Prefatory Note

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

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

Report to the FOMC on Economic Conditions and Monetary Policy



Book A

Economic and Financial Conditions: Current Situation and Outlook

December 8, 2010

Prepared for the Federal Open Market Committee by the staff of the Board of Governors of the Federal Reserve System (This page is intentionally blank.)

Domestic Economic Developments and Outlook

On balance, the data on real activity and spending that we have received since the October Tealbook have come in a little better than expected, supporting our view that a modest economic recovery is continuing. Despite a disappointing employment report for November, the full range of labor market data received since the October projection suggests that labor demand is improving at a slightly faster rate than we were anticipating in our previous forecast. Moreover, the latest indicators of factory output and business spending point to a stronger pace of production and investment over the second half of this year than we were previously projecting. Real consumer spending has also surprised us to the upside and appears to be on a somewhat firmer footing given recent upward revisions to the level of personal income. In contrast, incoming news on the housing market has once again come in below our expectations. On net, we expect that real GDP will rise at an annual rate of about 2½ percent in the second half of this year, ½ percentage point faster than our October Tealbook forecast.

In this forecast, we have revised our assumptions for fiscal policy to reflect the recent budget negotiations; this revision adds roughly ½ percentage point to real GDP growth in 2011 and deducts a somewhat smaller amount in 2012. In addition, the path of equity prices is somewhat higher in this forecast. However, relative to the October projection, the other conditioning assumptions are somewhat less favorable, with a slightly higher foreign exchange value of the dollar through next year, higher long-term interest rates, and an appreciably lower assumed path for house prices. The revision to house prices is part of a broader rethinking on our part of the outlook for the housing market, which, in light of the persistently weak readings for this sector since midyear, we now see as improving much less rapidly than we had previously projected. Putting all of this together and factoring in the effect of the stronger incoming data, we now expect real GDP growth of 3³/₄ percent in 2011 and 4¹/₂ percent in 2012, with the level of real GDP at the end of 2012 about unchanged from our October forecast. With this trajectory for real GDP, the unemployment rate declines to just under 9 percent by the end of next year and to 8 percent by the end of 2012.

Our projection for inflation is slightly below that in the previous Tealbook. Recent data on core consumer prices have come in somewhat lower than expected; while we think that these lower readings mostly reflect transitory factors, we also see them as suggesting a slightly lower pace of underlying inflation. We project that core PCE prices will rise 0.9 percent in both 2011 and 2012, 0.1 percentage point lower in each year than in our October forecast. We expect headline price inflation to edge down from 1.2 percent in 2010 to 1.1 percent in 2011 and to 0.9 percent in 2012, as energy prices decelerate.

KEY BACKGROUND FACTORS

Monetary Policy

We assume that the FOMC will hold the target federal funds rate in the current range of 0 to ¹/₄ percent until the first quarter of 2013, one quarter longer than was assumed in the October Tealbook. Regarding nonconventional policy, we continue to assume that the Federal Reserve will expand its holdings of Treasury securities by purchasing an average of \$75 billion per month through the second quarter of 2011, bringing the securities holdings in the SOMA portfolio to \$2.6 trillion. In addition, we assume that the Federal Reserve will reinvest principal payments from its securities holdings through early 2013.

Financial Conditions

Since the October Tealbook, the 10-year Treasury yield has increased about 50 basis points. That rise likely reflected a downward revision by market participants of the expected size of the Federal Reserve's asset purchases, incoming economic data that were viewed as favorable on balance, and recent fiscal policy developments. At the time of the October Tealbook, we believed that investors had priced into Treasury yields a larger expansion of the balance sheet than the FOMC would adopt; we therefore thought that the scaling back of expectations for the program's size would put additional upward pressure on yields in coming months. However, it now appears that this process played out much more rapidly than we were anticipating. As a result, we have marked up the path of the 10-year Treasury yield, but by more in the near term than in the medium term. As has been true for some time, we expect that yields will rise further over the next two years, mainly reflecting the movement of the 10-year valuation window through the projected period of near-zero short-term interest rates.

Since late October, yields on investment-grade corporate bonds and interest rates on conforming fixed-rate mortgages have increased about in line with Treasury yields, leaving their implied risk spreads little changed. We therefore left our forecasts for those Federal Funds Rate

Key Background Factors underlying the Baseline Staff Projection



Equity Prices



Crude Oil Prices



Long-Term Interest Rates











Class II FOMC - Restricted (FR)

interest rate spreads unrevised, and the projected paths for highly rated corporate bonds and conforming mortgages have been revised up in accord with the revision to the 10-year Treasury yield.

The Dow Jones U.S. Stock Market Index is about 3 percent above the level anticipated in the October Tealbook, and favorable news about the economy appears to have pushed the implied equity risk premium down a touch. Nevertheless, the equity premium remains well above longer-run norms. We expect stock prices to increase at an annual rate of about 11 percent over the next two years as the recovery proceeds and financial market participants gradually become less concerned about risk, thereby causing the implied equity premium to fall back toward a more typical level.

Readings on home prices have been weaker than we expected in the October Tealbook, and as part of our more downbeat assessment of the state of the housing market, we have marked down the projected path of home prices over the medium term. In particular, we now expect these prices to decrease 5³/₄ percent this year and 2³/₄ percent in 2011, then to level off in 2012. As a result, the projected level of home prices at the end of 2012 is nearly 8 percent below the level in the October Tealbook forecast.

Fiscal Policy

Our assumptions about federal fiscal policy have changed from the October Tealbook to reflect the major components of the compromise agreement between the President and congressional Republicans. In particular, our forecast now includes a temporary reduction in employee payroll taxes equal to 2 percent of taxable wages in 2011 and a provision that allows businesses to fully expense their qualified investment spending next year. Regarding other elements of the agreement, we had already been assuming that all of the provisions of the 2001–03 tax cuts—including those for highincome individuals—would be extended through 2012, and that the Emergency Unemployment Compensation (EUC) program would be extended through 2011. We also now assume a pay freeze for civilian federal employees in 2011 and 2012. All told, we now project that total discretionary federal fiscal policy actions will have roughly a neutral effect on aggregate demand in 2011 but will impose a drag of about 1 percent on real GDP in 2012 as the effects of stimulus policies wane.

Our new policy assumptions imply a forecast for the unified budget deficit that is a little larger than the October projection. The budget deficit for fiscal year 2010 was \$1.3 trillion (around 9 percent of GDP), and we expect it to tick up to \$1.4 trillion in fiscal 2011. The budget deficit is anticipated to narrow to \$1.1 trillion in fiscal 2012 (around 7 percent of GDP), primarily reflecting the further winding down of stimulus-related policies and the higher revenues associated with a faster pace of economic activity.

Foreign Activity and the Dollar

Following a significant slowing in the third quarter, we expect foreign real GDP growth to increase to an annual rate of about 2³/₄ percent in the current quarter. Over the next two years, we project foreign output to accelerate a bit further, with real GDP expanding 3¹/₂ percent in 2012. This outlook is little changed from our October projection. In reaction to the renewed financial stresses in Europe, we have marked down our forecast for economic activity in the peripheral euro-area countries. This downward revision, however, has been largely offset by a more buoyant outlook for Germany, where strong incoming data and the stimulative effects of euro depreciation point to continued resilience.

Since the October Tealbook, the dollar has appreciated about ³/₄ percent on a real, trade-weighted basis against a broad set of currencies. In 2011 and 2012, we expect the real dollar to depreciate about 3 percent per year on average, a slightly faster pace than we assumed in the previous Tealbook. This higher rate of depreciation reflects two adjustments to our outlook. First, the anticipated market disappointment we had built into the October forecast regarding the scale of the FOMC's asset purchases appears to have already occurred; this development removes a factor that slowed the projected pace of dollar depreciation in the previous projection. Second, we now assume that with the exception of China, governments in emerging Asia will allow their currencies to appreciate at slightly faster rates going forward. Relative to the October Tealbook, the incoming data and these adjustments leave the path of the broad real dollar a little higher through the end of 2011; thereafter, the faster rate of depreciation pushes the dollar's exchange value slightly below our previous assumption.

Oil and Other Commodity Prices

Oil prices climbed sharply following the November FOMC announcement, but then fell back on concerns over financial stress in Europe and tighter monetary policy in China. More recently, incoming data pointing to stronger-than-expected global manufacturing activity have pushed near-term prices higher. On net, the spot price of West Texas Intermediate (WTI) oil has moved up about \$6.50 per barrel since the October Tealbook, closing most recently on December 7 at \$88.69 per barrel. With a much flatter futures curve, we now project the spot price of WTI to change little over the forecast period, ending 2012 at about \$90 per barrel—up \$1.50 from our previous forecast.

Since the October Tealbook, nonfuel commodity prices have moved up modestly, with metals prices, like oil prices, responding to prospects for global activity, and with prices for food and other agricultural commodities up on largely idiosyncratic supply developments. We project that nonfuel commodity prices will show an increase of 9½ percent (not at an annual rate) in the current quarter; most of this increase reflects price movements seen prior to the October Tealbook, and this rise is only about 2 percentage points above our October forecast. Consistent with quotes from futures markets, we project that nonfuel commodity prices will edge higher during the first half of 2011 before declining slightly in the second half and throughout 2012.

RECENT DEVELOPMENTS AND THE NEAR-TERM OUTLOOK

On balance, the data on real activity and spending that we have received since the October Tealbook have come in somewhat stronger than expected. We now project that real GDP will increase at an annual rate of 2½ percent in the second half of this year, ½ percentage point above our October forecast. In addition, the forecast now shows real GDP rising at a 3½ percent pace in the first quarter of 2011, ¾ percentage point above the October projection.

Labor Markets

Since the October Tealbook, we received both a stronger-than-expected labor market report for October and a weaker-than-expected report for November. On net, private nonfarm employers added an average of 105,000 jobs per month in October and November; together with upward revisions to earlier months, these job gains left the November level of private payroll employment more than 130,000 above our forecast in the October Tealbook. Reflecting the ongoing tepid pace of hiring, the unemployment rate rose to 9.8 percent in November after having held steady at 9.6 percent over the preceding three months.

Other indicators of labor market activity point to a further gradual pickup in employment growth in coming months. Layoff indicators, such as initial claims for

	2010:Q3 2010:Q4		10:Q4	2011:Q1		
Measure	Previous	Current	Previous	Current	Previous	Current
	Tealbook	Tealbook	Tealbook	Tealbook	Tealbook	Tealbook
Real GDP	1.7	2.7	2.4	2.5	2.7	3.4
Private domestic final purchases	1.9	2.6	2.1	2.7	3.0	3.5
Personal consumption expenditures	2.6	2.8	2.2	2.7	2.4	3.2
Residential investment	-29.9	-27.8	-4.7	-3.8	13.5	2.9
Nonres. structures	-5.1	-4.9	-2.4	9	-2.8	-3.5
Equipment and software	9.7	16.1	5.6	5.8	8.3	9.4
Federal purchases	4.3	8.9	3.7	2.1	1.0	1.1
State and local purchases	6	.8	7	.1	.1	.1
	Contribution to change in real GDP (percentage points)					
Inventory investment	1.4	1.5	-1.3	-1.6	5	.1
Net exports	-1.5	-1.7	1.6	1.7	.6	.3

Summary of the Near-Term Outlook

(Percent change at annual rate except as noted)

Recent Nonfinancial Developments (1)



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



Manufacturing IP ex. Motor Vehicles and Parts



2008

2010

2004

2002



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



Note: Schedules data are from Ward's Communications. Source: Ward's Auto Infobank.

-20

-25

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unemployment insurance, have edged lower; likewise, measures of job openings and hiring have been trending up slowly. In addition, the average workweek, which often moves up ahead of a pickup in hiring, has continued to edge higher on net in recent months. As a result, we project that private job growth will be 125,000 in December and will average 180,000 per month in the first quarter, with an average first-quarter unemployment rate of 9.5 percent.

The Industrial Sector

Although industrial production (IP) was flat in October and has changed little, on net, since July, these readings were held down by weather-related declines in utilities output. By contrast, manufacturing output has increased somewhat more than we had expected, with production gains fairly widespread across industries. Nevertheless, manufacturing IP has still decelerated noticeably relative to the first half of the year, reflecting a diminished impetus to production from inventory rebuilding. Looking ahead, indicators of industrial activity are consistent with moderate gains in factory output in the near term, while assembly schedules point to additional increases in motor vehicle output following November's production cuts. In total, we now expect manufacturing output to rise at an annual rate of 3³/₄ percent in the current quarter, in contrast to the small decline we were projecting in the October Tealbook. We are also looking for a 5¹/₂ percent gain in the first quarter of 2011, led by a sharp increase in motor vehicle production.

Household Spending

Real consumer spending rose at an annual rate of 2³/₄ percent in the third quarter, and we expect a similar gain in the current quarter. Real spending in the control category, which includes food services and most non-auto goods, rose ¹/₂ percent in October, and, smoothing through the month-to-month volatility, has shown solid gains throughout the year. In addition, outlays for motor vehicles and non-energy services—two categories that had been recovering more slowly than others—have picked up somewhat since midyear. As a result, real PCE is projected to accelerate over the second half of this year to an average rate that is nearly ¹/₂ percentage point stronger than our October Tealbook projection. The higher projected level of spending over the second half of this year has been accompanied by an upward revision to the reported level of personal income. In addition, the proposed payroll tax cut would raise disposable income starting in January and is estimated to add roughly ³/₄ percentage point to spending growth in the first quarter of 2011, bringing the projected increase in real consumer spending in that quarter to 3¹/₄ percent.

Recent Nonfinancial Developments (2)



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

Single-Family Housing Starts Thousands of units, annual rate Starts Adjusted permits

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



Source: U.S. Census Bureau.

Sales of Light Motor Vehicles Millions of units, annual rate Nov Source: Ward's Auto Infobank.

Single-Family Home Sales Thousands of units, annual rate New right s Existing (left scale)





Although a variety of transitory factors have made the recent data on home sales more difficult to interpret than usual, the underlying level of housing demand does not appear to be picking up, contrary to what we were anticipating in previous Tealbooks. Moreover, the latest data on housing construction indicate that building activity remains exceptionally weak. Although recent data on single-family starts have come in close to our expectations, permit issuance has remained below starts for several months, which we have interpreted as suggesting a noticeably slower rate of improvement in homebuilding going forward than we had been forecasting. In support of this view, industry sources indicate that they expect little acceleration in housing activity over the coming year. In all, we anticipate that real residential investment will decline at an annual rate of nearly 4 percent in the current quarter—not very different from our October projection—but we have reduced our forecast for residential investment growth in the first quarter of 2011 by 10 percentage points, to 3 percent at an annual rate.

Business Investment

Real spending on equipment and software (E&S) appears to have decelerated noticeably in the second half of this year from its rapid first-half pace. That said, the rise in E&S spending in the third quarter—at an annual rate of 16 percent—was larger than we had anticipated, reflecting sizable gains in outlays for transportation equipment and for high-tech goods. Outside of transportation and high-tech, third-quarter outlays for other equipment increased a little less than we were expecting, and recent declines in orders and shipments of nondefense capital goods point to a further moderation in this category of equipment investment in coming months. As a result, we expect real E&S spending to post annualized increases of 5¾ percent in the fourth quarter of 2010 and 9½ percent in the first quarter of 2011, close to our forecast in the October Tealbook.

Business outlays on nonresidential structures have continued to move lower, as additional declines in building construction have more than offset increases in spending on drilling and mining structures. While the downtrend in construction outlays on buildings appears to have slowed somewhat, an overhang of unoccupied space and tight lending conditions continue to weigh on this sector, and we expect outlays on building construction to decline further in coming months. By contrast, elevated energy prices should sustain solid increases in drilling and mining expenditures through the near term.

Although real inventory investment rose sharply in the third quarter, at this point the available indicators do not suggest that the current level of stocks is excessive in the

Domestic Econ Devel & Outlook





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.

Trade Balance



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









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.



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

PCE Prices ex. Food and Energy



Exports and Non-Oil Imports

aggregate: Although inventory-sales ratios have edged up, survey data imply that few businesses perceive inventory stocks as being too high. The staff's flow-of-goods system also suggests that inventory positions for most sectors are in a comfortable range, although there are signs of imbalances in a few categories such as construction materials, chemicals, and primary metals.

In the motor vehicle sector, dealer stocks of light vehicles have receded since the end of the third quarter and are expected to decline further through the end of the year before turning up in the first quarter of 2011. Outside of motor vehicles, we expect the pace of stockbuilding to ease a bit in the fourth and first quarters as firms increase their inventories in line with sales growth. On net, after contributing 1½ percentage points to real GDP growth in the third quarter, total inventory investment is projected to subtract about 1½ percentage points from the rate of change of real GDP this quarter and to have essentially no effect on real growth in the first quarter of 2011.

Government

Real federal purchases increased at an annual rate of 9 percent in the third quarter, with both defense and nondefense spending rising briskly. We project that growth in federal purchases will slow to 2 percent in the fourth quarter and to 1 percent in the first quarter of 2011, reflecting a deceleration in both defense and nondefense expenditures.

Real state and local purchases edged up at an annual rate of ³/₄ percent in the third quarter, as reductions in employment, which were especially large in local education, were offset by a sharp rise in construction spending. We expect total state and local spending to be little changed, on net, through the first quarter of next year.

Foreign Trade

After rising at a robust annual rate of 16½ percent in the third quarter, we project that real imports will register a decline of 4 percent in the current quarter and an increase of 4¾ percent in the first quarter of next year. This swing in the quarterly pattern of imports partly reflects problems with the BEA's seasonal adjustment of oil prices, which is projected to depress imports in the fourth quarter after boosting them in the third quarter. We also expect a sharp deceleration in nonoil imports this quarter, as we believe that the vigorous rebound from the steep declines of the crisis has largely run its course. (See the box "What Explains the Recent Strength of Imports?" for additional detail.) Compared with the October Tealbook, our outlook for import growth is about

1 percentage point lower in the current quarter and 1³/₄ percentage points higher in the first quarter of next year, which partly reflects our reaction to incoming data from the Department of Energy on oil imports. Meanwhile, exports of goods and services are expected to accelerate from a third-quarter pace of 6¹/₄ percent to 8¹/₄ percent in both the current quarter and the first quarter of next year, as foreign economic growth strengthens. Our projection for export growth is a bit lower than in the October Tealbook, in part because of the higher assumed exchange value of the dollar.

In all, we expect net exports to contribute 1³/₄ percentage points to real GDP growth in the current quarter—thus reversing the negative contribution made in the third quarter—as exports accelerate and imports decline. In the first quarter of next year, the resumption of import growth should reduce the contribution of net exports to GDP growth to ¹/₄ percentage point. Relative to the previous Tealbook, net exports make roughly the same contribution to GDP growth in the current quarter; in the first quarter of 2011, the contribution is about ¹/₄ percentage point.

Prices and Wages

Recent data on core inflation have come in lower than we were expecting in the October Tealbook. Core PCE price inflation was 0.8 percent at an annual rate in the third quarter, 0.2 percentage point below our October projection. In addition, core PCE prices were unchanged in October, which reduced our forecast for core PCE inflation in the fourth quarter to 0.6 percent, down $\frac{1}{2}$ percentage point from our previous projection. A large portion of these low recent readings appears to reflect transitory factors. In the third quarter, the revision to inflation is mainly attributable to an unexpected decline in the volatile nonmarket component of PCE prices that we do not expect to persist. In the fourth quarter, the inflation surprise is largely attributable to a drop in prices for medical services and to weaker goods prices. However, the downward surprise in medical price inflation reflects an outsized annual adjustment to Medicare hospital reimbursement rates, and we still anticipate that higher import prices will put some upward pressure on goods prices. Nonetheless, we have taken a small signal from the recent soft inflation data. All told, we expect core PCE inflation to move back to an annual rate of 1 percent in the first quarter of 2011; this pace is a touch lower than the one seen over the first half of 2010, and is slightly lower than in our October forecast.

We project that total PCE price inflation will move up from an annual rate of 1 percent in the third quarter to 1³/₄ percent in the current quarter, mainly reflecting an

What Explains the Recent Strength of Imports?

Real imports surged at an annual rate of 25 percent on average in the second and third quarters of this year, while U.S. real GDP expanded at only a 2¼ percent pace.¹ Part of the strength of imports can be explained by the composition of the increase in domestic demand, with relatively robust gains in demand for goods, the most import intensive component of spending. In particular, as shown in the lower-left figure, private domestic demand for goods, defined as the sum of personal consumption expenditures on goods, investment in equipment and software, and the change in private inventories, increased at an annual rate of 11 percent on average in the second and third quarters of this year, exceeding the overall rise in real GDP by almost 9 percentage points.

However, even relative to the expansion in private domestic demand for goods, the surge in imports appears outsized. As shown by the red line in the lower-right figure, import penetration—the ratio of imports to domestic demand—increased sharply in the manufacturing sector in recent quarters. This rise appears primarily to be a rebound from the steep decline experienced during the recession. Indeed, by this metric, imports now appear to have recovered to their pre-crisis trend, an upward trajectory driven primarily by increased globalization.





¹ Real imports were pushed up in Q2 and Q3 by a quirk in the methodology used by the Bureau of Economic Analysis for the seasonal adjustment of prices for imported petroleum. However, even absent this artificial boost, imports were exceptionally strong.

Moreover, the sizable rise in imports has not prevented domestic production from increasing as well. Looking across 21 disaggregated manufacturing sectors, the figure below reveals that sectors with larger increases in import penetration have also generally recorded larger increases in industrial production since the business cycle trough. This correlation suggests that the increase in imports likely reflects the ongoing recovery of demand, as demand for domestic production has increased as well.

Taken together, the evidence suggests that the recent surge in imports has largely reflected a rebound from depressed levels during the crisis. Historically, imports have exhibited greater cyclical volatility than GDP, in part because of the greater volatility of demand for goods, which are more likely to be imported. Just as this factor contributed to the plunge in imports during the recession, it has contributed to the recent surge. In our forecast, we project that the rebound in imports has largely run its course, as the growth in demand for goods slows and also because we do not expect import penetration to continue to rise at the pace of recent quarters. Accordingly, we are projecting a significant step-down in import growth, to a rate more in line with the projected pace of expansion in U.S. economic activity.





** From 2009:Q2 to 2010:Q3. Source: U.S. Department of Commerce and Federal Reserve Board.

acceleration in energy prices. Energy inflation is expected to move lower in the first quarter of 2011; its effects are partly offset by the projected acceleration in core prices, and so headline inflation edges lower to 1¹/₂ percent.

Measures of long-term inflation expectations have not changed significantly since the October Tealbook. Median 5-to-10-year-ahead inflation expectations from the November Reuters/University of Michigan Surveys of Consumers remained at 2.8 percent, in the middle of the narrow range seen over the past few years. Median expected long-run PCE inflation from the Survey of Professional Forecasters edged down to 2 percent in the fourth quarter, in part because of a change in the group of forecasters in the survey panel. Finally, the TIPS-based five-year forward rate of inflation compensation has edged up since the end of October.

Changes in labor compensation have remained subdued overall, though there have been some upward revisions from the last Tealbook. The source data for the BEA's wage and salary estimates imply an upward revision to second-quarter labor compensation; accordingly, the Bureau of Labor Statistics now estimates that compensation per hour increased nearly 3 percent at an annual rate in the second quarter. In addition, the level of average hourly earnings thus far in the fourth quarter has been a little higher than we were expecting, and we now anticipate that hourly compensation will rise at an annual rate of 2¹/₄ percent in the second half of the year, which is ¹/₄ percentage point faster than our October Tealbook projection. As in our October forecast, we expect that the annualized rate of increase of hourly compensation will be temporarily boosted to 2¹/₂ percent in the first quarter of 2011 by an increase in employer contributions to state unemployment insurance funds. With these compensation gains, unit labor costs rise ¹/₂ percent at an annual rate in the second half of this year, with a similar increase expected in the first quarter of 2011.

THE MEDIUM-TERM OUTLOOK

We have edged up our projection for real GDP growth by 0.1 percentage point in 2011, to 3³/₄ percent, and lowered real growth in 2012 by ¹/₄ percentage point, to 4¹/₂ percent. These revisions reflect the interplay of several factors.

First, the assumed changes to the payroll tax and business expensing allowances temporarily boost real consumption and business equipment spending. In total, these tax

Projections of Real GDP and Related Components (Percent change at annual rate from end of

preceding period except as noted)

		20)10		
Measure	2009	H1	H2	2011	2012
Real GDP Previous Tealbook	.2 .2	2.7 2.7	2.6 2.0	3.7 3.6	4.4 4.7
Final sales	3	1.0	2.7	3.9	4.1
Previous Tealbook	3	1.0	2.0	3.8	4.6
Personal consumption expenditures	.2	2.0	2.8	3.5	$\begin{array}{c} 4.0\\ 4.4 \end{array}$
Previous Tealbook	.2	2.0	2.4	3.1	
Residential investment	-13.4	5.0	-16.7	10.0	13.6
Previous Tealbook	-13.4	5.0	-18.2	21.5	17.0
Nonresidential structures	-26.5	-9.5	-3.0	-1.4	8
Previous Tealbook	-26.5	-9.5	-3.8	-3.0	.0
Equipment and software	-4.9	22.6	10.9	12.0	9.7
Previous Tealbook	-4.9	22.6	7.6	10.1	11.6
Federal purchases	3.6	5.4	5.4	1.0	.2
Previous Tealbook	3.6	5.4	4.0	1.0	.2
State and local purchases	-1.0	-1.6	.4	.4	1.3
Previous Tealbook	-1.0	-1.6	6	.4	1.3
Exports	1	10.2	7.2	8.3	8.1
Previous Tealbook	1	10.2	7.5	8.6	8.3
Imports	-7.2	21.8	5.7	5.3	6.2
Previous Tealbook	-7.2	21.8	5.5	4.7	6.7
	Contributions to change in real GDP (percentage points)				
Inventory change	.5	1.7	1	1	.4
Previous Tealbook	.5	1.7	.1	1	.2
Net exports	1.2	-1.9	.0	.2	.0
Previous Tealbook	1.2	-1.9	.0	.3	.0

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.

changes are projected to add ¹/₂ percentage point to real GDP growth in 2011 and to deduct a somewhat smaller amount from 2012.

Second, we have become more pessimistic about the prospects for the housing market. Since last summer the incoming data on housing activity have repeatedly surprised us to the downside, and we now think that the substantial excess supply of vacant homes will likely be a larger and more persistent drag on construction and house prices than we had previously thought. In addition, impediments to the availability of mortgage credit and uncertainty about the future path of house prices appear to be depressing demand to a greater extent than we had anticipated. Nevertheless, we still expect residential construction activity to pick up over the projection period as these factors weighing on demand diminish and improvements in real income and employment act to lift housing demand. Hence, our forecast now calls for single-family starts to rise from 430,000 units in the fourth quarter of 2010 to 520,000 units in the fourth quarter of 2011 (roughly 200,000 units below the pace projected in the October Tealbook), with a further increase to 660,000 units by the end of 2012 (almost 350,000 units below the October Tealbook pace).

We have also assumed a modestly stronger exchange value of the dollar for the next several quarters, which implies a slightly smaller impetus from the foreign sector. Net exports contribute about ¹/₄ percentage point to real GDP growth in 2011 and almost nothing to growth in 2012. Strong foreign GDP growth, the lagged effect of previous declines in the dollar, and further anticipated dollar depreciation will help support export growth going forward, while import demand is projected to pick up as U.S. GDP accelerates.

Although these revisions result in a slightly flatter contour of real GDP growth over the medium term, the basic dynamics of the projected recovery in real activity remain essentially the same. Specifically, we continue to expect aggregate demand to improve for several reasons: The drag from earlier declines in wealth diminishes, financial conditions remain supportive and lending standards ease further, household and business confidence rises, and the labor market gradually recovers. Working against this improvement in demand is a large overhang of residential and commercial real estate, the waning of federal fiscal stimulus, budgetary pressures on state and local governments, and continued credit constraints due in part to the medium-term effects of financial regulatory reform. (See the box "The Macroeconomic Effect of Basel III Requirements.")

Domestic Econ Devel & Outlook

Components of Final Demand



Residential Investment



Equipment and Software



Government Consumption & Investment



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

Nonresidential Structures



Exports and Imports



The Macroeconomic Effect of Basel III Requirements

During the global financial crisis that began in mid-2007, many systemically important financial institutions came under significant market pressure because they were seen as having insufficient capital and access to liquidity to withstand the stresses that emerged. As a result, the international regulatory community began a reassessment of capital and liquidity standards, the details of which have taken shape in recent months. Banking institutions will be expected to hold substantially higher levels of capital, especially common equity capital, which is most capable of absorbing losses and limiting spillovers to other institutions. In addition, a requirement for coverage of potential short-term liquidity needs will become effective in 2015 following an observation period during which regulators can further assess the implications of the proposed standard.

Under the new capital framework, the amount of required capital relative to risk-weighted assets increases and the risk weights applied to assets are adjusted to better reflect underlying risk. In both cases, the changes are implemented gradually over the coming decade. For example, the required minimum level of common equity relative to risk-weighted assets is slated to rise from 2 percent currently to 3.5 percent in 2013 and 4.5 percent by 2015 (see table on facing page). Requirements for Tier 1 capital will also increase over time, from 4 percent currently to 6 percent by 2015. In addition, the new framework includes a capital conservation buffer on top of the required minimum level of common equity: Institutions whose level of common equity is above the required minimum but within this buffer range will face restrictions on, for example, dividend payments and compensation practices. This buffer rises slowly after 2015, pushing the combination of regulatory minimum and conservation buffer for common equity to 7 percent of assets by the beginning of 2019.

Several considerations suggest that the medium-term effects of the new capital framework on credit availability and real activity are likely to prove modest and are consistent with the staff's outlook. A factor mitigating the potential drag on activity is the improvement in banks' capital positions that has occurred since the onset of the crisis, as illustrated in the figure by the increase in the ratio of Tier 1 capital to risk-weighted assets for large banks (at the bank level). Despite this improvement, some banks may wish to increase their level of capital relative to assets further to maintain an adequate discretionary buffer above regulatory requirements, consistent with their past behavior. Moreover, there is substantial heterogeneity in bank positions and some large bank holding companies will likely need to accumulate additional capital to meet the new requirements. Nonetheless, many institutions will be able to meet such needs, for the most part, through retained earnings, and we do not anticipate significant downward pressure on bank lending.

This evaluation seems broadly consistent with views among financial market participants—such as reports from industry analysts suggesting that the requirements are less stringent than originally anticipated—and with findings in related research. For example, a coordinated international research effort suggested that an increase in required capital of 3 to 4 percent of risk-weighted assets implemented over a four-year period would likely lower the level of U.S. real GDP by roughly ¾ percent over the course of several years, implying modest year-to-year

effects.¹ That said, this research also pointed to downside risks to this assessment if banks were to feel competitive pressure to raise capital more quickly than required or if the overall macroeconomic environment weakened banks' ability to meet capital needs through retained earnings or resulted in further capital losses. In such adverse scenarios, the drag on real activity could prove several times as large as we currently anticipate.

The introduction of liquidity requirements, in the form of a liquidity coverage ratio (LCR), should help ensure that banks adequately manage their exposures to liquidity risk and also help the authorities to manage the orderly resolution of insolvent institutions. The LCR requires an institution to have enough unencumbered, high-quality liquid assets to cover, at a minimum, the institution's projected net cash outflows over a 30-day horizon under a stress scenario that combines a substantial idiosyncratic shock with a moderate systemic disturbance. Moreover, the stress scenario penalizes a variety of short-term commitments, such as lines of credit for financial institutions and back-up lines for commercial paper programs, which will make pricing of such programs significantly less attractive. Banks may also face higher funding costs as a result of the LCR, part of which they would pass on to loan customers. As a result, borrowing costs for the nonfinancial business sector are likely to increase somewhat, implying a small drag on real GDP.

Perhaps a more substantial concern about the LCR is its effect on financial stability. While the new liquidity requirements probably will discourage banks from providing credit lines without adequate resources to meet potential draws, the higher cost to banks of providing such services is likely to push some of these activities outside of the regulated financial sector, where they are more difficult to monitor and where liquidity crises may be more costly to address. Moreover, once banking institutions are subject to the LCR, in financial crises they would presumably demand an increased buffer of liquid assets above the level required to satisfy the regulatory requirement. Without an increase in liquidity provided by the central bank, the result would likely be significant pressures in funding markets despite the LCR.

New	' Capital Framework	
(Minimums, j	percent of risk-weighted asset	ts)

Model	2013	2015	2019
Common equity	3.5	4.5	4.5
Plus conservation buffer	3.5	4.5	7.0
Tier 1 capital	4.5	6.0	6.0

Source: Basel Committee on Banking Supervision.



¹ Financial Stability Board and the Basel Committee on Banking Supervision, Macroeconomic Assessment Group (2010), Assessing the Macroeconomic Impact of the Transition to Stronger Capital and Liquidity Requirements, interim report (Basel: Bank for International Settlements, August), available at www.bis.org/publ/othp10.htm. These estimates presume no offsetting monetary policy response in the medium term.

While we do not think that these negative factors will be sufficient to derail the recovery, they do combine to yield a cyclical rebound that is much more subdued than would ordinarily be expected given the depth of the preceding recession.

The projected acceleration in consumer spending reflects many of the forces that we anticipate will drive the broader economic recovery, including steadily improving credit conditions, a faster pace of job creation, an accompanying increase in confidence about employment and income prospects, and a diminished drag from earlier wealth declines. Next year, we expect real consumption to rise 3½ percent, ½ percentage point above our October Tealbook forecast. In 2012, consumption is projected to rise 4 percent; this rate of growth is ½ percentage point below the October Tealbook projection, reflecting the consequences of the lower assumed path of house prices for household wealth and the expiration of the 2011 payroll tax reduction. The saving rate is projected to rise from 5½ percent at the end of 2010 to 6¼ percent at the end of next year; thereafter, the saving rate drops back to 5½ percent in 2012.

Similarly, outlays on equipment and software are projected to post solid gains more than 10 percent per year on average over the next couple of years—as rising sales and improved business confidence induce firms to replace aging capital and expand their capacity. In addition, investment demand should continue to be boosted by an increasing willingness of firms to undertake investment projects that were postponed during the recession. Finally, we expect that the new expensing provisions will slightly raise the rate of growth of equipment investment in 2011 and reduce its growth rate in 2012.

High vacancy rates, low commercial property prices, and persistent tight borrowing conditions for commercial real estate are expected to significantly restrain nonresidential construction. We therefore expect investment in nonresidential structures to decline until the end of 2012, albeit at a slower pace than over the past year.

Finally, government purchases are projected to make only a small contribution to real GDP growth over the medium term. Reductions in spending related to overseas military operations and the phasing out of stimulus-related nondefense spending are expected to hold the increase in real federal expenditures to 1 percent next year and to ¹/₄ percent in 2012. Meanwhile, state and local governments will likely see only a modest easing in budgetary pressures as a cyclical increase in revenues is offset by an unwinding in federal stimulus grants. As a result, real spending by these jurisdictions is projected to rise just ¹/₂ percent in 2011 and 1¹/₄ percent in 2012.

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Personal Saving Rate

Aspects of the Medium-Term Projection



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

Single-Family Housing Starts



Source: U.S. Census Bureau.

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.

Wealth-to-Income Ratio



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

Share of nominal GDP 10.0 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0

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

2005

2010

Current Account Surplus/Deficit

2000

1995



1990

Equipment and Software Spending

AGGREGATE SUPPLY, THE LABOR MARKET, AND INFLATION

Potential GDP and the NAIRU

We have made no material change to our estimates of potential GDP in this projection and assume that potential output will rise 2.5 percent in 2011 and 2.6 percent in 2012. Similarly, our assumed NAIRU remains at 6 percent throughout 2012, the same as in the October projection.

Productivity and the Labor Market

Given the modest changes that we made to our forecast of real activity, the projected dynamics of the labor market recovery are very similar to the October Tealbook forecast. In particular, we believe that the gap between actual labor productivity and its structural level that opened up last year will continue to narrow over the medium term as firms add workers both to meet rising production needs and to relieve pressures on their existing workforces. Our forecast therefore calls for employment growth to pick up steadily over the projection period and for actual labor productivity to rise 1³/₄ percent next year and 2 percent in 2012, on average a little less than our estimate of its structural growth rate.

The level of private employment in this forecast is also little changed from the October Tealbook. We project that private employment gains will average about 230,000 per month in 2011 and 280,000 per month in 2012. With this pace of job growth, we expect the unemployment rate to decline from 9³/₄ percent in the current quarter to 8 percent by the end of 2012.

Resource Utilization

The amount of current and projected slack remains very large in this Tealbook forecast. By our estimate, the unemployment rate in the current quarter is about 3 percentage points above the effective NAIRU; at the end of the projection period, the unemployment gap is 2 percentage points.¹ This extended period of labor market slack is likely to be associated with other features of a weak labor market, including below-trend labor force participation, a high percentage of workers who are involuntarily on part-time

¹ The effective NAIRU includes the effect of extended and emergency unemployment benefits (EEB), and is the level of the unemployment rate that we view as being consistent with no slack in resource utilization. As the EEB programs are phased out, the effective NAIRU declines from its current level of 6³/₄ percent to around 6 percent by the end of 2012.

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	2.7	2.2	2.5	2.5	2.6
Previous Tealbook	3.0	3.5	2.7	2.2	2.5	2.5	2.6
Selected contributions ¹ Structural labor productivity Previous Tealbook	1.5 1.5	2.7 2.7	2.5 2.5	2.3 2.3	2.0 2.0	2.1 2.0	2.1 2.2
Capital deepening	.7	1.5	.7	.3	.4	.7	.9
Previous Tealbook	.7	1.5	.7	.3	.4	.6	.9
Multifactor productivity	.5	.9	1.6	1.9	1.5	1.3	1.2
Previous Tealbook	.5	.9	1.4	1.9	1.5	1.3	1.2
Trend hours	1.5	$\begin{array}{c} 1.1 \\ 1.1 \end{array}$.8	.0	.7	.7	.7
Previous Tealbook	1.7		.8	.0	.7	.7	.7
Labor force participation	.4	.0	2	2	2	2	2
Previous Tealbook	.5	.0	2	2	2	2	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.

Measure	2009	2010	2011	2012
Output per hour, nonfarm business	6.2	1.3	1.7	2.1
Previous Tealbook	6.2	1.5	1.5	2.0
Nonfarm private employment	-4.7	1.1	2.4	3.0
Previous Tealbook	-4.7	.9	2.3	3.1
Labor force participation rate ¹	64.9	64.5	64.6	64.6
Previous Tealbook	64.9	64.7	64.7	64.8
Civilian unemployment rate ¹	10.0	9.7	8.9	8.0
Previous Tealbook	10.0	9.7	9.0	7.9
Memo: GDP gap ² Previous Tealbook	-6.7 -6.7	-6.6 -6.8	-5.5 -5.8	-3.7 -3.8

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

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.





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

GDP Gap



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

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;

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



Manufacturing Capacity Utilization Rate

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

schedules, and an unusually large concentration of workers experiencing long-duration unemployment spells.

The projected GDP gap narrows from negative 6¹/₂ percent in the current quarter to negative 3³/₄ percent by the end of 2012. We continue to expect that the GDP gap will close more slowly than the rate at which unused plant capacity in the industrial sector is taken up, in part because manufacturing capacity expands slowly over the forecast period. Indeed, by the end of 2012, our projection calls for the factory operating rate to approach its long-run average despite the still-sizable output gap prevailing at that time.

Compensation and Prices

We expect that the wide margin of labor market slack, together with low rates of price inflation, will continue to restrain labor costs over the projection period. In our forecast, the Productivity and Cost measure of nonfarm hourly compensation rises about 2 percent per year in 2011 and 2012, while the employment cost index increases at a roughly similar rate. Combined with the moderate gains in productivity that we project, these increases in compensation imply nearly flat unit labor costs over the medium term.

Prices of imported core goods (all goods excluding computers, semiconductors, and fuels) are expected to rise at an average annual rate of about 5 percent in the current quarter and first quarter of next year, boosted by commodity price increases, previous declines in the exchange value of the dollar, and a near-term pickup in foreign inflation. Our forecast calls for core import price inflation to decline to about 1½ percent over the remainder of the medium term; this slowdown reflects an assumed deceleration in commodity prices, lower rates of foreign inflation, and only a modest depreciation of the dollar. Although higher core import prices are expected to make a small positive contribution to core PCE inflation in the near term, their influence diminishes to zero by the end of the forecast period.

As in previous Tealbooks, we anticipate that reduced labor cost pressures and low levels of resource utilization will put downward pressure on core PCE inflation over the projection period, but that further disinflation will be checked by continued stability in inflation expectations. We now project that core PCE inflation will be 0.9 percent in 2011 and 2012, which is 0.1 percentage point below the October Tealbook forecast in each year. As noted previously, this small downward revision reflects our view that the recent data on core prices suggest that the rate of underlying inflation is a touch lower

What Do Different Measures of Underlying Inflation Say about the Degree of Deceleration in Prices?

Transitory factors often obscure the underlying trend in overall price inflation. To mitigate this problem, economists use various techniques to screen out the noise in the data. Thus, the staff closely monitors a variety of measures, including versions of both CPI and PCE price inflation that exclude food and energy prices and trimmed-mean measures, which exclude a certain percentage of price changes from both ends of the distribution of price changes.¹

As shown in the top and middle figures on the facing page, all of these measures of underlying inflation have declined considerably since the onset of the recent recession: Excluding food and energy, the CPI and PCE price indexes (the black solid lines) increased at a rate of less than 1 percent over the 12 months ended in October, down from about 2½ percent over the 12 months prior to the recession. Similarly, market-based core PCE price inflation (the solid red line in the middle figure)—which also excludes the so-called "non-market" components of PCE prices that are generally not based on detailed consumer or producer price indexes—has declined steadily since late 2007 and is also now running about 1½ percentage points below its pre-recession rate. Even excluding the prices of housing services (rent of tenant- and owner-occupied housing), both CPI and market-based PCE prices excluding food and energy (the red dashed lines) have decelerated noticeably.

The decline in the trimmed-mean measures of inflation (the green lines) has been even more pronounced. The 12-month change in both the trimmed-mean CPI and the trimmed-mean PCE price index has fallen from a little less than 3 percent at the end of 2007 to about $\frac{3}{4}$ percent in October of this year.

Another way of illustrating the breadth of the deceleration in prices over the last three years is through a diffusion index; such indexes capture the prevalence of price increases rather than their average intensity. The diffusion index of PCE price changes (two versions of which are shown in the bottom figure) is the share of component price indexes that have increased minus the share that have decreased over the past 12 months. As can be seen, these indexes have stepped down noticeably since the end of 2007.

Thus, even though underlying inflation can be measured in many different ways, all these metrics show a decline in underlying inflation over the past few years.

¹ The trimmed-mean CPI, constructed by the Federal Reserve Bank of Cleveland, excludes 8 percent from the bottom of the distribution and 8 percent from the top of the distribution. The trimmed-mean PCE price index, constructed by the Federal Reserve Bank of Dallas, excludes the bottom 24 percent of the distribution and the top 31 percent of the distribution.



Note: CPI housing includes rent of tenant and owner-occupied housing. The trimmed-mean CPI is based on 45 components. Source: For trimmed-mean, Federal Reserve Bank of Cleveland; for all else, U.S. Dept. of Labor, Bureau of Labor Statistics.



Note: Market-based PCE housing includes rent of tenant, owner-occupied, and group housing. The trimmed-mean PCE price index is based on 178 components. Source: For trimmed-mean, Federal Reserve Bank of Dallas; for all else, U.S. Dept. of Commerce, Bureau of Economic Analysis.

PCE Prices Diffusion Index



Note: The diffusion index is the share of price indexes that have increased over the past 12 months minus the share that have decreased. PCE is based on 200 components and PCE excluding food and energy on 176 components. Source: FRB staff calculations.

Measure	2009	2010	2011	2012
PCE chain-weighted price index	1.5	1.2	1.1	.9
Previous Tealbook	1.5	1.3	1.1	1.1
Food and beverages Previous Tealbook	-1.6 -1.6	1.4 1.3	$\begin{array}{c} 1.1 \\ 1.0 \end{array}$	$\begin{array}{c} 1.1 \\ 1.1 \end{array}$
Energy	2.7	5.7	3.8	.0
Previous Tealbook	2.7	4.0	3.2	1.3
Excluding food and energy	1.7	.9	.9	.9
Previous Tealbook	1.7	1.1	1.0	1.0
Prices of core goods imports ¹	-1.9	3.0	2.5	1.4
Previous Tealbook	-1.9	3.5	2.1	1.3

Inflation Projections (Percent change, Q4 to Q4)

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.



Compensation per Hour





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



Long-Term Inflation Expectations

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

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than we previously thought. With energy prices expected to decelerate, headline PCE inflation is projected to converge to core inflation over the medium term.

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 November meeting.
- The Federal Reserve's holdings of securities follow the baseline portfolio projections reported in Book B. We assume that the projected decline in the System's holdings beginning in 2013 will contribute about 25 basis points to the rise in the 10-year Treasury yield over the 2013–15 period.
- Beyond 2012, risk premiums on corporate equities decline gradually to normal levels, and banks ease their lending standards somewhat further.
- The federal government budget deficit narrows to about 4½ percent of GDP by the end of 2015. This improvement reflects the effects of the economic recovery on tax receipts and transfer payments as well as further policy actions after 2012 aimed at reducing the deficit.
- The real foreign exchange value of the dollar is assumed to depreciate 1 percent per year in the 2013–15 period. The price of WTI crude oil stays roughly flat at around \$90 per barrel through the end of 2015, consistent with futures prices. Under these assumptions, movements in the prices of energy and imports have only minor implications for domestic inflation in the extension. Foreign real GDP expands, on average, about 3¼ percent per year from 2013 through 2015, a bit above its trend rate.
- Over the 2013–15 period, the NAIRU declines from 6 percent to 5¼ percent, as the functioning of the labor market improves. Potential GDP expands 3 percent per year, on average, from 2013 to 2015.

The economy enters 2013 with the staff's estimate of the output gap quite wide, the unemployment rate well above the estimated NAIRU, and inflation very low. In the long-run projection, however, improving confidence, diminishing uncertainty, and supportive financial conditions eventually enable the level of aggregate demand to catch up with aggregate supply and inflation to move noticeably closer to its desired level. Specifically, the extended forecast shows real GDP rising at an annual rate of 4³/₄ percent on average in 2013 and 2014, considerably faster than its potential pace; as a result, unemployment declines appreciably and inflation begins to rise slowly. In response, the federal funds rate begins to increase in the first quarter of 2013 and reaches 3¹/₄ percent by late 2014.² By 2015, with improvements in confidence and financial conditions largely complete, and with the federal funds rate climbing further to 4 percent, gains in real GDP moderate substantially. Nevertheless, overall economic growth remains robust enough relative to potential to reduce the unemployment rate to the NAIRU by late 2015; in addition, inflation continues to rise and reaches 1¹/₂ percent.

 $^{^{2}}$ In the long-run outlook, the federal funds rate follows the prescriptions of the "outcome-based" rule, described in the appendix on policy rules in Book B.

(Percent change, Q4 to Q4, except as noted)								
Item	2010	2011	2012	2013	2014	2015		
Real GDP	2.7	3.7	4.4	4.7	4.7	3.5		
Civilian unemployment rate ¹	9.7	8.9	8.0	7.1	6.1	5.3		
PCE prices, total	1.2	1.1	.9	1.1	1.4	1.6		
Core PCE prices	.9	.9	.9	1.1	1.3	1.5		
Federal funds rate ¹	.2	.1	.1	1.3	3.3	4.1		
10-year Treasury yield ¹	3.0	3.8	4.4	4.6	4.9	5.0		

The Long-Term Outlook

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









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






Evolution of the Staff Forecast











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

International Economic Developments and Outlook

The main development in the foreign economies since the October Tealbook has been the intensification of financial turmoil in Europe. (See the box "Developments in Ireland and the Euro-Area Periphery" and the "Financial Developments" section.) At present, it is too soon to tell how these renewed stresses will be resolved and how they will affect global economic performance. Our current judgment is that economic activity in the peripheral euro-area countries will indeed be restrained by less favorable financing conditions, ongoing banking sector vulnerabilities, and aggressive fiscal consolidations. However, absent further deterioration in the European banking system or sovereign funding conditions, the spillovers from the ongoing stresses will likely be limited. Accordingly, and as recent indicators have generally been in line with our expectations, our overall forecast for foreign economic activity is little changed from the October Tealbook. That said, the risk of adverse tail events has clearly risen, and we explore the effects on U.S. growth of a further intensification of financial pressures in Europe in the "Risks and Uncertainties" section.

After slowing considerably in the third quarter, aggregate foreign GDP growth is estimated to have picked up to $2\frac{3}{4}$ percent in the current quarter. This pattern has been shaped largely by the emerging market economies (EMEs), many of which decelerated in the third quarter following outsized first-half gains but have again picked up the pace. In the advanced foreign economies (AFEs), activity has also slowed from earlier in the year, but we do not expect much improvement in growth in the near term as fiscal consolidation and saving to rebuild financial positions restrain spending. Over time, as private domestic demand gains momentum, we predict overall foreign growth to strengthen to about $3\frac{1}{2}$ percent in 2012.

A recent acceleration of food and energy prices has led us to raise our estimate of foreign headline inflation in the current quarter to nearly 4 percent at an annual rate, up about 1½ percentage points from the October Tealbook. Core inflation, however, has been relatively steady across the foreign economies. As we expect the recent rise in food and energy price inflation to be transitory, our projection calls for headline inflation to subside to about 2¼ percent by the end of next year. Inflation should remain at about that level in 2012 as continued resource slack in the advanced economies helps to keep price

Developments in Ireland and the Euro-Area Periphery

Financial tensions in Ireland escalated over the past two months. As shown in the left-hand figure, interest rate spreads on Irish 10-year sovereign bonds over German bunds widened from an already elevated 4 percentage points in mid-October to around 6 percentage points by early November. Two developments contributed to the heightened tensions: (1) discussion of a German proposal to eventually force the restructuring of private holdings of sovereign debt and (2) increased concerns over Irish banks' growing real estate loan losses and their associated funding difficulties. Afflicted in part by deposit flight, Irish banks have become increasingly dependent on funding from the European Central Bank (ECB).

With access to market funding increasingly limited and corporate bank deposits falling sharply, the Irish government entered into discussions with European Union (EU) authorities and the International Monetary Fund (IMF), eventually agreeing on a rescue package totaling €85 billion, of which €22.5 billion is from the IMF and €45 billion is from a combination of EU resources and bilateral loans by individual EU countries. In addition, the Irish government will contribute €17.5 billion from its pension fund and cash reserves, to be used to support Irish banks. The loan package is expected to be sufficient to keep the Irish government from needing market funding for two years and to stabilize the Irish banking sector and provide it with a capital injection of €10 billion (rising to as much as €35 billion, if needed). For its part, Ireland has agreed to implement a fiscal consolidation of €15 billion (9 percent of GDP) over the next four years, two-thirds of which will be spending cuts, on top of the austerity measures already adopted in the past two years. The Irish government intends to maintain its guarantee on senior bank debt; that guarantee was the main cause of the sharp run-up in Irish government debt over the past three years.

The Irish rescue package does not seem to have calmed markets, and the focus has turned to the possibility that official assistance would also be required for other peripheral euro-area countries with high fiscal deficits and debts. The right-hand figure shows the peripheral countries that are most vulnerable in those dimensions. Aside from Greece and Ireland, market pressures have been most acute for Portugal, where slow economic growth and significant structural and competitiveness problems threaten to make its government debt unsustainable. Investors also showed increasing concern about Spain because of its large fiscal deficit and problems at its banks—both owing to its housing boom and bust. The debt level in Spain is relatively low, but it could have trouble financing itself at elevated interest rates. In addition, Spain is

much larger than the other peripheral economies, and investors are concerned that its potential financing needs are too large to be covered by existing mechanisms. Finally, concerns have also emerged that the crisis could spread even beyond Spain to other high-debt euro-area countries such as Italy and Belgium.

Partly in response to these developments, the ECB announced following its December 2 policy meeting that it would delay exit from its nonstandard liquidity measures. Although the ECB did not make any statement about the future of its program to buy the debt of vulnerable euro-area countries, market participants reported an increased intensity of ECB purchases of such debt following the meeting, leading to a sharp decline in sovereign spreads for Ireland and Portugal.



Note: Spreads over German bunds. Source: Bloomberg.



pressures contained. Relative to the October Tealbook, our forecast of inflation in the second half of 2011 and in 2012 is little changed.

We continue to expect the AFEs to maintain highly accommodative monetary policies throughout the forecast period, with the recent flare-up of financial tensions in the euro area delaying the European Central Bank's (ECB) windup of its special liquidity provisions. In the EMEs, we assume further policy tightening, although heightened concerns over capital flows and exchange rate pressures have added to the uncertainty about future monetary policy responses.

ADVANCED FOREIGN ECONOMIES

We continue to forecast an anemic recovery in the AFEs, where growth has slowed from $3\frac{1}{2}$ percent at an annual rate in the first half of this year to an estimated $1\frac{3}{4}$ percent in the second half. This step-down in growth is slightly larger than was anticipated in October, reflecting some softness in third-quarter GDP for Canada and the euro area. We expect AFE economic growth to remain around 2 percent through 2011, held down by increasing fiscal consolidation and continuing balance sheet repair. In 2012, growth picks up to $2\frac{1}{2}$ percent as balance sheet positions improve and private spending strengthens.

Intensified concerns over fiscal sustainability and banking sector vulnerabilities have weighed on our growth outlook for the euro area, but greater momentum in the German economy and the positive effects of the euro's recent depreciation have gone the other way, leaving our forecast down only a little. Our working assumption is that Portugal will follow Greece and Ireland in requiring a financial assistance package from the European Union and the International Monetary Fund, but that other countries will avoid such serious financial pressures. In order to reassure markets that sufficient resources exist to backstop Spain and other vulnerable countries, we assume that European authorities will at some point increase the funds available for official assistance. We also assume that authorities will take measures to shore up confidence in the banking sector, including additional stress tests and continued liquidity provision and sovereign bond purchases by the ECB. Even with these actions, however, the possibility of a more serious disruption to sovereign and bank financing in peripheral Europe and beyond poses a heightened risk to our outlook.

Recent Foreign Indicators

Nominal Exports









includes brazil, China, Israel, Korea, Singapore, and Taiwan.









1

0

-1

-2

2010

Consumer Prices: Emerging Market Economies

2008

2006

2007

2009



The Foreign Outlook

(Percent change, annual rate)

			2010			
	2009	H1	Q3 ^e	Q4 ^p	2011 ^p	2012 ^p
Real GDP						
Total foreign	.5	5.4	2.1	2.7	3.2	3.5
Previous Tealbook	.4	5.4	2.3	2.6	3.2	3.6
Advanced foreign economies	-1.4	3.5	$\begin{array}{c} 1.7\\ 2.0\end{array}$	1.6	1.9	2.4
Previous Tealbook	-1.4	3.4		1.9	2.0	2.6
Emerging market economies	2.9	7.8	2.5	4.1	4.7	4.9
Previous Tealbook	2.8	8.0	2.6	3.6	4.7	5.0
Consumer Prices						
Total foreign	1.2	2.4	2.2	3.9	2.5	2.3
Previous Tealbook	1.2	2.4	2.1	2.5	2.3	2.3
Advanced foreign economies Previous Tealbook	.2 .2	$\begin{array}{c} 1.1 \\ 1.1 \end{array}$	$\begin{array}{c} 1.1 \\ 1.0 \end{array}$	2.6 1.2	1.3 1.2	1.4 1.4
Emerging market economies	2.2	3.6	3.3	5.1	3.6	3.2
Previous Tealbook	2.2	3.6	3.2	3.6	3.3	3.1

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

Real GDP



Euro Area

Real GDP growth for the euro area moved down from 4 percent in the second quarter to 1¹/₂ percent in the third quarter, just a little below our expectations. Economic performance within the euro area continued to diverge. Third-quarter German growth was nearly twice the euro-area average, and recent indicators show continued solid performance: German retail sales surged in October, consumer confidence and purchasing managers indexes (PMIs) shot up in November, and the German IFO index of business sentiment posted a record high. In contrast, Spanish activity stagnated in the third quarter, and Greek GDP declined nearly 4¹/₂ percent.

The recent renewal of financial stresses should weigh on euro-area growth going forward, but these effects should be mitigated by the stimulus to net exports stemming from the depreciation of the euro over the past month. In light of the weaker euro and the relatively strong incoming data, we now expect less slowing of growth in Germany. Nonetheless, given the sharper slowing we now project for the rest of the euro area, our forecast for overall euro-area activity is a little weaker than that in the October Tealbook, with GDP growth declining to about 1 percent in 2011 and picking up to 2¹/₄ percent in 2012. Indeed, the deteriorating outlook for growth in the peripheral euro-area economies has heightened uncertainty regarding their ability to reduce their fiscal deficits, and this poses the risk of further financial instability.

Euro-area headline inflation has exceeded our expectations, rising to nearly 2 percent on a 12-month basis in November. This partly reflects a rise in energy prices, but core inflation edged up as well—to just above 1 percent—and we expect it to be supported in the near term by further increases in indirect taxes and administered prices embedded in fiscal consolidation plans. Thereafter, headline inflation should ease to around 1½ percent. We continue to assume that the ECB will not raise its benchmark policy rate, currently at 1 percent, until the second half of 2012. Before then, we expect the ECB to gradually exit from its unconventional liquidity policies, though the increase in financial tensions has delayed that exit.

Japan

Real GDP rose a better-than-expected 3.9 percent in the third quarter, as purchases of fuel-efficient cars surged before the expiration of a subsidy program in early September. Payback from this program should lead to a noticeable drop in private consumption in the current quarter, contributing to a projected contraction in real GDP of 1½ percent. Smoothing through these quarterly swings, our outlook for GDP growth is about unchanged for the second half of the year and beyond relative to the October Tealbook. We continue to anticipate that real GDP will expand 1½ percent in 2011 and 2 percent in 2012.

In October, 12-month inflation turned positive for the first time since December 2008. However, this development was due in part to a one-time hike in tobacco taxes, and we continue to project deflation to persist over the next two years. Accordingly, we have also maintained our assumption that the Bank of Japan will moderately step up its asset purchases.

Canada

Real GDP rose a disappointing 1 percent in the third quarter, as domestic demand accelerated but net exports subtracted from growth. Consumption and fixed investment expanded robustly, and imports of capital goods rose almost 30 percent at an annual rate. We estimate that GDP increased 2¹/₄ percent in the fourth quarter, with a rebound in exports and a slowing of imports reducing the drag from the external sector. Domestic demand should remain solid, keeping GDP growth around 2¹/₂ percent over the forecast period. We expect Canadian headline inflation on a four-quarter basis to rise from around 1¹/₂ percent in the current quarter to a touch above the Bank of Canada's 2 percent target by the middle of next year as economic slack diminishes. After tightening over the first three quarters of the year, the Bank of Canada is assumed to keep monetary policy on hold through the end of 2011 before raising rates further to keep inflation near its target.

United Kingdom

We estimate that GDP growth has slowed from 3 percent in the third quarter to 2 percent in the fourth as fiscal retrenchment begins to bite and the cyclical impetus from the inventory swing wanes. We see GDP growth edging up to 2½ percent by 2012 as fading financial stresses help revive private demand and as a low sterling stimulates exports. Downside risks have increased because of heightened financial instability in peripheral euro-area economies, particularly given the United Kingdom's vulnerable fiscal position and strong ties to Ireland. Nonetheless, expectations of further asset purchases by the Bank of England (BOE) have declined following the publication of the

BOE's quarterly forecast, which showed a more optimistic outlook for growth than had been expected, and amid incoming data showing resilient inflation. The 12-month change in consumer prices ticked up to 3.2 percent in October, pushed up by rising gasoline prices, and should remain above the BOE's 2 percent target until early 2012.

EMERGING MARKET ECONOMIES

Recent data releases confirm that growth in the EMEs slowed sharply from the rapid pace earlier this year. We now estimate that third-quarter growth was 2½ percent, down from 8¼ percent in the second quarter. This steep decline is in large part an artifact of highly volatile data for Mexico and Singapore. But EME growth slowed more generally as well, owing to the maturation of the inventory cycle and associated rebound in trade, the unwinding of fiscal stimulus measures, and a continued tightening of monetary policies in several countries. In the current quarter, EME growth is estimated at 4 percent, up about ½ percentage point from the October Tealbook, as greater-than-expected strength in China and Mexico more than offset somewhat weaker growth elsewhere. As the United States and other advanced economies pick up steam, real GDP growth in the EMEs should rise to around 5 percent in 2012, little changed from the previous Tealbook.

Consumer prices in the EMEs have recently accelerated, led by rising food prices. The food price increases stem from both country-specific conditions as well as recent increases in the global prices of food commodities such as wheat, corn, and soybeans. We view the sharp rise in food inflation as transitory and expect that EME headline inflation, after peaking at around 5 percent at an annual rate in the current quarter, will fall to about 3¹/₄ percent over the forecast period.

China

Recent indicators point to continued economic strength following real GDP growth of 9³/₄ percent in the third quarter. Industrial production grew robustly in October, and the PMI rose to 55 in November. Domestic demand in October appeared firm, with fixed-asset investment and nominal retail sales remaining more than 20 percent above their year-earlier levels.

Inflation over the 12 months ending in October rose to 4½ percent, almost entirely reflecting higher food prices. In response, the authorities have released reserves of grain

and other foods, and have raised the possibility of imposing price controls. Additionally, the People's Bank of China raised the reserve requirement ratio twice in November for a cumulative increase of 1 percentage point. Global financial markets reacted negatively to the moves, fearing that authorities will tighten excessively and squelch growth. Although we view this development as a potential downside risk, we continue to expect that Chinese authorities will be successful in adjusting policy to achieve GDP growth in the neighborhood of 8 to 9 percent going forward.

Other Emerging Asia

Economic activity in the rest of emerging Asia contracted in the third quarter. While most of this decline reflected a steep drop in Singapore's volatile output, real GDP also declined in Malaysia, the Philippines, and Thailand. We believe that many of the emerging Asian economies are following, with a lag, a business cycle similar to that of China, where growth slowed in the second quarter but showed vigor in the third. The most recent PMI releases provide some evidence that these other Asian economies are indeed turning a corner; the November PMIs for both Korea and Taiwan swung above 50 after being in the contraction range in the previous few months.

India, Korea, and Thailand recently raised their policy rates to help fight inflation, which has risen across emerging Asia. Although, as discussed below, some data point to a slowing of capital flows to EMEs, such flows remain an important concern in many countries. We now assume that, to better manage both inflation and capital inflows, some of the emerging Asian economies will allow their currencies to appreciate a bit more than in the previous Tealbook.

Latin America

Real GDP growth in Latin America slowed to 3 percent in the third quarter, and we estimate that growth remained around that pace in the current quarter. By 2012, Latin American growth is expected to move up to around 3³/₄ percent. The contour of the Latin American forecast is driven largely by Mexico, where GDP looks to be expanding at a 3¹/₄ percent pace in the current quarter. This estimate is about 1³/₄ percentage points higher than in the October Tealbook, reflecting more favorable indicators of domestic demand as well as a stronger estimate of U.S. manufacturing production, which is highly correlated with Mexican output. We project Mexican GDP growth to rise to nearly 4 percent in 2012, owing in large part to improvement in the U.S. economy. For Brazil, we raised our forecast for growth to about 4 percent in the current quarter and the next, owing in part to our assessment that expansionary fiscal policies will remain in place a bit longer than previously anticipated. With stronger near-term activity and inflation picking up to $5\frac{1}{2}$ percent in the 12 months through November, we now assume a somewhat faster pace of monetary policy tightening. Accordingly, we have marked down our projection for GDP growth a bit over the remainder of the forecast period to an average of $3\frac{3}{4}$ percent.

CAPITAL FLOWS TO EMERGING MARKET ECONOMIES

In recent months, authorities in many EMEs have expressed concerns about mounting capital inflows and the attendant pressures on their exchange rates and asset prices. This section reviews developments in private capital flows to EMEs since the financial crisis. As background, we note that several fundamental factors currently support such flows:

- a continuing return of investors to EMEs after the large outflows experienced during the crisis;
- more-favorable growth prospects in the EMEs than in the advanced economies, reflecting both the two-speed nature of the global economic recovery as well as long-standing differences in growth potential; and
- the divergent monetary policy stances of the two groups.

With respect to monetary policy, the Federal Reserve's asset purchase program in particular has been criticized for lowering U.S. long-term interest rates and thus encouraging investors to purchase riskier assets in the EMEs.

Indeed, net private capital flows to Latin American and Asian EMEs as a share of their aggregate GDP, the most comprehensive but least timely data available, were quite elevated in the second half of 2009 relative to their pre-crisis average (the blue bars in top-left panel).¹ In part, these strong inflows reflect a recovery following the large outflows during the crisis. Private capital inflows slowed in the first half of 2010 but remained sizable. Combined with significant current account surpluses (the orange bars), these inflows have placed upward pressure on EME currencies.

¹ For the purposes of this section, the EMEs comprise Argentina, Brazil, Chile, China, Colombia, Hong Kong, India, Indonesia, Malaysia, Mexico, Philippines, Singapore, South Korea, Taiwan, Thailand, and Venezuela.







Because EME officials, to varying degrees, have resisted currency appreciation through purchases of dollars and other foreign exchange, changes in EME reserve assets may provide some indication of the intensity of recent capital flows. As shown in the figure for official reserve holdings at the Federal Reserve Bank of New York, these holdings increased steadily from mid-September to early November, which we see as the counterpart to strong net private capital flows into EMEs. In recent weeks, however, these holdings have leveled out, suggesting diminished inflows to the EMEs, perhaps reflecting increased investor risk aversion amid renewed financial stresses in the euro area. This pattern of strong private capital inflows in September and October followed by moderation in November is also apparent in data on net inflows to emerging market equity and bond funds (the middle panels).

Data for private capital flows from the United States to the EMEs, which provide a window into global flows and are more timely and detailed, exhibit a pattern similar to that of total private flows to these economies. Starting with banking flows, net claims of U.S.-resident banks on Asian and Latin American EMEs declined sharply in the second half of 2008 and have since rebounded only to their pre-crisis level (red line in bottomleft panel). A great deal of U.S. banking flows to the EMEs are channeled through the United Kingdom and the Caribbean banking centers, but the level of U.S. net claims on these entities, while rising briskly of late, remains below prior highs (the blue line).² All told, net lending of U.S. banks to EMEs through October does not appear out of line with historical trends. Unlike the bank flows to EMEs, U.S. purchases of EME securities picked up noticeably in September and October (red line in bottomright panel). However, they were not outsized relative to U.S. purchases of securities issued by Europe or "other" countries (which includes Canada).

All together, the various data sources suggest that the rebound in private capital flows to EMEs, which began in early 2009, has sufficed only to return the level of net claims on these countries, broadly speaking, to its long-term trend. Furthermore, recent flows from the United States to the EMEs do not appear unusually large relative to the U.S. flows to other countries. These findings support the view that accommodative U.S. monetary policy may have played a smaller role in driving capital flows to EMEs than some observers have suggested.

² BIS data through the first half of 2010 indicate that claims of the financial centers on EMEs have followed the same pattern.



Evolution of Staff's International Forecast







Financial Developments

Changes in financial conditions were mixed over the intermeeting period. Interest rates at both short and longer maturities rose substantially, on net, reflecting an apparent reassessment by investors of the likely ultimate size of the Federal Reserve's asset purchase program, economic data that were seen by market participants as suggesting a somewhat improved economic outlook, and the tentative agreement between the Administration and the Congress regarding a package of fiscal measures. Renewed concerns about fiscal strains and banking-sector problems in the euro-area periphery contributed to increased volatility in financial markets but did not appear to prompt a widespread pullback from risky assets. Since the November FOMC meeting, broad stock price indexes have risen moderately, while risk spreads on corporate bonds are unchanged or down slightly on balance. TIPS-based measures of inflation compensation increased at the 5-year maturity but only edged up 5 to 10 years ahead. Short-term funding markets showed some signs of modest strain, but funding conditions for domestic institutions were generally stable. The dollar appreciated against most other currencies, mainly on the concerns about fiscal pressures in Europe and the revised outlook for monetary policy in the United States.

Overall borrowing by nonfinancial corporations was robust again in November, and indicators of credit quality continued to improve. Meanwhile, financing conditions for commercial real estate remain tight, and the performance of commercial mortgage debt deteriorated further. For households, the issues surrounding foreclosure improprieties appear to have had little, if any, negative effect on mortgage financing activity, but mortgage debt has stayed on a downward trend amid delinquency and default rates that remain elevated. In contrast, consumer credit outstanding appears to be stabilizing after two years of runoffs, and the credit quality of consumer debt has continued to improve.

Core loans at commercial banks contracted again in October and November, though at a somewhat slower pace than in the third quarter. Bank profitability was little changed last quarter, as reductions in loan loss provisions were about offset by higher noninterest expenses. M2 expanded moderately in November, as strong growth in liquid deposits and currency continued to more than offset declines in small time deposits and retail money market mutual funds. Responses to the December 2010 Senior Credit Officer Opinion Survey on Dealer Financing Terms (SCOOS) indicated an easing in credit terms across all counterparties and for securities financing transactions with a wide range of collateral over the previous three months.

TREASURY YIELDS AND POLICY EXPECTATIONS

The November FOMC statement elicited limited immediate price action in most asset classes, suggesting that the outcome had largely been anticipated.¹ However, yields on 30-year Treasury bonds moved up sharply in response to the Desk announcement, which indicated that the distribution of purchases would be more heavily weighted toward short- and intermediate-term securities than some market participants had expected. Over the weeks following the November meeting, yields on nominal Treasury securities increased, as investors reportedly revised down their estimates of the ultimate size of the FOMC's new Treasury purchase program. Late in the intermeeting period, yields ratcheted higher on news of the tentative agreement between the Administration and the Congress regarding a package of fiscal measures that include the extension of current tax rates and unemployment benefits, as well as additional tax cuts.

All told, yields on 2-year nominal Treasury securities rose about 25 basis points over the intermeeting period, and 5- and 10-year yields were both up about 55 basis points. Market-based measures of uncertainty about longer-term yields also picked up notably, apparently contributing to an increase in term premiums. Indeed, staff models suggest that higher term premiums account for a large fraction of the rise in the 10-year yield. Market participants indicated that the backup in rates was amplified by decisions of leveraged investors to unwind long Treasury positions put in place before the last FOMC meeting; anecdotal reports suggest that convexity hedging flows also may have contributed to the rise in rates. The spread between the 30- and 10-year Treasury yields peaked at its highest level in more than 30 years early in the period and then fell back, evidently reflecting changing views about the Federal Reserve's asset purchase program (see the box "Long-Term Treasury Yields").

¹ The Trading Desk at the Federal Reserve Bank of New York purchased about \$107 billion of Treasury securities over the period, reflecting both purchases under the new asset purchase program and reinvestment of principal payments on Federal Reserve holdings of agency MBS and agency debt. The effective federal funds rate averaged 19 basis points over the intermeeting period, with the intraday standard deviation averaging about 3 basis points.



Policy Expectations and Treasury Yields

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.



Note: Mean is estimated from federal funds and Eurodollar futures. Mode is estimated from distribution of federal funds rate implied by interest rate caps. Both include an allowance for term premiums and other adjustments.

Source: Bloomberg and CME Group.

Implied Federal Funds Rate



Implied Expectation of Quarter of First Rate Increase from the Desk's Dealer Survey Percent

Long-Term Treasury Yields

In the few months leading up to the November FOMC meeting the spread between 30- and 10-year nominal Treasury yields increased notably, on net, reaching its highest level in more than 30 years in the week following the November FOMC announcement, as shown in the figure below. Since November 10, however, the spread has declined considerably, largely reflecting a sizable backup in 10-year yields. The large swings in this spread appear to have reflected importantly the effects of changes in investors' expectations regarding the Federal Reserve's purchases of Treasury securities and longterm inflation.

The table on the next page provides some perspective on the recent changes in the spread between 30- and 10-year nominal Treasury yields by decomposing the changes in yields from September 20 to December 7 into changes in 1-year forward rates across the curve over three sub-periods. From September 20 to November 10 (columns 5 and 6), nominal 1-year forward rates in the 2- to 7-year sector dropped significantly, while those at longer horizons recorded sharp increases. This pattern of changes in forward rates seems consistent with anecdotal reports suggesting that investors had become increasingly confident that the Federal Reserve would conduct additional Treasury purchases in the 2- to 10-year sector. The increase in forward rates at horizons between 10 and 30 years was reinforced by the November FOMC statement and by the accompanying statement from the Trading Desk at the Federal Reserve Bank of New York that pointed to a smaller-than-expected allocation of new Treasury purchases to securities with maturities greater than 10 years.¹



¹ Before the November FOMC meeting, some market commentaries indicated that the share of total asset purchases in the 10- to 30-year sector was expected to be about 15 percent. In contrast, on November 3, simultaneous with the release of the FOMC statement, the Trading Desk at the Federal Reserve Bank of New York announced that the 10- to 30-year sector would receive only a 6 percent allocation of the total intended purchases.

(percent)							
	Sep. 20	Nov. 2	Nov. 10	Dec. 7	Change	Change	Change
					(2)-(1)	(3)-(2)	(4)-(3)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Horizon							
2-year	1.36	.99	1.09	1.67	37	.10	.58
5-year	3.69	3.47	3.28	4.28	22	19	1.00
7-year	4.59	4.60	4.54	5.25	.01	06	.71
10-year	5.08	5.35	5.73	5.79	.26	.39	.06
15-year	4.97	5.33	6.22	5.71	.36	.89	51
20-year	4.72	4.99	5.81	5.46	.27	.82	35
25-year	4.59	4.77	5.24	5.29	.18	.47	.05
30-year	4.54	4.67	4.79	5.21	.13	.12	.42

Nominal 1-year Implied Forward Rates

Source: Staff estimate.

In response to those statements, the 30-year nominal Treasury yield increased 14 basis points while the 10-year yield was about unchanged. The shift in investor sentiment away from the 30-year bond seemed to carry over to the auction of that security conducted on November 10, which was not very well received. On net, as shown in column 6 in the table above, forward rates at horizons of 15 to 20 years increased 80 to 90 basis points during the period from the day before the November FOMC meeting to November 10.

However, since November 10 (column 7), 1-year forward rates in the 2- to 7-year range have risen sharply, apparently as investors have reassessed the ultimate scale of additional Federal Reserve purchases of Treasury securities and reacted to the potential bipartisan agreement on tax cuts announced on the evening of December 6. At the same time, forward rates further out the term structure have declined substantially, except in the 25- to 30-year sector, where rates more than retraced their declines on December 7.

Changes in the outlook for inflation at different horizons also appear to have contributed to the recent behavior of the spread between 30- and 10-year yields. As illustrated in the figure to the right, the spread between 30- and 10-year nominal rates-the black line-has moved closely with the spread between 30- and 10-year inflation compensation, the red line. That pattern could suggest that confidence in the Federal Reserve's ability and commitment to move inflation back, over time, close to mandate-consistent levels increased through early November, boosting longer-term inflation compensation. However, greater uncertainty about the ultimate impact of Federal Reserve asset purchases on inflation may have tempered that confidence more recently.



The rise in nominal Treasury yields was accompanied by sizable increases in real yields, with 5- and 10-year TIPS yields up about 35 basis points and 50 basis points, respectively. TIPS-based inflation compensation moved up about 20 basis points at the 5-year horizon, amid rising energy prices, but only edged higher 5 to 10 years ahead. Swaps-based measures of inflation compensation moved about in line with their TIPS counterparts. On net for the period, survey-based measures of short-term inflation expectations also rose slightly, while longer-term survey expectations were unchanged.

Based on the staff's standard term premium adjustment, futures quotes indicate that the path for the federal funds rate currently expected by market participants starts to increase around the beginning of 2012 and rises to about 85 basis points by the end of that year, a 45 basis point increase since the time of the November FOMC meeting. Quotes on interest rate caps suggest that the modal path of the federal funds rate also moved up over the intermeeting period and now rises above the current target range at the end of 2012, three quarters earlier than at the time of the November meeting. However, staff analysis indicates that term premiums at the short end of the curve increased over the intermeeting period, consistent with higher near-term uncertainty about monetary policy. As a result, the revision in the anticipated policy path may be smaller than that implied by our usual measures of policy expectations.

Results from the latest survey of primary dealers provide some additional evidence of an increase in term premiums, as respondents indicated that the expected path of the federal funds rate was little changed since the October survey.² Median expectations for the total size of the asset purchase program declined somewhat and stood at \$850 billion, compared with \$1 trillion in the earlier survey. Market participants also marked up slightly their outlook for near-term economic growth.

ASSET MARKET DEVELOPMENTS

Broad stock price indexes increased about 3 percent, on net, over the intermeeting period. Equity prices rose sharply following the FOMC policy announcement, but these gains were more than reversed over the subsequent two weeks amid renewed concerns about the strength of the global economy—prompted by the fiscal situation in Europe and the announcement of policy tightening by China—and criticism of the announced

² Note that the survey was completed before the December 7 rise in money market yields associated with the news about a tentative agreement on the fiscal package. Anecdotal reports suggest that dealers revised their views about monetary policy and the economic outlook in the wake of that agreement.

Asset Market Developments





Implied Volatility on S&P 500 (VIX)

Equity Risk Premium



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





Note: Spread is the difference between the 3-month dollar forward rate agreement and the OIS rate 3 months forward. Source: Bloomberg.





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

Source: Depository Trust & Clearing Corporation. Page 55 of 100

Spread on 30-Day Commercial Paper

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

expansion of the FOMC's asset purchase program. However, more recently, equity prices have strengthened on incoming economic data that were read by investors as suggesting that the recovery could be gaining traction, at least outside the housing sector. Stock prices for domestic commercial banks have been volatile since the November FOMC meeting but, on net, have outperformed broad indexes. Option-implied volatility on the S&P 500 index fell modestly over the period, and the spread between the staff's estimate of the expected real return on equity for S&P 500 firms and the real 10-year Treasury yield—a rough measure of the equity risk premium—narrowed a bit, although it remained elevated relative to longer-run norms.

Yields on investment-grade corporate bonds rose about in line with those on comparable-maturity Treasury securities, leaving their spreads about flat; spreads on speculative-grade bonds moved down somewhat. Secondary-market prices for leveraged loans rose slightly over the intermeeting period, while bid-asked spreads in that market continued to drift down.

Some signs of modest stress emerged in certain short-term funding markets over the intermeeting period as investors focused increasingly on the evolving situation in Europe, where some further credit tiering has reportedly occurred. The spread of the three-month forward rate agreement over the three-month forward overnight index swap (OIS) rate moved somewhat higher, perhaps pointing to heightened concerns about future funding conditions. In the commercial paper (CP) market, spreads on paper issued by financial institutions with parents in Europe increased, and spreads on asset-backed CP were somewhat volatile, particularly for conduits sponsored by nonbank institutions. Nonetheless, spreads on A2/P2-rated nonfinancial CP remained at low levels. In addition, spreads of one- and three-month dollar Libor over OIS rates continued to be low, interest rates and haircuts on repurchase agreements were little changed across collateral types, and there have been no indications of widespread funding pressures over year-end.

In the December 2010 SCOOS, dealers reported an easing of credit terms over the past three months with respect to securities financing transactions and with respect to a range of counterparties, including hedge funds and other private pools of capital, insurance companies and other institutional investors, and nonfinancial firms. More aggressive competition from other institutions and an improvement in the current or expected financial strength of counterparties were frequently cited reasons for the

loosening of terms. Dealers also noted that demand for funding of all types of securities had increased over the past three months.

Recent conversations with market participants indicated that many leveraged investors reportedly reduced their risk positions after the announcement of additional asset purchases by the FOMC at the November meeting, a trend that continued during the month as a consequence of press accounts of investigations centered around possible insider trading by hedge funds and their advisors and a rise in uncertainty concerning the European situation. Lately, however, there have been some indications that leveraged investors have reestablished risk positions in certain markets, such as the equity market.

BUSINESS FINANCE

Net debt financing of nonfinancial corporations continued to be robust in November. Gross issuance of corporate bonds was extraordinarily heavy, particularly for speculative-grade firms. Over recent months, investor demand for syndicated leveraged loans also appears to have remained high, as reflected in a significant volume of deals moving through the pipeline and in a trend toward greater leverage embedded in these deals, albeit from a relatively low base. Commercial and industrial (C&I) loans on banks' books expanded modestly, on balance, in October and November after running off again in the third quarter. Nonfinancial CP outstanding declined notably during October and November, in part as some nonfinancial firms reportedly shifted to bond financing.

Gross public equity issuance by nonfinancial firms through seasoned and initial public offerings (IPOs) was particularly strong in November, boosted by GM's well-received IPO as well as a number of secondary issues. In the third quarter, equity retirements increased, as both share repurchases and cash-financed mergers and acquisitions picked up. As a result, net equity issuance by nonfinancial corporations is estimated to have dipped deeper into negative territory in that period. Announcements of mergers and new share repurchase programs suggest a further increase in the pace of equity retirements in the fourth quarter.

According to the BEA's preliminary estimate, U.S. corporate profits rose about 3 percent in the third quarter (not at an annual rate), close to the increase seen in the second quarter. In the third quarter, operating earnings per share for S&P 500 firms also rose about 3 percent and were more than 30 percent above their year-earlier levels. The

Percent of outstandings

H2

40

20

0

20

40

60

2010

Business Finance

Selected Components of Net Debt Financing, Nonfinancial Firms Billions of dollars



* Seasonally adjusted, period-end basis.

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

Dollars per share Quarterly 24 22 03 20 18 16 14 12 10 8 6 4 2000 2002 2004 2006 2008 2010 Note: Data are seasonally adjusted by staff. e Staff estimate. Source: Thomson Financial.

S&P 500 Earnings Per Share

Commercial Mortgage Debt



Delinquency Rates on Commercial Mortgages

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

2004

Financial Developments

Percent change, annual rate 20 Quarterly 16 12 8 4 0 -4 Q3[€] -8 12 2006 2008 2010 2002 2004 e Estimate. Source: Federal Reserve.

Selected Components of Net Equity Issuance, Nonfinancial Firms Billions of dollars 50 Monthly rate Q1 Q2 Q3^e 25 H2



e Estimate.

Annual rate

2000

2002

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

Bond Ratings Changes of Nonfinancial Firms

Upgrades

Downgrades

2008

2006



Source: Citigroup; Call Report; ACLI.

mid-November reading showed that analysts revised up slightly their expectations for the year-ahead earnings of S&P 500 firms.

The credit quality of nonfinancial corporations has continued to improve. The aggregate ratio of debt to assets for such firms declined a bit further in the third quarter, and the aggregate liquid asset ratio rose again, reaching its highest level in more than 20 years. Upgrades by Moody's Investors Service of nonfinancial corporate bonds outnumbered downgrades again in both October and November. The six-month trailing bond default rate for nonfinancial firms remained near historical lows in October, and the KMV expected year-ahead default rate for nonfinancial firms, while still somewhat elevated, moved a bit lower in November.

Financing conditions for commercial real estate remained tight. Commercial mortgage debt is estimated to have declined at an annual rate of about 8 percent in the third quarter, and the delinquency rates for securitized commercial mortgages and those for existing properties held at commercial banks increased further. Meanwhile, the share of commercial properties sold at a nominal loss moved higher in October. However, there continued to be some modest signs of improvement. According to the CoStar repeat-sales index, prices of commercial real estate changed little, on balance, over September and October and have held in a relatively narrow range since the spring, after having dropped sharply over the preceding two years. Also, issuance of commercial mortgage-backed securities increased in November and is likely to reach \$10 billion in 2010, up from \$1.3 billion in 2009 but still far below pre-crisis levels.

HOUSEHOLD FINANCE

Mortgage rates rose considerably over the intermeeting period, though not by quite as much as rates on longer-term Treasury securities. According to weekly data from Freddie Mac, the average interest rate on 30-year conforming fixed-rate mortgages climbed to 4½ percent by the end of November. More recent daily data indicate that mortgage rates have increased further since then, bringing the rise over the intermeeting period as a whole to nearly ½ percentage point. Refinancing activity declined in response to the higher mortgage rates, likely easing the pressures at mortgage lenders seen earlier this year. As a result, the spread between mortgage rates and MBS yields dropped back, reversing the spread widening that had occurred over the preceding several months.

Household Finance

Mortgage Rate and MBS Yield



Note: For MBS yield, Fannie Mae 30-year current coupon rate.

Source: For mortgage rate, Freddie Mac; for MBS yield, Bloomberg.

Prices of Existing Homes



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

Gross Consumer ABS Issuance



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









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According to the repeat-sales index from CoreLogic, house prices fell in October for the fifth consecutive month, leaving the index down about 6 percent since May. The house price declines this summer and fall have more than retraced the increases seen in 2009 and the first half of 2010. The house price indexes from the Federal Housing Finance Agency and S&P/Case-Shiller also declined in September, albeit at more subdued paces. House prices continue to be weighed down by the large inventory of unsold homes, tight mortgage credit, and sluggish demand for housing. In addition, the drop in house prices since the spring likely has been amplified by an increase in the share of sales involving distressed properties.

Outstanding residential mortgage debt is estimated to have contracted at an annual rate of roughly 3 percent in the third quarter, about the average rate of decline seen over the preceding year. To date, the issues surrounding the reported foreclosure improprieties by some financial institutions appear to have had little effect on house prices and mortgage financing activity. The serious delinquency rate on prime mortgages ticked down in October but remained extremely elevated; delinquencies on subprime mortgages, available through September, have declined a bit from their peak but also remain exceptionally high.

In contrast, the consumer credit market has exhibited continued signs of stabilization. Although consumer credit contracted in the third quarter, the decline was the smallest since late 2008, and nonrevolving credit expanded modestly; in October, top-line consumer credit edged higher. The pace of consumer ABS issuance in November was a shade above the average for the year to date, mostly due to \$6 billion of auto ABS issuance. The delinquency rate on consumer loans at banks continued to decline in the third quarter, as did delinquency rates on auto and credit card loans held outside the banking sector. Overall, the improvement in credit quality for consumer loans has been substantially greater than that for mortgage debt. In this environment, the number of credit card offers mailed to households has moved up considerably over the course of the year.

FOREIGN DEVELOPMENTS

Over the intermeeting period, international financial markets reacted primarily to renewed concerns about fiscal and financial strains in the euro area, shifts in views about U.S. monetary policy, and fears that policy tightening by Chinese authorities may slow global growth. Against this backdrop, the dollar appreciated broadly, sovereign bond



Euro-Area 10-Year Government Bond Spreads Percentage points



Stock Price Indexes





Nominal 10-Year Government Bond Yields



Foreign Net Purchases of U.S. Treasury Securities Billions of dollars, annual rate



Foreign Developments

yields rose, and equity markets were mixed in both advanced and emerging market economies.

After depreciating immediately following the FOMC's November 3 announcement of further asset purchases, the dollar appreciated over the remainder of the intermeeting period. Intensifying concerns about stresses in the euro area were an important factor behind this reversal, but investor reassessment of the monetary policy outlook in the United States also played a role. On net, the broad dollar index rose about $1\frac{1}{2}$ percent over the period, with the dollar up almost $5\frac{1}{4}$ percent against the euro. The announcement of an B5 billion financial aid package for Ireland on November 28 did little to stem the depreciation of the euro. (See the box "Developments in Ireland and the Euro-Area Periphery" in the International Economic Developments and Outlook section.) Indeed, the pace of dollar appreciation picked up as investors grew increasingly concerned about market pressures potentially spreading to other euro-area countries and the adequacy of resources available to support stressed European economies. Spreads over German bunds of sovereign yields in some peripheral euro-area countries rose to new highs, although they have fallen back in the past week amid reports that the European Central Bank (ECB) has increased its purchases of Irish and Portuguese sovereign debt. Financial pressures on some countries in emerging Europe also increased, in particular for Hungary, which saw its credit rating downgraded by Moody's late in the period.

Banks in the euro-area periphery continued to rely heavily on the weekly and longer-term funding operations of the ECB, and overnight borrowing from the ECB increased over the period despite the penalty rate charged. In addition, there were some signs of increased dollar funding pressures for European banks, with the implied basis spread from euro-dollar swaps rising about 15 basis points, on net, although there was no increase in the demand for dollar liquidity in the ECB's regular dollar tender operations.

Concerns about the euro-area periphery prompted a shift down in implied future short-term interest rates in the euro area, as market participants scaled back somewhat the pace at which they expect the ECB to normalize policy. Reinforcing those expectations, the ECB announced on December 2 that it will continue to conduct refinancing operations with terms of up to three months as fixed-rate, full-allotment tenders through at least the first quarter of 2011. Although European concerns sparked flight-to-safety flows into benchmark sovereign bonds late in the period, 10-year sovereign yields still increased 25 to 45 basis points, on net, in the advanced foreign economies. The reassessment of the monetary policy outlook in the United States and the related rise in U.S. yields may have contributed to the rise in foreign yields, but there was also some reduction of the perceived likelihood of further quantitative easing in the United Kingdom, where the Bank of England (BOE) released a better-than-expected growth outlook for the U.K. economy. The BOE and the Bank of Japan made no changes to their main policy rates during the period.

Major headline equity indexes were mixed over the period. Japan's Nikkei index rose notably, as improved corporate earnings and a pause in the yen's rally helped boost equities. In the euro area, equity prices were little changed, on net, while bank stocks declined almost 10 percent amid the area's financial turmoil.

Monetary policy tightening in some emerging Asian economies weighed upon global stock prices within the intermeeting period. The People's Bank of China raised the required reserve ratio for banks a cumulative 100 basis points over the period. Chinese authorities also announced that they were discussing possible price-control measures to counter rising inflation. In addition, the Bank of Korea and the Reserve Bank of India increased policy rates. China's Shanghai Composite Index fell in the wake of Chinese policy actions, while emerging market stock indexes in general were mixed over the period. In Latin America, Brazil's central bank also raised reserve requirements late in the period to mop up liquidity.

Capital flows to emerging market economies, although appearing to moderate over the intermeeting period, continued to prompt exchange market intervention and capital control measures. (See "Capital Flows to Emerging Market Economies" in the International Economic Developments and Outlook section.) Many emerging market economies, including South Korea, Thailand, and Turkey, were reported to have intervened to stem the appreciation of their currencies. Taiwan and Turkey took concrete actions to discourage certain inflows deemed to be speculative, while authorities in Indonesia, South Korea, and Thailand announced that they were contemplating similar steps. The Chinese renminbi appreciated slightly, on net, against the dollar over the period, but the dollar appreciated against most other emerging market currencies.

While foreign official investors made sizable purchases of U.S. Treasury securities in October, partial and confidential data on custody accounts at the Federal Reserve Bank of New York show weaker purchases of Treasury securities in November.

Financial Developments

This slowing of purchases likely reflects the appreciation of the dollar in November, which may have reduced foreign officials' desire to purchase dollars in foreign exchange markets to stem appreciation of their currencies, and perhaps some slackening of private capital flows to emerging markets. Foreign private investors increased their net purchases of U.S. agency bonds and corporate stocks.

GOVERNMENT FINANCE

During the intermeeting period, the Treasury auctioned \$203 billion of nominal coupon securities across the maturity spectrum and \$10 billion of 10-year TIPS, with offer amounts unchanged from previous auctions. These auctions were generally well received, with bid-to-cover ratios in a range around recent averages.³

Gross issuance of long-term municipal bonds was very high in November, mostly driven by issuance of Build America Bonds, as the program approaches its scheduled expiration at year-end. Short-term issuance also picked up, largely because of \$10 billion of revenue anticipation notes issued by California. Amid the bulge in issuance, yields on municipal bonds rose sharply during November and increased further early this month, though the latest rise was smaller than the jump in Treasury yields. The ratio of yields on long-term municipal bonds to those on comparable-maturity Treasury securities rose markedly before falling back somewhat.

COMMERCIAL BANKING AND MONEY

Bank credit was about flat, on average, over October and November. Banks continued to increase their holdings of securities, albeit at a much slower pace than in the third quarter, with noticeable declines in Treasury securities posted by some large banks in recent weeks. Core loans decreased at an average annual rate of about 3 percent during October and November, continuing the trend toward slower runoffs that has been evident since midyear. The declines in October and November were attributable to a drop in consumer loans that was concentrated in credit card loans, as well as continued runoffs in commercial real estate and home equity loans. Conversely, reported originations of closed-end residential mortgages were robust, and banks' holdings of such loans have increased moderately for four consecutive months. In addition, C&I loans

³ Total federal debt subject to the debt limit increased to \$13.78 trillion over the intermeeting period, and staff projections indicate that the debt limit may be reached as early as the end of the first quarter of 2011, though the precise timing depends on Treasury operations. To date, markets have not focused on this issue.

edged up in both October and November, on a month-average basis, ending a string of monthly declines dating back to the fall of 2008.

Other information about business lending at banks has been mixed. The Survey of Terms of Business Lending conducted in the first week of November showed that both the weighted-average interest rate and the spread on C&I loans of less than \$25 million edged down in the survey week, although the spread remains extremely wide. In addition, according to the Call Report, unused commitments to fund C&I loans increased in the third quarter, especially at large banks; the available data suggest that these commitments had fallen continually for at least the preceding two years. However, C&I loans with original amounts less than \$1 million, a proxy for loans to small businesses, continued to decline last quarter, and unused business credit card lines—another important source of financing for small businesses—expanded only modestly.

According to the third-quarter Call Report data, bank profitability was little changed last quarter, remaining positive but well below pre-crisis levels. As in the second quarter, banks' net incomes were supported by declines in loan loss provisioning, while revenue declined. Delinquency rates were down or about flat for all loan categories, with significant declines for consumer credit card and C&I loans. Charge-off rates on credit card loans also dropped appreciably.

Banks continued to boost regulatory capital ratios, likely, at least in part, because of the need to eventually meet stricter Basel III standards. Capital ratios also have been partially supported by restrictions on banks' dividend payments that were put in place in early 2009, but some banks are reportedly positioning themselves to pay dividends in coming quarters.⁴

In November, M2 expanded at an annual rate of 5 percent, somewhat below its pace in October. Over the past several months, M2 has grown more than would have been predicted based on its relationship with nominal GDP and opportunity costs, but the deviation has not been large compared with historical model errors for M2 growth. Liquid deposits, the largest component of M2, continued to grow rapidly in November, while the contraction in small time deposits and retail money market mutual funds persisted.⁵ The ongoing compositional shift toward liquid deposits likely reflects the extremely low interest rates available on all M2 assets, including those that provide less safety and liquidity. In November, currency grew at an annual rate of about 10 percent, with indicators suggesting particularly robust demand from abroad. The monetary base increased at an annual rate of 3³/₄ percent in November (see the box "Balance Sheet Developments over the Intermeeting Period").

⁴ On November 17, the Federal Reserve Board issued guidelines for evaluating proposals by large bank holding companies to undertake capital actions in 2011, such as increasing dividend payments or repurchasing or redeeming stock.

⁵ Transaction deposits grew rapidly in November because of a four-day suspension of the retail sweeps program at one large commercial bank in order to allow system maintenance to be performed. Total liquid deposits were unaffected by the event, as the suspension resulted in an equivalent decrease in savings deposits.

Bank Credit

Commercial Banking and Money



Note: The data have been adjusted to remove the estimated effects of marking certain securities to market (FAS 115); the initial consolidations of assets under FIN 46. FAS 166. and FAS 167; and nonbank structure activity of \$5 billion or more.

Source: Federal Reserve Board.

Return on Assets, by Bank Size



Growth of M2 and Its Components

Percent, s.a.a.r.						
	M2	Liquid deposits	Small time deposits	RMMF	Curr.	
2008 2009	8.6	6.9	12.4	13.7	5.8	
H1	7.6	16.4	-6.1	-15.4	10.8	
H2	2.4	16.5	-26.4	-31.0	2.9	
2010						
H1	.9	8.8	-22.3	-22.3	4.2	
Q3	4.6	10.3	-19.9	-5.9	5.7	
Oct.	8.0	16.8	-30.3	-16.6	10.5	
Nov.(e)	5.1	12.6	-30.4	-17.0	9.9	

Note: RMMF are retail money market mutual funds. e Estimate.

Source: Federal Reserve Board.



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

Provisions and Charge-Offs







Balance Sheet Developments over the Intermeeting Period

Total assets of the Federal Reserve edged up to almost \$2.4 trillion over the intermeeting period (see table). In line with FOMC policy, total securities holdings rose \$69 billion, as Treasury purchases outpaced runoffs of agency debt and agency mortgage-backed securities.

The Trading Desk at the FRBNY conducted a number of operations to purchase longer-term Treasury securities over the intermeeting period. The operations, which covered a range of maturities for nominal securities as well as one operation in TIPS, resulted in a \$98.5 billion increase in Treasury securities holdings.¹ The Desk has temporarily relaxed its 35 percent per issue limit on SOMA holdings of individual Treasury issues, and holdings of 23 issues now exceed this limit. The majority of the issues for which the SOMA now holds greater than 35 percent are 30-year bonds with remaining maturities between 2 and 10 years. The SOMA's largest ownership concentration is 50 percent, and it owns this amount of three separate issues, all of which are 30-year bonds with a remaining maturity of about 10 years.

Loans outstanding under the Term Asset-Backed Securities Loan Facility (TALF) dropped about \$2 billion over the intermeeting period, reflecting prepayments of TALF loans. Support for specific institutions remained about unchanged.

On the liability side of the Federal Reserve's balance sheet, the Treasury's general account decreased \$36 billion, on net, over the intermeeting period, while the supplementary financing account held steady at \$200 billion. The Federal Reserve conducted an additional small-scale operation under the Term Deposit Facility; term deposits outstanding remain at about \$5 billion. In terms of other Federal Reserve liabilities, Federal Reserve notes in circulation climbed \$9 billion, and reserve balances of depository institutions increased \$93 billion.

Finally, on October 29, the FRBNY began to hold, as agent, the cash proceeds from the disposition of certain assets held by AIG. As announced in AIG's recapitalization plan on September 30, these cash proceeds, which currently total about \$27 billion, will eventually be used to repay the credit facility extended to AIG by the FRBNY as well as other interests owned by the U.S. government. These holdings reduce reserve balances by \$27 billion.

¹ These figures for securities holdings reflect only trades that have settled. Over the intermeeting period, the Trading Desk committed to purchase, but has not settled, an additional \$8.9 billion of Treasury securities.

Billions of do	ollars			
	Change since last FOMC	Current (12/06/10)	Maximum level	Date of maximum level
Total assets	72	2,375	2,375	12/06/10
Selected assets:				
Liquidity programs for financial firms	-0	+0	677	11/06/08
Primary, secondary, and seasonal credit	-0	+0	114	10/28/08
Foreign central bank liquidity swaps	+0	+0	586	12/04/08
Term Asset-Backed Securities Loan Facility (TALF)	-2	25	49	03/11/10
Support for specific institutions	-0	113	121	05/05/10
Credit extended to AIG, net	2	21	91	10/27/08
Preferred interests in AIA Aurora LLC and ALICO Holdings LLC	0	26	26	12/06/10
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC	-2	67	75	12/30/08
Securities held outright*	69	2,112	2,112	12/06/10
U.S. Treasury securities	99	941	941	12/06/10
Agency debt securities	-2	148	169	03/11/10
Agency mortgage-backed securities	-28	1,023	1,129	06/14/10
Total liabilities	74	2,318	2,318	12/06/10
Selected liabilities:				
Federal Reserve notes in circulation	9	935	937	11/24/10
Reverse repurchase agreements	-6	50	110	10/14/08
Foreign official and international accounts	-6	50	92	12/22/08
Others	0	+0	26	09/26/08
Reserve balances of depository institutions	93	1,060	1,249	02/24/10
Term deposits held by depository institutions	-0	5	5	11/03/10
U.S. Treasury, general account	-36	19	187	12/31/09
U.S. Treasury, supplementary financing account	-0	200	559	10/22/08
Funds from AIG asset dispositions, held as agent	13	27	27	12/06/10
Other deposits	-0	+0	81	03/12/10
Total capital	-1	57	60	08/03/10

Federal Reserve Balance Sheet

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

Senior Credit Officer Opinion Survey on Dealer Financing Terms

Overall, respondents to the December 2010 Senior Credit Officer Opinion Survey on Dealer Financing Terms indicated an easing in credit terms with respect to counterparty relationships and securities financing transactions over the previous three months.¹ Dealers also noted an increase in demand for funding for all types of securities considered in the survey. By contrast, respondents reported little change in the terms and conditions prevalent in over-thecounter (OTC) derivatives markets over the reference period.²

- Dealers indicated that they had loosened credit terms offered to each of the distinct classes of counterparties—including hedge funds and other private pools of capital, insurance companies and other institutional investors, and nonfinancial firms— considering all transaction types covered in the survey. More aggressive competition from other institutions and an improvement in the current or expected financial strength of counterparties were frequently cited reasons for the loosening of terms. As in the September survey, respondents also noted an increase in the intensity of efforts by clients in each major class to negotiate more-favorable terms.
- Similar to the September survey, only a few respondents indicated that they had increased the amount of resources and attention devoted to management of concentrated credit exposures to dealers and other financial intermediaries. The pattern observed in the September and December surveys represents a notable shift from the June survey in which more than half the respondents reported an increase in the resources and attention devoted to the management of concentrated credit exposures.

¹ The December survey collected qualitative information on changes over the previous three months in credit terms and conditions in securities financing and over-the-counter (OTC) derivatives markets. In addition to the core set of questions, this survey included a set of special questions about changes since the beginning of 2010 in demand for, and respondents' willingness to fund, high-yield corporate bonds; a second set of special questions focused on demand for, and respondents' willingness to fund, exposures to syndicated leveraged loans through total return swaps (TRS) during the same period; and a final set of special questions regarding respondents' assessments of the effects of recent legal uncertainties surrounding legacy residential mortgage-backed securities (RMBS). The 20 institutions participating in the survey account for almost all of the dealer financing of dollar-denominated securities to nondealers and are the most active intermediaries in OTC derivatives markets. The survey was conducted during the period from November 15, 2010, to November 26, 2010. The core questions ask about changes between September 2010 and November 2010.

² For questions that ask about credit terms, reported net percentages equal the percentage of institutions that reported tightening terms ("tightened considerably" or "tightened somewhat") minus the percentage of institutions that reported easing terms ("eased considerably" or "eased somewhat"). For questions that ask about demand, reported net fractions equal the percentage of institutions that reported increased demand ("increased considerably" or "increased somewhat") minus the percentage of institutions that reported decreased demand ("decreased considerably" or "decreased somewhat").

- As in the September survey, responses to questions about OTC derivatives transactions suggested that nonprice terms were little changed across different types of underlying asset classes (underlyings), considering both plain and customized derivatives.
- With respect to securities financing transactions, respondents reported an easing of some terms applicable to the funding of most types of collateral considered in the survey. Dealers also noted that demand for funding of all types of securities had increased over the past three months, including demand for funding of equities, which was reported largely unchanged in the September survey.
- Responses to special questions about the funding of high-yield corporate bonds pointed to an increase in demand for funding relative to the beginning of 2010, particularly on the part of private pools of capital and, to a lesser extent, dealers (and other financial intermediaries). Responses to special questions about total return swaps (TRS) referencing syndicated leveraged loans also pointed to an increase in demand for these instruments, especially by private pools of capital and, to a lesser extent, dealers (and other financial intermediaries) and insurance companies, pension funds, and other institutional investors.
- With respect to the supply of such funding, the majority of respondents indicated that their willingness to expand financing of high-yield corporate bonds or the provision of exposure to syndicated leveraged loans through TRS at prevailing market rates and under prevailing market terms had remained basically unchanged.
- Dealer responses to special questions regarding the effects of recent legal uncertainties relating to improper handling of foreclosure documents, compliance with securitization and servicing agreements, and possible repurchase obligations with respect to previously securitized mortgage loans indicated that liquidity and market functioning had worsened somewhat in the private-label RMBS market.

COUNTERPARTY TYPES

Dealers and other financial intermediaries

As in the September survey, the vast majority of respondents reported that the amount of resources and attention devoted to management of concentrated exposures to dealers and other financial intermediaries had remained basically unchanged over the past three months, with only three institutions pointing to an increase. These responses contrast with those to the June survey, also conducted during a period of heightened concern about European financial conditions, in which over one-half of dealers reported an increase. The vast majority of respondents also noted that the volume of mark and collateral disputes with dealers and other financial intermediaries, a rise in which is generally viewed as a leading indicator of market stress, had remained basically unchanged over the previous three months.

Hedge funds, private equity firms, and other similar pools of capital

Consistent with the September survey, the responses indicated that, across all types of transactions covered in the survey, dealers provided somewhat more-favorable credit terms over the past three months to hedge funds, private equity firms, and other similar private pools of capital (private pools of capital). One-fourth of respondents, on net, eased price terms, which include most importantly financing rates. Nearly one-half of institutions, on net, reported having eased nonprice terms, which include haircuts, maximum maturity, covenants, cure periods, and cross-default provisions or other documentation features. The institutions that reported an easing of terms pointed to more aggressive competition from other institutions, an improvement in the current or expected financial strength of counterparties, and an improvement in general market liquidity and functioning as the main reasons for the changes.³ More than one-half of the respondents to the December survey noted an increase in the intensity of efforts by private pools of capital to negotiate more-favorable price and nonprice terms over the past three months. Looking forward over the next three months, most dealers expected price and nonprice terms applicable to private pools of capital to remain basically unchanged, while a small net fraction of respondents indicated that they anticipate an easing of terms.

Insurance companies, pension funds, and other institutional investors

The survey responses indicated that dealers also provided more-favorable credit terms for insurance companies, pension funds, and other institutional investors (institutional investors). A small net fraction of respondents reported having eased price and nonprice terms over the past three months. No respondents reported tightening either price or nonprice terms. The most important reason indicated for easing terms was more aggressive competition from other institutions. Improvements in current or expected financial strength of counterparties were also cited. One-half of the dealers reported an increase in the intensity of efforts by institutional investors to negotiate more-favorable price and nonprice terms over the past three months. Looking forward over the next three months, more than one-fourth of respondents, on net, expected credit terms applicable to institutional investors to ease somewhat.

Nonfinancial corporations

The responses to questions about credit terms applicable to nonfinancial corporations also pointed to a modest easing over the past three months. Small portions of respondents, on balance, indicated that they had eased price and nonprice terms. The most important reason cited for easing terms was an increased willingness of institutions to take on risk. The other factors cited as exerting the greatest influence on dealers' policies toward nonfinancial corporations over the past three months included more aggressive competition from other institutions, improvements in general market liquidity and functioning, adoption of less stringent market conventions, and

³ An ordinal ranking of reasons for loosening or tightening is produced by adding the number of respondents characterizing each reason as "very important" to the number characterizing the reason as "somewhat important" and then sorting the sums in descending order. For reasons with the same ranking based on the sums, the response that the greater number of dealers characterizes as "very important" takes priority.

improvements in the current or expected financial strength of counterparties. More than one-third of respondents indicated that there had been an increase in the intensity of efforts by nonfinancial corporations to negotiate more-favorable price and nonprice terms over the past three months. Looking forward over the next three months, the majority of dealers noted that they expected credit terms to remain basically unchanged, while a small net fraction of respondents indicated that they anticipate somewhat looser terms.

OVER-THE-COUNTER DERIVATIVES

As in the previous two surveys, responses to questions dealing with OTC derivatives trades pointed to little change over the past three months in the terms for "plain vanilla" and customized derivatives across the various underlyings—foreign exchange, interest rates, equities, credit, commodities, and total return swaps referencing nonsecurities (such as bank and whole loans). Of note, there was no indication in responses to the December survey of an increase in mark and collateral disputes with respect to OTC foreign exchange derivatives as was reported in the September survey. However, small net portions of respondents active in the OTC interest rate and OTC equity derivatives markets continued to report an increase in the volume of such disputes with respect to contracts referencing those underlyings.

SECURITIES FINANCING

As in the previous survey, responses to questions that were focused on securities financing pointed to an easing of some terms under which a broad spectrum of securities were being funded.⁴ This reported loosening of terms was generally evident for both average clients and most-favored clients. With regard to terms under which high-grade corporate bonds are funded, net shares of survey respondents ranging between 20 and 40 percent reported an extension in the maximum maturity, an increase in the maximum amount of funding, and a decrease in haircuts. With respect to terms under which equities are funded (including through repo-like stock loan transactions), net fractions of dealers ranging between 10 and 25 percent indicated that they had extended the maximum maturity, increased the maximum amount of funding, and decreased the financing rate. Regarding terms under which agency RMBS are funded, net portions of respondents ranging between 22 and 28 percent noted that they had extended the maximum maturity and increased the maximum amount of funding. Finally, with respect to terms under which ABS other than agency RMBS are funded, net fractions of dealers ranging between 15 and 31 percent reported an extension in the maximum maturity, an increase in the maximum amount of funding, a decline in financing rates, and a loosening of covenants and triggers.

Survey respondents indicated that demand for funding for all types of securities considered in the survey had increased over the past three months. The net fractions of respondents that noted an increase in demand were similar to those in the September survey; the only exception was the share of dealers that reported an increase in demand for funding of

⁴ In this survey, securities financing includes lending to clients collateralized by high-grade corporate bonds, equities, agency RMBS, and other ABS.

equities, which was considerably higher. On balance, about 30 percent of dealers that lend against agency RMBS, ABS other than agency RMBS, and equities reported an increase in demand for funding in the December survey, while one-fifth of survey respondents that lend against high-grade corporate bonds indicated that demand for funding had increased.

Respondents indicated that liquidity and functioning in several markets had improved over the past three months.⁵ More than 40 percent of dealers reported an improvement in markets for ABS other than agency RMBS, while a similar fraction of respondents noted an improvement in the high-grade corporate bond market. By contrast, the vast majority of dealers indicated that liquidity and functioning in the agency RMBS market had remained basically unchanged.

Survey respondents generally reported that the volume of collateral and mark disputes with clients related to the funding of collateral of all types had remained basically unchanged.

SPECIAL QUESTIONS ON THE FUNDING OF HIGH-YIELD CORPORATE BONDS

In response to special questions about the funding of high-yield corporate bonds, onethird of dealers active in this market, on net, noted an increase in the demand for funding relative to the beginning of 2010. In explaining the reported change in demand, respondents cited the behavior of private pools of capital and, to a lesser extent, dealers (and other financial intermediaries) as important. The majority of respondents reported that their willingness to fund high-yield corporate bonds at prevailing market rates and under prevailing market terms had remained basically unchanged.

SPECIAL QUESTIONS ON THE TOTAL RETURN SWAPS REFERENCING SYNDICATED LEVERAGED LOANS

In response to special questions about TRS referencing syndicated leveraged loans, onethird of respondents active in this market, on balance, reported an increase in demand for exposure to these instruments relative to the beginning of 2010. Respondents cited the behavior of private pools of capital and, to a lesser extent, dealers (and other financial intermediaries) as well as institutional investors as important in explaining the increase in demand. As in the case of high-yield corporate bonds, the majority of survey respondents reported that their willingness to provide exposure to syndicated leveraged loans through TRS at prevailing market rates and under prevailing market terms had remained basically unchanged.

SPECIAL QUESTIONS ON THE EFFECT OF LEGAL UNCERTAINTIES SURROUNDING LEGACY RMBS

On net, about 30 percent of respondents reported that the liquidity and functioning of RMBS markets had worsened somewhat as a result of the legal uncertainties relating to the improper handling of foreclosure documents, compliance with securitization and servicing

⁵ Note that survey respondents are instructed to report changes in liquidity and functioning in the market for the underlying collateral to be funded through repurchase agreements and similar secured financing transactions, not changes in the funding market itself.

agreements, and possible repurchase obligations on the part of financial institutions with respect to previously securitized mortgage loans.⁶ The reported effects were largely concentrated in the private-label RMBS market.

⁶ Among the 13 firms indicating material activity in the RMBS market, the four respondents reporting that liquidity and functioning in this market have been adversely affected all fall within the top decile of dealers measured by market share, and together account for a market share of approximately 37 percent.

Risks and Uncertainty

ALTERNATIVE SCENARIOS

To illustrate some of the risks to the outlook, we consider a number of alternatives to the baseline projection using simulations of staff models. In the first scenario, we consider the possibility that the economy will recover more vigorously than we expect. The second scenario considers the contrasting risk of an even more sluggish recovery in aggregate demand than we are projecting. We then turn to opposing risks to the inflation outlook—that we will experience the more-pronounced disinflation predicted by some of the staff's reduced-form models or, alternatively, that concerns about the System's large balance sheet and the long-run fiscal outlook in the United States will push inflation much higher than in the baseline. The final two scenarios consider risks of recession in Europe, including potential financial spillover effects to the United States and our major non-European trading partners.

In the alternative scenarios, monetary policy responds to movements in real activity and inflation as prescribed by a simple policy rule for the federal funds rate, while nontraditional policy is assumed to follow the baseline path. We generate the first four scenarios using the FRB/US model and an estimated policy rule. The last two scenarios are generated using the multicountry SIGMA model, which uses a different policy rule for the federal funds rate that employs an alternative concept of resource utilization.¹

Stronger Recovery

The baseline projection shows the recovery picking up speed gradually in coming quarters. But both household and business spending may gather steam more rapidly than we anticipate, reflecting a mutually reinforcing dynamic of improved optimism, higher spending, greater hiring, and increasing credit availability. This scenario examines the consequences of a snapback in outlays on consumer durables, housing, and business capital by assuming that the pickup of spending in these categories approximates the sort

¹ For FRB/US, 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.

(l service p			
Measure and scenario	2010	2011	2012	2013	2014-
	H2	2011	2012	2010	15
Real GDP					
Extended Tealbook baseline	2.6	3.7	4.4	4.7	4.1
Stronger recovery	3.0	5.2	5.3	4.1	3.4
Weaker recovery	2.5	2.2	2.9	4.1	5.3
Greater disinflation	2.6	3.6	4.0	4.3	4.8
Higher inflation	2.6	3.4	3.8	4.0	3.9
Mild European recession	2.6	3.4	4.1	4.8	4.2
Severe European recession	2.6	2.5	3.4	4.9	4.5
Unemployment rate ¹					
Extended Tealbook baseline	9.7	8.9	8.0	7.1	5.3
Stronger recovery	9.7	8.3	6.9	6.1	5.2
Weaker recovery	9.7	9.4	9.4	9.0	6.1
Greater disinflation	9.7	8.9	8.2	7.5	5.2
Higher inflation	9.7	9.0	8.4	7.8	6.3
Mild European recession	9.7	9.0	8.3	7.4	5.5
Severe European recession	9.7	9.3	8.9	8.0	5.9
Core PCE inflation					
Extended Tealbook baseline	.7	.9	.9	1.1	1.4
Stronger recovery	.7	.9	1.1	1.4	1.8
Weaker recovery	.7	.9	.6	.5	.7
Greater disinflation	.7	.5	.0	2	3
Higher inflation	.8	1.4	2.2	2.8	3.0
Mild European recession	.7	.7	.7	1.0	1.4
Severe European recession	.7	.3	.3	.9	1.4
Federal funds rate ¹					
Extended Tealbook baseline	.2	.1	.1	1.3	4.1
Stronger recovery	.2	.3	1.8	2.9	4.5
Weaker recovery	.2	.1	.1	.1	2.5
Greater disinflation	.2	.1	.1	.1	1.9
Higher inflation	.2	.1	.5	2.5	5.4
Mild European recession	.2	.1	.1	1.1	3.9
Severe European recession	.2	.1	.1	.6	3.6

Alternative Scenarios

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

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

of pronounced cyclical rebound typically seen after deep recessions. The resulting stronger activity and improved optimism also buoy financial markets and push equity prices 12 percent above baseline by the end of next year; financial conditions improve further into 2012. This virtuous circle causes real GDP to expand 5¹/₄ percent in both 2011 and 2012, bringing the unemployment rate down to 7 percent by late 2012. With less slack, inflation is higher; however, the upward pressure is partially checked by more capital deepening, and thus by larger productivity gains, which hold down unit labor costs. Under these conditions, the federal funds rate begins to rise in late 2011 and remains above baseline thereafter.

Weaker Recovery

Ongoing financial headwinds and lingering uncertainty could restrain consumer and business confidence more than we expect. Moreover, impaired credit conditions may be muting the stimulative effect of low interest rates on household and business spending more than we have assumed. In this scenario, the modest expected improvements in confidence, credit conditions, and the labor market underlying our baseline projection are delayed even further. As a result, the personal saving rate climbs to 7³/₄ percent by the end of 2012 and firms are more reluctant to boost capital spending. In this environment, house prices fall 10 percent relative to baseline over the next two years, and residential investment is essentially flat; in addition, financial market participants reassess the outlook for earnings and the riskiness of holding equities, causing share prices to fall about 7 percent relative to baseline by late next year. Real GDP expands only 2¹/₄ percent next year and labor market conditions stagnate, so that the unemployment rate hovers a bit below 9¹/₂ percent through the end of 2012. Inflation falls in response to morepersistent slack and remains below baseline through 2015. Liftoff of the federal funds rate from its effective lower bound is delayed until the second half of 2014.

Greater Disinflation

In the baseline, inflation remains relatively stable over the next two years and then begins to rise as unemployment declines in an environment of well-anchored inflation expectations. But the stability of various measures of expected inflation to date may be misleading us about the potential for further disinflation in a persistently weak economy. In this scenario, actual inflation falls below zero by 2013 and remains negative thereafter—a decline that is in line with the predictions of some of our forecasting equations that do not condition on survey measures of expected inflation. With inflation

Forecast Confidence Intervals and Alternative Scenarios

Confidence Intervals Based on FRB/US Stochastic Simulations



Page 80 of 100

Measure	2010	2011	2012	2013	2014	2015
Real GDP						
(percent change, Q4 to Q4)						
Projection	2.7	3.7	4.4	4.7	4.7	3.5
Confidence interval						
Tealbook forecast errors	2.1-3.2	2.0-5.5	2.7-6.2			
FRB/US stochastic simulations	2.3–3.0	2.2–5.5	2.5-6.4	2.4–6.6	2.3–6.9	1.0-6.0
Civilian unemployment rate						
(percent, Q4)						
Projection	9.7	8.9	8.0	7.1	6.1	5.3
Confidence interval						
Tealbook forecast errors	9.6–9.8	8.2–9.6	6.9–9.1			
FRB/US stochastic simulations	9.6–9.8	8.2–9.6	6.8–9.0	5.9-8.5	4.9–7.5	4.1–6.7
PCE prices, total						
(percent change, $Q4$ to $Q4$)						
Projection	1.2	1.1	.9	1.1	1.4	1.6
Confidence interval						
Tealbook forecast errors	1.0–1.4	2–2.3	4-2.2			
FRB/US stochastic simulations	1.0–1.4	.2–2.2	2–2.1	.0–2.3	.2–2.6	.5–2.9
PCE prices excluding						
food and energy						
(percent change, $Q4$ to $Q4$)						
Projection	.9	.9	.9	1.1	1.3	1.5
Confidence interval						
Tealbook forecast errors	.7–1.1	.2–1.6	.1–1.7			
FRB/US stochastic simulations	.8–1.1	.3–1.6	.1–1.8	.2–2.0	.4–2.3	.6–2.5
Federal funds rate						
(percent, Q4)						
Projection	.2	.1	.1	1.3	3.3	4.1
Confidence interval						
FRB/US stochastic simulations	.2–.2	.1–1.1	.1–2.2	.1–3.9	1.1–6.0	1.8–6.8

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

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.

continuing to fall, the perceived riskiness of holding bonds is assumed to increase. As a result, bond term premiums rise and put upward pressure on real long-term interest rates, thereby modestly damping spending and boosting unemployment relative to baseline over the next few years. In response to lower inflation and greater economic slack, the federal funds rate remains at its effective lower bound until the middle of 2014. In the longer run, monetary policy is sufficiently stimulative to eventually bring the unemployment rate below baseline and to check the deflationary pressure.

Higher Inflation

The extraordinary expansion of the Federal Reserve's balance sheet and the deterioration of the long-run fiscal outlook in the United States carry a risk of putting upward pressure on expected, and hence actual, inflation. Indeed, some commentators have viewed the rise in commodity prices over the past year as a harbinger of such a development. In this scenario, inflation expectations move up markedly over the next two years, creating a situation in which actual inflation shifts up to 3 percent within a few years. In addition, the unmooring of long-run expectations is assumed to be accompanied by greater uncertainty about future inflation prospects, and thus higher term premiums on long-term interest rates. The latter development, in conjunction with an earlier and more pronounced rise in the federal funds rate in response to higher inflation, results in tighter financial conditions that noticeably slow the pace of the economic recovery over time.

Mild European Recession

In the baseline forecast, we project that the European economies will expand at a modest pace next year. In this scenario, we assume that financial stress in Europe intensifies and pushes Europe into a mild recession by early next year. Specifically, European real GDP falls about 2 percent relative to baseline in 2011 as sovereign and private borrowing costs rise, notwithstanding a depreciation of the euro of about 10 percent against the dollar. In response to the stronger dollar and weaker foreign activity, real net exports decline in the United States. These developments cause U.S. real GDP to expand more slowly over the next two years, leaving the unemployment rate about ¹/₄ percentage point above baseline by the end of 2012. Core inflation in the United States is ¹/₄ percentage point below baseline in 2011 and 2012, reflecting both lower import prices and greater resource slack. With lower inflation and greater slack, the federal funds rate runs a bit below baseline after a liftoff in early 2013; the easier stance

of monetary policy, coupled with a gradual improvement in European conditions, provides support to economic activity in the longer run.

Severe European Recession with Contagion

In this scenario, we assume a much larger rise in European sovereign and private yields than in the previous scenario and a considerably larger fall in the euro. Moreover, the problems in European financial markets are assumed to have pronounced spillover effects on financial markets in the United States and in our major non-European trading partners. Specifically, higher European sovereign spreads cause corporate bond spreads in Europe to rise about 300 basis points by early next year relative to baseline, and European GDP falls more than 5 percent relative to baseline next year despite a depreciation of the euro of over 20 percent against the dollar. U.S. net exports are adversely affected by the stronger dollar and weaker foreign activity, and domestic demand is restrained by a 50 basis point rise in U.S. corporate bond spreads, a weaker stock market, and reduced confidence. Altogether, U.S. real GDP growth falls about 1¹/₄ percentage points below baseline in 2011 and about 1 percentage point below baseline in 2012, and the unemployment rate remains above 9 percent through most of 2012. The greater resource slack, coupled with lower import prices, pushes PCE inflation down to about ¹/₄ percent in 2011 and 2012. The federal funds rate remains near zero until late 2013.

OUTSIDE FORECASTS

The last available Blue Chip forecast was released in early November, and hence is now out of date. However, an updated Blue Chip survey will be released on December 10, and we will circulate a note to the Committee then summarizing its results. (This page is intentionally blank.)

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

	Nomina	al GDP	Real	GDP	PCE pr	rice index	Core PCE	price index	Unemploy	ment rate ¹
Interval	10/27/10	12/08/10	10/27/10	12/08/10	10/27/10	12/08/10	10/27/10	12/08/10	10/27/10	12/08/10
Quarterly 2010:Q1 Q2 Q4	33.4 2.8 2.8	3.4 2.8 2.8	3.7 1.7 2.4	3.7 2.5 2.5	2.1 .0 1:2	2.1 .0 1.8	1.2 1.0 1.1	11.2 11.0 .6	9.6 7.9 7.6	9.6 7.6 7.6
2011:Q1 Q2 Q3 Q4	4.5 5.5 5.5	4.6 4.5 5.1	2.7 3.4 4.0	0.00 9.00 9.00 0.00 0.00 0.00 0.00 0.00	1.3 1.1 1.1	1.6 1.0 .9	1.1 1.0 1.0 1.0	0.1 0.6 . 6 . 8	9.5 9.5 9.0	9.5 9.1 8.9
2012:Q1 Q2 Q3 Q4	6.0 6.0 6.0	5.5 5.6 5.6	4.6 4.7 4.8 4.8	4.4 4.4 7.5		و، و، و، و،	1.0 1.0 1.0	ونونونون	8.8 8.6 8.2 7.9	8.8 8.3 8.0
Two-quarter ² 2010:Q2 Q4	4.3 3.3	4.3 3.9	2.7 2.0	2.7 2.6	1.0 1.5	1.0 1.4	1.1 1.0	1.1 .7	ώ. 0.	£ 0.
2011:Q2 Q4	4.2 5.2	4.5 4.9	3.1 4.2	3.5 4.0	$1.2 \\ 1.1$	1.3 .8	$1.1 \\ 1.0$	1.0		ώ.
2012:Q2 Q4	6.0 6.0	5.6 5.6	4.6 4.8	4.4 4.5	1.1 1.1	و: و:	1.0 1.0	<u>6</u> . <u>6</u> .	4 7	
Four-quarter ³ 2009:Q4 2010:Q4 2011:Q4 2012:Q4	.6 3.8 6.0 6.0	.6 5.7 5.6	43.2. 1.76 1.76		1.5 1.1 1.1	1.5 1.1 9.	1.7 1.1 1.0	1.1 6.9 6.9 6.9	3.1 3 7	3.1 8 9
<i>Amual</i> 2009 2011 2012	-1.7 3.7 4.0 5.7	-1.7 3.8 5.3	-2.6 2.9 4.5	-2-2 7.28 7.32 7.32 7.32 7.32 7.32 7.32 7.32 7.32	1:28 1:12 1:1	217.1 1.7 1.2 1.2 1.7	1.5 1.4 1.1 1.0	1.5 9.0 9.0	9.3 9.3 8.8	9.3 9.2 8.4
1. Level, exce 2. Percent cha 3. Percent cha	pt for two-quing from twinge from four	uarter and fo o quarters ea ır quarters ea	ur-quarter ir urlier; for un arlier; for un	ntervals. employment employment	rate, change t rate, change	e is in percer	ntage points. ntage points.			

Greensheets

Greensheets

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

	2	010			201	1			201	5				
Q1 Q2 Q	ð	3	Q4	Q1	Q2	0 3	Q4	Q1	Q2	Q3	Q4	2010 ¹	2011 ¹	2012 ¹
3.7 1.7 2.7 3.7 1.7 1.7 1.7	2.7 1.7		2.5 2.4	3.4 2.7	3.5 3.4	3.7 4.0	4.3 4.4	4.3 4.6	4.4 7.7	4.5 4.8	4.5 4.8	2.7 2.4	3.7 3.6	4.4 7.4
1.1 .9 1.2 1.1 .9 3.3 1.1 .9 .3 2.1 4.4 2.6 2.1 4.4 1.9	1.2 .3 2.6 1.9		4.2 3.7 2.1	3.3 3.5 3.5 3.6	3.8 3.7 3.9 3.9	3.8 3.8 4.5 4.2	4.4 5.0 5.0	3.9 4.5 5.0	4.0 4.5 5.3	4.0 5.3 5.3	4.5 4.9 5.0 5.6	1.8 1.5 3.0 2.6	3.9 3.8 4.3 0.4	4.1 4.6 5.3
1.9 2.2 2.8 1.9 2.2 2.6 8.8 6.8 7.4 4.2 1.9 1.8 .1 1.6 2.5	2.8 2.6 1.8 2.5		2.7 2.2 15.5 3.0	2.2 2.4 5.5 4.2 7.2 7.2	3.3 3.3 3.3 2.6	3.5 3.3 3.1 2.8 2.8	4.0 8.9 3.1 3.5	3.7 4.1 2.9 2.9	3.9 4.3 3.0 3.0	4.2 4.5 3.5 3.3	4.2 4.8 3.6 3.5	2.2 9.6 1.2	3.5 3.1 3.4 2.8	4.0 4.4 3.3 3.2 3.2
-12.3 25.7 -27.8 -12.3 25.7 -29.9	-27.8 -29.9		-3.8 -4.7	2.9 13.5	8.0 27.2	14.0 22.3	15.6 23.3	13.5 18.4	$13.6 \\ 17.5$	$\begin{array}{c} 13.5\\ 16.0\end{array}$	13.7 16.1	-6.5 -7.3	10.0 21.5	$13.6 \\ 17.0$
7.8 17.2 10.1 7.8 17.2 5.5 20.4 24.8 16.1 20.4 24.8 9.7 -17.8 5 -4.9 -17.8 5 -5.1	10.1 5.5 16.1 9.7 -4.9 -5.1		4.0 5.8 5.6 -2.4	5.3 9.4 2.8 2.8 2.8	9.1 6.8 112.7 10.4 -2.9	9.1 7.0 112.6 10.6 7 -3.1	9.8 7.4 113.3 111.1 -5.5 -3.1	5.9 8.3 8.5 8.5 11.6 -1.8 -1.1	7.2 9.3 110.0 112.6 -1.3 6	7.3 8.6 9.8 11.3 4	8.1 8.6 8.6 10.6 10.9 .4 1.2	9.7 8.4 16.6 14.9 -6.3	8.5 6.6 12.0 10.1 -1.4 -3.0	7.1 8.7 9.7 111.6 8 8
-338 -449 -506 -338 -449 -499 11.4 9.1 6.2 11.2 33.5 16.5	-506 -499 6.2 16.5		-450 -445 8.2 -4.1	-441 -425 8.3 4.7	-432 -412 8.4 5.0	-426 -405 8.1 5.4	-422 -401 8.2 6.0	-413 -393 8.3 5.0	-411 -391 8.1 6.2	-418 -400 8.0 7.8	-412 -398 8.1 5.7	-436 -433 8.7 13.5	-430 -411 8.3 5.3	-413 -395 8.1 6.2
-1.6 3.9 4.0 -1.6 3.9 1.3 1.8 9.1 8.9 .4 7.4 8.5 5.0 12.8 9.5 -3.8 .6 .8	4.0 8.9 8.5 8.5 8.5		.9 1.1 2.5 1.4 .1	ъ. 4. 1. 1. 1. 2. 2. 1.		8. 8. 1. 1 5	8. 0. 1. 0. 8. 3. 1. 0. 8. 8. 1. 1. 0.		8. 8. 5. 0. 5. 8. 8. 1.1	9. 8. 6. 9. 4. 1. 6. 9. 1. 1. 6. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	1.0 1.0 1.0 1.6 1.6	1.8 5.4 7.1 6		8; 0; 0; 0; 0; 0; 0; 0; 0; 0; 0; 0; 0; 0;
44 69 116 44 69 114 37 61 110 8 8 6	116 114 110 6		66 75 62 4	69 60 4	62 52 4	53 58 49	50 59 4	65 62 4	81 68 78 4	98 84 95	99 81 4	74 76 68 6	58 57 4	86 74 83 4

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 Previous Tealbook	3.1 3.1	2.7 2.7	2.4 2.4	2.3 2.3	-2.8 -2.8	<i></i> й й	2.7 2.4	3.7 3.6	4.4 4.7
Final sales Previous Tealbook Priv. dom. final purch. Previous Tealbook	2.2 8.2 2.4 2.5	2.7 2.7 3.1	2.5 2.5 2.5	2.5 2.5 1.3	-1.9 -3.8 -3.8	3 -2.0 -2.0	1.8 1.5 2.6	3.9 3.8 4.3	4.1 4.6 5.3
Personal cons. expend. Previous Tealbook Durables Nondurables Services	ю. 5. 6. 6. 6. 7. 6. 7. 6. 8. 7. 7. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8.	2.7 2.1 2.6	333 232 812 812 812 812 812 812 812 812 812 81	1.7 1.7 3.9 .8 1.7	-1.9 -1.9 -2.9 .3		2.2 9.6 1.2	3.5 3.1 3.4 2.8 8	4.0 4.4 3.3 3.2
Residential investment Previous Tealbook	6.6 6.6	5.3 5.3	-15.7 -15.7	-20.7 -20.7	-24.6 -24.6	-13.4 -13.4	-6.5 -7.3	10.0 21.5	13.6 17.0
Business fixed invest. <i>Previous Tealbook</i> Equipment & software <i>Previous Tealbook</i> Nonres. structures <i>Previous Tealbook</i>	7.0 7.0 8.8 8.8 8.8 1.7	4.4 4.4 6.1 6.1 1	7.8 7.8 6.0 6.0 13.0 13.0	8.2 8.2 4.3 17.3 17.3	-8.3 -8.3 -11.8 -11.8 -1.5 -1.5	-12.7 -12.7 -4.9 -4.9 -26.5	9.7 8.8 16.6 14.9 -6.3	8.5 6.6 10.1 -1.4 -3.0	7.1 8.7 9.7 11.6 8 .0
Net exports ¹ <i>Previous Tealbook¹</i> Exports Imports	-688 -688 7.1 10.9	-723 -723 6.7 5.2	-729 -729 10.2 4.1	-655 -655 10.1 .7	-504 -504 -2.9 -6.0	-363 -363 1 -7.2	-436 -433 8.7 13.5	-430 -411 8.3 5.3	-413 -395 8.1 6.2
Gov't. cons. & invest. <i>Previous Tealbook</i> Federal Defense Nondefense State & local	. 5.3. 	2.64 2.64 .4	1:5 1:5 1:5 1:2 1:2 1:2	1.9 3.1 1.2 1.2 1.2	3.1 9.5 8.55 .4	.8 .8 .10 .10 .0	1.8 5.4 7.1 6		» و، د، ن ه. د. ۳
Change in bus. inventories ¹ <i>Previous Tealbook¹</i> Nonfarm ¹ Farm ¹	66 66 8 8	50 50 0	59 59 4	28 28 -1	-38 -38 -39 1	-113 -113 -117 3	74 76 68 6	58 55 4	86 74 83 4

1. Billions of chained (2005) dollars.

Greensheets

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

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4 4	4 4.0 4 4.0 4 4.0 4 4.0 4 4.0 4 4.0 4 4.0 4 4.0 5 5 5 5 5 5 6 5 6 5 7 4.1 4.1 4.5 4.5 4.1 4.6 4.7 5 5 5 5 6 5 6 5 7 5 7 5 6 5 6 5 7 5 6 5 6 5 6 5 7 5 6 5 6 5 7 5 6 5 6 5 6 5 6 5 6 5	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
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rices and Costs	ate except as noted)
Changes in P	(Percent, annual r

		50	10			201	_			50	12				
Item	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	20101	2011 ¹	20121
GDP chain-wt. price index <i>Previous Tealbook</i>	$1.0 \\ 1.0$	1.9	2.3	<i>c</i> i 4 [;]	1.2	 1.1	.8	.8 1.0	1.1	1.1	1.1	$1.1 \\ 1.2$	1.4 1.3	9. 1.1	1.1 1.2
PCE chain-wt. price index <i>Previous Tealbook</i>	2.1 2.1	0.0.	$1.0 \\ 1.2$	$1.8 \\ 1.9$	$1.6 \\ 1.3$	$1.0 \\ 1.1$.9 1.1	.7 1.0	.9 1.1	.9 1.1	.9 1.1	9. 1.1	$1.2 \\ 1.3$	1.1 1.1	.9 1.1
Energy Previous Tealbook	$\begin{array}{c} 16.4 \\ 16.4 \end{array}$	-17.5 -17.5	5.6 5.2	23.0 15.6	11.7 5.2	2.5 3.6	$\frac{1.2}{2.2}$.4 1.8	.1 1.8	3 1.2	.0 1.1	1	5.7 4.0	3.8 3.2	.0 1.3
Food Previous Tealbook	$1.8 \\ 1.8$	$1.6 \\ 1.6$	w vi	$1.8 \\ 1.7$	$1.6 \\ 1.1$	1.2 .9	و: و:	% 0;	$1.0 \\ 1.0$	1.1 1.1	$1.2 \\ 1.2$	$1.2 \\ 1.3$	$1.4 \\ 1.3$	$1.1 \\ 1.0$	1.1 1.1
Ex. food & energy Previous Tealbook	1:2 1:2	$1.0 \\ 1.0$.8 1.0	.6 1.1	$1.0 \\ 1.1$.9 1.0	.9 1.0	.8 1.0	.9 1.0	.9 1.0	.9	.9	.9 1.1	.9 1.0	.9 1.0
CPI Previous Tealbook Ex. food & energy Previous Tealbook	1.5 0.0	Г 6. 6.	11.5 11.2 11.2 11.2	2.2 2.1 .3 .9	$1.8 \\ 1.4 \\9 \\ 1.1$	$1.1 \\ 1.2 \\ 0.1 \\ 1.0$	1.0 1.1 .9 .0	9. 1.1 0.1	.9 1.1 9.0	9 1.1 1.0 1.1	9. 1.1 1.0	1.0 1.1 1.1	1.1 1.1 .6	$1.2 \\ 1.2 \\ 0.1 \\ 1.0 $	9. 1.1 1.0
ECI, hourly compensation ² <i>Previous Tealbook</i> ²	2.6 2.6	1.8 1.8	$1.8 \\ 1.8$	2.0 1.8	2.3 2.2	2.1 2.0	2.0	2.1 2.0	2.5 2.4	2.2	2.2 2.1	2.2 2.1	2.0 2.0	2.1 2.1	2.3 2.2
Nonfarm business sector Output per hour <i>Previous Tealbook</i>	3.9 3.9	-1.8 -1.9	2.5 2.0	.9 2.0	2.0 1.2	$1.2 \\ 1.2$	$1.3 \\ 1.6$	2.1 1.9	2.1	2.1 2.0	2.1 2.0	2.1 1.9	1.3 1.5	1.7 1.5	2.1 2.0
Compensation per hour Previous Tealbook	6:- 6:-	2.9 6	2.2 2.1	2.1 1.8	2.2 4.4	$1.8 \\ 1.8$	$1.7 \\ 1.7$	1.7 1.7	2.3 2.3	2.0 2.0	2.0 2.0	2.1	1.6 .6	$1.9 \\ 1.9$	2.1 2.1
Unit labor costs Previous Tealbook	-4.6 -4.6	4.9 1.3	ن: ۱.	1.2	1.2	છ છ	4. L.	4	<i>ч</i> й	1 .0	1 .0	0. 7	6 6	<i></i> Ч.4	.1.
Core goods imports chain-wt. price index ³ <i>Previous Tealbook³</i>	4.2 4.2	3.1 3.1	4 2.1	5.2 4.8	4.7 4.0	2.2 1.9	$1.8 \\ 1.6$	$1.2 \\ 1.1$	$1.3 \\ 1.2$	$1.4 \\ 1.3$	$1.4 \\ 1.3$	$1.4 \\ 1.3$	3.0 3.5	2.5 2.1	1.4 1.3
1 Change from fourth quarter of merious	vear to f	ourth an	artar of	vear indi	ated										

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Change from fourth quarter of previous year to fourth quarter of year indicated.
 Private-industry workers.
 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 Previous Tealbook	3.2 3.2	3.5 3.5	2.9 2.9	2.6 2.6	2.1 2.1	i, i N	1.4 1.3	.9 1.1	$1.1 \\ 1.2$
PCE chain-wt. price index <i>Previous Tealbook</i> Energy <i>Previous Tealbook</i> Food <i>Previous Tealbook</i> Ex. food & energy	18.6 18.6 18.6 18.6 18.6 18.6 18.6 18.6	22 22 23 21 25 21 25 22 25 25 25 25 25 25 25 25 25 25 25 25 25 2	0.1 °. °. °. °. °. °. °. °. °. °. °. °. °.	33.5 19.4 8.4 8.4 8.4 8.4 8.4 8 8.4 8 8 8 8 8 8	1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	1.5 1.5 1.6 1.6 1.7	112 112 112 112 112 112 112 112 112 112	1.1 1.1 3.2 1.0 0.0	e. 1 1.1 1.3 1.1 1.1 1.1
CPI Previous Tealbook Ex. food & energy Previous Tealbook	5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	3.7 3.7 2.1	2.7 2.7 2.7	2.3 2.3 2.3	2.0 2.0 2.0	1.5 1.7 1.7	1.1 1.1 .7	1.2 1.2 1.0	 9 1.1 1.1
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	$1.2 \\ 1.2$	2.0 2.0	2.1 2.1	2.3 2.2
Nonfarm business sector Output per hour <i>Previous Tealbook</i> Compensation per hour <i>Previous Tealbook</i> Unit labor costs <i>Previous Tealbook</i>	11.5 3.3 3.3 1.9 1.9	1.4 1.4 2.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5	0.0.44 .0.0. 0.0.0.0.0.0.0.0.0	.9.6 3.6 9.6 9.6 9.6 9.6	66 66 44 66 77	66 67 67 67 67 67 67 67 67 67 67 67 67 6	11:3 1.6 1.6 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	1.5 1.9 1.9 1.9 1.9	2.1 2.1 2.1 .0 .1
Core goods imports chain-wt. price index ² <i>Previous Tealbook</i> ²	3.6 3.6	2.2	2.5 2.5	2.9 2.9	3.5 3.5	-1.9 -1.9	3.0 3.5	2.5 2.1	1.4 1.3
 Private-industry workers. Core goods imports exclude computers, see the second se	emiconduct	ors, oil, an	d natural g	as.					

Class II FOMC - Restricted (FR)

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		50	10			50	11			50	12					
Item	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2010^{1}	2011 ¹	2012 ¹	
Employment and production Nonfarm payroll employment ²		Ľ.	0.	.2	4	μ.	-	8.	8.	%	6.	6.	6.	2.7	3.5	
Unemployment rate ³ $P_{revious Tealhook^3}$	9.7 9.7	9.7 9.7	9.6 9.6	9.7 9.7	9.5 9.5	9.4 9.5	9.1 0.2	8.9 0.0	× ×	8.6 8.6	8.3 2 0	8.0 7 9	9.7 9.7	8.9 0.0	8.0 7.9	
NAIRU ³	6.0	6.0	0.0 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	6.0	
Previous Tealbook ³	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
GDP gap ⁴ Previous Tealhook ⁴	-6.4 -6.4	-9.9 -9.9	-0.6 -6.6	-6.6 -6.8	-6.4 -6.8	-6.1 -6.6	-5.9	א. ה' א. א	אי 1. ג'	4.4 8.8	4 4 7 6	-3.7	-6.6 -6.8	יל יל אי א	-3.7	
Industrial production ⁵	7.1	7 1	5 2	× -	5 0	2 Y C	3 7	2 Y C	× ×	4 8	4 8	4.7	5 2	41	44	ì
Previous Tealbook ⁵	7.1	7.0	4.8 1.8	-1.5	3.5 2.5	4.0	4.7	4.5	5.0	5.6	5.5	4.8	4.3	4.2	5.2	·
Manufacturing industr. prod. ⁵	6.2	9.3 0.1	3.7	3.8 3.8	ю 4.0	3.7	4.7 2 0	4.3 6.4	4.4 A.4	5.7	5.5	4.7	5.7	4.4 4.1	5.1	
Capacity utilization rate - mfg. ³	70.0 70.0	71.6	72.3	72.9	73.7	4.9 74.2	74.8	75.5	0.0 76.0	0.0 76.8	0.4 77.6	78.2	72.9	4.7 75.5	78.2	
Previous Tealbook ³	70.0	71.6	72.2	72.0	72.5	73.3	74.3	75.3	76.2	77.2	78.2	79.1	72.0	75.3	79.1	
Housing starts ⁶	9.	9.	9.	i.	9.	Γ.	L.	8.	<u>%</u>	6.	6.	1.0	9.	Ľ.	6	
Light motor vehicle sales ⁶	11.0	11.3	11.6	12.2	12.3	12.6	13.1	13.5	14.0	14.7	15.3	15.8	11.5	12.9	15.0	
Income and saving Nominal GDP5	4.8	3.7	20	8.2	4.6	4.5	4.6	Υ.	л Л	99	20	2.6	4	4.7	26	
Real disposable pers. income ⁵	<u> </u>	5.6	6	1.5	5.2		3.7	4.1	; —	5. 4 6. 6	3.9	2.7 2.7	2.3	4		
Previous Tealbook ⁵	1.3	4.4	1.0	9.	1.9	3.1	3.2	3.9	3.7	4.3	4.0	4.4	1.8	3.0	4.1	
Personal saving rate ³ Previous Tealbook ³	5.5 5.5	6.2 5.9	5.8 5.7	5.6 5.4	6.1 5.3	6.1 5.3	6.2 5.3	6.2 5.3	5.4 5.2	5.4 5.2	5.3 5.1	5.3 5.0	5.6 5.4	6.2 5.3	5.3 5.0	
Corporate profits ⁷ Profit share of GNP ³	48.9 10.7	$\begin{array}{c} 12.7\\ 10.9\end{array}$	11.6 11.1	8.7 11.3	6.5 11.3	3.2 11.3	3.6 11.3	5.0 11.3	3.3 11.2	5.7 11.2	6.6 11.2	4.0 11.2	19.4 11.3	4.6 11.3	4.9 11.2	
Net federal saving ⁸ Net state & local saving ⁸	-1,314 29	-1,337 16	-1,338 50	-1,317 45	-1,417 46	-1,365 34	-1,344 26	-1,327 22	-1,141 32	$^{-1,111}_{39}$	-1,086 49	-1,064 52	-1,326 35	-1,363 32	-1,100 43	
Gross national saving rate ³ Net national saving rate ³	111.1 -1.8	11.7 -1.1	11.6 9	11.8 7	11.9 5	12.2 2	12.3 .0	12.5 .2	12.7 .4	13.0 .8	$13.2 \\ 1.0$	$13.3 \\ 1.2$	11.8 7	12.5 .2	$13.3 \\ 1.2$	
			-		:	-	• •	;	-							

Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise indicated.
 Change, millions.
 Percent; annual values are for the fourth quarter of the year indicated.
 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.

Percent change, annual rate.
 Level, millions; annual values are annual averages.
 Percent change, annual rate, with inventory valuation and capital consumption adjustments.
 Billions of dollars; annual values are annual averages.

Other Macroeconomic Indicators

Greensheets Þ

Item	2004	2005	2006	2007	2008	2009	2010	2011	2012	
<i>Employment and production</i> Nonfarm payroll employment ¹ Unemployment rate ² <i>Previous Tealbook²</i>	2.0 5.4 5.4	2.4 5.0 5.0	2.1 4.5 4.5	1.2 4.8 4.8	-2.8 6.9 6.9	-5.4 10.0 10.0	9. 7.9 7.9	2.7 8.9 9.0	3.5 8.0 7.9	
NAIRU ² <i>Previous Tealbook²</i> GDP gap ³ <i>Previous Tealbook³</i>	5.0 5.0 5	5.0 5.0 .1	5.0 5.0 .1	5.0 5.0 .0	5.3 5.3 6.9 6.9	6.0 6.0 -6.7 -6.7	6.0 6.6 -6.8 -6.8	6.0 6.0 -5.5 -5.8	6.0 6.0 -3.7 -3.8	
Industrial production ⁴ <i>Previous Tealbook</i> ⁴ Manufacturing industr. prod. ⁴ <i>Previous Tealbook</i> ⁴ Capacity utilization rate - mfg. ² <i>Previous Tealbook</i> ²	2.9 3.5 777 4.77 2.9	2.3 3.5 8.8 8.8 8.8 8.8	2.5 2.5 2.0 79.0 79.0	2.3 2.3 2.6 79.1 79.1	-7.6 -7.6 -10.0 -10.0 70.9 70.9	-3.8 -3.8 -4.1 -4.1 68.8 68.8	5.3 5.7 72.9 72.0	4.1 4.4 4.7 7.5 75.5 75.3	4.4 5.2 6.1 79.1 79.1	
Housing starts ⁵ Light motor vehicle sales ⁵	2.0 16.8	2.1 16.9	$1.8 \\ 16.5$	$1.4 \\ 16.1$.9 13.1	.6 10.3	.6 11.5	.7 12.9	.9 15.0	
Income and saving Nominal GDP ⁴ Real disposable pers. income ⁴ <i>Previous Tealbook⁴</i> Personal saving rate ² <i>Previous Tealbook²</i>	6.6 3.5 3.6 3.6	6.3 .6 1.5 1.5	5.4 4.6 2.5 2.5	5.0 1.5 2.1 2.1	7 1.0 5.2 5.2	6. 4. 4. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6	4.1 2.3 5.6 5.4	4.7 3.0 5.3 5.3	5.6 3.1 5.3 5.3	
Corporate profits ⁶ Profit share of GNP ²	$21.9 \\ 10.5$	19.6 11.8	$3.7 \\11.6$	-8.1 10.1	-31.9 6.9	42.5 9.8	19.4 11.3	4.6 11.3	4.9 11.2	
Net federal saving ⁷ Net state & local saving ⁷	-379 -8	-283 26	-204 51	-245 12	-616 -47	-1252 -20	-1326 35	-1363 32	-1100 43	
Gross national saving rate ² Net national saving rate ²	14.3 2.7	15.5 3.5	16.3 4.2	$13.6 \\ 1.3$	11.8 -1.4	10.8 -2.3	11.8 7	12.5 .2	$13.3 \\ 1.2$	
1 Change millions										

Change, millions.
 Percent; values are for the fourth quarter of the year indicated.
 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.

Percent change.
 Level, millions; values are annual averages.
 Percent change, with inventory valuation and capital consumption adjustments.
 Billions of dollars; values are annual averages.

		,		Ī												
		Fisca	l year			201	0			201				201	5	
Item	2009 ^a	2010	2011	2012	Ql ^a	Q2 ^a	Q3 ^a	Q4	QI	Q2	Q3	Q4	QI	Q2	Q3	Q4
I'niffod budaot									N	000000	11 odine	2				
Unitieu buuget Receipts ¹ Outlavs ¹	2104 3520	2162 3456	2268 3657	2588 3661	466 795	643 930	565 855	540 924	465 916	010 674 910	11.y aujusu 589 907	554 554 923	558 962	799 913	676 864	648 964
Surplus/deficit ¹	-1416	-1294	-1389	-1074	-329	-287	-290	-384	-451	-236	-318	-368	403	-114	-188	-317
Frevious 1 euroook On-budget	-1410 -1553 127	-1294 -1371 77	-1417 -1417	-1020 -1158 05	-359 -359 20	-20/ -351	-267 -267	-414 -426 42	-427	-278 -278	-209 -286 27	-395 -395	-403 -403	-184	-176 -176	-370
	101		ī	6	00	5	C4-	1 †	+ 7	1 †	4C-	1	7	0	71-	t
Means of financing Borrowing	1743	1474	1418	1094	478	344 2	390 20	373	516	216	313	358	393	139	203	307
Cash decrease Other ²	96 -424	-35 -145	09 -88	0 -20	-25 -124	-71 14	-20	10	-94 -	11	10 -5	- S I	ν'n	-20 -5	-10 -5	ъ ъ
Cash operating balance, end of period	275	310	250	250	219	290	310	300	270	260	250	235	220	240	250	235
NIPA federal sector									- Season	allv adiust	ed annual	rates —				
									Thenho	iculum (III)		1 arcs				
Receipts Expenditures Consumption expenditures	2261 3355 977	2335 3660 1030	2438 3799 1088	2706 3873 1119	2323 3637 1017	2365 3701 1038	2422 3760 1062	2453 3769 1072	2397 3814 1086	2433 3798 1093	2470 3815 1101	2508 3835 1108	2729 3870 1118	2771 3883 1123	2817 3903 1128	2860 3923 1133
Defense Nondefense	659 318	691 339	726 362	742 378	684 333	695 343	711 351	718 354	726 360	729 364	732 369	734 374	741 377	744 379	747 381	749 383
Other spending Current account surplus	2378 -1094	2630 -1325	2711 -1361	2753 -1166	2620 -1314	2663 -1337	2698 -1338	2697 -1317	2729 -1417	2705 -1365	2714 -1344	2727 -1327	2751 -1141	2759 -1111	2775 -1086	2791 -1064
Gross investment	151	165	174	174	161	168	172	174	174	174	174	174	174	174	175	175
investment ³	-1122	-1361	-1401	-1201	-1348	-1376	-1380	-1359	-1458	-1405	-1383	-1363	-1176	-1145	-1118	-1095
Fiscal indicators ⁴ High-employment (HEB)																
surplus/deficit	-838	-1017	-1069	-921	-1011	-1030	-1034	-1007	-1122	-1078	-1069	-1067	-880	-870	-868	-871
of potential GDP	2.2	1.0	.1	-1.1	.1	.1	1	2	Ľ.	ς	1	1	-1.2	1	1	0.
Fiscal impetus (FI), percent of GDP	1.1	1.1	2	9'-	ω	ω	Ċ	0.	0.	0.	0.	0.	 6:	1	 د:	2
Previous Tealbook	1.1	I.0	<i>I</i>	5	i.	i,	Γ.	Ι.	2	<i>I</i>	0.	<i>I'-</i>	<i>I'-</i>	Γ-	 دن	2
 Budget receipts, outlays, and : surplus and shown separately as 2. Other means of financing are (3. Gross saving is the current acc 4. HEB is gross saving less gross NAIRU. Quarterly figures for chan changes in federal spending and tax aggregate demand stimulus. 	urplus/defici off-budget, a checks issued count surplus i investment (ge in HEB ar ces in chained	t include c s classifiec less chech plus consu (NIPA) of id FI are n id FI are n id FI are n	orrespondi l under curr cs paid, acc umption of the federal ot at annua ollars, scale	ig social secu ent law. rued items, ai fixed capital a government i rates. The s rates d by real GD	rity (OASD) nd changes in of the genera n current do ign on Chany P. The annu	 categorie other fina other fina governme llars, with c ge in HEB, al FI estima 	s. The OA incial asset ant as well cyclically s as a percel ates are on	SDI surplu s and liabi as goverm sensitive re nt of nomi a calendar	s and the F lities. nent enterr ceipts and nal potentis year basis	ostal Serv orises. al GDP, is . Also, for	ice surplus iusted to th reversed. I FI and the	are exclud e staff's m e staff's m change in	ed from th easure of p sighted diff HEB, posit	e on-budge otential ou ference of (ive values	et utput and th discretiona indicate	ه <u>ک</u>
a Actual.																

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Greensheets

			Households					
Period ¹	Total	Total	Home mortgages	Consumer credit	Business	State and local governments	Federal government	Memo: Nominal GDP
Year			_					
2005	9.5	11.1	13.3	4.5	8.6	10.2	7.0	6.3
2006	9.0	10.1	11.2	4.1	10.5	8.3	3.9	5.4
2007	8.6	6.8	6.8	5.8	13.1	9.5	4.9	5.0
2008	6.0	с:	4	1.5	5.5	2.3	24.2	<i>L</i>
2009	3.0	-1.7	-1.5	-4.4	-2.6	4.9	22.7	9.
2010	4.4	-2.0	-3.1	-2.1	1.1	4.1	20.3	4.1
2011	4.9	¢.	-1.4	3.5	1.9	4.6	14.9	4.7
2012	4.9	2.3	0.	8.0	3.6	4.9	9.7	5.6
Ouarter								
2009:1	4.7	8	2	-3.7	.1	5.6	24.4	-3.9
7	4.4	-1.9	-1.9	-4.8	-2.6	4.3	28.9	4
ω	2.1	-2.2	-2.6	-3.9	-4.3	5.8	19.0	2.3
4	6.	-2.0	-1.5	-5.6	-3.7	3.8	11.9	4.7
2010:1	4.3	-2.1	-4.4	-3.9	4.	5.6	20.5	4.8
0	4.7	-2.2	-2.3	-3.3	1	-1.5	24.4	3.7
ω	4.2	-1.7	-2.5	-1.5	1.7	5.2	16.0	4.8
4	4.2	-1.9	-3.5	.2	2.3	7.0	14.8	3.0
2011:1	5.2	7	-2.1	1.5	1.1	4.3	18.7	4.6
7	4.9	.2	-1.3	2.8	1.6	4.6	15.1	4.5
ω	4.1	9.	-1.1	4.2	2.3	4.5	10.7	4.6
4	4.9	6.	-1.0	5.3	2.7	4.8	12.2	5.1
2012:1	5.2	1.7	έ.	6.5	3.1	4.9	11.7	5.5
7	5.1	2.1	1	7.5	3.4	4.8	10.6	5.6
б	4.0	2.5	6	8.4	3.8	4.8	5.7	5.6
4	5.1	2.7	ω	8.9	3.9	4.7	9.3	5.6
Note: Quai	rterly data are at sea	asonally adjusted a	nnual rates.	19 J		n		-
I. Data atte GDP growth,	which is calculated	from Q4 to Q4.	ges are measured fro	om end of the prece	ding period to en	a of period indicated	except for annual i	lominal

Change in Debt of the Domestic Nonfinancial Sectors (Percent)

		(B)	illions of d	ollars at sea	asonally ad	justed ann	ial rates ex	cept as not	ed))11			20	012	Clas
Category	2009	2010	2011	2012	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	s II FC
<i>c nonfinancial sectors</i> s raised equity issuance debt issuance	958.6 -64.6 1023.2	1254.1 -277.9 1532.0	1520.9 -244.0 1764.9	1627.0 -248.0 1875.0	1104.8 -368.4 1473.1	1174.3 -328.0 1502.3	1673.5 -220.0 1893.5	1580.9 -220.0 1800.9	1270.2 -268.0 1538.2	1558.9 -268.0 1826.9	1719.9 -248.0 1967.9	1718.9 -248.0 1966.9	1296.9 -248.0 1544.9	0MC - Restricted -248:0 2020:6
ng indicators (percent of GDP) ¹ owing (percent of GDP)	241.7 7.2	241.8 10.5	242.8 11.5	241.9 11.7	241.9 10.0	242.6 10.1	242.7 12.6	243.1 11.9	243.1 10.0	242.8 11.7	242.6 12.5	242.4 12.3	241.8 9.5	1 (FR) 241.2 12.3 12.3
eholds et borrowing ² Home mortgages Consumer credit ebt/DPI (percent) ³	-240.0 -161.2 -115.3 124.4	-269.9 -322.0 -52.4 118.5	37.1 -136.1 84.7 112.4	302.0 2.4 201.8 109.5	-232.0 -255.8 -37.0 117.8	-261.8 -351.3 4.6 116.3	-88.5 -208.9 36.0 114.0	26.2 -128.6 67.5 112.8	84.5 -108.5 103.2 111.6	126.1 -98.4 132.1 110.5	229.0 -29.4 164.1 110.6	277.1 -9.8 190.6 109.7	336.4 19.6 217.5 109.0	365.3 29.4 235.1 108.4
ness nancing gap ⁴ et equity issuance redit market borrowing	-44.7 -64.6 -292.0	51.7 -277.9 119.1	1.0 -244.0 211.5	146.5 -248.0 405.6	127.9 -368.4 185.2	15.2 -328.0 253.2	-17.3 -220.0 120.3	-5.1 -220.0 174.9	4.3 -268.0 253.4	22.1 -268.0 297.5	100.7 -248.0 347.4	132.8 -248.0 384.6	164.0 -248.0 435.5	188.4 -248.0 454.8
and local governments et borrowing urrent surplus ⁵	111.3 248.2	97.3 292.7	113.6 262.4	125.6 280.8	124.1 329.7	169.6 271.9	105.6 274.3	113.6 263.4	113.6 257.3	121.6 254.7	125.6 266.9	125.6 276.0	125.6 287.5	125.6 292.9
al government et borrowing et borrowing (n.s.a.) nified deficit (n.s.a.)	1443.9 1443.9 1471.3	1585.7 1585.7 1290.6	1402.7 1402.7 1373.4	1042.0 1042.0 1022.0	1395.9 390.1 290.2	1341.3 373.3 384.5	1756.2 516.0 451.4	1486.2 215.6 236.1	1086.8 312.7 317.6	1281.7 358.4 368.4	1265.9 393.5 403.5	1179.6 138.9 113.9	647.4 202.8 187.8	1074.9 306.7 316.7
ry institutions ipplied	-639.9	-89.7	102.0	213.1	772.5	-129.2	-12.5	90.06	167.1	163.4	177.5	220.3	247.4	207.1
Data after 2010:Q2 are staff projec	tions.													De

Flow of Funds Projections: Highlights

1. Average debt levels in the period (computed as the average of period-end debt positions) divided by nominal GDP.

Includes change in liabilities not shown in home mortgages and consumer credit.
 A verage debt levels in the period (computed as the average of period-end debt positions) divided by disposable personal income.
 For corporations, excess of capital expenditures over U.S. internal funds.

5. NIPA state and local government saving plus consumption of fixed capital and net capital transfers. n.s.a. Not seasonally adjusted.

December 8, 2010

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

							Proje	ected			<u> </u>	
Measure and country	QI	Q2	<u>63</u>	Q4	Q1	Q2	<u>6</u> 3	Q4	61 0	Q2	d3	Q4
Real GDP ¹												
Total foreign	5.5	5.4	2.1	2.7	3.0	3.1	3.2	3.3	3.4	3.4	3.5	3.6
Previous Tealbook	4.9	5.9	2.3	2.6	3.0	3.1	3.2	3.3	3.4	3.6	3.7	3.8
Advanced foreign economies	3.9	3.1	1.7	1.6	1.8	1.8	2.0	2.1	2.2	2.3	2.4	2.6
Canada	5.6	2.3	1.0	2.3	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.6
Japan	6.6	1.8	3.9	-1.5	1.5	1.6	1.7	1.7	1.8	1.8	1.9	2.0
United Kingdom	1.8	4.7	3.1	2.1	1.0	2.0	2.4	2.4	2.5	2.5	2.5	2.6
Euro area	1.5	4.0	1.5	1.5	1.0	\$.	1.0	1.3	1.6	2.0	2.3	2.7
Germany	2.3	9.5	2.8	2.5	1.8	1.7	1.7	1.8	2.1	2.4	2.7	3.0
Emerging market economies	7.5	8.2	2.5	4.1	4.5	4.7	4.8	4.8	4.8	4.8	4.9	4.9
Asia	14.4	8.0	2.1	5.0	5.6	5.7	5.8	5.9	5.9	5.9	5.9	6.0
Korea	8.8	5.8	3.0	3.4	3.7	4.1	4.2	4.3	4.3	4.4	4.5	4.6
China	10.1	6.8	9.8	8.8	8.5	8.5	8.4	8.4	8.4	8.4	8.4	8.5
Latin America	1.5	9.0	3.1	3.1	3.4	3.8	3.8	3.8	3.7	3.8	3.8	3.9
Mexico	2	9.5	3.0	3.3	3.6	3.7	3.8	3.8	3.8	3.9	3.9	3.9
Brazil	11.3	5.1	3.5	3.8	4.0	4.0	3.5	3.5	3.5	3.5	3.8	4.0
Concurrent aminor 2												
			(((1	0		0			
Total foreign	3.4 4.7	1.4	2.2	3.9	3.0	2.5	2.2	2.2	2.2	2.3	2.3	2.4 4.7
Previous Tealbook	3.4	1.4	2.1	2.5	2.4	2.3	2.2	2.2	2.2	2.3	2.3	2.3
Advanced foreign economies	2.1].1	2.6 2	1.6	1:3	1.1	1.2	1.3	1.4	1.6	1.6
Canada	2.3	6.'	2.4	2.5	1.9	1.9	2.1	2.1	2.1	2.2	2.2	2.2
Japan	L	6.	-1.7	2.4	×.	, v	×.	L	9	9.	, v	4.
United Kingdom	5.4	2.4	1.4	2.8	6.0	1.7	1.6	1.6	1.7	1.8	2.0	3.3
Euro Area	1.8	1.4	1.3	2.9	1.9	1.5	6.	1.2	1.3	1.4	1.5	1.6
Germany	1.4	×.	6.	2.0	1.5	1.3	1.1	1.2	1.2	1.4	1.5	1.6
Emerging market economies	4.7	2.6	3.3	5.1	4.2	3.6	3.3	3.2	3.2	3.1	3.1	3.1
Asia	3.6	2.1	3.6	5.3	4.0	3.2	2.8	2.8	2.8	2.8	2.8	2.8
Korea	3.3	1.9	3.4	5.3	3.0	2.8	2.6	2.4	2.4	2.4	2.4	2.4
China	3.0	2.6	4.3	6.1	4.1	3.1	2.7	2.7	2.7	2.7	2.7	2.7
Latin America	7.8	3.6	2.3	4.7	4.8	4.5	4.3	4.3	4.2	4.1	4.1	4.1
Mexico	7.9	2.7	2.1	4.3	4.2	3.9	3.9	3.9	3.7	3.7	3.7	3.7
Brazil	7.4	5.9	1.1	6.8	7.4	9.9	5.3	4.9	4.9	4.9	4.9	4.9
¹ Foreign GDP aggregates calculated usin ² Foreign CPI aggregates calculated using	ng shares o g shares of	f U.S. exp U.S. non-	oorts. -oil impor	ts.								

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

								Proiected	
Measure and country	2004	2005	2006	2007	2008	2009	2010	2011	2012
Real GDP ¹									
Total foreign	3.9	4.1	4.0	4.2	8	is.	3.9	3.2	3.5
Previous Tealbook	3.9	4.1	4.0	4.2	8	4.	3.9	3.2	3.6
Advanced foreign economies	2.6	2.8	2.5	2.4	-1.8	-1.4	2.6	1.9	2.4
Canada	3.7	3.1	1.9	2.5	6	-1.1	2.8	2.6	2.6
Japan	1.1	2.9	2.1	1.8	-4.4	-1.3	2.6	1.6	1.9
United Kingdom	2.4	2.4	2.7	2.4	-2.7	-3.0	2.9	2.0	2.5
Euro area	1.7	2.1	3.6	2.2	-2.1	-2.0	2.1	1.0	2.2
Germany	6	1.6	4.5	1.8	-2.0	-2.0	4.2	1.7	2.5
Emerging market economies	5.6	5.9	6.0	6.5	4.	2.9	5.5	4.7	4.9
Asia	6.1	7.8	7.2	8.4	L.	7.2	7.3	5.8	5.9
Korea	2.7	5.2	4.6	5.7	-3.2	6.1	5.2	4.1	4.4
China	10.0	10.5	11.0	12.6	7.2	11.5	8.8	8.4	8.4
Latin America	5.1	4.0	4.8	4.6	2	6	4.1	3.7	3.8
Mexico	4.6	3.6	4.1	3.7	6	-2.2	3.8	3.7	3.9
Brazil	5.1	3.5	4.8	6.8	1.0	4.4	5.9	3.7	3.7
Consumer prices ²									
	c c	r r	- c	Г С	ć	с -		4	r r
I otal loreign Dravious Toalbook	2 7 Q	6.7 8 C	1.2	3.1 2.7	ю 4. с 4	1.7	7.1 7 2	C:7 K	2.2 8 C
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Auvaliceu toteigii econolilies Canada	- C 7 - C	0.1 C	1.4 1.4	2.7 2.5	7.0 1 9	i ∝	۲.1 ا ک	0.1	
Janan	i V	-1.0	t m	9	10	-2.0		o oc	- Y
United Kingdom	1.4	2.1	2.7	2.1	3.9	2.1	3.0	2.7	2.2
Euro Area	2.3	2.3	1.8	2.9	2.3	4	1.9	1.4	1.5
Germany	2.1	2.2	1.3	3.1	1.7	¢.	1.3	1.3	1.4
Emerging market economies	3.9	3.0	2.9	5.1	4.6	2.2	3.9	3.6	3.2
Asia	3.1	2.6	2.4	5.5	3.7	1.3	3.6	3.2	2.8
Korea	3.4	2.5	2.1	3.4	4.5	2.4	3.4	2.7	2.4
China	3.2	1.4	2.1	6.6	2.6	9.	4.0	3.1	2.7
Latin America	5.6	3.7	4.1	4.2	6.6	4.0	4.6	4.5	4.1
Mexico	5.3	3.1	4.1	3.8	6.2	4.0	4.2	4.0	3.7
Brazil	7.2	6.1	3.2	4.3	6.2	4.2	5.3	6.1	4.9
¹ Foreign GDP aggregates calculated u ² Foreign CPI aggregates calculated usi	ising shares o ing shares of	f U.S. exports U.S. non-oil	s. imports.						

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1		10	Q3	
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	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Bill	lions of de	ollars, s.a.	.a.r.				
U.S. current account balance Previous Tealbook	-436.6 -436.6	-493.1 -493.1	- 514.9 -505.6	-506.3 -503.8	-544.2 -507.0	-531.2 -487.4	-531.6 -492.2	-530.2 -489.3	-535.5 -487.5	-523.0 -490.8	-535.2 - <i>505.0</i>	-522.7 -506.8
Current account as percent of GDP Previous Tealbook	-3.0 -3.0	-3.4 -3.4	-3.5 -3.5	-3.4 -3.4	-3.6 -3.4	-3.5 -3.2	-3.5 -3.2	-3.4 -3.2	-3.4 -3.1	-3.3 -3.1	-3.3 -3.1	-3.2 -3.1
Net goods & services	-457.8	-526.4	-532.3	-535.1	-547.4	-545.3	-545.1	-545.8	-538.8	-537.2	-548.5	-546.7
Investment income, net	168.8 275 9	173.1 283.8	158.6 274.5	149.3 768.6	136.6	131.4	132.4 764.6	130.1	131.7	128.4 787.0	131.2	138.5
Portfolio, net	-107.1	-110.7	-115.9	-119.4	-122.9	-129.3	-132.2	-139.0	-144.6	-153.6	-157.9	-163.5
Other income and transfers, net	-147.6	-139.8	-141.2	-120.4	-133.3	-117.2	-118.8	-114.4	-128.3	-114.2	-117.8	-114.4
				\boldsymbol{A}	nnual Do	tta						
										jroj	jected	
	2004	. 2	005	2006	2007	7 2	008	2009	2010	5	011	2012
						Billions	of dollar.	s				
U.S. current account balance Previous Tealbook	-630.5 -630.5	- 74 -74	1 7.6 17.6	-802.6 -802.6	-718. 1 -718.1	φ φ	68.9 58.9	-378.4 -378.4	-487.7 -484.8	- 5 3	3 4.3 94.0	-529.1 -497.5
Current account as percent of GDP Previous Tealbook	-5.3 -5.3		5.9 5.9	-6.0 -6.0			-4.7 -4.7	-2.7 -2.7	<u>.</u>		-3.5 -3.2	-3.3 -3.1
Net goods & services	-609.3	-71	4.2	-759.2	-702.1	-6	98.8	-374.9	-512.9	-54	45.9	-542.8
Investment income, net	73.4		'8.8	54.7	106.6	11	59.3	129.2	162.4	.15	32.6	132.4
Direct, net	150.9	17	3.2	174.0	241.6	5	87.7	252.1	275.7	56	53.5	287.3
Portfolio, net	-77.5	<u> </u>	4.4	-119.4	-134.9	-1.	28.4	-122.8	-113.3	7	30.8	-154.9
Other income and transfers, net	-94.5	-11	2.2	-98.1	-122.6	5 -13	29.3	-132.8	-137.3	-12	21.0	-118.7

Abbreviations

ABS	asset-backed securities
AFE	advanced foreign economy
AIG	American International Group, Inc.
BEA	Bureau of Economic Analysis, Department of Commerce
BIS	Bank for International Settlements
BOE	Bank of England
C&I	commercial and industrial
СР	commercial paper
CPI	consumer price index
ECB	European Central Bank
EEB	extended and emergency unemployment benefits
EME	emerging market economy
E&S	equipment and software
EU	European Union
EUC	Emergency Unemployment Compensation
FOMC	Federal Open Market Committee; also, the Committee
FRB	Federal Reserve Board
FRBNY	Federal Reserve Bank of New York
GDP	gross domestic product
GM	General Motors
IMF	International Monetary Fund
IP	industrial production
IPO	initial public offering

LCR	liquidity coverage ratio
Libor	London interbank offered rate
LLC	limited liability company
MBS	mortgage-backed securities
NAIRU	non-accelerating inflation rate of unemployment
OIS	overnight index swap
OTC	over the counter
PCE	personal consumption expenditures
PMI	purchasing managers index
RMBS	residential mortgage-backed securities
s.a.a.r.	seasonally adjusted annual rate
SCOOS	Senior Credit Officer Opinion Survey on Dealer Financing Terms
SOMA	System Open Market Account
System	Federal Reserve System
TALF	Term Asset-Backed Securities Loan Facility
TIPS	Treasury inflation-protected securities
TRS	total return swaps
WTI	West Texas Intermediate