effect was even more apparent for the equity prices of firms in the financial sector, presumably due to concerns about the exposure of U.S. financial firms to European entities. Similarly, as indicated by the negative covariance between sovereign CDS spreads and changes in the yield on the 10-year Treasury note, Treasury yields were buffeted by flight-to-quality inflows and outflows in response to investors' changing sentiment regarding the fiscal situation in Europe (see bottom panel on the facing page).



Financial Developments

and euro-dollar implied basis spreads also increased. In addition, investors in commercial paper markets began to require noticeably shorter maturities and higher interest rates, even for large, highly rated nonfinancial corporations. Conditions eased noticeably once the agreement in the Congress was enacted, as Treasury bill yields and other money market interest rates generally declined, transactions volumes increased, outflows from MMMFs abated, and fund managers reportedly began working down their stockpiles of cash.² By contrast, conditions in European money markets remained relatively strained.

POLICY EXPECTATIONS AND TREASURY YIELDS

Over the intermeeting period, interest rates seesawed in response to news regarding the fiscal situation in the United States and Europe, as well as incoming U.S. economic data. On net, nominal Treasury yields declined between about 10 and 35 basis points across the yield curve. Market-based measures of uncertainty about long-term Treasury yields increased for a time but then fell back. The on-schedule completion of the Federal Reserve's Treasury purchase program on June 30 appears to have had little effect on Treasury yields.³

Both market- and survey-based expectations for the path of monetary policy shifted down significantly beyond mid-2012. The mean path of the federal funds rate implied by current futures quotes (with the usual staff assumptions for term premiums) rises above the current target range in the third quarter of 2013, three quarters later than observed at the time of the June FOMC meeting. Quotes on interest rate caps suggest that the modal path of the federal funds rate also declined over the period, although by a much smaller amount.⁴ According to the Open Market Desk's latest survey, primary

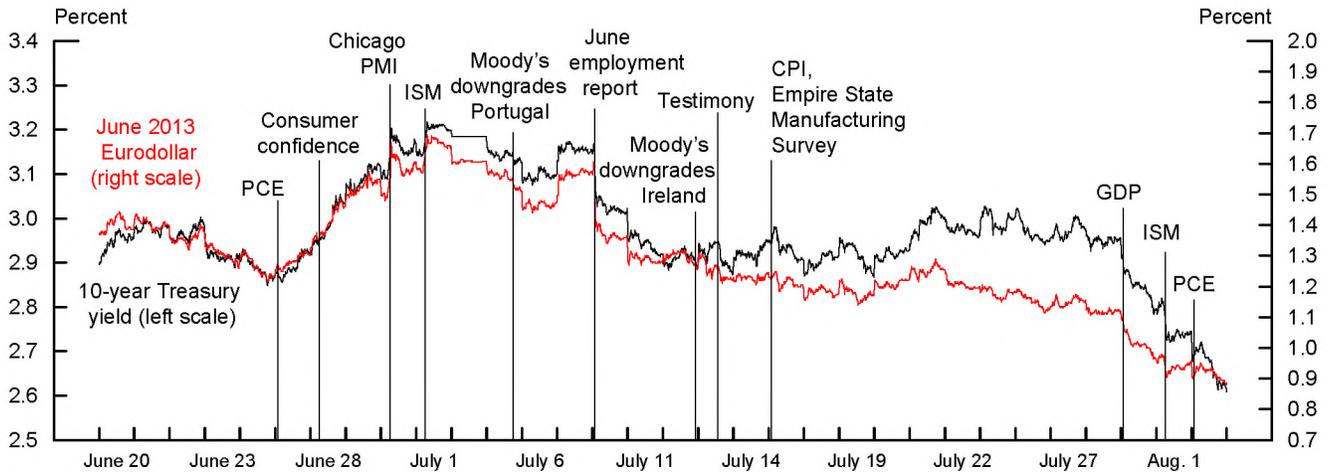
² After the close of markets on August 2, Moody's Investors Service and Fitch Ratings affirmed their AAA credit ratings for the United States but warned that downgrades were possible if the Congress fails to enact debt reduction measures.

³ The Open Market Desk completed its purchases of \$600 billion of longer-term Treasury securities under the second large-scale asset purchase program, which was announced by the FOMC at its November 2010 meeting. Since November 12, 2010, the Desk has purchased a total of \$784 billion of Treasury securities, reflecting \$600 billion of purchases under the second asset purchase program and \$184 billion of purchases associated with the reinvestment of principal payments on Federal Reserve holdings of agency MBS and agency debt. The Desk also continued its existing policy of rolling over maturing Treasury securities.

⁴ The modal path does not incorporate the staff's usual adjustment for term premiums because doing so would lead to some negative values. Term premiums may currently be unusually low, reflecting investors' confidence that policy will remain on hold for some time.

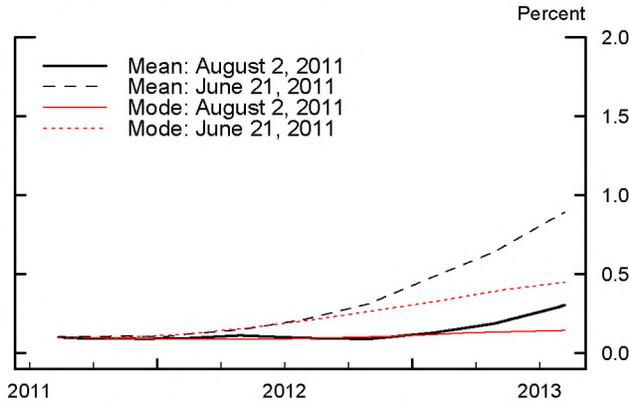
Policy Expectations and Treasury Yields

Selected Interest Rates



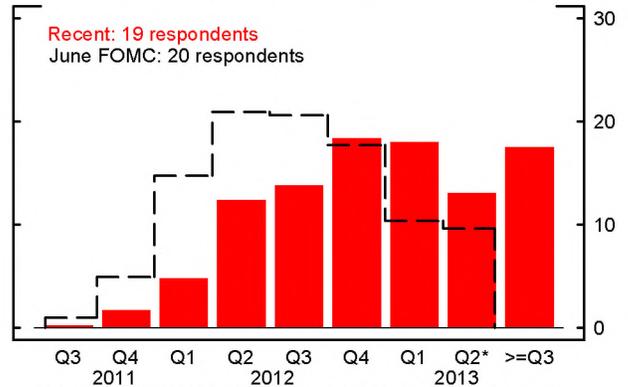
Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m. No adjustments for term premiums.
Source: Bloomberg.

Implied Federal Funds Rate



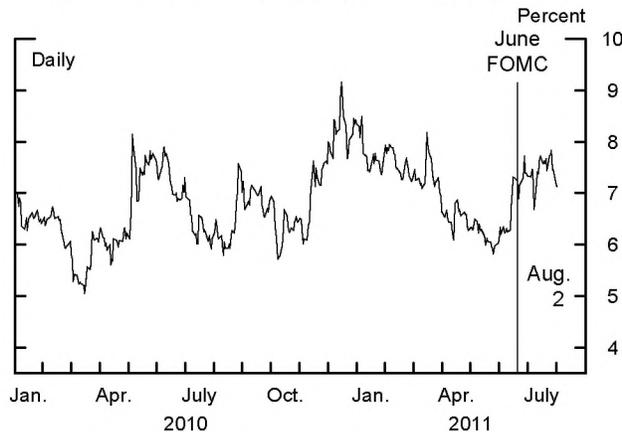
Note: Mean is estimated from federal funds and Eurodollar futures. Mode is estimated from distribution of federal funds rate implied by interest rate caps. Mean, but not mode, includes an allowance for term premiums.
Source: Bloomberg and CME Group.

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



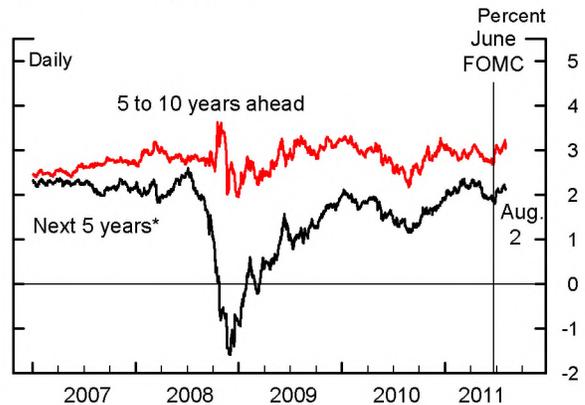
*For the June FOMC meeting, the probability reported in the 2013:Q2 bin corresponds to the probability that the first policy rate hike will occur in 2013:Q2 or later.
Source: Desk's Dealer Survey from August 1, 2011.

Long-Term Interest Rate Implied Volatility



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

Inflation Compensation



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

Financial Developments

dealers pushed out the timing for policy liftoff to around the end of 2012, about two quarters later than at the time of the June survey.

Regarding other results from the dealer survey, most respondents expect the upcoming FOMC statement to recognize recent economic weakness and to further downgrade the Committee's outlook for economic growth. Dealers revised down significantly their forecasts of real GDP growth in 2011—to an average of 1.9 percent from 2.8 percent at the time of the June survey. They also revised down their growth forecasts for 2012 and 2013, but by considerably less. Regarding their inflation forecasts, the dealers marked up slightly their forecasts of core PCE inflation for 2011 and 2012 and revised down their forecasts for 2013 a little, while their forecasts of longer-term CPI inflation, and the reported uncertainty about those forecasts, were little changed.

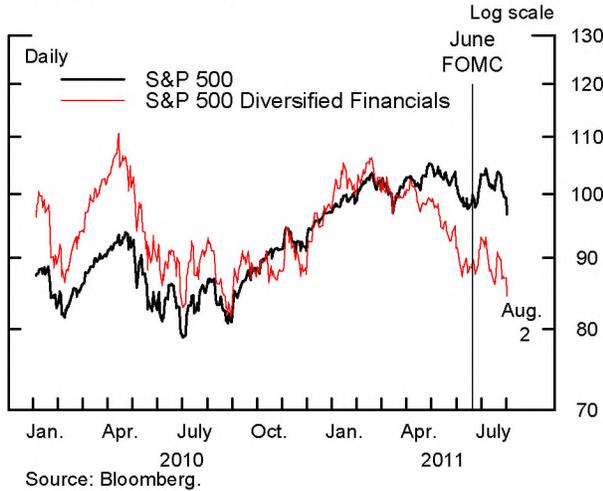
Indicators of inflation expectations were mixed over the intermeeting period. TIPS-based measures of inflation compensation over the next 5 years and 5 to 10 years ahead increased about 25 basis points, roughly reversing their declines over the previous intermeeting period. Both measures rose notably in late June when earlier safe-haven demands for nominal securities were likely reversing. More recently, the release in mid-July of a second consecutive higher-than-expected increase in core CPI, as well as some technical factors, reportedly contributed to the rise in these measures. By comparison, swaps-based measures of inflation compensation, which are much less affected by factors related to nominal Treasury markets, were little changed. Survey measures of inflation expectations have generally moved down in recent months. In the Michigan survey, the median measure of shorter-term inflation expectations has declined 60 basis points since the time of the June FOMC meeting, and the longer-term measure has edged down 10 basis points on net.

ASSET MARKET DEVELOPMENTS

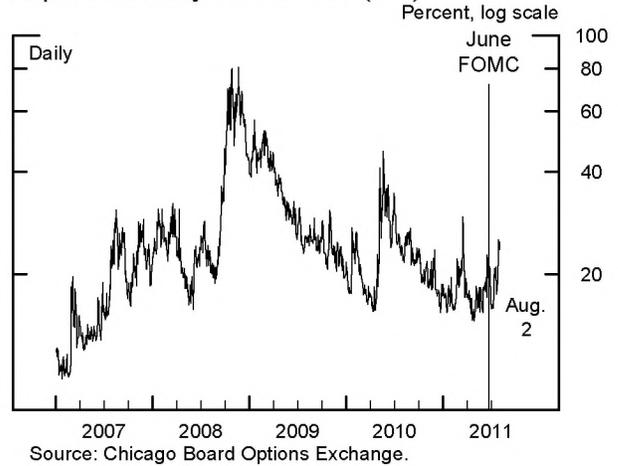
Broad stock price indexes declined about 3 percent, on net, over the intermeeting period, as generally strong second-quarter earnings reports appeared to be overshadowed by growing concerns about the macroeconomic outlook. Stock price movements were also influenced over the period by bouts of anxiety regarding the fiscal situation in the United States and Europe. Equity prices of banks and other financial firms declined roughly as much as the broader market, and CDS premiums for larger banking institutions were not much changed on net. Option-implied volatility on the S&P 500 index rose notably.

Asset Market Developments

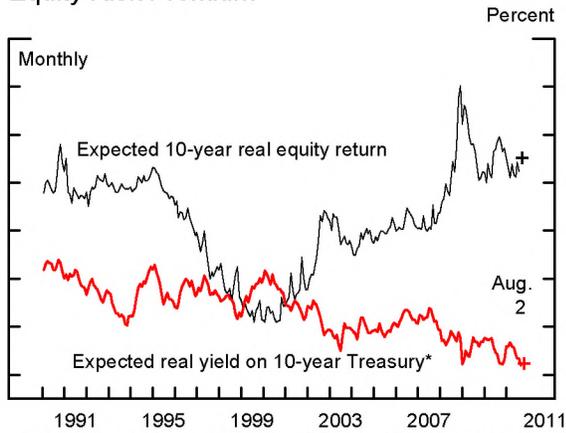
Selected Stock Price Indexes



Implied Volatility on S&P 500 (VIX)

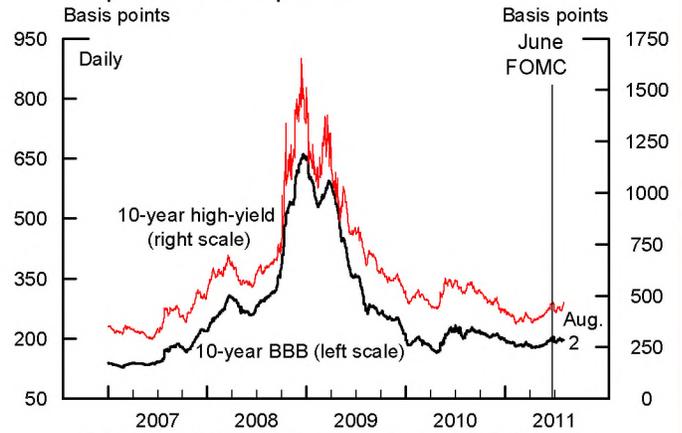


Equity Risk Premium

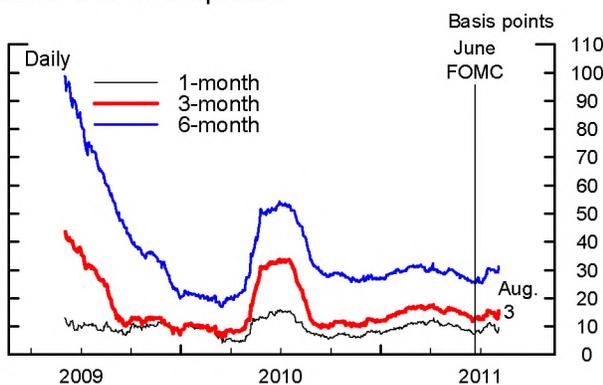


* Off-the-run 10-year Treasury yield less Philadelphia Fed 10-year expected inflation.
+ Denotes the latest observation using daily interest rates and stock prices and latest earnings data from I/B/E/S.
Source: Thomson Financial.

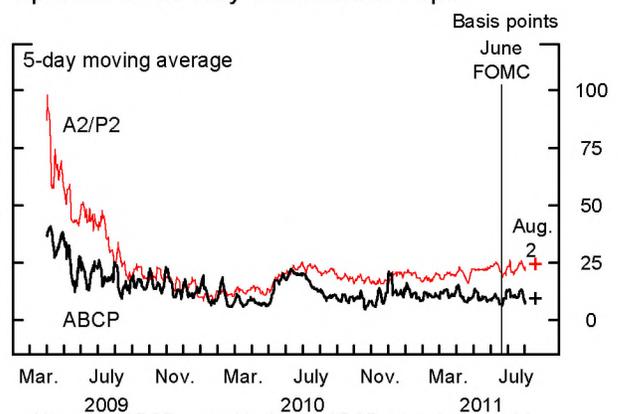
Corporate Bond Spreads



Libor over OIS Spreads



Spreads on 30-Day Commercial Paper



The staff's estimate of the spread between the expected real equity return for the S&P 500 index and the real 10-year Treasury yield—a gauge of the equity premium—edged up over the intermeeting period from already substantial levels by historical standards. Spreads on both BBB-rated and speculative-grade corporate bonds relative to comparable-maturity Treasury securities changed little, on net, although spreads on speculative-grade issues increased some late in the period. Secondary prices for syndicated leveraged loans were also little changed. As noted earlier, conditions in commercial paper markets deteriorated for a time late in the period. The yields on A2/P2-rated nonfinancial unsecured commercial paper and AA-rated asset-backed commercial paper ended the period up a bit, on net, amid the significant outflows from MMMFs.

Hedge funds reported modest positive returns in the aggregate during the intermeeting period. Nevertheless, these institutions appear to have remained quite cautious, further reducing leverage. Investment flows to hedge funds in the second quarter occurred at about the same solid pace as in the preceding quarter.

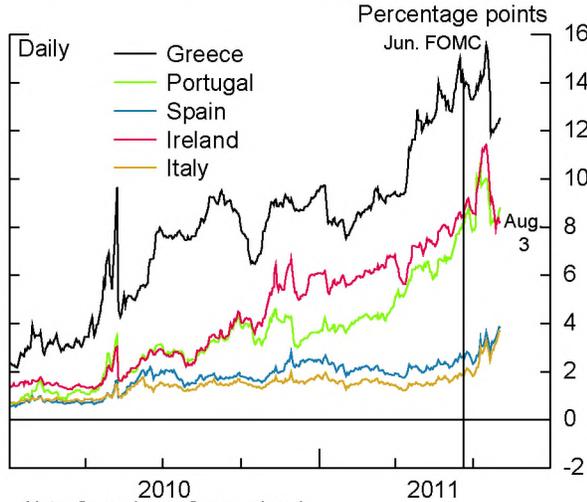
FOREIGN DEVELOPMENTS

Swings in investors' concerns about fiscal stresses in Europe were the dominant driver of asset prices in foreign markets over the intermeeting period. Sovereign spreads over German bunds for Greek, Irish, Portuguese, Spanish, and Italian sovereign debt rose to their highest levels since the adoption of the euro. Markets were temporarily reassured in late June by the passage of Greek austerity measures and again by an announcement on July 21 following a summit of European leaders that there would be additional official financing for Greece; easier terms on official lending to Greece, Ireland, and Portugal; and a plan for private creditor rollovers of Greek debt. However, on net over the period, peripheral European sovereign spreads narrowed appreciably only for Greek debt. Notably, Italian and Spanish sovereign spreads have soared to almost 400 basis points despite approval by the Italian Parliament on July 15 of austerity measures that would balance the government budget by 2014.

On balance over the period, equity prices in the euro area dropped 9 percent, and euro-area bank stocks declined substantially more, as concerns about banks' exposure to peripheral debt lingered and incoming economic data were lackluster. Market reaction to the release on July 15 of the European Banking Authority's stress tests of European banks was muted. (See the box "Summary of the 2011 European Union–Wide Bank

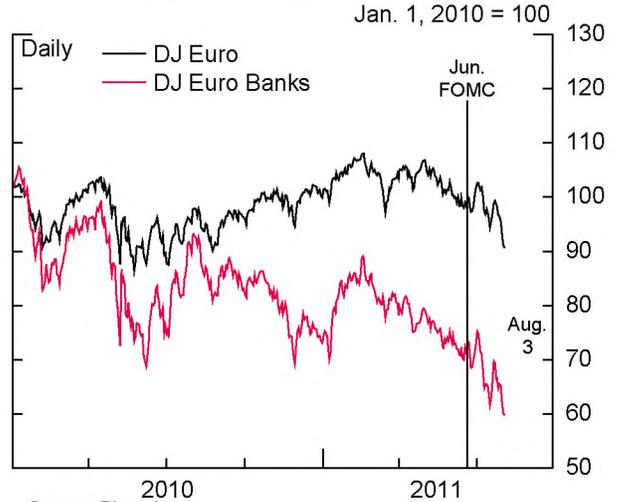
Foreign Developments

Euro-Area 10-Year Government Bond Spreads



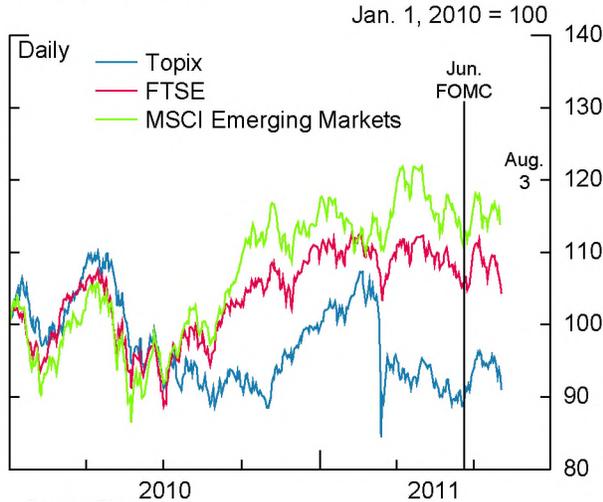
Note: Spread over German bunds.
Source: Bloomberg.

Euro-Area Stock Price Indexes



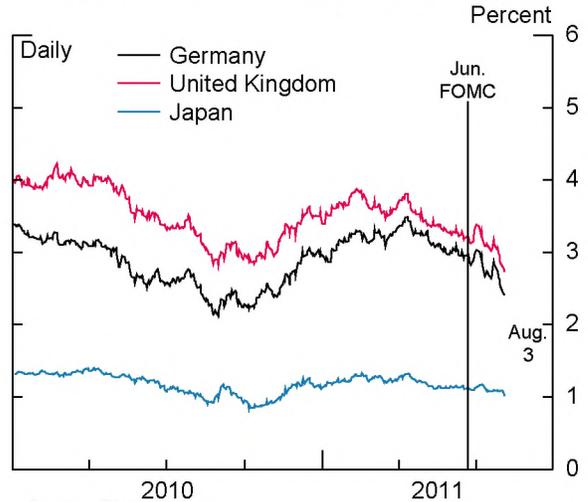
Source: Bloomberg.

Stock Price Indexes



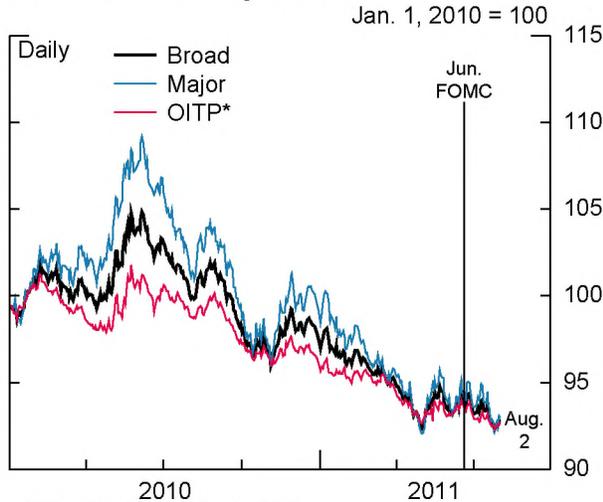
Source: Bloomberg.

Nominal 10-Year Government Bond Yields



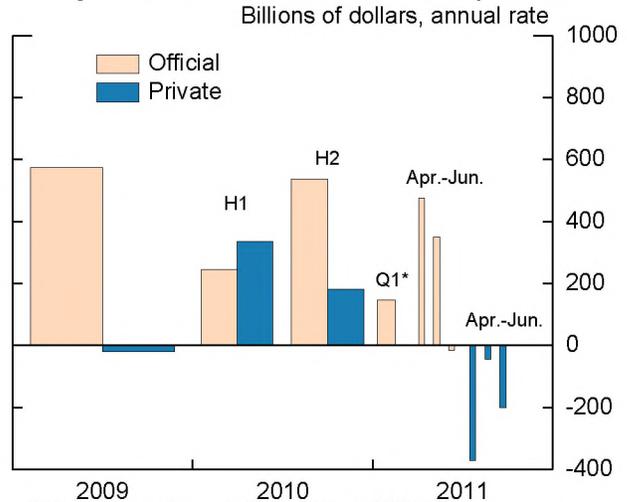
Source: Bloomberg.

Nominal Trade-Weighted Dollar Indexes



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

Foreign Net Purchases of U.S. Treasury Securities



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

Financial Developments

Summary of the 2011 European Union–Wide Bank Stress Test

One key factor keeping financial markets on edge since the beginning of the fiscal crisis in the euro-area periphery has been uncertainty about the underlying strength of European banks and their vulnerability to sovereign default. To help allay that concern, the European Union (EU) began conducting stress tests of its banking system. Although the test results released last year improved confidence for a time, this confidence unwound as several Irish banks that had passed the test subsequently required large government injections of capital.

On July 15 of this year, the European Banking Authority (EBA) published the results of its 2011 EU-wide stress test. The results were drawn from a test of 90 of the largest banks, which hold 65 percent of the total assets of the EU banking sector. Under the test's adverse scenario, eight banks—five Spanish, two Greek, and one Austrian—failed to meet the benchmark of 5 percent core Tier 1 capital to risk-weighted assets. The aggregate capital shortfall of the failing institutions totaled only €2.5 billion, a manageable sum given the substantial resources of the EU as a whole.

Although market analysts were surprised by the relatively low capital shortfall this year, the results do not appear to reflect any obvious leniency on the part of the EBA. The assumptions used in the stress test, including those on macroeconomic performance and banks' profits and losses, appear generally credible. The relatively modest capital shortfall was due, in part, to the successful efforts of the banks to strengthen their capital positions in the run-up to the test: EU banks raised €46 billion of capital from January through the end of April 2011.

The EBA also implemented a number of improvements in the 2011 test. Banks were asked to assess the effect of heightened sovereign risk on the sovereign exposures not only in their trading books, as in last year's test, but also in their banking books, where most such exposures are held. Additionally, this year the EBA applied a more stringent capital benchmark of a 5 percent core Tier 1 ratio (CT1R), which excludes all hybrid capital instruments except those injected by governments in response to the financial crisis.¹ This year's test also included a month-long peer review by the EBA, the European Systemic Risk Board, the European Central Bank, and national supervisory authorities that resulted in greater consistency of banks' submissions. Finally, the disclosure of banks' sovereign and private sector exposures and components of bank capital was significantly enhanced, allowing market participants to make their own evaluations of banks' capital adequacy.

¹ The benchmark in last year's test was a 6 percent Tier 1 capital ratio. This year's benchmark is generally more stringent, despite the lower threshold, because many European banks include significant amounts of hybrid instruments in their Tier 1 capital.

Although the 2011 stress test assumed moderate haircuts on sovereign debt held by banks, it did not assume an explicit sovereign default. Using data on sovereign debt holdings released by the EBA, the Board staff analyzed the implications of default on Greek debt, applying haircuts to the trading book that are double those considered under the adverse scenario and allowing for a 40 percent recovery rate on holdings in the banking book. Across all 90 banks covered by the stress test, we estimated about €44 billion in total losses assuming such a default. In addition, we estimated that a total of 16 banks (8 banks in addition to the 8 that failed under the EBA's test) would fall short of the 5 percent CT1R benchmark, resulting in an additional €25 billion capital shortfall—a material but manageable sum, we think, given the EU's resources. Most of the banks requiring additional capital would be Greek. No additional core European banks would see their CT1R fall below 5 percent, but some would experience sizable losses. Notably, the four large French banks in the test would have total losses of €7 billion, which is about 4 percent of these banks' aggregate core Tier 1 capital. If the sovereign debt of another peripheral country—especially Italy or Spain—were also to suffer a default, bank losses would be considerably larger.

As the above exercise suggests, the capital positions of some institutions, while sufficient for the benchmark, remain vulnerable. Recognizing this vulnerability, the EBA made two main recommendations to further strengthen banks' capital positions: (1) Banks that fell below the 5 percent CT1R benchmark under the adverse scenario should develop a plan before mid-October 2011 to strengthen their capital positions and take action by the end of 2011, and (2) banks that narrowly exceeded the 5 percent CT1R and have sizable exposure to the sovereigns under stress should also develop a plan before mid-October 2011 to strengthen their capital positions and take action by April 2012. (Sixteen banks, also concentrated in the periphery, fell between 5 percent and 6 percent CT1R.)

Although more capital raising by EU banks is needed, the EBA has no direct authority over the banks. Given that few banks “failed” the test, it seems unlikely that the test itself will spur banks to raise more capital. It is left to national authorities to compel banks to comply with the EBA's recommendations and to establish bank recapitalization facilities at the national level that are accessible under a range of circumstances. In addition, EU-wide mechanisms to support vulnerable countries in these recapitalization efforts may be helpful. The decision at the July 21 summit has made the European Financial Stability Facility better able to provide such support, although sufficient funding for the facility to carry out its tasks has yet to be arranged.

Stress Test.”) Headline equity prices for other major advanced foreign economies were flat to down, except in Japan, where surprisingly strong economic data boosted prices 4 percent. German and U.K. 10-year government bond yields declined more than 40 basis points over the intermeeting period, reflecting concerns about the prospects for economic growth, related expectations of slower monetary policy tightening, and possibly some safe-haven flows prompted by developments in peripheral Europe.

The softer outlook for economic activity prompted market-based measures of expected future ECB and Bank of England policy rates to decline relative to their levels at the time of the June FOMC meeting. In contrast, higher inflation prompted central banks in the emerging market economies (EMEs) to continue to withdraw the monetary stimulus that they had provided in the wake of the financial crisis. In particular, the People’s Bank of China continued to tighten monetary policy, increasing its policy rates during the period another 25 basis points. The central banks of Brazil, Colombia, India, Taiwan, and Thailand also tightened monetary policy over the period. Partly as a result, a number of EME currencies rose sharply against the dollar, and the governments of China, Brazil, and Korea took further steps to limit capital inflows and credit growth.

The broad nominal index of the foreign exchange value of the dollar declined 1 percent, on net, over the period. The dollar was up 1¼ percent against the euro but declined against other major currencies. The protracted U.S. debt ceiling negotiations appeared to weigh on the dollar for a time toward the end of the period, but the dollar appreciated somewhat following the announcement of the deal to raise the debt limit.

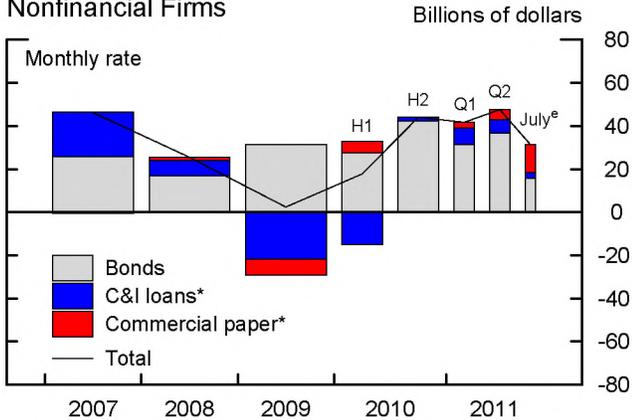
Demand by foreign official investors for U.S. assets fell back in May and June, with official investors in Latin America and Asia both contributing to the decline. These investors acquired Treasury securities at a slower pace in May and made no net purchases in June, and they continued to shed long-term agency securities. Foreign private investors sold Treasury securities and corporate bonds, on net, in the second quarter but made moderate purchases of U.S. equities.

BUSINESS FINANCE

Conditions in markets for business finance generally remained robust through the second quarter, but investors’ appetite for risk appeared to cool some in July as incoming data pointed to a weaker outlook for economic activity. The pace of net debt financing by nonfinancial corporations was solid in July, although a bit below its elevated second-

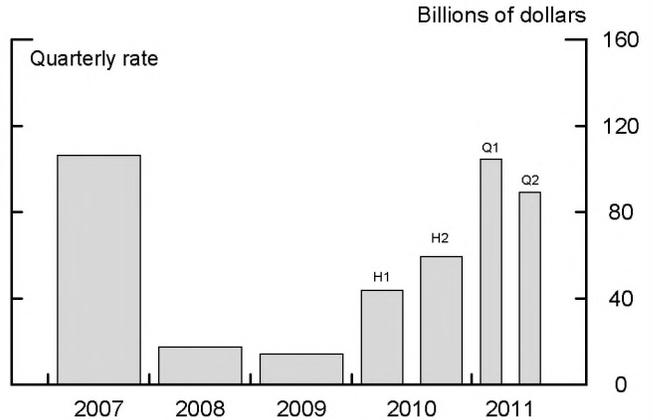
Business Finance

Selected Components of Net Debt Financing, Nonfinancial Firms



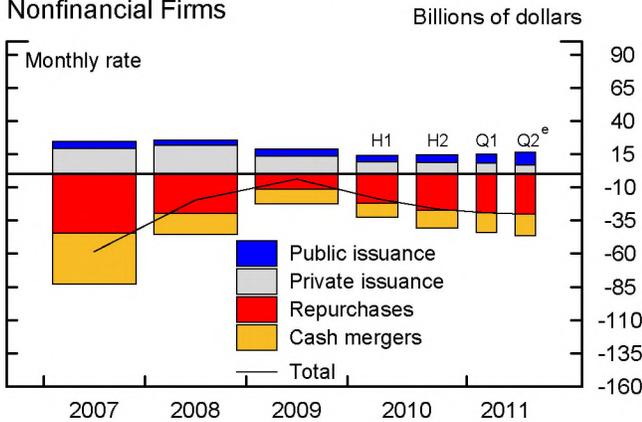
* Period-end basis, seasonally adjusted.
^e Estimate.
 Source: Depository Trust & Clearing Corporation; Thomson Financial; Federal Reserve Board.

Institutional Leveraged Loan Issuance



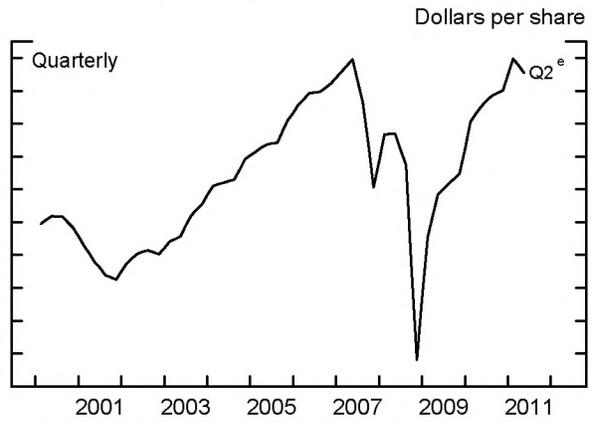
Source: Reuters Loan Pricing Corporation.

Selected Components of Net Equity Issuance, Nonfinancial Firms



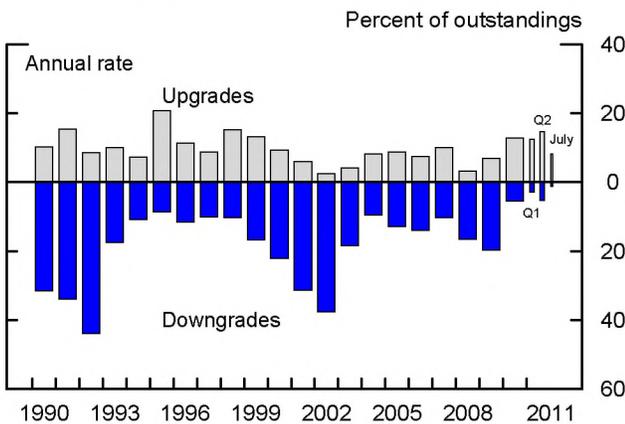
^e Estimate.
 Source: Thomson Financial, Investment Benchmark Report; Money Tree Report by PricewaterhouseCoopers, National Venture Capital Association, and Venture Economics.

S&P 500 Earnings Per Share



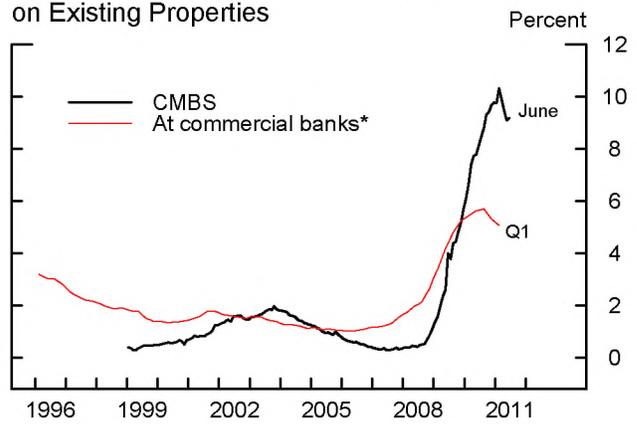
Note: Data are seasonally adjusted by Board staff.
^e Estimate.
 Source: Thomson Financial.

Bond Ratings Changes of Nonfinancial Firms



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

Delinquency Rates on Commercial Mortgages on Existing Properties



Note: CMBS are commercial mortgage-backed securities. All series are seasonally adjusted.
 * Excluding farmland.
 Source: Citigroup; Call Report.

Financial Developments

quarter pace. The rate of gross bond issuance fell, as some firms reportedly were reluctant to issue bonds amid heightened uncertainty about prospects for economic growth, and C&I loans on banks' books were about flat. Nonfinancial commercial paper outstanding posted a sizable gain in July, reflecting issuance from a handful of large corporations. (As noted earlier, MMMFs pulled back from investments in commercial paper in late July on concerns about the approaching debt limit.)

Issuance of syndicated leveraged loans remained strong last quarter, reportedly due to continued refinancing activity, but activity appears to have slowed some in recent weeks. Indeed, investors appear to have become more cautious of late, requiring greater compensation for risk, and recent deals have embodied wider spreads and more-conservative structures, especially for lower-rated borrowers.

Gross public equity issuance by nonfinancial firms weakened in July from its solid second-quarter pace, though a steady stream of firms continued to tap equity markets through IPOs. Net equity issuance is projected to have remained deeply negative in the second quarter, as share repurchase volumes and cash-financed merger activity continued to be robust. The calendar of mergers and new repurchase programs suggests that net equity issuance will remain deeply negative in the third quarter.

With the bulk of second-quarter earnings reports in hand and private-sector analysts' estimates for the rest, the staff estimates that aggregate operating earnings per share for firms in the S&P 500 index largely beat analysts' expectations, even though aggregate earnings are estimated to have fallen a bit relative to the first quarter. The decline in profits was concentrated in the financial sector, due in large part to a costly mortgage-related legal settlement at a large banking institution (see note 6). In contrast, the earnings of nonfinancial corporations grew at a rapid 5 percent quarterly rate, with nearly all of the gains accounted for by large internationally active firms. Despite the strong results, analysts' forecasts for nonfinancial firms were not revised appreciably, possibly reflecting a view that the recent gains may not be sustained.

The credit quality of nonfinancial corporations remained solid. The latest available data showed that these firms' aggregate ratio of debt to assets edged down a bit further in the first quarter, and their liquid-asset ratio remained near its highest level in over 20 years. Moody's Investors Service's ratings upgrades of corporate bonds of nonfinancial companies continued to outpace downgrades substantially in July, and the six-month trailing bond default rate for nonfinancial firms inched closer to zero in June.

Commercial real estate markets remained weak, and despite a few signs of stabilization in the first half of the year, conditions appeared to worsen somewhat in July. Available data for the second quarter indicate that commercial mortgage debt contracted again, prices of most commercial properties remained depressed, and issuance of commercial mortgage-backed securities (CMBS) slowed somewhat. The delinquency rate in June for loans that back existing CMBS stayed below its recent peaks, and vacancy rates for commercial properties generally continued to edge lower. In July, however, investors appeared to demand more compensation for risk, and they exhibited some resistance to the recent decline in credit support in new deals. Renewed uncertainty about credit rating agency criteria for rating new deals cast a further pall on the market.

HOUSEHOLD FINANCE

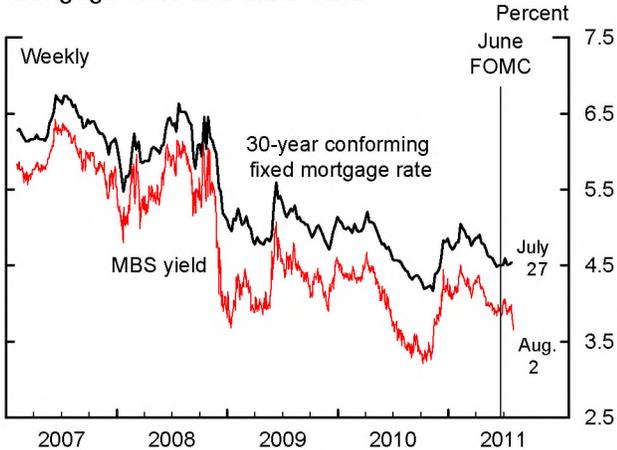
Residential mortgage interest rates and yields on current-coupon agency MBS declined, on net, over the intermeeting period and remained at low levels. The low rates supported mortgage refinancing activity that was, on average, higher than that seen earlier this year, although such activity nonetheless stayed subdued because of tight underwriting standards and low levels of home equity.

Residential mortgage debt is estimated to have contracted further in the second quarter of 2011. Amid a large inventory of unsold properties and tight mortgage underwriting standards, the CoreLogic repeat-sales house price index fell in June for the 13th consecutive month, reaching its lowest level since the spring of 2003. Rates of serious mortgage delinquency—defined as the percentage of mortgage loans that are 90 days past due or in foreclosure—continued to moderate but remained high, in part due to persistent delays in the foreclosure process. The rate of new delinquencies on prime mortgages had been declining but has flattened out in recent months at an elevated level.

On the whole, conditions in consumer credit markets continued to gradually improve. Consumer credit increased at an annual rate of 2½ percent in May, as both nonrevolving and revolving credit posted gains. Consumer credit ABS issuance continued apace in July, although some deals later in the month were postponed a few days while issuers awaited the outcome of the debt ceiling deliberations. Delinquency rates for various types of consumer debt receded further in recent months, with some rates back to levels not seen since the recession began. However, the decline in these rates partly reflects tighter underwriting standards that have restricted access to credit for borrowers with weaker credit histories.

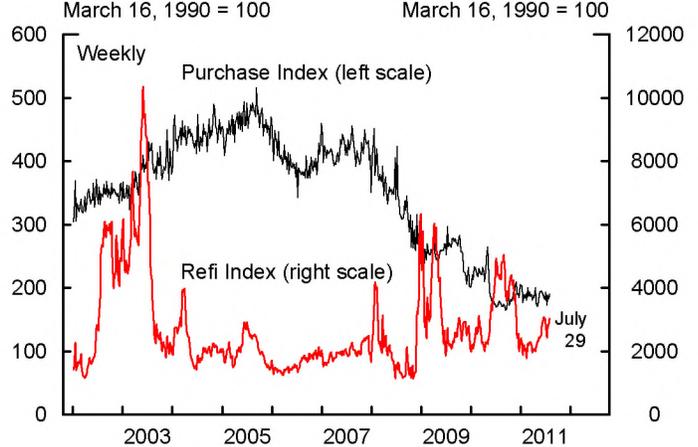
Household Finance

Mortgage Rate and MBS Yield



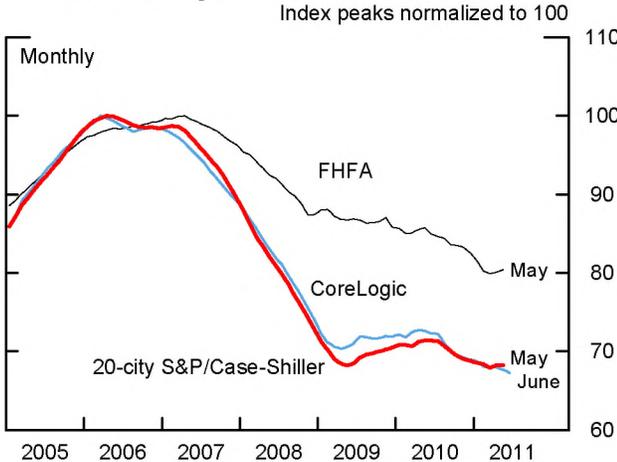
Note: For mortgage-backed securities (MBS) yield, Fannie Mae 30-year current coupon rate.
 Source: For mortgage rate, Freddie Mac; for MBS yield, Bloomberg.

Purchase and Refinance Activity



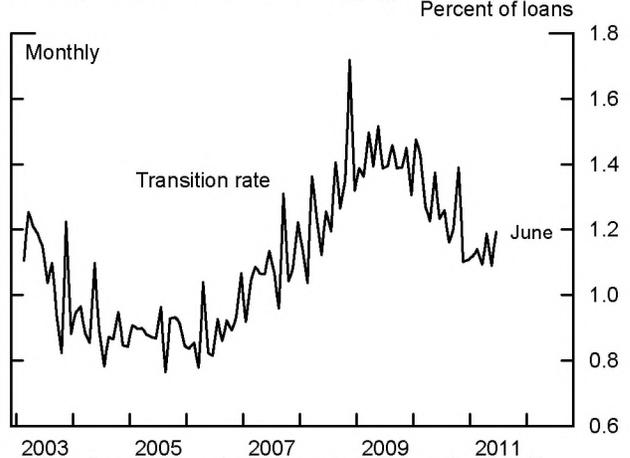
Note: Seasonally adjusted by FRB staff.
 Source: Mortgage Bankers Association.

Prices of Existing Homes



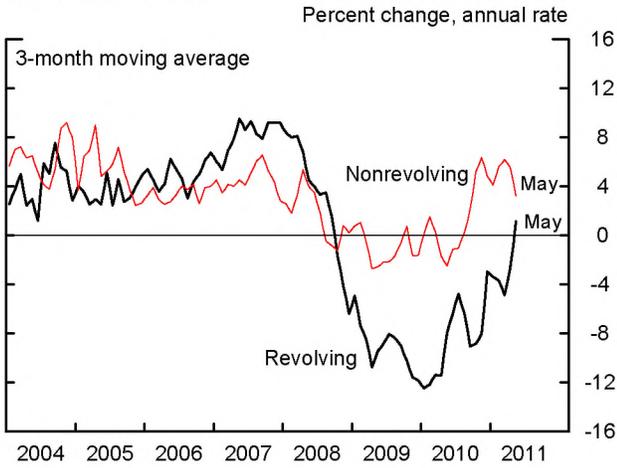
Source: For FHFA, Federal Housing Finance Agency; for CoreLogic, CoreLogic; for S&P/Case-Shiller, Standard & Poor's.

Delinquencies on Prime Mortgages



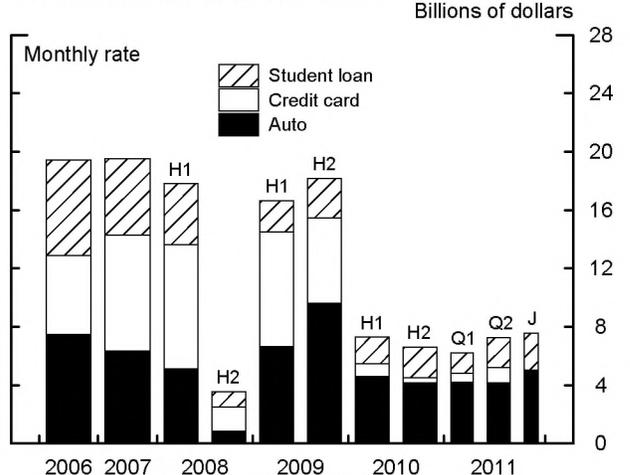
Note: Percent of previously current mortgages that transition to being at least 30 days delinquent each month.
 Source: LPS Applied Analytics.

Consumer Credit



Source: Federal Reserve Board.

Gross Consumer ABS Issuance



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

GOVERNMENT FINANCE

Despite investors' angst regarding federal fiscal conditions, the Treasury issued about \$264 billion of nominal coupon securities across the maturity spectrum and \$20 billion of TIPS during the intermeeting period. The amounts issued of the nominal securities were consistent with past auctions, while issuance sizes of TIPS continued their steady expansion. With sentiment about sovereign fiscal conditions in Europe improving, demand at auctions of nominal Treasury securities in the end of June was lackluster, but auctions later in the intermeeting period were generally well received. TIPS auctions over the period reflected continued strong demand for inflation protection.

Investors remained concerned about the financial health of state and local governments over the intermeeting period. Although issuance of municipal bonds picked up slightly in July, it remained sluggish by historical standards. In addition, in mid-July, Moody's placed the AAA credit ratings of five states on watch for downgrades, citing the financial vulnerability of these states to a federal government downgrade. CDS spreads on the debt of these and some other AAA-rated states increased a bit over the intermeeting period. Yields on long-term general obligation bonds changed little, on net, and their ratios to yields on comparable-maturity Treasury securities—a gauge of investors' assessment of the relative risk of municipal bonds—edged down but remained elevated.

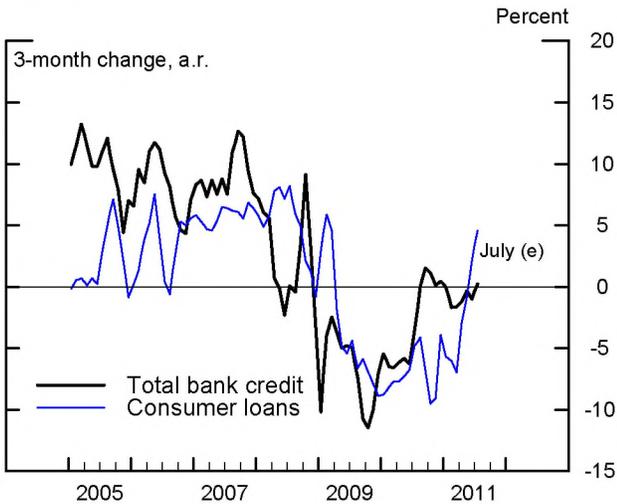
COMMERCIAL BANKING AND MONEY

Core bank loans, which include C&I, real estate, and consumer loans, were flat, on net, over the months of June and July, as a slowdown in lending to businesses was offset by a notable pickup in loans to households.⁵ Indeed, after running off for several quarters, consumer loans on banks' books expanded solidly in June and July, as both credit card and other consumer loans increased significantly. In addition, following several months of contraction, closed-end residential real estate loans increased slightly over the period, although home equity loans continued to decline at a moderate pace. In contrast, after posting sizable increases earlier in the year, C&I loans expanded only modestly in June and were about flat in July. Commercial real estate loans continued to run off.

⁵ At the close of this Tealbook, Book A, the weekly bank balance sheet data were available through July 20.

Commercial Banking and Money

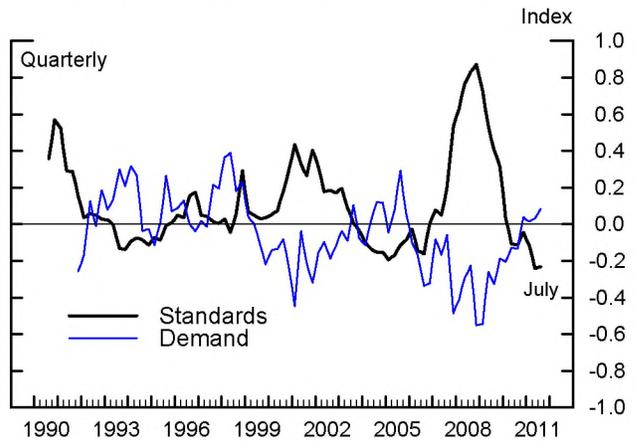
Changes in Bank Credit



e Estimate.

Source: Federal Reserve Board, Statistical Release H.8, "Assets and Liabilities of Commercial Banks in the United States."

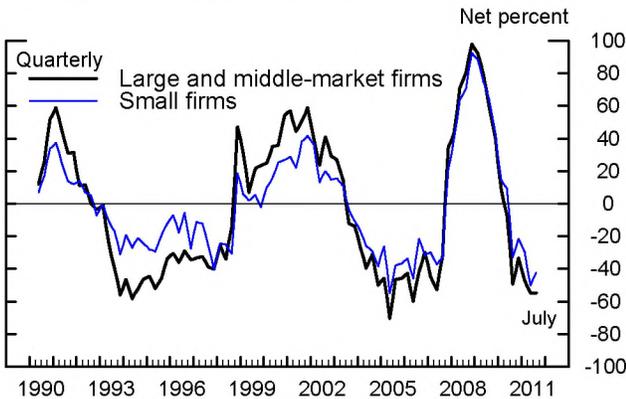
Changes in Standards and Demand for Bank Loans



Note: A composite index of changes in standards or loan demand 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.

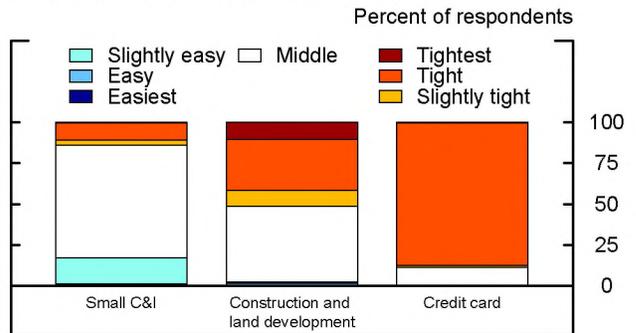
Change in Spreads on C&I Loans



Note: Net percent of respondents that widened spreads over the past 3 months.

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

Level of Standards on Bank Loans



Note: Banks were asked to describe their current level of standards in relation to the range of standards at their bank between 2005 and the present. Responses weighted by survey respondents' holdings of relevant loan types, as reported on the March 31, 2011, Call Report.

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

Growth of M2 and Its Components

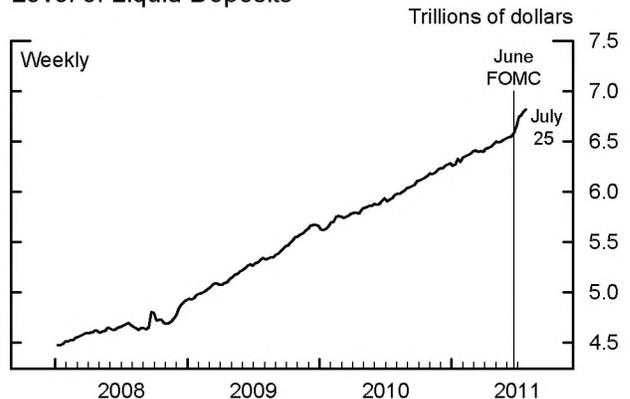
Percent, s.a.a.r.	M2	Liquid deposits	Small time deposits	Retail MMMFs	Curr.
2010	3.2	10.9	-21.5	-15.6	5.9
2011:Q1	5.0	10.3	-21.9	-9.0	7.7
2011:Q2	6.4	10.0	-16.9	-4.6	12.3
June	12.2	17.5	-21.0	9.1	7.8
July(e)	23.5	33.9	-22.0	2.9	6.6

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, Statistical Release H.6, "Money Stock Measures."

The Senior Loan Officer Opinion Survey on Bank Lending Practices conducted in July indicated that banks again eased lending standards to some degree on all major loan types other than residential real estate loans. Even so, in response to a special question, banks indicated that the current level of their lending standards was moderate to relatively tight—for all loan types, at least two-thirds of respondents reported that their lending standards were at or tighter than the middle of the range that has prevailed since 2005. In addition, modest fractions of respondents indicated an increase in demand for business loans, while reported changes in demand were mixed across consumer lending categories. (See the appendix on the survey at the end of this section.)

Banks shed Treasury securities, on balance, over June and July, with the sales concentrated at a handful of large domestic banks. These banks' holdings are relatively volatile, and the activity does not appear to have been related to concerns about the debt ceiling. Indeed, banks' holdings of Treasury securities rose for a time in mid-July. In recent months, growth in banks' total assets has been accounted for mainly by U.S. branches and agencies of foreign banks, which reportedly continued to build up their dollar cash reserves instead of sending funds to their related foreign offices abroad—a pattern that has prevailed for several months. On the funding side of banks' balance sheets, several large domestic banks saw a substantial rise in deposits late in the period (discussed later).

Large banking companies reported second-quarter earnings in July, and nearly all reports exceeded expectations at least slightly.⁶ Banks continued to report that improvements in asset quality supported substantial reductions in loan loss reserves, though weaker net interest margins offset these gains in part. Many banks, but particularly the largest ones, anticipated that profitability will come under pressure in coming quarters from mortgage repurchasing costs, litigation expenses, and lower debit fee revenues.

M2 expanded at an average annual rate of about 18 percent over June and July, the fastest pace since the period following the collapse of Lehman Brothers and a marked acceleration from the 5½ percent average growth rate over the first five months of the

⁶ One significant exception was the large loss reported by Bank of America, which reached an \$8.5 billion settlement of mortgage repurchase claims related to loans originated by its Countrywide unit. Following the loss, some market commentators expressed concern about the bank's ability to meet Basel III regulatory capital requirements without raising external capital.

year.⁷ The rapid growth of M2 was driven by sizable increases in liquid deposits over the intermeeting period that were due primarily to three special factors. First, the parent holding company of one large bank transferred a substantial portion of deposits it held abroad (and so not included in M2) to its large domestic bank in June, reportedly in order to obtain more-favorable treatment under the FDIC's new risk-based insurance assessment rules.⁸ Second, as noted previously, investors reportedly reallocated some of their assets out of institutional MMMFs and into demand deposits over the period because of concerns about the funds' exposures to U.S. government debt and to European banks. These investors reportedly viewed demand deposits as having a higher risk-adjusted return in light of the unlimited FDIC insurance currently available on noninterest-bearing transaction accounts.⁹ Third, as also noted earlier, MMMFs reportedly began placing substantial amounts of cash in demand deposits at their custodian banks at the end of July to position for the possibility of heavy redemptions in the event of an impasse over the debt ceiling.

Retail MMMFs expanded in June and July, driven by growth in Treasury-only funds. Small time deposits continued to run off unabated as yields on CDs remained extremely low. Currency growth moderated in June and July but remained robust. The monetary base continued to expand briskly in June, supported by increases in reserve balances as the Open Market Desk completed the Committee's \$600 billion large-scale asset purchase program; growth in the monetary base dropped back in July. (See the box "Balance Sheet Developments over the Intermeeting Period.")

⁷ At the close of this Tealbook, Book A, deposit data used to construct the M2 monetary aggregate were available through July 25, and MMMF data used to construct M2 were available through July 27.

⁸ This activity accounted for an estimated 4¾ percentage points of the 18 percent average annual growth in M2 over June and July. This activity is not expected to affect M2 growth going forward.

⁹ Effective with the July 21, 2011, repeal of Regulation Q that was required by the Dodd-Frank Wall Street Reform and Consumer Protection Act, financial institutions are permitted to pay interest on demand deposits. The FDIC's unlimited deposit insurance on noninterest-bearing transaction accounts does not apply to demand deposits that earn interest.

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Balance Sheet Developments over the Intermeeting Period

Over the intermeeting period, total assets of the Federal Reserve increased \$15 billion to about \$2,870 billion (see table on the facing page). Net purchases of Treasury securities associated with the Federal Reserve's second large-scale asset purchase program (LSAP) more than accounted for the increase in total assets.

Since the most recent FOMC meeting, the Open Market Desk at the Federal Reserve Bank of New York (FRBNY) conducted 14 permanent operations, purchasing \$43 billion in longer-term Treasury securities.¹ The last operation associated with the second LSAP occurred on June 30. Since June 30, the Desk's operations have been conducted based on the FOMC's existing policy of reinvesting principal payments from its securities holdings.

Other asset categories generally declined over the intermeeting period. Loans outstanding under the Term Asset-Backed Securities Loan Facility (TALF) decreased about \$1 billion as a result of prepayments and principal payments; these outstanding loans totaled \$12 billion at the end of the period. On June 29, the Federal Reserve and other central banks announced an extension of the foreign central bank liquidity swap arrangements from August 1, 2011, to August 1, 2012. Foreign central bank liquidity swaps remained at zero. Finally, the net portfolio holdings of all three Maiden Lane LLCs declined, generally reflecting sales and maturities of underlying securities. On June 30, the sales of Maiden Lane II assets were suspended due to the deterioration in market conditions for non-agency RMBS.

On the liability side of the Federal Reserve's balance sheet, Federal Reserve notes in circulation increased \$9 billion over the intermeeting period. The U.S. Treasury's General Account balance, which is highly volatile from month to month, declined \$68 billion on net. In order to provide greater flexibility in the conduct of its debt management policy, the Treasury reduced the Supplementary Financing Account balance from \$5 billion to zero. Reserve balances of depository institutions increased \$23 billion, with the rise again concentrated at U.S. branches and agencies of foreign banks.

The Federal Reserve continued its program of conducting regular auctions of term deposits, with \$5 billion of 28-day term deposits auctioned in late July. In addition, on July 27, the FRBNY announced the expansion of its reverse repurchase transaction counterparties to include Fannie Mae and Freddie Mac. Moreover, the eligibility criteria for banks and savings associations to serve as counterparties for reverse repurchase agreement transactions were released to the public on July 28.

¹ Over the intermeeting period, \$44 billion in Treasury securities purchases settled on the balance sheet, and agency debt and MBS holdings declined \$23 billion.

Federal Reserve Balance Sheet
Billions of dollars

	Change since last FOMC	Current (08/01/11)
Total assets	15	2,870
Selected assets:		
Liquidity programs for financial firms	+0	+0
Primary, secondary, and seasonal credit	+0	+0
Foreign central bank liquidity swaps	0	0
Term Asset-Backed Securities Loan Facility (TALF)	-1	12
Net portfolio holdings of Maiden Lane LLCs	-8	53
Maiden Lane	-3	21
Maiden Lane II	-2	10
Maiden Lane III	-3	21
Securities held outright*	21	2,651
U.S. Treasury securities	44	1,641
Agency debt securities	-6	112
Agency mortgage-backed securities	-17	897
Total liabilities	17	2,819
Selected liabilities:		
Federal Reserve notes in circulation	9	990
Reverse repurchase agreements	8	70
Foreign official and international accounts	8	70
Others	0	0
Reserve balances of depository institutions**	23	1,612
Term deposits held by depository institutions	+0	5
U.S. Treasury, General Account	68	67
U.S. Treasury, Supplementary Financing Account	-5	0
Other deposits	54	55
Total capital	1	62

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

The July Senior Loan Officer Opinion Survey on Bank Lending Practices indicated that, on net, banks continued to ease lending standards and most terms on all types of loans other than loans secured by real estate over the past three months.¹ Modest net fractions of respondents noted an increase in demand for business loans over the same period; at the same time, banks reportedly experienced, on net, slightly weaker demand for residential real estate loans.² In response to a special question, most banks indicated that they expected originations of residential real estate loans in the second half of 2011 to stay about the same as in the first half of the year. Responses to another special question about the levels of lending standards indicated that the current levels of lending standards were at or tighter than the middle of their recent historical range for commercial and industrial (C&I) and commercial real estate (CRE) loans. Respondents generally indicated that standards were tighter than the middle of their historical range for residential real estate and consumer loans, though the reported degrees of tightness varied noticeably across loan categories.

Domestic banks further eased standards on C&I loans to firms of all sizes over the past three months. The net fraction of banks reporting easing on loans to smaller firms remained relatively low and below the net fraction reporting easing for large and middle-market firms.³ On net, domestic banks and branches as well as agencies of foreign banks (hereafter foreign banks) indicated that they had eased most terms on C&I loans over the survey period, and the reported easing was especially pronounced for price-related terms. As in the past several surveys, the most commonly cited reason for easing standards or terms on C&I loans was increased competition from other lenders. As in the April survey, modest net fractions of domestic and foreign banks reported an increase in demand for C&I loans over the past three months.

Domestic banks indicated that standards on both commercial and residential real estate loans were about unchanged over the past three months. On net, about 10 percent of respondents indicated that they had eased standards on home equity lines of credit. The net portion of domestic respondents indicating an increase in demand for CRE loans in the current survey

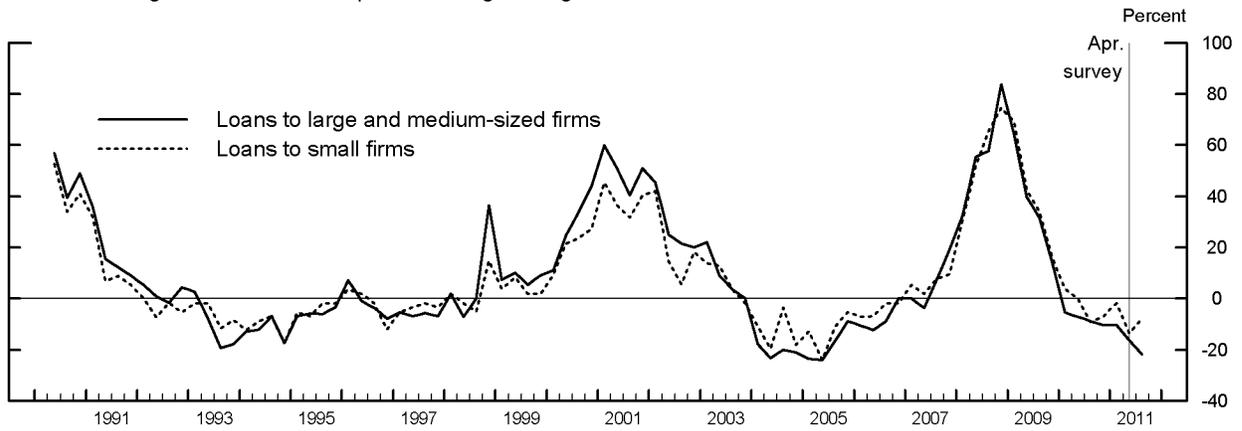
¹ The July 2011 survey addressed changes in the supply of and demand for loans to businesses and households over the past three months. This appendix is based on responses from 55 domestic banks and 21 U.S. branches and agencies of foreign banks. Respondent banks received the survey on or after July 12, 2011, and responses were due by July 26, 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.

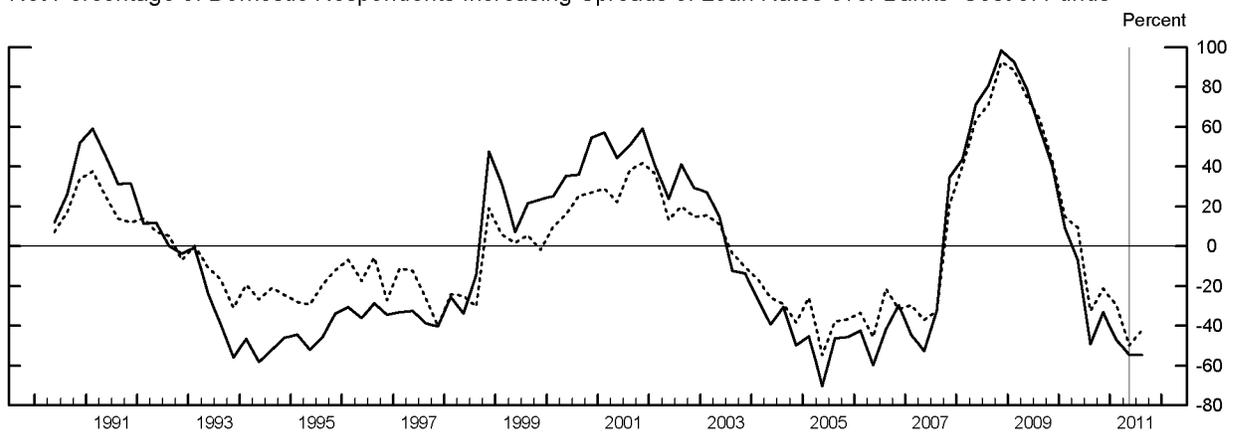
³ *Large and middle-market firms* are generally defined as firms with annual sales of \$50 million or more and *small firms* as those with annual sales of less than \$50 million.

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

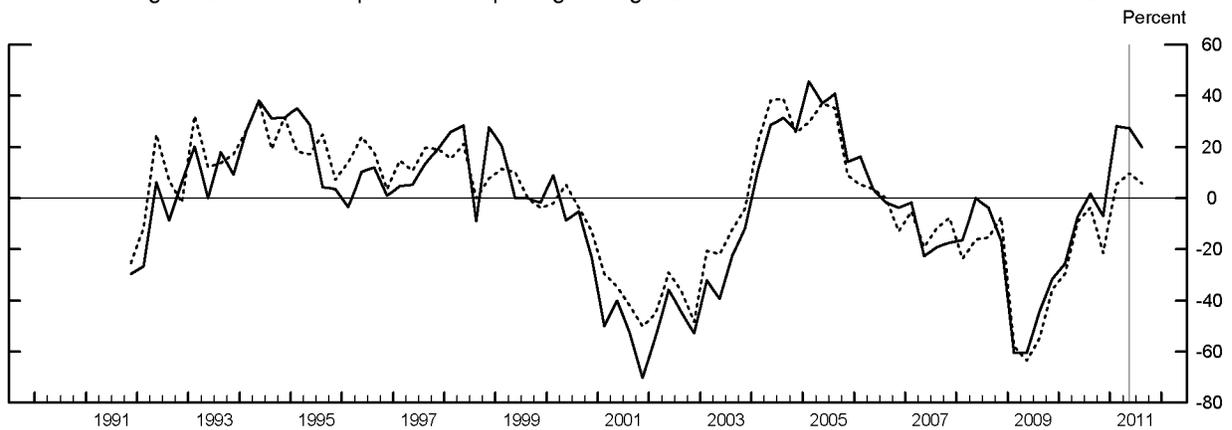
Net Percentage of Domestic Respondents Tightening Standards for Commercial and Industrial Loans



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



declined in comparison with the April survey, but it remained comfortably in positive territory. In contrast, small net fractions of respondents indicated that demand for both prime and nontraditional residential real estate loans as well as for home equity lines of credit had weakened or remained basically unchanged.

With respect to consumer lending, the net percentages of banks that reported easing standards were low and roughly in line with the previous survey. While positive net fractions of respondents reportedly experienced an increase in demand for both credit card and auto loans over the past three months, the pickup in demand was not widespread; moreover, demand for other consumer loans was about unchanged.

LENDING TO BUSINESSES

Questions on Commercial and Industrial Lending

The net fraction of domestic banks that indicated that they had eased standards on C&I loans to large and middle-market firms rose slightly to around 20 percent. On net, fewer domestic banks indicated an easing of standards on loans to smaller firms, with only about 10 percent of respondents noting that standards for such firms had eased. On balance, domestic banks eased all of the listed terms on C&I loans to large and middle-market firms, with the most sizable net fractions of respondents reporting easing on price terms such as the spread of loan rates over the bank's cost of funds, the use of interest rate floors, and the cost of credit lines. Domestic survey respondents also indicated some easing of loan terms for smaller firms, though the reported easing was less widespread than for loans to larger firms. For standards and for most terms on C&I loans, reported easing among domestic survey respondents was concentrated at large banks.⁴ At foreign banks, almost all respondents indicated that standards on C&I loans had remained basically unchanged, though between 5 and 35 percent of foreign banks reported easing various C&I loan terms on balance.

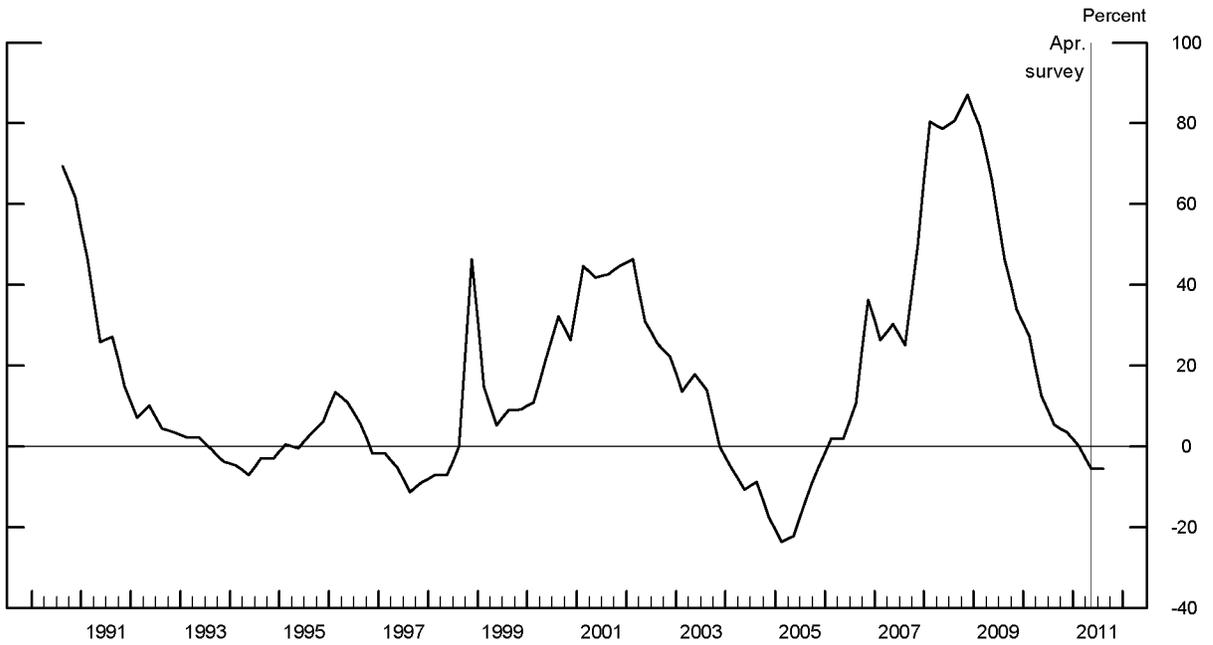
Among both domestic and foreign banks that had eased standards or terms on C&I loans, the most commonly cited reason for doing so was increased competition from other lenders; this has been the most commonly cited reason for easing standards and terms since mid-2009. A number of domestic banks also pointed to a more favorable or less uncertain economic outlook as an important reason for the change in their lending policies. The reasons that were most widely cited by domestic banks that reported that they had tightened C&I standards and terms over the past three months were a less favorable or more uncertain economic outlook, and increased concerns about the effects of legislative changes, supervisory actions, or changes in accounting standards.

A modest net fraction of domestic respondents indicated that demand for C&I loans from large and middle-market firms had increased over the past three months, while the net fraction that reported stronger loan demand from smaller firms remained positive but low. Most domestic

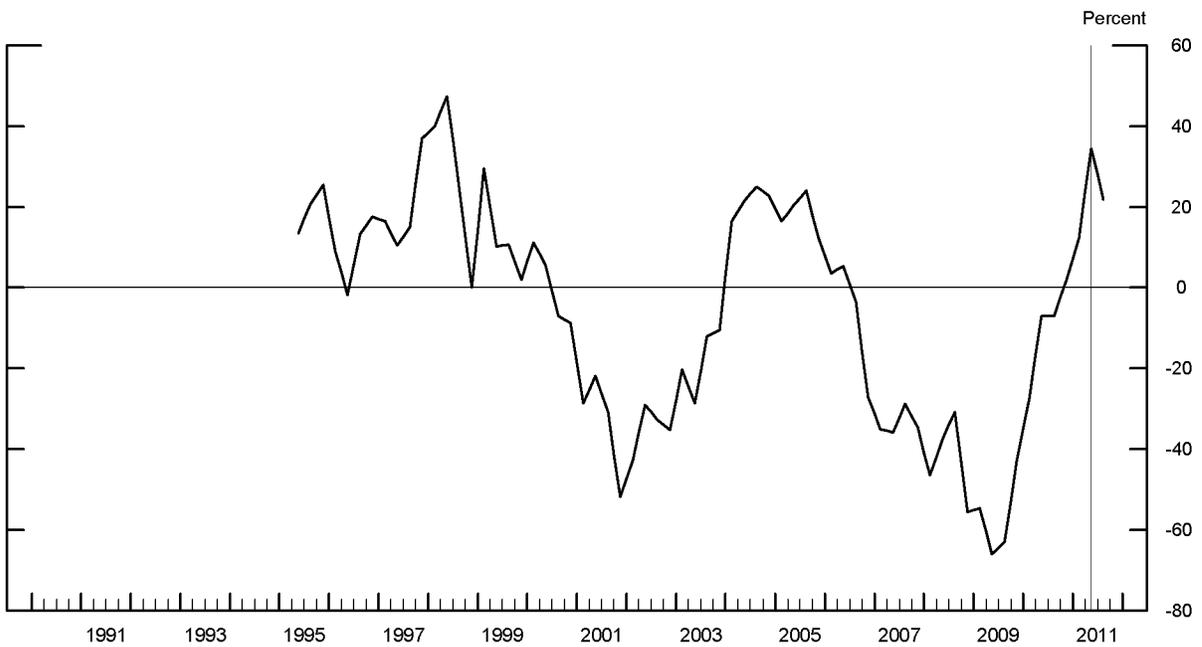
⁴ *Large banks* are defined as banks with assets greater than or equal to \$20 billion as of March 31, 2011, and *other banks* as those with assets of less than \$20 billion.

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



banks that experienced a strengthening of demand cited a shift to bank borrowing from other funding sources as an important reason for the change in demand, as well as to an increase in customers' inventory financing needs. About 15 percent of foreign banks reported in the July survey that demand for C&I loans had increased on net.

A special question on the July survey asked respondents to describe the current level of lending standards at their bank, rather than changes in standards over the survey period. For several lending categories, including syndicated and nonsyndicated C&I loans, banks were asked to describe the current level of standards relative to the range of such standards at their bank between 2005 and the present. Weighting responses by banks' C&I loans outstanding, between 45 and 70 percent of domestic respondents indicated that their bank's current standards were near the middle of that range, though the distribution of banks' responses varied with credit quality classification, syndication status, and borrower size. For all types of C&I loans, the fraction of banks that reported that their current level of standards was tighter than the middle of its historical range was roughly similar to the fraction of banks that stated standards were easier than the middle of that range. For syndicated and nonsyndicated loans to large and middle-market firms, between one-fourth and one-third of foreign banks described standards as near the middle of their bank's recent historical range.⁵ One-half of foreign banks characterized their standards for nonsyndicated loans to large and middle-market firms as tighter than the middle of their historical range, while the corresponding percentages among foreign banks for syndicated loans and nonsyndicated loans to smaller firms were somewhat lower.

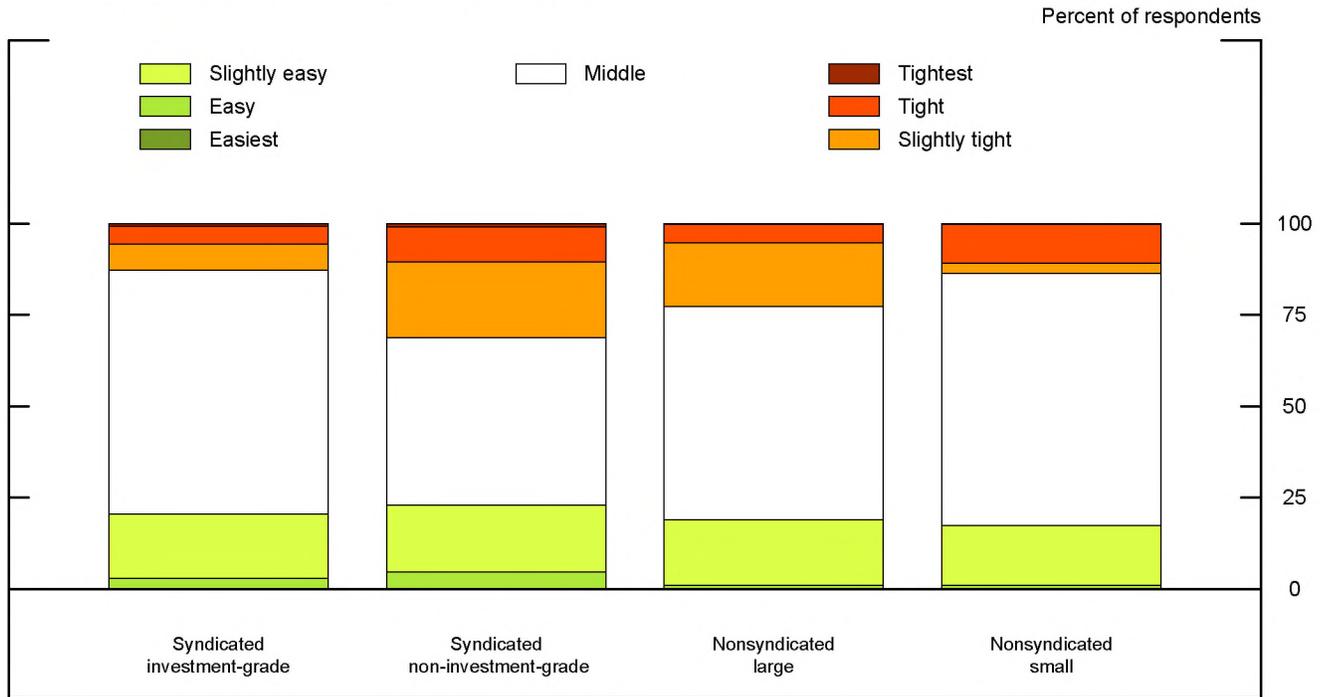
Questions on Commercial Real Estate Lending

For CRE lending, the net fraction of domestic banks that reported that standards had eased over the past three months remained positive but close to zero, about the same as in the previous two surveys. Though few domestic banks have reported a change in CRE standards over the past year, the July survey's special question revealed that standards for construction and land development (CLD) loans, nonfarm nonresidential CRE loans, and for multifamily CRE loans remain somewhat tight relative to their recent historical range. For all types of CRE loans, about 50 percent of respondents on a weighted basis described the current level of standards at their bank as tighter than the middle of the range that standards at their bank have occupied since 2005. Most of the remaining banks characterized standards as near the middle of that range, with less than 10 percent of banks describing standards as easier than the middle of the range for each CRE loan type. Nearly 20 percent of foreign respondents reported that their CRE lending standards had eased, on net, over the past three months. Almost all foreign banks that responded to the special question about the level of CRE lending standards indicated that the current level of standards was at or tighter than the middle of its recent historical range for all types of CRE loans.

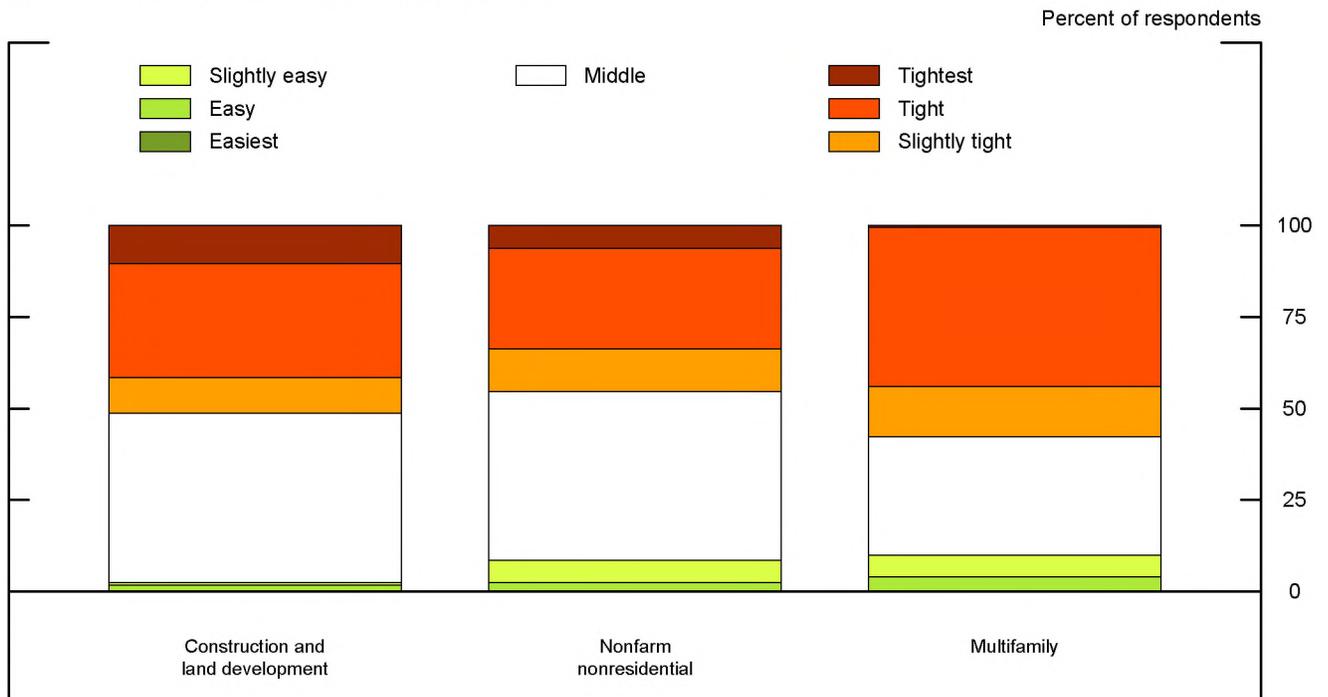
⁵ Because of a lack of data, responses of foreign banks to special questions on C&I and CRE loans are reported on an unweighted basis.

Business Lending

Level of Standards on Commercial and Industrial Loans



Level of Standards on Commercial Real Estate Loans



Financial Developments

Note: Banks were asked to describe their current level of standards in relation to the range of standards at their bank between 2005 and the present. Responses weighted by survey respondents' holdings of relevant loan types, as reported on the March 31, 2011, Call Report.

On net, more than one-third of large domestic banks described demand for CRE loans as having strengthened over the previous three months, while smaller banks indicated that demand for such loans had remained about unchanged on net. At foreign banks, about 10 percent of respondents noted an increase in demand. The reported increases in demand for CRE loans occurred despite signs of continued distress in CRE lending markets, including elevated delinquency rates, depressed property prices, and high vacancy rates.

LENDING TO HOUSEHOLDS

Questions on Residential Real Estate Lending

On net, banks reported that standards on residential real estate loans were little changed for both prime and nontraditional loans.⁶ Similarly, only small net fractions of banks indicated a change in demand for prime and nontraditional mortgages.

Across residential real estate loan categories, the fraction of banks that described their standards as tighter than the middle of their bank's recent historical range was about 90 percent or greater, when weighted by banks' holdings of residential real estate loans. For all residential real estate loan categories, less than 5 percent of banks characterized their standards as easier than the middle of their recent range.

Another special question queried banks about whether they expected their originations of residential real estate loans, which were quite weak over the first half of 2011, to increase or decrease over the remainder of the year. About three-quarters of banks reported that they expected their originations to remain at about the same level through the rest of 2011; the remaining banks were split between respondents that expected an increase and those that expected a decrease in originations. A follow-up question asked banks that did not expect any increase why they anticipated their originations to remain flat or to decrease. All respondents to this question cited reduced or unchanged demand from creditworthy borrowers and almost all respondents pointed to unfavorable or uncertain forecasts for the broad economy and for house prices. Another common but less frequently cited reason for the lack of expected expansion in originations was increased concerns about the effects of legislative changes, supervisory actions, or changes in accounting standards.

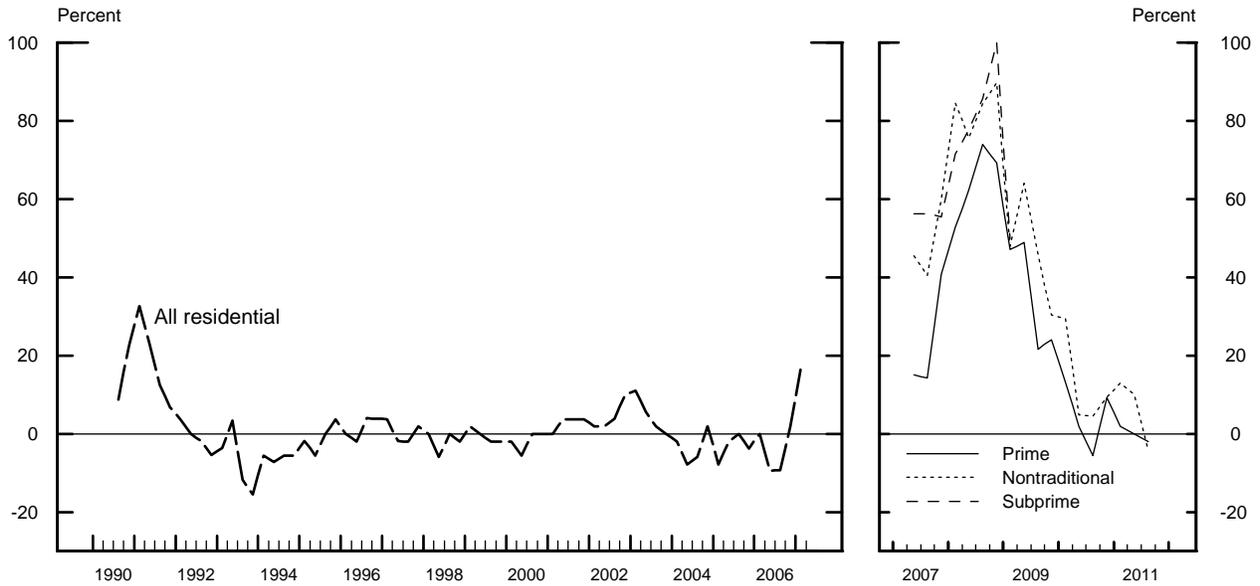
Questions on Consumer Lending

Moderate net fractions of banks reported an easing of their lending standards on consumer loans over the past three months. For credit card loans and for consumer loans other than credit card and auto loans, positive net fractions of banks reported an easing of standards, but these fractions were less than 10 percent. For auto loans, the reported easing of standards was more substantial, at nearly 20 percent. For all three consumer loan categories, the net fraction of large banks reporting an easing of standards was greater than the corresponding fraction of other

⁶ Three banks responded to a question that asked about changes in standards on subprime mortgage loans. Responses are not reported when the number of respondents is 3 or fewer.

Measures of Supply and Demand for Residential Mortgage Loans

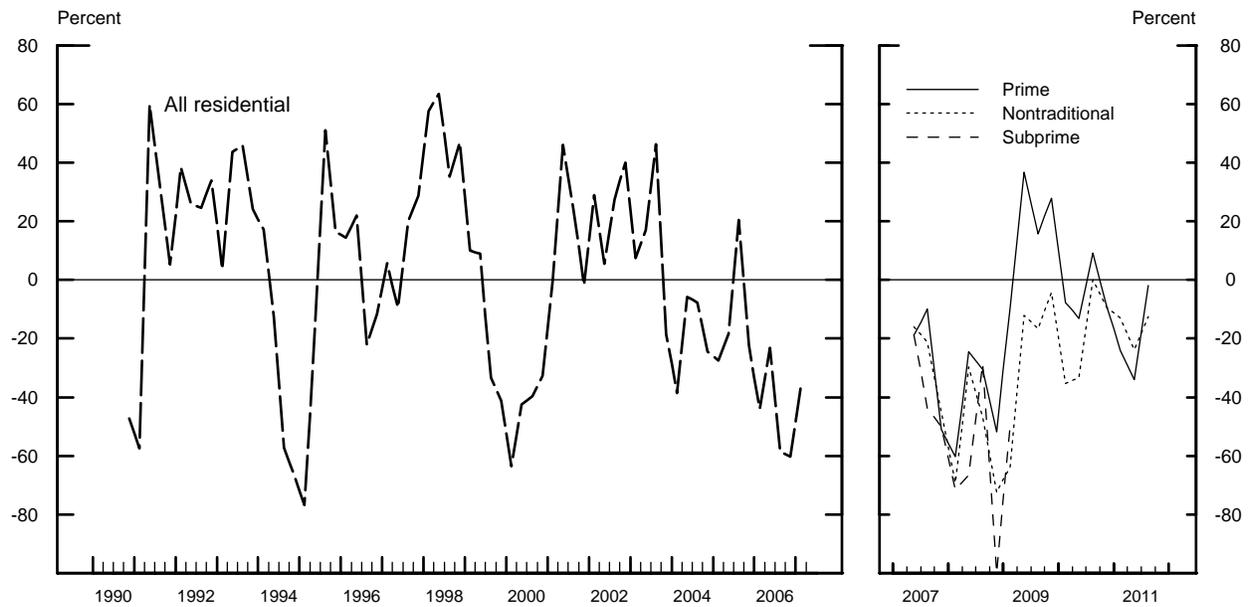
Net Percentage of Domestic Respondents Tightening Standards for Residential Mortgage Loans



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

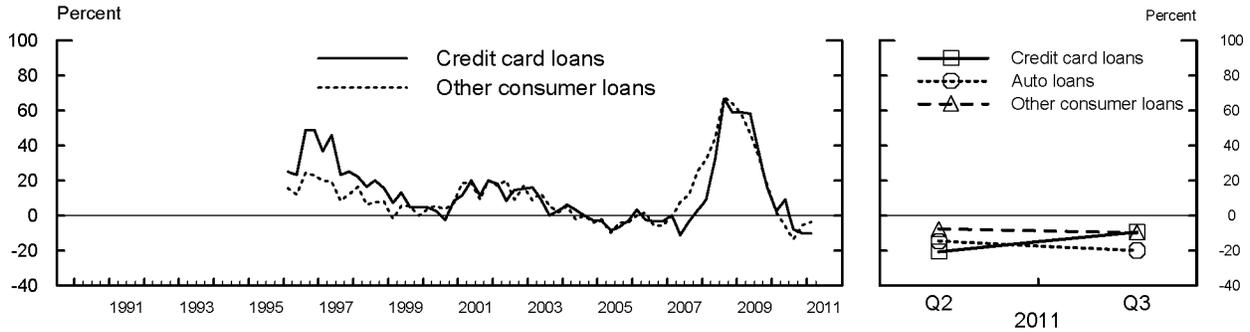
Net Percentage of Domestic Respondents Reporting Stronger Demand for Residential Mortgage Loans



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.

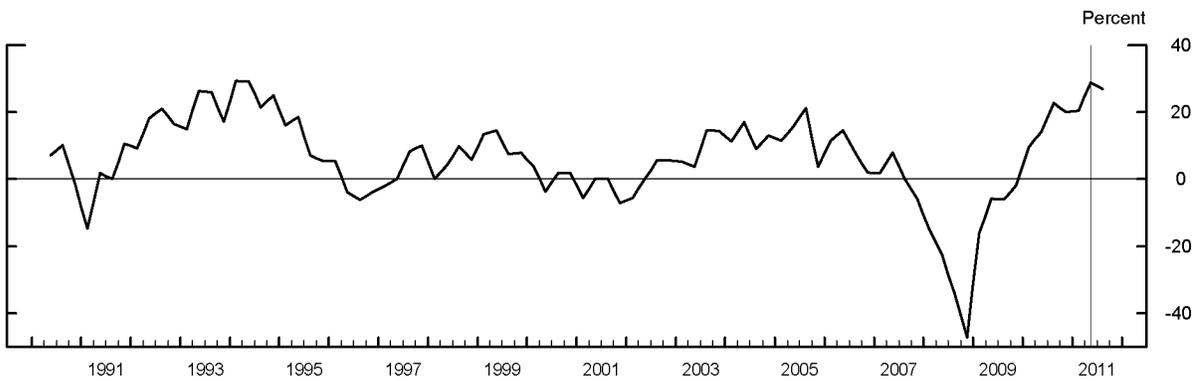
Measures of Supply and Demand for Consumer Loans

Net Percentage of Domestic Respondents Tightening Standards for Consumer Loans

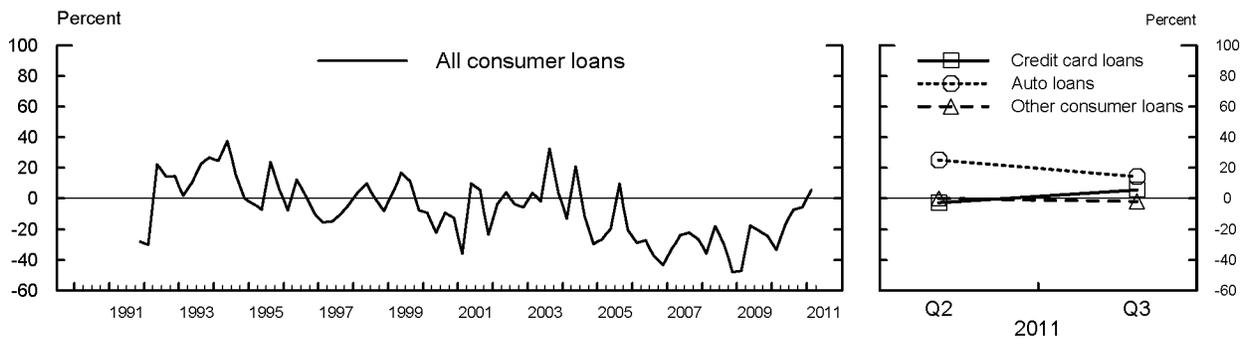


Note: For data starting in 2011:Q2, changes in standards for auto loans and consumer loans excluding credit card and auto loans are reported separately. In 2011:Q2 only, new and used auto loans are reported separately and equally weighted to calculate the auto loans series.

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.

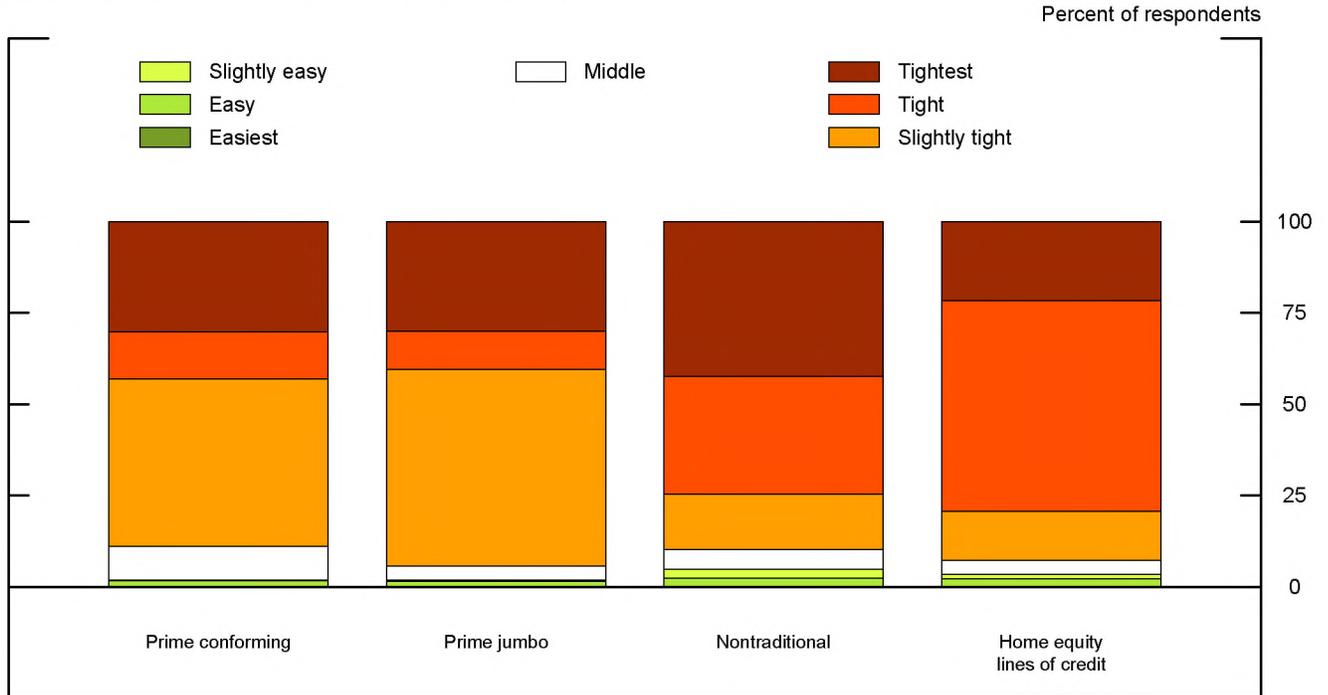
banks. With respect to loan terms, banks eased some of the listed terms, on balance, but most banks reported no change on most terms; in addition, the indicated easing was slightly more widespread for auto than for other consumer loans.

When weighted by banks' holdings of credit cards, auto loans, and other consumer loans, responses to the special questions on the level of standards revealed that more than 50 percent of respondent banks described their standards for auto loans as tighter than the middle of their range from 2005 to date, while the corresponding percentages for credit card and other consumer loans were around 90 percent.

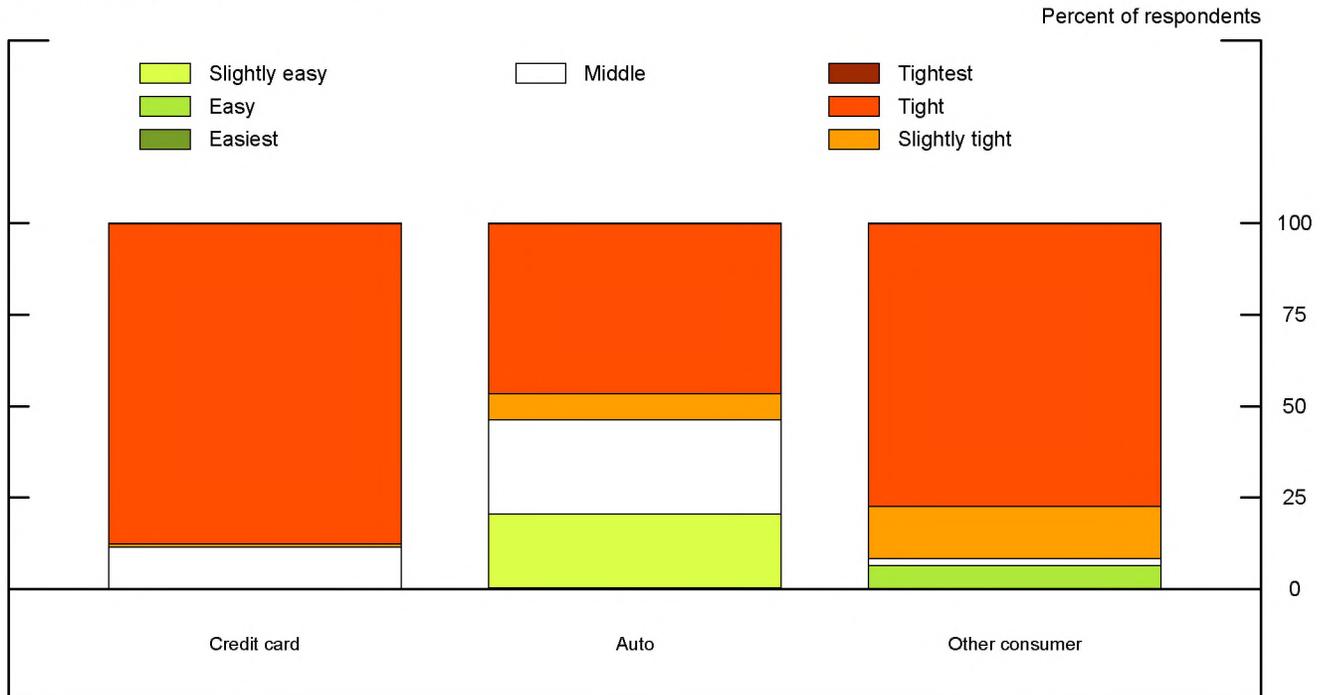
A moderate net fraction of banks reportedly experienced an increase in demand for auto loans over the past three months. In contrast, the reported demand for credit card and other consumer loans was about unchanged, on net.

Household Lending

Level of Standards on Residential Real Estate Loans



Level of Standards on Consumer Loans



Financial Developments

Note: Banks were asked to describe their current level of standards in relation to the range of standards at their bank between 2005 and the present. Responses weighted by survey respondents' holdings of relevant loan types, as reported on the March 31, 2011, Call Report.

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Risks and Uncertainty

ALTERNATIVE SCENARIOS

The central challenge that we confronted in putting the forecast together was how to interpret the persistently disappointing pace of economic recovery thus far this year. In the baseline, we attribute the weakness to a combination of persistent demand and supply influences. In this section, we use simulations of staff models to sketch in greater detail several alternatives to the baseline explanation of the recent weakness that would result in markedly different economic outcomes over the next several years. In the first scenario, the recent disappointing pace of recovery reflects even-more-persistent restraint on aggregate demand from impaired balance sheets and other factors than is assumed in the baseline, implying that the economy will expand only slightly faster than its potential for several years. The second scenario builds on the first by recognizing the possibility that such a protracted period of weakness could have adverse effects on labor supply, thereby restraining future growth even further. In the third scenario, we interpret the recent weakness in real activity as evidence that the supply side of the economy has already been damaged more than we have judged, and that there is less slack now than assumed in the baseline. In the fourth scenario, we assume that the recent weakness is largely transitory, and that the self-correcting mechanisms that helped to stabilize the economy during past recoveries are still operating with full force and will cause the economy to snap back more quickly than in the baseline. Finally, we consider the additional risk that Europe experiences a very severe bout of financial stress and recession, with major spillover effects to the rest of the world. We generate the first four scenarios using the FRB/US model and an estimated policy rule. The last scenario is generated using the multicountry SIGMA model, which uses a different policy rule for the federal funds rate.¹

More-Persistent Spending Weakness

One possible explanation for the disappointing pace of the recovery this year is that balance sheet restructuring by households and businesses, financial institutions'

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

Alternative Scenarios

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

Measure and scenario	2011		2012	2013	2014-15
	H1	H2			
<i>Real GDP</i>					
Extended Tealbook baseline	.9	2.7	3.0	3.7	4.0
More-persistent spending weakness	.9	2.5	2.5	2.6	3.4
with supply-side corrosion	.9	2.3	2.2	2.3	3.1
Greater supply-side damage	.9	2.4	2.4	2.8	3.1
Faster snapback	.9	3.3	3.8	4.2	3.3
Very severe financial stress in Europe	.9	1.4	.0	2.9	4.6
<i>Unemployment rate¹</i>					
Extended Tealbook baseline	9.1	9.2	8.5	7.5	5.7
More-persistent spending weakness	9.1	9.2	8.7	8.2	7.1
with supply-side corrosion	9.1	9.3	8.8	8.5	8.0
Greater supply-side damage	9.1	9.1	8.3	7.5	6.5
Faster snapback	9.1	9.1	8.0	6.6	5.2
Very severe financial stress in Europe	9.1	9.4	9.8	9.3	7.0
<i>Total PCE prices</i>					
Extended Tealbook baseline	3.5	1.3	1.5	1.4	1.6
More-persistent spending weakness	3.5	1.3	1.5	1.3	1.3
with supply-side corrosion	3.5	1.3	1.5	1.4	1.5
Greater supply-side damage	3.5	1.4	1.7	1.7	1.9
Faster snapback	3.5	1.3	1.5	1.5	2.0
Very severe financial stress in Europe	3.5	-.3	-.2	.8	1.6
<i>Core PCE prices</i>					
Extended Tealbook baseline	1.8	1.8	1.5	1.4	1.5
More-persistent spending weakness	1.8	1.8	1.5	1.3	1.2
with supply-side corrosion	1.8	1.8	1.5	1.4	1.4
Greater supply-side damage	1.8	1.9	1.7	1.7	1.8
Faster snapback	1.8	1.8	1.5	1.5	1.9
Very severe financial stress in Europe	1.8	1.2	.3	.8	1.4
<i>Federal funds rate¹</i>					
Extended Tealbook baseline	.1	.1	.1	.7	3.2
More-persistent spending weakness	.1	.1	.1	.1	.7
with supply-side corrosion	.1	.1	.1	.1	1.0
Greater supply-side damage	.1	.1	.2	1.7	3.6
Faster snapback	.1	.4	1.1	2.1	3.5
Very severe financial stress in Europe	.1	.1	.1	.1	2.2

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

adjustments to more-stringent regulations, and other demand-related factors may be weighing more heavily on borrowing and spending than we had anticipated. Similarly, consumer sentiment—rather than gradually improving over time, as in the baseline—may be caught up in an adverse dynamic in which pessimistic households continue to restrain their spending, thereby holding back the pace of recovery and so ratifying their pessimism. In this scenario, these factors restrain the growth of private spending and employment over the next several years relative to baseline and also lead to less-favorable financial conditions. In particular, the personal saving rate gradually rises above 6 percent over the next few years, rather than remaining roughly flat at about 5 percent; capital spending expands about 3 percentage points more slowly per year relative to baseline; and poorer earnings prospects and higher risk premiums push stock prices about 10 percent below baseline by late next year. As a result, real GDP expands only 2½ percent in 2012 and 2013 before slowly picking up to a 3½ percent pace by 2015. Improvements in labor market conditions are correspondingly slower to emerge than in the baseline, and the unemployment rate is still 8¼ percent at the end of 2013. In the face of such an anemic recovery, core inflation gradually moves down to 1¼ percent and the federal funds rate stays near zero until mid-2015.

An important reason for the modest inflation response is our assumption that inflation expectations remain well anchored. However, if expectations were to become untethered in the face of such a persistently weak economy, inflation would move down much more decisively.

More-Persistent Spending Weakness with Supply-Side Corrosion

In the previous scenario, future gains in labor productivity and potential output are somewhat smaller than in the baseline because the slower pace of investment implies less capital deepening. However, a persistently sluggish economy might also have a broader corrosive effect on the supply side of the economy. For example, a protracted period of high unemployment might erode the skills and labor force attachment of unemployed workers more than in the baseline, further slowing the expansion of potential output. This scenario builds on the previous one by assuming that a slower labor market recovery would cause the downward trend in labor force participation to steepen and the NAIRU to rise gradually to 6¼ percent, rather than declining as assumed in the baseline. As a result, potential GDP expands about ½ percentage point more slowly per year through 2015. Under these conditions, the unemployment rate declines even more slowly

than in the previous scenario and is still 8 percent at the end of 2015. However, the negative effects on labor supply imply that the unemployment gap closes a bit more quickly than in the previous scenario. Accordingly, inflation is higher and is now only a bit below baseline.

Greater Supply-Side Damage

Another possible explanation for the disappointing pace of the recovery this year is that the supply side of the economy may have suffered greater damage over the past several years than we have estimated. For example, the NAIRU may have increased more due to problems related to mismatch in the labor force, trend labor force participation may have declined more due to poorer job market opportunities, and gains in structural multifactor productivity may have been slower than we think. In this scenario, we assume that the combination of these forces causes the current output gap to be only about half as large as in the baseline. These conditions imply lower long-run levels of household income and corporate earnings, and hence help to explain the recent weakness in consumption and investment; they also point to a more-sluggish pace of recovery going forward. Accordingly, real GDP expands about $\frac{3}{4}$ percentage point less rapidly per year, on average, through 2015 than in the baseline, while inflation is higher because of both the direct effects of lower productivity on firms' costs and a smaller margin of slack. Although policymakers are assumed to recognize only gradually the less-favorable supply-side conditions, the stability of long-run inflation expectations helps to keep inflation from rising above the assumed 2 percent objective. If inflation expectations were instead to drift up (perhaps on worries that policymakers were overestimating slack), inflation could rise considerably more and could become a persistent problem.

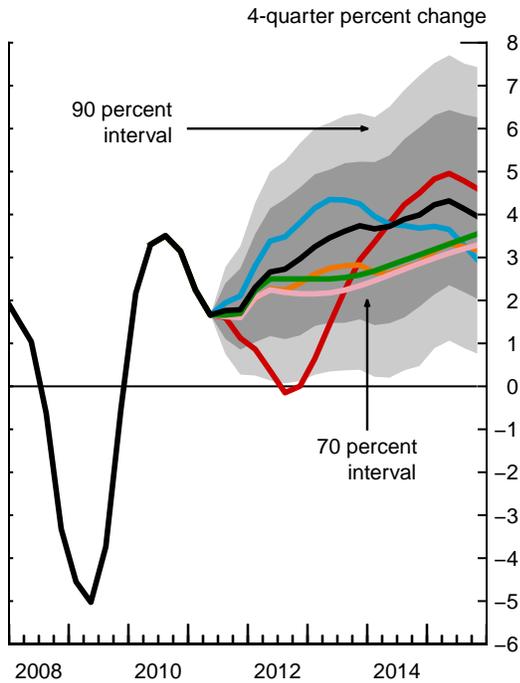
An important distinction between this scenario and the previous one concerns their contrasting implications for monetary policy. Here, monetary policy can do little to offset the weakness in real activity because so much of it is driven by supply-side factors impervious to policy actions. In the previous scenario, the weakness is fundamentally driven by deficient demand, especially as the corrosive labor supply effects are a result of elevated unemployment. Accordingly, in that scenario monetary policy has much greater scope to improve overall welfare through stimulative actions.

Forecast Confidence Intervals and Alternative Scenarios

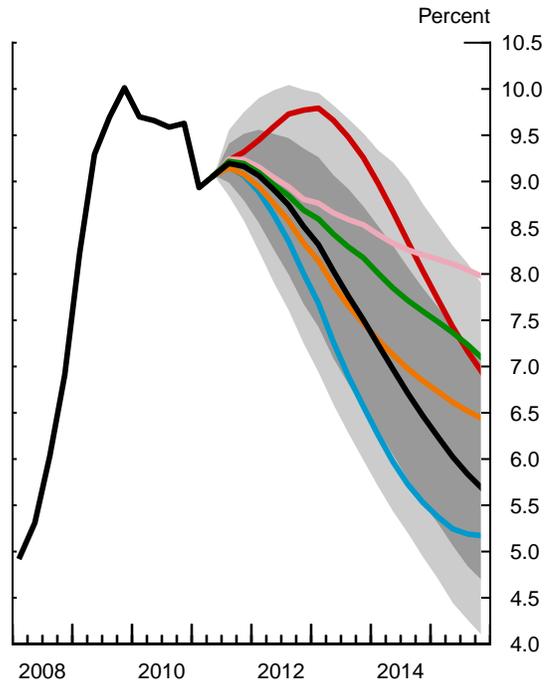
Confidence Intervals Based on FRB/US Stochastic Simulations

- Extended Tealbook baseline
- More-persistent spending weakness
- with supply-side corrosion
- Greater supply-side damage
- Faster snapback
- Very severe financial stress in Europe

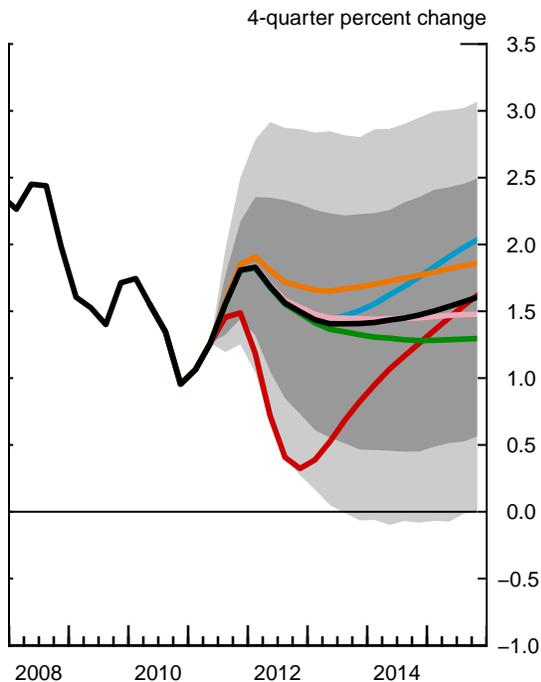
Real GDP



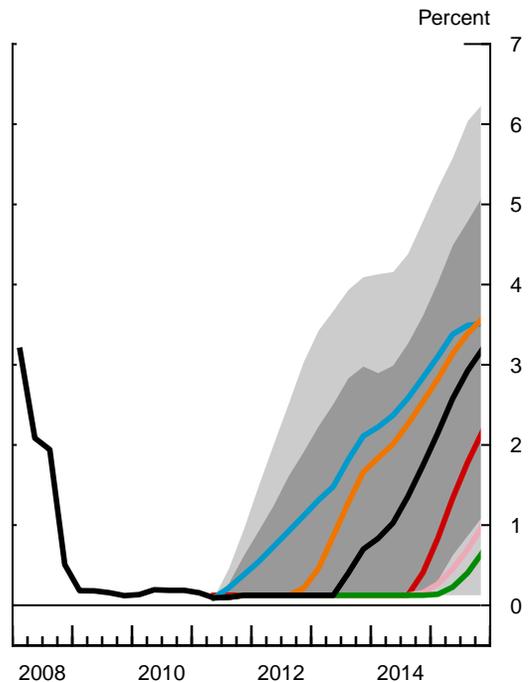
Unemployment Rate



PCE Prices excluding Food and Energy



Federal Funds Rate



Faster Snapback

In this scenario, we consider the possibility that the adverse shocks hitting the economy are fundamentally transitory in nature and so will soon give way to a more-robust recovery. Thus, going forward, real activity rebounds at a pace more in line with that following other deep recessions. Real GDP rises at an annual rate of about 3¼ percent in the second half of this year and 4 percent on average in 2012 and 2013, boosting the demand for labor enough to bring the unemployment rate down below 7 percent by mid-2013. Initially, the stronger pace of the recovery has little effect on inflation because higher investment increases labor productivity (thereby holding down unit labor costs) and because long-run inflation expectations are well anchored. In time, however, tighter labor and product markets cause inflation to move up more than in the baseline. Largely in response to stronger real activity, the federal funds rate lifts off from its effective lower bound by the end of this year.

Very Severe Financial Stress in Europe

In the baseline forecast, we project that the European economies will expand at a modest pace over the next two years as financial stresses remain elevated but generally contained while the global economic environment improves. In this scenario, we assume that financial difficulties intensify markedly in Spain and Italy, and that spillovers—through trade, financial, and confidence channels—are substantial to both the United States and the core economies of Europe. Specifically, a worsening in investor sentiment causes European sovereign and private borrowing costs to soar, with European corporate bond spreads rising 400 basis points above baseline. European real GDP declines about 7 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 about 200 basis points. U.S. net exports are depressed by weaker foreign activity and the stronger dollar. In addition, U.S. domestic demand is restrained by higher borrowing costs and declining stock prices. All told, U.S. GDP growth dips to zero in 2012, and the unemployment rate rises to nearly 10 percent next year. The greater resource slack, coupled with lower import prices, pushes core PCE inflation down to ¼ percent in 2012. The federal funds rate remains near zero until late 2014, five quarters longer than in the baseline.

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

Measure	2011	2012	2013	2014	2015
<i>Real GDP</i>					
<i>(percent change, Q4 to Q4)</i>					
Projection	1.8	3.0	3.7	4.0	3.9
Confidence interval					
Tealbook forecast errors	.9–2.6	1.1–4.8	2.0–5.5
FRB/US stochastic simulations	.9–2.7	1.2–4.6	1.6–5.2	1.9–6.0	2.0–6.3
<i>Civilian unemployment rate</i>					
<i>(percent, Q4)</i>					
Projection	9.2	8.5	7.5	6.5	5.7
Confidence interval					
Tealbook forecast errors	8.8–9.5	7.7–9.3	6.1–8.9
FRB/US stochastic simulations	8.8–9.5	7.7–9.4	6.6–8.7	5.5–7.8	4.7–7.0
<i>PCE prices, total</i>					
<i>(percent change, Q4 to Q4)</i>					
Projection	2.4	1.5	1.4	1.5	1.6
Confidence interval					
Tealbook forecast errors	1.9–2.9	.4–2.6	.2–2.6
FRB/US stochastic simulations	1.8–3.1	.4–2.7	.1–2.5	.1–2.8	.2–2.8
<i>PCE prices excluding food and energy</i>					
<i>(percent change, Q4 to Q4)</i>					
Projection	1.8	1.5	1.4	1.5	1.6
Confidence interval					
Tealbook forecast errors	1.5–2.1	.8–2.2	.3–2.5
FRB/US stochastic simulations	1.4–2.2	.7–2.3	.5–2.2	.5–2.4	.6–2.5
<i>Federal funds rate</i>					
<i>(percent, Q4)</i>					
Projection	.1	.1	.7	1.7	3.2
Confidence interval					
FRB/US stochastic simulations	.1–.6	.1–1.9	.1–3.0	.2–3.6	1.1–5.1

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.

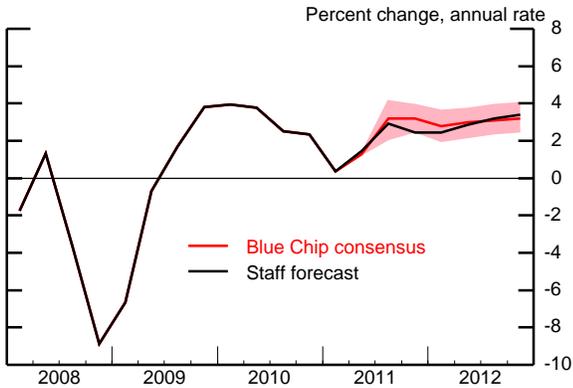
... Not applicable. The Tealbook forecast horizon has typically extended about 2 years.

OUTSIDE FORECASTS

The most recent Blue Chip survey is almost a month old and was collected before the disappointing labor market report released in early July. In that survey, the Blue Chip consensus forecast for the increase in real GDP in the second half of this year was about 3¼ percent at an annual rate, about ½ percentage point higher than in the current staff projection. The consensus projection also expected real GDP to rise at a 3 percent pace in 2012, about the same as the staff projection. Nonetheless, the Blue Chip forecast for the unemployment rate at the end of 2012 was 8.1 percent, almost ½ percentage point below the staff's projection. Regarding inflation, the Blue Chip anticipated that the overall CPI will increase 3.5 percent over the four quarters of 2011 and 2.2 percent in 2012, forecasts that are above the staff projection by about ½ percentage point each year.

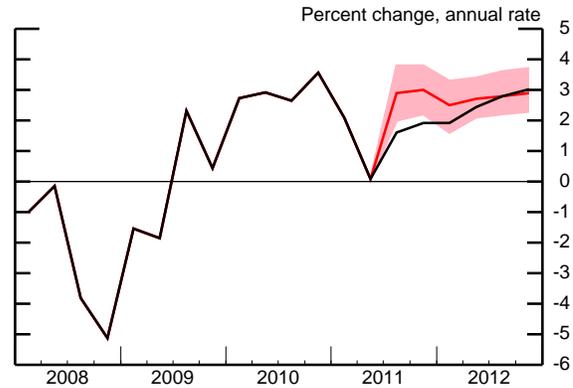
Tealbook Forecast Compared with Blue Chip (Blue Chip survey released July 10, 2011)

Real GDP

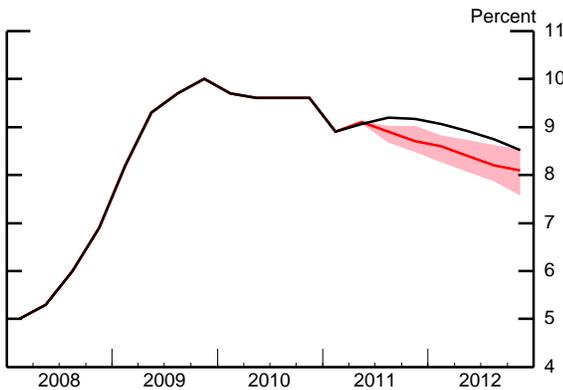


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

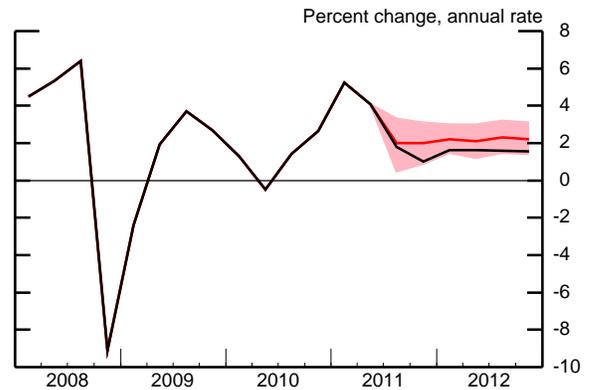
Real PCE



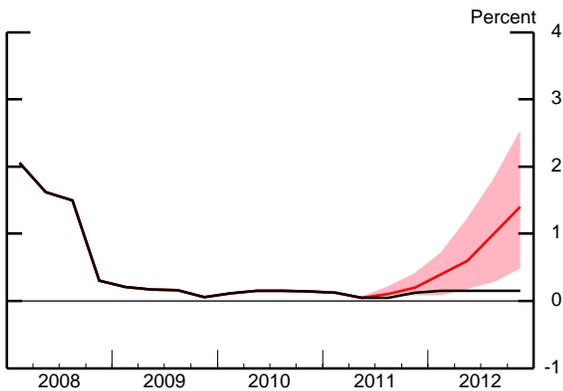
Unemployment Rate



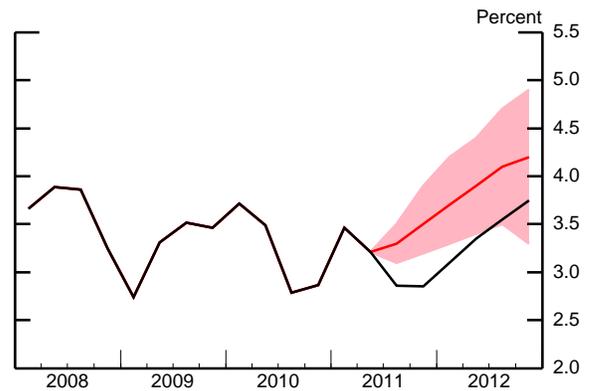
Consumer Price Index



Treasury Bill Rate



10-Year Treasury Yield



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

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

Interval	Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate ¹	
	06/15/11	08/03/11	06/15/11	08/03/11	06/15/11	08/03/11	06/15/11	08/03/11	06/15/11	08/03/11
<i>Quarterly</i>										
2010:Q1	4.8	5.5	3.7	3.9	2.1	1.9	1.2	1.1	9.7	9.7
Q2	3.7	5.4	1.7	3.8	.0	.3	1.0	1.3	9.6	9.6
Q3	4.6	3.9	2.6	2.5	.8	1.0	.5	.8	9.6	9.6
Q4	3.5	4.2	3.1	2.3	1.7	1.9	.4	.7	9.6	9.6
2011:Q1	4.1	3.1	2.1	.4	3.8	3.9	1.4	1.6	8.9	8.9
Q2	5.8	3.9	1.9	1.4	3.4	3.1	2.2	2.1	9.0	9.1
Q3	5.6	5.1	3.9	2.9	.8	1.5	1.7	1.9	9.0	9.2
Q4	4.3	3.6	2.9	2.4	1.4	1.1	1.4	1.7	8.9	9.2
2012:Q1	4.7	3.2	3.1	2.4	1.4	1.6	1.5	1.6	8.8	9.1
Q2	4.8	5.9	3.3	2.9	1.5	1.5	1.5	1.5	8.6	8.9
Q3	5.2	4.6	3.7	3.2	1.5	1.4	1.5	1.4	8.4	8.7
Q4	5.4	4.6	3.9	3.4	1.5	1.4	1.5	1.4	8.1	8.5
<i>Two-quarter²</i>										
2010:Q2	4.3	5.5	2.7	3.9	1.0	1.1	1.1	1.2	-4	-4
Q4	4.1	4.0	2.8	2.4	1.2	1.5	.5	.7	.0	.0
2011:Q2	4.9	3.5	2.0	.9	3.6	3.5	1.8	1.8	-6	-5
Q4	4.9	4.4	3.4	2.7	1.1	1.3	1.5	1.8	-1	.1
2012:Q2	4.8	4.5	3.2	2.6	1.5	1.5	1.5	1.6	-3	-3
Q4	5.3	4.6	3.8	3.3	1.5	1.4	1.5	1.4	-5	-4
<i>Four-quarter³</i>										
2009:Q4	.6	.0	.2	-.5	1.5	1.5	1.7	1.7	3.1	3.1
2010:Q4	4.2	4.7	2.8	3.1	1.1	1.3	.8	1.0	-4	-4
2011:Q4	4.9	3.9	2.7	1.8	2.3	2.4	1.7	1.8	-7	-4
2012:Q4	5.1	4.5	3.5	3.0	1.5	1.5	1.5	1.5	-8	-7
<i>Annual</i>										
2009	-1.7	-2.5	-2.6	-3.5	.2	.2	1.5	1.6	9.3	9.3
2010	3.8	4.2	2.9	3.0	1.7	1.8	1.3	1.4	9.6	9.6
2011	4.5	4.0	2.6	1.9	2.2	2.3	1.3	1.4	9.0	9.1
2012	5.0	4.3	3.3	2.7	1.5	1.5	1.5	1.6	8.5	8.8

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	2010				2011				2012				2010 ¹	2011 ¹	2012 ¹
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
	Real GDP	3.9	3.8	2.5	2.3	.4	1.4	2.9	2.4	2.4	2.9	3.2			
<i>Previous Tealbook</i>	3.7	1.7	2.6	3.1	2.1	1.9	3.9	2.9	3.1	3.3	3.7	3.9	2.8	2.7	3.5
Final sales	.8	3.0	1.7	4.2	.0	1.3	1.5	3.1	3.1	3.1	3.0	3.3	2.4	1.5	2.9
<i>Previous Tealbook</i>	1.1	.9	.9	6.7	.8	2.5	2.6	3.5	3.5	3.2	3.1	3.4	2.4	2.4	3.2
Priv. dom. final purch.	2.5	5.1	2.6	4.1	2.0	1.1	1.9	2.2	2.2	2.0	2.6	3.4	3.6	1.8	2.8
<i>Previous Tealbook</i>	2.1	4.4	2.3	4.4	2.2	2.1	3.4	3.0	3.0	2.6	3.1	3.7	3.3	2.7	3.2
Personal cons. expend.	2.7	2.9	2.6	3.6	2.1	.1	1.6	1.9	1.9	1.9	2.4	3.0	3.0	1.4	2.5
<i>Previous Tealbook</i>	1.9	2.2	2.4	4.0	2.3	1.5	2.6	2.4	2.4	2.5	2.7	3.1	2.6	2.2	2.8
Durables	9.9	7.8	8.8	17.2	11.7	-4.4	5.0	7.2	7.2	5.7	8.3	9.5	10.9	4.7	8.3
Nondurables	4.8	1.9	3.0	4.3	1.6	.1	.2	.9	.9	.9	1.1	1.3	3.5	.7	1.2
Services	1.0	2.5	1.6	1.3	.8	.8	1.5	1.4	1.4	1.7	1.9	2.2	1.6	1.1	2.1
Residential investment	-15.3	22.8	-27.7	2.5	-2.4	3.5	3.1	.5	.5	3.1	4.2	8.4	8.8	1.1	6.1
<i>Previous Tealbook</i>	-12.3	25.7	-27.3	3.3	-2.9	1.3	1.6	2.7	2.7	3.0	5.5	7.3	8.3	.7	6.0
Business fixed invest.	6.0	18.6	11.3	8.7	2.1	8.1	4.0	4.5	4.5	2.6	3.0	4.3	11.1	4.7	3.7
<i>Previous Tealbook</i>	7.8	17.2	10.0	7.7	2.9	6.8	9.5	7.2	7.2	3.7	5.6	6.9	10.6	6.6	5.7
Equipment & software	21.7	23.2	14.1	8.1	8.7	5.6	6.3	6.3	6.3	4.4	4.6	6.2	16.6	6.7	5.6
<i>Previous Tealbook</i>	20.4	24.8	15.4	7.7	10.1	7.0	13.2	9.5	9.5	5.6	7.8	9.3	16.9	10.0	8.0
Nonres. structures	-24.7	7.5	4.2	10.5	-14.3	15.2	-2.0	-2	-2	-2.2	-1.2	-1.0	-1.8	-9	-1.3
<i>Previous Tealbook</i>	-17.8	-5	-3.5	7.6	-15.2	6.1	-6	.7	.7	-1.8	-7	-3	-4.0	-2.6	-8
Net exports ²	-377	-437	-459	-414	-424	-406	-405	-366	-366	-332	-307	-290	-422	-400	-300
<i>Previous Tealbook</i> ²	-338	-449	-505	-398	-393	-364	-374	-338	-338	-305	-283	-273	-422	-367	-279
Exports	7.2	10.0	10.0	7.8	7.9	6.0	10.2	9.8	9.8	9.6	9.1	8.8	8.8	8.4	9.0
Imports	12.5	21.6	12.3	-2.3	8.3	1.3	8.1	.7	.7	1.5	3.2	4.4	10.7	4.6	3.3
Gov't. cons. & invest.	-1.2	3.7	1.0	-2.8	-5.9	-8	-3	.1	.1	-7	-5	-4	.1	-1.8	-5
<i>Previous Tealbook</i>	-1.6	3.9	3.9	-1.7	-5.6	-5	1.1	-4	-4	-3	-3	-2	1.1	-1.4	-2
Federal	2.8	8.8	3.2	-3.0	-9.4	2.2	1.9	1.4	1.4	-1.1	-8	-9	2.9	-1.1	-9
Defense	.5	6.0	5.7	-5.9	-12.6	7.3	5.7	-1	-1	-7	.1	-1	1.5	-2	-1
Nondefense	7.8	14.7	-1.8	3.1	-2.7	-7.3	-5.6	4.4	4.4	-1.9	-2.6	-2.6	5.7	-2.9	-2.4
State & local	-3.9	.4	-5	-2.7	-3.4	-2.9	-1.8	-8	-8	-5	-3	-1	-1.7	-2.2	-2
Change in bus. inventories ²	40	65	92	38	49	53	99	80	80	74	78	83	59	70	80
<i>Previous Tealbook</i> ²	44	69	121	16	57	38	76	58	58	57	60	78	63	57	72
Nonfarm ²	35	64	99	45	60	63	102	83	83	74	77	82	61	77	79
Farm ²	5	1	-6	-5	-8	-9	-2	-2	-2	1	1	1	-1	-5	1

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

2. Billions of chained (2005) dollars.

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

Item	2004	2005	2006	2007	2008	2009	2010	2011	2012
Real GDP	2.9	2.8	2.4	2.2	-3.3	-5	3.1	1.8	3.0
<i>Previous Tealbook</i>	3.1	2.7	2.4	2.3	-2.8	.2	2.8	2.7	3.5
Final sales	2.6	2.7	2.8	2.4	-2.6	-8	2.4	1.5	2.9
<i>Previous Tealbook</i>	2.8	2.7	2.8	2.5	-1.9	-3	2.4	2.4	3.2
Priv. dom. final purch.	4.0	3.2	2.4	1.2	-4.5	-2.5	3.6	1.8	2.8
<i>Previous Tealbook</i>	4.2	3.1	2.5	1.3	-3.8	-2.0	3.3	2.7	3.2
Personal cons. expend.	3.3	2.8	3.2	1.7	-2.5	-2	3.0	1.4	2.5
<i>Previous Tealbook</i>	3.5	2.7	3.3	1.7	-1.9	.2	2.6	2.2	2.8
Durables	5.9	2.8	7.0	4.6	-13.0	3.0	10.9	4.7	8.3
Nondurables	2.7	3.1	2.9	.8	-3.1	.6	3.5	.7	1.2
Services	3.0	2.7	2.6	1.4	-.5	-.9	1.6	1.1	2.1
Residential investment	6.6	5.3	-15.7	-20.7	-24.4	-12.9	-6.3	1.1	6.1
<i>Previous Tealbook</i>	6.6	5.3	-15.7	-20.7	-24.6	-13.4	-4.6	.7	6.0
Business fixed invest.	7.0	4.5	7.8	7.9	-9.4	-14.4	11.1	4.7	3.7
<i>Previous Tealbook</i>	7.0	4.4	7.8	8.2	-8.3	-12.7	10.6	6.6	5.7
Equipment & software	8.8	6.2	6.0	3.9	-13.6	-5.8	16.6	6.7	5.6
<i>Previous Tealbook</i>	8.8	6.1	6.0	4.3	-11.8	-4.9	16.9	10.0	8.0
Nonres. structures	1.7	-1	13.0	17.3	-1.2	-29.3	-1.8	-.9	-1.3
<i>Previous Tealbook</i>	1.7	-1	13.0	17.3	-1.5	-26.5	-4.0	-2.6	-.8
Net exports ¹	-688	-723	-729	-649	-495	-359	-422	-400	-300
<i>Previous Tealbook</i> ¹	-688	-723	-729	-655	-504	-363	-422	-367	-279
Exports	7.2	6.7	10.2	10.1	-2.5	-.1	8.8	8.4	9.0
Imports	11.0	5.2	4.1	.8	-5.9	-6.5	10.7	4.6	3.3
Gov't. cons. & invest.	.6	.7	1.5	1.9	2.7	1.1	.1	-1.8	-.5
<i>Previous Tealbook</i>	.6	.7	1.5	1.9	3.1	.8	1.1	-1.4	-.2
Federal	2.3	1.2	2.2	3.1	8.8	4.6	2.9	-1.1	-.9
Defense	2.4	.4	4.4	2.6	9.8	3.5	1.5	-.2	-.1
Nondefense	2.3	2.6	-2.3	4.2	6.8	6.9	5.7	-2.9	-2.4
State & local	-.4	.4	1.2	1.2	-.9	-1.1	-1.7	-2.2	-.2
Change in bus. inventories ¹	66	50	59	28	-36	-145	59	70	80
<i>Previous Tealbook</i> ¹	66	50	59	28	-38	-113	63	57	72
Nonfarm ¹	58	50	63	29	-38	-144	61	77	79
Farm ¹	8	0	-4	-1	1	-1	-1	-5	1

1. Billions of chained (2005) dollars.

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

Item	2010				2011				2012				2010'	2011'	2012'
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
	Real GDP	3.9	3.8	2.5	2.3	.4	1.4	2.9	2.4	2.4	2.9	3.2			
<i>Previous Tealbook</i>	3.7	1.7	2.6	3.1	2.1	1.9	3.9	2.9	3.1	3.3	3.7	3.9	2.8	2.7	3.5
Final sales	.8	3.0	1.7	4.2	.0	1.3	1.5	3.0	2.6	2.8	3.0	3.3	2.4	1.5	2.9
<i>Previous Tealbook</i>	1.1	.9	.9	6.5	.8	2.5	2.7	3.5	3.2	3.2	3.1	3.4	2.4	2.4	3.2
Priv. dom. final purch.	2.1	4.2	2.1	3.4	1.6	.9	1.6	1.8	1.7	2.1	2.6	2.8	3.0	1.5	2.3
<i>Previous Tealbook</i>	1.7	3.6	1.9	3.6	1.8	1.7	2.8	2.5	2.2	2.6	2.9	3.0	2.7	2.2	2.7
Personal cons. expend.	1.9	2.1	1.9	2.5	1.5	.1	1.2	1.4	1.4	1.7	2.0	2.1	2.1	1.0	1.8
<i>Previous Tealbook</i>	1.3	1.5	1.7	2.8	1.6	1.0	1.9	1.7	1.7	1.9	2.0	2.2	1.9	1.6	2.0
Durables	.7	.6	.6	1.2	.9	-.3	.4	.5	.4	.6	.7	.7	.8	.4	.6
Nondurables	.8	.3	.5	.7	.3	.0	.0	.2	.2	.2	.2	.3	.6	.1	.2
Services	.5	1.2	.8	.6	.4	.4	.7	.7	.8	.9	1.0	1.2	.8	.5	1.0
Residential investment	-.4	.5	-.8	.1	-.1	.1	.1	.0	.1	.1	.2	.2	-.2	.0	.1
<i>Previous Tealbook</i>	-.3	.6	-.8	.1	-.1	.0	.0	.1	.1	.1	.2	.2	-.1	.0	.1
Business fixed invest.	.6	1.6	1.0	.8	.2	.8	.4	.4	.3	.3	.4	.5	1.0	.5	.4
<i>Previous Tealbook</i>	.7	1.5	.9	.7	.3	.7	.9	.7	.4	.6	.7	.7	1.0	.6	.6
Equipment & software	1.3	1.5	.9	.6	.6	.4	.5	.5	.3	.3	.5	.5	1.1	.5	.4
<i>Previous Tealbook</i>	1.2	1.5	1.0	.5	.7	.5	.9	.7	.4	.6	.7	.7	1.1	.7	.6
Nonres. structures	-.8	.2	.1	.3	-.4	.4	-.1	.0	-.1	.0	.0	.0	.0	.0	.0
<i>Previous Tealbook</i>	-.5	.0	-.1	.2	-.4	.2	.0	.0	.0	.0	.0	.0	-.1	-.1	.0
Net exports	-1.0	-1.9	-.7	1.4	-.3	.6	.0	1.2	1.1	.7	.5	.5	-.6	.4	.7
<i>Previous Tealbook</i>	-.3	-3.5	-1.7	3.3	.1	.9	-.4	1.1	1.0	.7	.3	.4	-.6	.4	.6
Exports	.9	1.2	1.2	1.0	1.0	.8	1.4	1.3	1.3	1.3	1.3	1.3	1.1	1.1	1.3
Imports	-1.8	-3.1	-1.9	.4	-1.4	-.2	-1.4	-.1	-.3	-.6	-.8	-.7	-1.6	-.8	-.6
Gov't. cons. & invest.	-.3	.8	.2	-.6	-1.2	-.2	-.1	.0	-.1	-.1	-.1	.0	.0	-.4	-.1
<i>Previous Tealbook</i>	-.3	.8	.8	-.3	-1.2	-.1	-.2	-.1	.0	.0	.0	.0	.2	-.3	.0
Federal	.2	.7	.3	-.3	-.8	.2	.2	.1	-.1	-.1	-.1	-.1	.2	-.1	-.1
Defense	.0	.3	.3	-.3	-.7	.4	.3	.0	.0	.0	.0	.0	.1	.0	.0
Nondefense	-.2	.4	-.1	.1	-.1	-.2	-.2	.1	-.1	-.1	-.1	-.1	-.2	-.1	-.1
State & local	-.5	.1	-.1	-.3	-.4	-.3	-.2	-.1	-.1	.0	.0	.0	-.2	-.3	.0
Change in bus. inventories	3.1	.8	.9	-1.8	.3	.1	1.4	-.6	-.2	.1	.2	.1	.7	.3	.0
<i>Previous Tealbook</i>	2.6	.8	1.6	-3.4	1.3	-.6	1.2	-.6	.0	.1	.6	.5	.4	.3	.3
Nonfarm	2.9	.9	1.1	-1.8	.4	.1	1.3	-.6	-.3	.1	.2	.1	.8	.3	.0
Farm	.2	-.1	-.2	.0	-.1	.0	.1	.0	-.1	.0	.0	.0	-.1	.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	2010				2011				2012				2010 ¹	2011 ¹	2012 ¹
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
	GDP chain-wt. price index <i>Previous Tealbook</i>	1.5 1.0	1.5 1.9	1.4 2.1	1.9 .4	2.5 2.0	2.3 3.8	2.1 1.6	1.2 1.3	.7 1.6	2.9 1.5	1.3 1.5			
PCE chain-wt. price index <i>Previous Tealbook</i>	1.9 2.1	.3 .0	1.0 .8	1.9 1.7	3.9 3.8	3.1 3.4	1.5 .8	1.1 1.4	1.6 1.4	1.5 1.5	1.4 1.5	1.4 1.5	1.3 1.1	2.4 2.3	1.5 1.5
Energy <i>Previous Tealbook</i>	13.7 16.4	-14.9 -17.5	5.6 5.4	24.7 24.3	40.7 40.6	14.9 17.1	-5.2 -13.1	-7.0 1.0	.8 1.0	1.9 1.3	1.8 1.0	1.3 .5	6.2 5.9	9.3 9.6	1.4 1.0
Food <i>Previous Tealbook</i>	1.8 1.8	1.5 1.6	.3 .3	1.4 1.4	6.5 6.3	6.4 6.7	2.6 3.0	2.0 2.0	1.4 1.4	1.3 1.3	1.4 1.4	1.4 1.4	1.3 1.3	4.3 4.5	1.4 1.4
Ex. food & energy <i>Previous Tealbook</i>	1.1 1.2	1.3 1.0	.8 .5	.7 .4	1.6 1.4	2.1 2.2	1.9 1.7	1.7 1.4	1.6 1.5	1.5 1.5	1.4 1.5	1.4 1.5	1.0 .8	1.8 1.7	1.5 1.5
Ex. food & energy, market based <i>Previous Tealbook</i>	.6 .7	.9 1.0	1.0 1.1	.3 .3	1.3 1.3	2.4 2.4	2.2 1.7	1.5 1.2	1.5 1.4	1.4 1.4	1.3 1.4	1.3 1.4	.7 .8	1.9 1.6	1.4 1.4
CPI <i>Previous Tealbook</i>	1.3 1.3	-.5 -.5	1.4 1.4	2.6 2.6	5.2 5.2	4.1 4.2	1.8 .6	1.0 1.5	1.6 1.5	1.6 1.5	1.6 1.5	1.5 1.5	1.2 1.2	3.0 2.8	1.6 1.5
Ex. food & energy <i>Previous Tealbook</i>	.0 .0	.8 .8	1.1 1.1	.6 .6	1.7 1.7	2.5 2.4	2.6 1.9	1.8 1.4	1.7 1.5	1.6 1.6	1.6 1.6	1.6 1.6	.6 .6	2.2 1.8	1.6 1.6
ECI, hourly compensation ² <i>Previous Tealbook</i> ²	2.6 2.6	1.8 1.8	1.8 1.8	2.2 2.2	2.1 2.1	3.2 2.2	2.2 2.3	2.2 2.3	2.4 2.5	2.4 2.5	2.5 2.6	2.5 2.6	2.1 2.1	2.5 2.2	2.5 2.6
Nonfarm business sector Output per hour <i>Previous Tealbook</i>	4.7 4.6	1.2 -1.7	2.1 2.3	2.2 2.9	-.5 2.2	-9 -8	2.3 2.4	.9 1.5	1.1 1.8	1.6 1.6	2.0 1.7	2.1 1.9	2.5 2.0	.5 1.3	1.7 1.7
Compensation per hour <i>Previous Tealbook</i>	1.6 -2	2.7 3.1	1.8 2.5	.7 .1	4.3 2.5	1.2 1.7	1.3 2.1	2.0 2.2	2.4 2.6	2.2 2.4	2.2 2.4	2.3 2.5	1.7 1.4	2.2 2.1	2.3 2.5
Unit labor costs <i>Previous Tealbook</i>	-3.0 -4.6	1.4 4.9	-3 .1	-1.5 -2.7	4.9 .3	2.1 2.5	-1.0 -.3	1.1 .6	1.2 .8	.6 .9	.3 .7	.2 .7	-.9 -.6	1.7 .8	.6 .7
Core goods imports chain-wt. price index ³ <i>Previous Tealbook</i> ³	3.9 4.2	3.1 3.1	-.6 -.8	4.3 4.3	8.3 8.1	6.3 7.2	3.1 3.5	2.0 1.5	1.4 1.4	1.5 1.5	1.6 1.5	1.5 1.5	2.6 2.7	4.9 5.0	1.5 1.4

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	2004	2005	2006	2007	2008	2009	2010	2011	2012
GDP chain-wt. price index <i>Previous Tealbook</i>	3.2 3.2	3.5 3.5	2.9 2.9	2.6 2.6	2.1 2.1	.7 .5	1.6 1.3	2.0 2.2	1.5 1.5
PCE chain-wt. price index <i>Previous Tealbook</i>	3.0 3.0	3.2 3.3	1.9 1.9	3.5 3.5	1.7 1.7	1.5 1.5	1.3 1.1	2.4 2.3	1.5 1.5
Energy <i>Previous Tealbook</i>	18.6 18.6	21.5 21.5	-3.7 -3.7	19.3 19.4	-8.8 -9.0	2.6 2.7	6.2 5.9	9.3 9.6	1.4 1.0
Food <i>Previous Tealbook</i>	2.7 2.7	1.5 1.5	1.7 1.7	4.7 4.8	7.0 6.9	-1.7 -1.6	1.3 1.3	4.3 4.5	1.4 1.4
Ex. food & energy <i>Previous Tealbook</i>	2.2 2.2	2.3 2.3	2.3 2.3	2.4 2.4	2.0 2.0	1.7 1.7	1.0 .8	1.8 1.7	1.5 1.5
Ex. food & energy, market based <i>Previous Tealbook</i>	1.9 1.9	2.0 2.1	2.2 2.2	2.1 2.2	2.2 2.2	1.7 1.7	.7 .8	1.9 1.6	1.4 1.4
CPI <i>Previous Tealbook</i>	3.4 3.4	3.7 3.7	2.0 2.0	4.0 4.0	1.6 1.6	1.5 1.5	1.2 1.2	3.0 2.8	1.6 1.5
Ex. food & energy <i>Previous Tealbook</i>	2.2 2.2	2.1 2.1	2.7 2.7	2.3 2.3	2.0 2.0	1.7 1.7	.6 .6	2.2 1.8	1.6 1.6
ECI, hourly compensation ¹ <i>Previous Tealbook</i> ¹	3.8 3.8	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 2.2	2.5 2.6
Nonfarm business sector Output per hour <i>Previous Tealbook</i>	1.3 1.5	1.6 1.4	.8 .9	2.5 2.6	-1.2 -.4	5.3 6.5	2.5 2.0	.5 1.3	1.7 1.7
Compensation per hour <i>Previous Tealbook</i>	3.3 3.3	3.5 3.5	4.5 4.5	3.6 3.6	2.2 2.3	2.0 2.8	1.7 1.4	2.2 2.1	2.3 2.5
Unit labor costs <i>Previous Tealbook</i>	2.0 1.9	1.9 2.0	3.6 3.5	1.1 .9	3.4 2.7	-3.1 -3.5	-9 -6	1.7 .8	.6 .7
Core goods imports chain-wt. price index ² <i>Previous Tealbook</i> ²	3.6 3.6	2.2 2.2	2.5 2.5	2.9 2.9	3.7 3.5	-1.7 -1.9	2.6 2.7	4.9 5.0	1.5 1.4

1. Private-industry workers.

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

Other Macroeconomic Indicators

Item	2010				2011				2012				2010 ¹	2011 ¹	2012 ¹
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
	<i>Employment and production</i>	-1	.6	-1	.2	.4	.4	.2	.4	.5	.5	.5			
Nonfarm payroll employment ²	9.7	9.6	9.6	9.6	8.9	9.1	9.2	9.2	9.1	8.9	8.7	8.5	9.6	9.2	8.5
Unemployment rate ³	9.7	9.6	9.6	9.6	8.9	9.0	9.0	8.9	8.8	8.6	8.4	8.1	9.6	8.9	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>	6.4	-5.9	-5.8	-5.6	-6.0	-6.2	-6.0	-5.9	-5.9	-5.7	-5.5	-5.2	-5.6	-5.9	-5.2
GDP gap ⁴	-6.0	-6.1	-5.9	-5.7	-5.7	-5.8	-5.4	-5.2	-5.1	-4.9	-4.6	-4.2	-5.7	-5.2	-4.2
<i>Previous Tealbook⁴</i>	8.1	7.1	6.7	3.1	4.8	.8	5.9	4.1	2.3	2.9	3.8	4.1	6.2	3.9	3.3
Industrial production ⁵	8.1	7.1	6.7	3.1	4.2	2.0	7.6	4.5	3.0	3.7	4.1	4.0	6.2	4.5	3.7
<i>Previous Tealbook⁵</i>	7.1	8.7	5.1	3.4	7.2	.2	4.9	4.7	2.7	3.4	4.2	4.8	6.1	4.2	3.8
Manufacturing industr. prod. ⁵	7.1	8.7	5.1	3.4	6.5	1.4	8.4	4.7	3.3	4.3	4.6	4.6	6.1	5.2	4.2
<i>Previous Tealbook⁵</i>	69.4	71.4	72.6	73.3	74.5	74.4	75.1	75.8	76.1	76.5	77.1	77.7	73.3	75.8	77.7
Capacity utilization rate - mfg. ³	69.4	71.4	72.6	73.3	74.4	74.5	75.8	76.5	76.8	77.4	77.9	78.5	73.3	76.5	78.5
<i>Previous Tealbook³</i>	.6	.6	.6	.5	.6	.6	.6	.6	.7	.7	.8	.8	.6	.6	.7
Housing starts ⁶	11.0	11.4	11.6	12.3	13.0	12.1	12.8	13.1	13.4	13.7	14.0	14.2	11.5	12.8	13.8
Light motor vehicle sales ⁶	5.5	5.4	3.9	4.2	3.1	3.9	5.1	3.6	3.2	5.9	4.6	4.6	4.7	3.9	4.5
<i>Income and saving</i>	4.9	5.6	2.3	1.5	.7	.7	1.8	3.1	-1	3.3	3.4	3.8	3.5	1.6	2.6
Nominal GDP ⁵	1.3	5.6	1.0	1.1	.8	1.7	3.0	2.6	.1	3.6	3.6	4.1	2.2	2.0	2.8
Real disposable pers. income ⁵	4.9	5.6	5.6	5.2	4.9	5.1	5.1	5.4	4.9	5.1	5.2	5.3	5.2	5.4	5.3
<i>Previous Tealbook⁵</i>	5.5	6.2	6.0	5.4	5.1	5.2	5.3	5.3	4.7	4.9	5.0	5.2	5.4	5.3	5.2
Personal saving rate ³	44.9	15.1	11.0	5.4	4.2	13.0	8.9	-3.0	-8.5	12.7	1.6	.3	18.2	5.6	1.3
<i>Previous Tealbook³</i>	11.9	12.2	12.4	12.4	12.4	12.7	12.8	12.6	12.2	12.4	12.3	12.2	12.4	12.6	12.2
Corporate profits ⁷	-1,272	-1,278	-1,258	-1,287	-1,206	-1,263	-1,229	-1,234	-1,068	-1,024	-1,006	-988	-1,274	-1,233	-1,022
Profit share of GNP ³	-32	-28	-5	-36	-57	-56	-71	-74	-68	-66	-57	-55	-25	-64	-61
Net federal savings ⁸	11.9	12.6	12.7	12.3	12.4	12.5	12.8	12.9	13.0	13.4	13.6	13.6	12.3	12.9	13.6
Net state & local saving ⁸	-1.1	-2	.0	-4	-.3	-.1	.4	.4	.4	1.0	1.2	1.2	-.4	.4	1.2
Gross national saving rate ³															
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	2004	2005	2006	2007	2008	2009	2010	2011	2012
<i>Employment and production</i>									
Nonfarm payroll employment ¹	2.0	2.4	2.1	1.2	-2.8	-5.6	.7	1.4	2.1
Unemployment rate ²	5.4	5.0	4.5	4.8	6.9	10.0	9.6	9.2	8.5
<i>Previous Tealbook</i> ²	5.4	5.0	4.5	4.8	6.9	10.0	9.6	8.9	8.1
NAIRU ²	5.0	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0
<i>Previous Tealbook</i> ²	5.0	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0
GDP gap ³	-5	.1	.1	-.1	-5.4	-6.9	-5.6	-5.9	-5.2
<i>Previous Tealbook</i> ³	-4	.1	.1	.1	-4.8	-6.4	-5.7	-5.2	-4.2
Industrial production ⁴	3.1	2.3	2.3	2.5	-9.1	-5.5	6.2	3.9	3.3
<i>Previous Tealbook</i> ⁴	3.1	2.3	2.3	2.5	-9.1	-5.5	6.2	4.5	3.7
Manufacturing industr. prod. ⁴	3.7	3.4	2.0	2.8	-11.8	-6.1	6.1	4.2	3.8
<i>Previous Tealbook</i> ⁴	3.7	3.4	2.0	2.8	-11.8	-6.1	6.1	5.2	4.2
Capacity utilization rate - mfg. ²	77.3	78.5	78.4	79.0	70.1	67.7	73.3	75.8	77.7
<i>Previous Tealbook</i> ²	77.3	78.5	78.4	79.0	70.1	67.7	73.3	76.5	78.5
Housing starts ⁵	2.0	2.1	1.8	1.4	.9	.6	.6	.6	.7
Light motor vehicle sales ⁵	16.8	16.9	16.5	16.1	13.1	10.3	11.5	12.8	13.8
<i>Income and saving</i>									
Nominal GDP ⁴	6.2	6.4	5.3	4.9	-1.2	.0	4.7	3.9	4.5
Real disposable pers. income ⁴	3.5	.6	4.6	1.6	1.0	-2.4	3.5	1.6	2.6
<i>Previous Tealbook</i> ⁴	3.5	.6	4.6	1.5	1.0	.4	2.2	2.0	2.8
Personal saving rate ²	3.8	1.6	2.8	2.5	6.2	4.3	5.2	5.4	5.3
<i>Previous Tealbook</i> ²	3.6	1.5	2.5	2.1	5.2	5.5	5.4	5.3	5.2
Corporate profits ⁶	21.9	19.6	3.7	-8.1	-33.5	61.8	18.2	5.6	1.3
Profit share of GNP ²	10.5	11.8	11.6	10.1	6.8	11.0	12.4	12.6	12.2
Net federal saving ⁷	-379	-283	-204	-245	-613	-1218	-1274	-1233	-1022
Net state & local saving ⁷	-8	26	51	12	-72	-78	-25	-64	-61
Gross national saving rate ²	14.5	15.6	16.5	13.9	12.6	11.3	12.3	12.9	13.6
Net national saving rate ²	2.9	3.6	4.4	1.7	-6	-1.9	-4	.4	1.2

1. Change, millions.

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

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

Values are for the fourth quarter of the year indicated.

4. Percent change.

5. Level, millions; values are annual averages.

6. Percent change, with inventory valuation and capital consumption adjustments.

7. Billions of dollars; values are annual averages.

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

Item	Fiscal year			2010				2011				2012				
	2009 ^a	2010 ^a	2011	2012	Q1 ^a	Q2 ^a	Q3 ^a	Q4 ^a	Q1 ^a	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Not seasonally adjusted															
Unified budget																
Receipts ¹	2105	2163	2323	2535	466	643	565	532	488	714	589	558	547	773	658	636
Outlays ¹	3518	3456	3629	3673	795	930	855	901	949	855	925	930	971	908	864	954
Surplus/deficit ¹	-1413	-1293	-1306	-1138	-329	-287	-290	-369	-460	-141	-336	-373	-425	-135	-206	-318
<i>Previous Tealbook</i>	-1413	-1293	-1333	-1128	-329	-287	-290	-369	-460	-168	-336	-362	-425	-143	-198	-322
On-budget	-1550	-1370	-1342	-1177	-359	-351	-267	-390	-451	-202	-299	-390	-414	-189	-185	-352
Off-budget	137	77	36	39	30	64	-23	21	-10	61	-37	17	-11	54	-21	34
Means of financing																
Borrowing	1743	1474	1129	1318	478	344	390	368	260	93	408	333	575	175	236	323
Cash decrease	96	-35	200	-140	-25	-71	-20	-33	225	-19	27	20	-130	-20	-10	15
Other ²	-427	-146	-23	-40	-124	14	-80	34	-24	67	-100	20	-20	-20	-20	-20
Cash operating balance, end of period	275	310	110	250	219	290	310	343	118	137	110	90	220	240	250	235
NIPA federal sector																
Receipts	2280	2379	2533	2780	2365	2408	2475	2471	2523	2563	2576	2602	2794	2842	2881	2918
Expenditures	3346	3648	3780	3863	3637	3686	3733	3758	3729	3826	3805	3836	3863	3867	3886	3906
Consumption expenditures	972	1042	1071	1101	1034	1056	1067	1060	1059	1078	1086	1095	1101	1103	1105	1107
Defense	656	697	716	745	691	702	713	703	701	723	735	738	744	747	750	753
Nondefense	316	346	355	356	343	354	354	357	358	354	351	357	357	356	355	354
Other spending	2374	2606	2709	2762	2603	2630	2666	2698	2670	2749	2719	2741	2762	2764	2781	2799
Current account surplus	-1066	-1269	-1246	-1083	-1272	-1278	-1258	-1287	-1206	-1263	-1229	-1234	-1068	-1024	-1006	-988
Gross investment	156	165	164	162	161	169	171	175	161	159	162	163	162	162	163	163
Gross saving less gross investment ³	-1098	-1305	-1275	-1102	-1305	-1317	-1298	-1330	-1232	-1286	-1253	-1256	-1088	-1042	-1022	-1003
Fiscal indicators⁴																
High-employment (HEB) surplus/deficit	-757	-937	-935	-755	-920	-966	-956	-994	-896	-939	-909	-906	-733	-695	-685	-681
Change in HEB, percent of potential GDP	1.7	1.1	-2	-1.3	.1	.2	-1	.2	-7	.2	-2	-1	-1.1	-3	-1	-1
Fiscal impetus (FI), percent of GDP	1.3	0.5	-0.1	-1.1	1.2	1.0	0.3	-0.4	-0.5	0.3	0.1	-0.2	-1.5	-1.0	-1.0	-0.8
<i>Previous Tealbook</i>	1.2	0.6	-0.0	-1.1	1.0	1.0	0.6	-0.2	-0.3	0.2	0.3	-0.3	-1.5	-1.0	-1.0	-0.8

1. Budget receipts, outlays, and surplus/deficit include corresponding social security (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	.2	-5	1.5	5.5	2.3	24.2	-1.2
2009	3.0	-1.7	-1.5	-4.4	-2.7	4.9	22.7	.0
2010	4.2	-1.9	-2.8	-1.8	.3	4.5	20.2	4.7
2011	3.8	-5	-2.0	4.0	3.2	-3	11.7	3.9
2012	5.4	1.5	-2	7.0	3.8	3.8	12.5	4.5
2013	4.8	2.1	.1	8.4	4.5	3.7	8.6	5.3
<i>Quarter</i>								
2010:1	3.7	-3.0	-5.2	-4.1	-4	5.7	20.5	5.5
2	4.4	-2.2	-2.2	-3.1	-1.3	-1.4	24.4	5.4
3	3.9	-2.0	-2.6	-1.9	1.1	5.4	16.0	3.9
4	4.6	-6	-1.1	2.0	1.9	7.9	14.6	4.2
2011:1	2.1	-2.0	-3.4	2.3	3.2	-2.9	7.8	3.1
2	3.3	-5	-2.0	4.0	3.6	-5.2	10.4	3.9
3	4.9	.0	-1.4	4.5	2.6	1.4	15.0	5.1
4	4.6	.3	-1.2	5.1	3.0	5.4	11.6	3.6
2012:1	6.9	.9	-6	5.8	3.2	3.8	19.0	3.2
2	5.3	1.3	-3	6.4	3.7	3.8	12.0	5.9
3	4.0	1.7	.0	7.3	3.8	3.7	6.9	4.6
4	5.1	2.0	.1	8.0	4.2	3.7	9.9	4.6
2013:1	5.3	2.0	.1	8.2	4.3	3.7	10.4	4.2
2	4.9	2.1	.1	8.2	4.3	3.6	9.0	6.6
3	3.8	2.1	.1	8.0	4.4	3.6	5.2	5.2
4	4.9	2.1	.1	8.0	4.4	3.6	8.8	5.1

Note: Quarterly data are at seasonally adjusted annual rates.

1. Data after 2011:Q1 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	2010				2011				Projected				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Real GDP ¹													
Total foreign	5.3	5.1	3.4	3.4	4.2	2.2	3.7	3.4	3.3	3.3	3.4	3.4	3.4
<i>Previous Tealbook</i>	5.3	5.1	3.5	3.4	4.2	2.8	3.9	3.6	3.5	3.5	3.6	3.6	3.6
Advanced foreign economies	4.2	2.3	2.3	1.4	2.4	.7	2.5	2.2	2.1	2.1	2.1	2.2	2.2
Canada	5.6	2.3	2.5	3.1	3.9	.7	2.9	2.3	2.2	2.3	2.3	2.3	2.3
Japan	9.4	-0	3.6	-2.9	-3.5	-3.0	4.6	4.6	3.3	2.6	2.3	2.1	2.1
United Kingdom	1.4	4.3	2.5	-2.0	1.9	.7	2.6	2.1	2.1	2.1	2.2	2.3	2.3
Euro area	1.4	3.8	1.6	1.1	3.4	1.5	1.1	1.1	1.2	1.4	1.6	1.8	1.8
Germany	2.1	8.7	3.2	1.5	6.1	1.9	1.5	1.5	1.8	2.0	2.2	2.5	2.5
Emerging market economies	6.5	7.6	4.7	5.5	6.2	3.9	5.0	4.7	4.7	4.7	4.8	4.8	4.8
Asia	10.5	7.1	6.5	5.8	8.6	4.7	5.8	5.4	5.7	5.8	5.8	5.9	5.9
Korea	8.6	5.7	2.6	2.0	5.4	3.4	3.7	3.7	3.7	3.9	4.0	4.0	4.0
China	9.3	8.9	10.1	10.0	8.7	9.1	8.1	8.3	8.3	8.4	8.3	8.3	8.3
Latin America	2.4	8.6	2.6	4.5	3.8	2.9	4.2	3.9	3.5	3.5	3.5	3.5	3.5
Mexico	1.3	8.4	2.8	4.6	2.1	2.4	4.3	4.0	3.6	3.6	3.6	3.6	3.6
Brazil	8.9	6.4	1.8	3.2	5.4	3.6	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Consumer prices ²													
Total foreign	3.3	1.9	2.5	5.3	4.3	3.2	2.5	2.2	2.4	2.3	2.4	2.4	2.4
<i>Previous Tealbook</i>	3.4	1.8	2.4	5.3	4.4	2.9	2.4	2.4	2.4	2.3	2.4	2.4	2.4
Advanced foreign economies	2.0	.5	1.1	3.5	3.3	2.2	.5	1.5	1.4	1.3	1.4	1.5	1.5
Canada	2.2	-1	2.4	4.4	3.6	3.0	.4	2.0	2.2	1.9	1.9	1.9	1.9
Japan	.7	-1.2	-1.3	2.3	.4	-3	-7	-5	-4	-4	-3	-3	-3
United Kingdom	4.7	2.5	1.9	4.6	7.4	3.6	1.7	3.9	2.8	1.7	1.9	3.1	3.1
Euro Area	1.9	1.7	1.2	3.3	3.7	2.8	.9	1.6	1.5	1.5	1.6	1.6	1.6
Germany	1.4	.8	.9	3.3	3.8	2.1	1.1	1.7	1.7	1.7	1.8	1.8	1.8
Emerging market economies	4.4	2.9	3.5	6.6	5.1	4.0	4.0	2.8	3.2	3.1	3.1	3.1	3.1
Asia	3.5	2.9	3.7	7.3	5.4	4.7	4.4	2.3	2.9	2.8	2.8	2.8	2.8
Korea	2.5	3.0	3.8	5.2	5.7	2.2	3.9	3.2	2.9	2.9	2.9	2.9	2.9
China	2.9	3.2	4.1	8.6	4.6	5.8	4.9	1.7	2.8	2.7	2.7	2.7	2.7
Latin America	6.9	3.0	2.9	5.0	4.3	2.5	3.3	3.9	3.9	3.9	3.9	3.9	3.9
Mexico	6.9	2.5	2.9	4.8	3.6	1.8	3.0	3.7	3.7	3.7	3.7	3.7	3.7
Brazil	7.4	5.9	1.1	7.4	9.5	7.5	4.5	5.3	5.3	5.1	4.9	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	2004	2005	2006	2007	2008	2009	2010	-----Projected-----	
								2011	2012
Real GDP ¹									
Total foreign	3.9	4.0	4.2	4.2	-8	.7	4.3	3.4	3.4
<i>Previous Tealbook</i>	3.9	4.0	4.2	4.2	-8	.7	4.3	3.6	3.6
Advanced foreign economies	2.6	2.8	2.6	2.4	-1.7	-1.6	2.7	1.9	2.1
Canada	3.7	3.1	1.9	2.5	-7	-1.4	3.3	2.4	2.3
Japan	1.0	2.9	2.1	1.8	-4.7	-1.8	2.4	.6	2.6
United Kingdom	2.4	2.4	2.7	2.4	-2.7	-2.8	1.5	1.8	2.2
Euro area	1.8	2.1	3.6	2.2	-2.1	-2.1	2.0	1.8	1.5
Germany	.2	1.7	4.5	1.8	-1.9	-2.0	3.8	2.7	2.1
Emerging market economies	5.6	5.8	6.3	6.7	.4	3.4	6.1	4.9	4.7
Asia	6.0	7.6	7.8	8.8	.9	7.9	7.5	6.1	5.8
Korea	2.7	5.2	4.6	5.8	-3.2	6.3	4.7	4.0	3.9
China	9.9	10.3	12.8	13.7	7.7	11.4	9.6	8.5	8.3
Latin America	5.2	3.9	4.8	4.4	-4	-9	4.5	3.7	3.5
Mexico	4.6	3.6	4.1	3.5	-1.2	-2.3	4.2	3.2	3.6
Brazil	6.1	2.2	4.8	6.6	.8	5.0	5.0	4.0	3.4
Consumer prices ²									
Total foreign	2.8	2.3	2.2	3.7	3.3	1.3	3.2	3.1	2.4
<i>Previous Tealbook</i>	2.8	2.3	2.2	3.7	3.3	1.3	3.2	3.0	2.4
Advanced foreign economies	1.8	1.6	1.4	2.2	2.0	.2	1.8	1.9	1.4
Canada	2.3	2.3	1.4	2.5	1.8	.8	2.2	2.2	2.0
Japan	.5	-1.0	.3	.5	1.0	-1.9	.1	-.3	-.3
United Kingdom	1.4	2.1	2.7	2.1	3.9	2.2	3.4	4.2	2.4
Euro Area	2.3	2.3	1.8	2.9	2.3	.4	2.0	2.3	1.5
Germany	2.1	2.2	1.3	3.1	1.7	.3	1.6	2.2	1.7
Emerging market economies	3.9	3.0	2.9	5.1	4.6	2.1	4.4	4.0	3.2
Asia	3.1	2.5	2.4	5.5	3.6	1.3	4.3	4.2	2.9
Korea	3.4	2.5	2.1	3.4	4.5	2.4	3.6	3.8	2.9
China	3.2	1.4	2.1	6.7	2.5	.6	4.7	4.2	2.7
Latin America	5.6	3.8	4.2	4.2	6.7	3.9	4.4	3.5	3.9
Mexico	5.3	3.1	4.1	3.8	6.2	4.0	4.3	3.0	3.7
Brazil	7.2	6.1	3.2	4.3	6.2	4.2	5.4	6.7	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

ABS	asset-backed securities
AFE	advanced foreign economy
BEA	Bureau of Economic Analysis, Department of Commerce
BOC	Bank of Canada
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
DPI	disposable personal income
ECB	European Central Bank
ECI	employment cost index
EDO Model	Estimated Dynamic Optimization-Based Model
EFSF	European Financial Stability Facility
EME	emerging market economy
E&S	equipment and software
FDIC	Federal Deposit Insurance Corporation
FOMC	Federal Open Market Committee; also, the Committee
GC	general collateral
GDI	gross domestic income
GDP	gross domestic product
IP	industrial production
IPO	initial public offering
IRS	Internal Revenue Service
ISM	Institute for Supply Management
JGB	Japanese Government Bond

Libor	London interbank offered rate
LLC	limited liability company
MBS	mortgage-backed securities
Michigan survey	Thomson Reuters/University of Michigan Surveys of Consumers
MFP	multifactor productivity
MMMF	money market mutual fund
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
RMBS	residential mortgage-backed securities
SFA	Supplementary Financing Account
SOMA	System Open Market Account
TALF	Term Asset-Backed Securities Loan Facility
TIPS	Treasury inflation-protected securities
WTI	West Texas Intermediate