## 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.

## Part 1

## CURRENT ECONOMIC AND FINANCIAL CONDITIONS

## Summary and Outlook

## Summary and Outlook

## Class II FOMC—Restricted (FR)

## Domestic Developments

The economic data released since the time of the October Greenbook indicate that the economy has moved deeper into recession. Conditions in the labor market have deteriorated more sharply than we had earlier anticipated, and the steep decline in industrial production has surprised us to the downside. Household and business spending also have fallen by more than we had expected. Financial markets have seen a further pullback from risk-taking-spurred in part by the more pessimistic outlook for economic activity—leading to lower equity prices, higher risk spreads, and tighter constraints in credit markets, all of which seem likely to intensify the decline in real activity. All told, we now expect real gross domestic product (GDP) to decrease at an annual rate of $43 / 4$ percent in the current quarter and to fall at a 5 percent pace in the first quarter of 2009-a much sharper contraction than we had projected in October.

Given the deterioration in the outlook for economic activity and the further tightening in financial conditions, we have based this forecast on both a greater easing of monetary policy than in our previous projection and additional sizable stimulus from fiscal policy. For monetary policy, we have assumed that the Federal Open Market Committee (FOMC) will lower the federal funds rate to $1 / 4$ percent by the end of January and hold it at that level through at least 2010. Beyond the steps already announced, we have not incorporated any additional forms of unconventional monetary policy in the baseline projection. With regard to fiscal policy, we have assumed that the Congress and the President will enact a two-year $\$ 500$ billion stimulus package early next year.

The assumed stimulus from these monetary and fiscal policy actions only partially offsets the adverse effects from other factors that have led us to revise down our forecast for economic activity. These factors include, in addition to the bleak incoming data and further tightening in domestic financial conditions, a higher exchange value of the dollar and a gloomier outlook for foreign demand. As a result, we project that real GDP will continue to decline through the middle of next year, then pick up only gradually thereafter as the stimulus from monetary and fiscal policy actions gains some traction and the turmoil in the financial system begins to recede. For 2009 as a whole, we project that real GDP will decline 1 percent; in the last Greenbook we had expected real GDP to be unchanged next year. In 2010, we anticipate that real GDP will rise $21 / 2$ percent, a bit above the rate of potential GDP growth. The unemployment rate is projected to climb to 8 percent by the end of 2009 and to peak at $81 / 4$ percent in 2010.

Regarding inflation, the deterioration in economic activity, both domestically and abroad, has been accompanied by a widening of slack in resource utilization, further decreases in spot and futures prices of oil and other commodities, declines in prices for core imports, and a higher exchange value of the dollar. Taken together, these factors led us to mark down our forecast for core personal consumption expenditures (PCE) price inflation by about $1 / 2$ percentage point in both 2009 and 2010. We now expect that core PCE prices will rise about 1 percent in 2009 and $3 / 4$ percent in 2010, following a projected increase of 2 percent this year. Headline PCE inflation, which was boosted by large increases in energy and food prices earlier this year, is anticipated to slow from 2 percent in 2008 to about 1 percent in 2009 and in 2010.

## Key Background Factors

As noted previously, we have revised down the path for the federal funds rate in this projection. We now assume that the FOMC will lower the target federal funds rate 50 basis points at this meeting and another 25 basis points at the January meeting, leaving the target at $1 / 4$ percent. The Committee is assumed to hold the target rate at that level through the end of 2010. Relative to the October Greenbook, the staff has revised the assumed policy path down 25 basis points at the end of 2009 and 75 basis points at the end of 2010. Market participants have made downward adjustments to their outlook for the federal funds rate as well, but the path they appear to be expecting remains a bit above our assumed path in 2009 and is substantially higher in 2010.

The downward revision to the market's outlook for monetary policy, along with a pronounced flight to quality, has pushed long-term Treasury yields down about 1 percentage point since the last Greenbook. We expect the 10-year Treasury yield to drift up over the forecast period from the exceptionally low level now prevailing, as the intense demand for safe assets moderates when economic activity begins to improve and as the 10 -year window for the Treasury yield moves through the period of very low shortterm rates anticipated for the next few years. These two influences more than offset the downward pressure on long-term yields from our assumption that market participants will revise down their policy expectations toward the path incorporated in our baseline forecast.

The deteriorating outlook for economic activity has led to a further rise in risk spreads on investment-grade and speculative-grade corporate bonds from levels that were already extremely high. Given the sharp drop in long-term Treasury yields, this widening of spreads has left investment-grade bond yields in the same neighborhood as they were at

## Class II FOMC - Restricted (FR)

## Key Background Factors Underlying the Baseline Staff Projection

Federal Funds Rate


Equity Prices


## Crude Oil Prices



Long-Term Interest Rates


House Prices


Broad Real Dollar


Note: In each panel, shading represents the projection period, which begins in 2009:Q1 except as noted.
the time of the October Greenbook, while speculative-grade yields are up about 300 basis points. We anticipate that corporate bond yields will decline over the second half of 2009 and in 2010, as economic conditions begin to improve and risk aversion decreases.

The interest rate on fixed-rate conforming mortgages has fallen about $1 / 2$ percentage point since the time of the October Greenbook to about $51 / 2$ percent, as market participants reacted favorably to the Federal Reserve's announcement that it will purchase up to $\$ 600$ billion in government-sponsored enterprise (GSE) mortgage-backed securities and direct obligations. Even so, the spread of the conforming mortgage rate over the 10-year Treasury yield remains very wide by historical standards. We assume this spread will narrow over the forecast period, reducing the mortgage rate to about $51 / 4$ percent in 2009 and to a slightly lower level in 2010. This path for the mortgage rate is roughly $3 / 4$ percentage point below the path assumed in the October Greenbook.

Equity prices have declined further, on net, leaving the Wilshire 5000 index about 9 percent below the level we had assumed in the October Greenbook. As a result, our estimate of the equity risk premium has moved up from its already exceptionally high level. We still assume that the equity premium will decline over the forecast period so that by the end of 2010, it will have erased about half of its increase since mid-2007. This path for the equity risk premium implies that stock prices will rise about 12 percent in both 2009 and 2010.

Although the data received on house prices since the last Greenbook were about in line with our expectations, we have tempered the projected pace of decline in 2009 and 2010. ${ }^{1}$ This revision reflects, in large part, our assumption that additional federal programs to support housing will be implemented. In particular, we assume that a federal program to help mitigate home foreclosures will be put in place early next year, which we anticipate will damp the expected rise in home foreclosures that would otherwise be weighing on house prices. In addition, the actual and projected declines in the conforming mortgage rate provide a small lift to our outlook for housing demand and thus prices. All told, we now expect the level of house prices at the end of 2010 to be about 5 percent above the

[^0]level in the October Greenbook. Even so, the LoanPerformance house price index is projected to decline more than 12 percent next year and about 3 percent in 2010.

As noted earlier, our forecast now incorporates the assumption that a large fiscal stimulus package will be enacted early next year. The magnitude and composition of the plan are uncertain, but as a placeholder, we have assumed that a two-year \$500 billion package will be enacted. We have assumed that a number of components, all of which have been widely discussed in general terms if not in specifics and dollar figures, will be included:

- a permanent reduction in income taxes for most individuals that will reduce revenues by $\$ 230$ billion over the next two years,
- a further extension of emergency unemployment compensation (EUC) benefits and a temporary increase in food stamps that together raise transfer payments to individuals by $\$ 55$ billion over two years,
- federal grants of $\$ 155$ billion to state governments for infrastructure ( $\$ 115$ billion) and other spending (\$40 billion),
- additional budget authority of $\$ 10$ billion for federal spending programs, and
- a federal program that costs $\$ 50$ billion to provide subsidized mortgage financing for qualifying home purchases in 2009 at 1 percentage point below the conforming mortgage rate.
In addition to this stimulus package, we have assumed in this projection that $\$ 50$ billion of the funds available to the Treasury through the Troubled Asset Relief Program (TARP) will be used to enhance federal programs to help reduce preventable home foreclosures.

To estimate the effects of the stimulus package and the TARP-funded foreclosure mitigation program on economic activity, we had to make a number of additional assumptions. First, we assumed that the increase in disposable income resulting from the reduction in income taxes is spent by households in the same way, in terms of magnitude and timing, as an increase in ordinary income; our models suggest that more than 40 percent is spent by the end of the first year and about 60 percent is spent by the end of the second year. Second, the additional EUC benefits and food stamps are assumed to be entirely spent by the recipients soon after they are received. Third, we assumed that only about one-third of the federal aid to state governments for funding infrastructure projects will be spent over the next two years, in line with the typical slow spend-out rates for such projects; most of the remaining aid to the states is assumed to boost state and local government purchases over the next two years. Fourth, a large portion of the additional budget authority for federal spending programs is assumed to show up as outlays within
the next two years. Fifth, the reduced-rate mortgage financing program is assumed to be available only in 2009 and is expected to provide a boost in home sales next year by pulling forward some sales that otherwise would have occurred in 2010 and 2011; in recognition of its temporary nature, the response of builders to the increase in sales next year is muted. Finally, we assumed that the funds for the foreclosure mitigation program will result in about 1 million mortgage modifications, about two-thirds of which avoid default in the medium term; based on our reading of the literature, we assumed that this will lift the level of home prices by around 4 percent by the end of 2010. In all, under our assumptions, the fiscal stimulus package and the foreclosure mitigation program are estimated to add roughly 1 percentage point to the change in real GDP in 2009 and around $1 / 2$ percentage point in 2010.

We are projecting substantially larger deficits in the federal unified budget than in the October Greenbook, due to the assumed stimulus package, the weaker outlook for economic activity in this projection, and other factors related to the TARP and the GSEs. In particular, we now expect that the entire $\$ 700$ billion in funds available through the TARP will be used by the Treasury for equity purchases in financial institutions or other types of subsidies that the Office of Management and Budget (OMB) currently scores as direct outlays in the federal budget. Also, we assume that during the current fiscal year the Treasury will need to inject more than $\$ 150$ billion in capital into the GSEs, which will be counted by the OMB as outlays in the federal budget. In all, we now expect the federal deficit to be $\$ 1.68$ trillion (113/4 percent of GDP) in fiscal 2009. In fiscal 2010, the deficit is projected to narrow to $\$ 842$ billion ( $53 / 4$ percent of GDP) as the outlays associated with the TARP and the GSEs are anticipated to drop off.

Based on recent developments in foreign exchange markets, we have raised the starting point for our projection of the real trade-weighted dollar about 2 percent compared with our last forecast. We assume that the dollar will remain about flat in 2009 and decline at an annual rate of 3 percent in 2010, a path that is less steep, on net, than the path in our previous forecast. Our projection for foreign economic activity is lower than in the October Greenbook, primarily reflecting weaker-than-expected incoming information and the marked deterioration in the outlook for the U.S. economy. Foreign GDP is expected to decline at an annual rate of about $1 \frac{1}{2}$ percent in the fourth quarter of this year, about 2 percentage points lower than in the last Greenbook. Foreign economic activity is expected to rise only $1 / 2$ percent in 2009 and then recover to a $23 / 4$ percent pace in 2010, about $3 / 4$ percentage point below our October Greenbook projection for 2009 and only a bit lower for 2010.

The spot price of West Texas intermediate (WTI) crude oil currently stands near \$42 per barrel, about $\$ 29$ per barrel below its level at the time of the October Greenbook. The further drop in oil prices reflects continued downward revisions in expected oil demand as the global economic outlook weakens. Consistent with futures prices, we expect the price per barrel of WTI crude oil to move up to around $\$ 65$ by the end of 2010 as global economic activity gradually recovers. On balance, this path for oil prices is about \$20 per barrel lower in 2009 and 2010 than in the October Greenbook.

## Recent Developments and the Near-Term Outlook

The available data point toward a sharp decline in real economic activity in the current quarter. The latest figures for employment, industrial production, consumption, and capital spending have all been much weaker than we were anticipating in the October Greenbook, and housing construction has continued along a steep downward trend. As a result, we now expect that real GDP will fall at an annual rate of $43 / 4$ percent in the current quarter—about $31 / 2$ percentage points below our previous projection. With real economic activity likely to be on a much weaker trajectory going into next year than we had previously assumed and with financial strains still quite pronounced, we also have marked down substantially our forecast for activity in early 2009. In particular, we now project that real GDP will decline at an annual rate of about 5 percent in the first quarter of next year-a decline that is $31 / 2$ percentage points greater than in the October Greenbook.

Labor market conditions have deteriorated markedly in recent months. Private payroll employment fell a larger-than-expected 540,000 in November, and job counts in September and October were revised down noticeably. Reflecting the decline in output that we are projecting for this quarter and next, we expect private employment to fall about 500,000 in December and to decline roughly 400,000 per month in the first quarter of 2009. Accordingly, we anticipate that the unemployment rate, which stood at 6.7 percent in November, will move up to 7 percent in December and climb to 73/4 percent by March.

In the industrial sector, output declines have accelerated. Smoothing through the quarterly swings, which primarily reflect the effects of the hurricanes in September and the recent strike at Boeing, we currently expect industrial production (IP) in the manufacturing sector to fall at an average annual rate of about 10 percent in the second half of this year-a reduction of about 5 percentage points from our previous projection and a markedly faster decrease than the 4 percent decline recorded in the second quarter.

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

| Measure | 2008:Q3 |  | 2008:Q4 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Oct. GB | Dec. <br> GB | Oct. <br> GB | Dec. <br> GB |
| Real GDP | -1.0 | -. 4 | -1.3 | -4.7 |
| Private domestic final purchases | -3.5 | -3.9 | -4.4 | -6.6 |
| Personal consumption expenditures | -3.3 | -3.7 | -2.4 | -4.3 |
| Residential investment | -19.7 | -15.7 | -24.4 | -27.0 |
| Business fixed investment | . 8 | -. 6 | -9.9 | -14.0 |
| Government outlays for consumption and investment | 4.8 | 5.8 | -1.0 | 1.2 |
|  | Contribution to growth (percentage points) |  |  |  |
| Inventory investment | -. 2 | . 7 | 2.2 | . 3 |
| Net exports | 1.2 | 1.1 | . 4 | . 4 |

Some of the recent weakness reflects the cutbacks in motor vehicle assemblies that automakers have made in response to plunging sales. Moreover, declines in the production of a variety of consumer durables other than motor vehicles have steepened, the output of high-technology products appears to be decreasing further, and the falloff in production of materials indicates broad weakness in demand. Given the current economic climate, we are expecting further broad-based declines in factory output in coming months, with overall manufacturing IP projected to fall at an annual rate of about 9 percent in the first quarter. As a result, capacity utilization in manufacturing is expected to drop to about 71 percent by March, well below its long-run average of about 80 percent.

Real PCE looks to be on track to decline at a $411 / 4$ percent annual rate in the fourth quarter, following a $33 / 4$ percent decline in the third quarter; our fourth-quarter estimate is about 2 percentage points more negative than our forecast in the previous Greenbook. Sales of light motor vehicles have been especially weak, with unit sales plummeting to an average annual rate of $101 / 4$ million units in October and November from a 13 million unit pace in the third quarter. Even when motor vehicles are excluded, however, real PCE is projected to decline at a 3 percent pace this quarter. Although the sharp drop in consumer energy prices has helped to cushion the loss of purchasing power associated with the deteriorating labor market, the ongoing declines in housing and equity wealth, coupled with tight credit availability and depressed confidence, seem likely to restrain
household spending in the months ahead. Accordingly, we expect real PCE to decline at an annual rate of $1 \frac{1}{4}$ percent in the first quarter, about $1 \frac{1}{4}$ percentage points below our projection in the October Greenbook.

The housing sector remains very weak. Both sales and starts of new single-family homes continued to decline in October. Although sales of existing homes have held steady at roughly the same level that has prevailed since earlier this year, these sales have reportedly been boosted by increasing numbers of foreclosure-related sales at steep price discounts. At the current pace of sales and starts, homebuilders have been able to make progress in reducing the number of unsold new homes. Even so, the overhang of unsold new homes relative to the current pace of sales remains very high, and we expect singlefamily starts to fall further in coming months. In all, we currently estimate that real residential investment will decrease at annual rates of approximately 30 percent in both the current quarter and the first quarter of 2009, after declining at about a 16 percent rate in the third quarter.

In the business sector, the decline in real spending on equipment and software (E\&S) appears to have steepened. Shipments of nondefense capital goods excluding aircraft slumped in October, and new orders for capital goods dropped further below the level of shipments, pointing to additional declines in shipments in coming months. Surveys of business sentiment suggest that concerns about the economic outlook are weighing heavily on capital spending plans. In addition, many businesses are facing tighter credit conditions. As a result, we currently expect real spending on E\&S to decline at annual rates of 18 percent in the fourth quarter and in the first quarter of 2009, after falling at an annual rate of about 6 percent in the third quarter.

Real outlays for nonresidential construction are expected to fall at an annual rate of 6 percent in the fourth quarter following robust gains in the first three quarters of the year. For structures excluding drilling and mining, this sudden shift in business spending reflects the weakening outlook for business output, increasing vacancy rates, declining commercial property values, and tighter lending standards for commercial real estate loans. In addition, building activity associated with projects that were already under way appears to be rapidly waning. Outlays for drilling and mining structures also seem to have decelerated sharply this quarter, and we anticipate that the dropback in oil and gas prices since the summer will further restrain spending in this category in the months ahead. Accordingly, we project outlays for nonresidential structures will decline at an annual rate of more than 20 percent in the first quarter of 2009.

In the government sector, real federal expenditures on consumption and gross investment are projected to rise at an annual rate of nearly 4 percent in the fourth quarter, led by further sizable increases in defense spending. Given the large increases in real federal purchases seen so far this year and the level of budget appropriations currently in place, the rise in real federal spending is projected to slow in the first quarter of next year. Meanwhile, we anticipate real purchases by state and local governments will inch down in the fourth quarter and fall further in the first quarter as these governments adjust to their deteriorating budget conditions.

Net exports are projected to add, on average, about $3 / 4$ percentage point to the change in real GDP during the current quarter and the first quarter of next year. Smoothing through the swings caused by the strike at Boeing and its effects on exports of aircraft, real exports are anticipated to decline at an average annual rate of about 3 percent this quarter and next, while imports fall $61 / 4$ percent. The decline in foreign economic activity is expected to reduce export demand, and imports are projected to decline in response to the dropoff in domestic spending.

We expect real nonfarm inventories to be drawn down further in the fourth quarter of this year and in early 2009 despite the projected steep declines in final sales. The production cuts seen so far suggest that firms are acting aggressively to avoid unwanted increases in their stocks, and given the current outlook for further decreases in demand and the reduced availability of credit, we anticipate such behavior to continue in coming months. The resulting drawdown of inventories is projected to subtract $3 / 4$ percentage point from the change in real GDP, on average, in the fourth quarter and in the first quarter of 2009.

The recent data on PCE prices indicate that core inflation has dropped back from the elevated pace seen during the summer. We currently expect core PCE prices to rise at an annual rate of $11 / 4$ percent in the fourth quarter, about 1 percentage point below our projection in the October Greenbook and well below the $21 / 2$ percent pace recorded in the third quarter. In part, the deceleration reflects a decline in the prices of nonmarket services in October that we do not expect to be repeated. However, market-based price inflation also came in below our expectations, likely reflecting the weak pace of economic activity and the recent drop in import prices. Consumer energy prices have also plummeted following the sharp drop in crude oil prices that began in July. As a result, we expect overall PCE prices to decline at an annual rate of 5 percent in the fourth quarter, almost 3 percentage points more than our forecast in the last Greenbook.

## The Medium-Term Outlook

Real GDP is projected to continue to deteriorate through the middle of 2009 and then to turn up gradually thereafter. Monetary policy and fiscal stimulus are expected to provide greater support to economic activity over the next two years than in the last Greenbook; in addition, oil prices and mortgage rates are lower in this forecast. Nevertheless, household wealth is, on net, lower in this forecast; the rise in corporate bond spreads, which reflects the more uncertain outlook for businesses, has increased the cost of capital for some firms; and the deterioration in the outlook for foreign economic activity and the higher value of the dollar will likely lead to a smaller contribution to real GDP from the external sector. In addition, we have interpreted the incoming data as suggesting that the upheaval in financial markets is subtracting more from household and business spending than we assumed previously, and we now expect this influence to persist somewhat longer than we built into our October Greenbook projection. All told, we now project that real GDP will decline 1 percent next year rather than remaining unchanged as we anticipated in the last Greenbook. In 2010, with the restraint resulting from the turmoil in the financial system beginning to wane, we project that real GDP will rise $21 / 2$ percent. The unemployment rate peaks at about $81 / 4$ percent in 2010, about 1 percentage point higher than its peak in our last projection.

Household sector. Real consumer spending is projected to edge up only $3 / 4$ percent in 2009. Continued job losses and slow real wage gains are expected to offset some of the boost to real income growth next year from the tax cuts and increased transfer payments in the fiscal stimulus package. In addition, the further decline in house prices that we are projecting, along with the lagged effects of the collapse in equity wealth this year, are expected to exert a substantial drag on consumer spending. Moreover, we anticipate that many consumers will continue to find it difficult to obtain credit. In 2010, we project that real consumer spending will rise $21 / 2$ percent as financial conditions begin to ease and job prospects start to improve. The rise in consumer spending is expected to be much smaller than the gains in disposable personal income over the next two years as households make efforts to repair their balance sheets and respond gradually to the tax cuts. Consequently, the saving rate is anticipated to increase from 1 percent in the third quarter of this year to 5 percent in 2010.

The lower mortgage rates in this forecast, along with our assumption that the federal government will implement programs to provide mortgage financing at below-market rates and to help reduce home foreclosures, are projected to provide some lift to new home sales next year despite the weaker outlook for overall economic activity. As a

## Projections of Real GDP

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

| Measure | $\begin{gathered} \text { 2008: } \\ \text { H2 } \end{gathered}$ | $\begin{gathered} \text { 2009: } \\ \text { H1 } \end{gathered}$ | 2009 | 2010 |
| :---: | :---: | :---: | :---: | :---: |
| Real GDP | -2.6 | -3.1 | -. 9 | 2.4 |
| Previous | -1.2 | -. 9 | -. 1 | 2.3 |
| Final sales | -3.1 | -2.4 | -1.4 | 2.4 |
| Previous | -2.1 | -. 9 | -. 5 | 2.3 |
| PCE | -4.0 | -. 2 | . 7 | 2.7 |
| Previous | -2.9 | . 4 | 1.0 | 2.4 |
| Residential investment | -21.6 | -22.2 | -10.4 | 8.9 |
| Previous | -22.1 | -21.0 | -15.8 | 13.4 |
| BFI | -7.5 | -19.7 | -16.9 | 4.8 |
| Previous | -4.7 | -12.2 | -10.9 | 4.1 |
| Government purchases | 3.4 | . 8 | 1.2 | 1.2 |
| Previous | 1.9 | 1.2 | . 9 | . 5 |
| Exports | -. 4 | -2.7 | -1.3 | 2.6 |
| Previous | 5.3 | 3.1 | 2.8 | 3.9 |
| Imports | -4.2 | -5.6 | -1.0 | 4.9 |
| Previous | -. 7 | -. 7 | . 9 | 4.3 |
|  | Contribution to growth (percentage points) |  |  |  |
| Inventory change | . 5 | -. 7 | . 4 | . 0 |
| Previous | 1.0 | . 0 | . 4 | -. 0 |
| Net exports | . 7 | . 5 | -. 0 | -. 4 |
| Previous | . 8 | . 5 | . 2 | -. 2 |

. . . Not applicable.
result, we now anticipate that single-family housing starts will begin to turn up in the middle of next year and have raised our projection of starts for 2009 as a whole by about 20,000 units to 480,000 units. However, partly because the reduced-rate mortgage financing program pulls forward some sales and starts from 2010 into 2009, the level of starts at the end of 2010 is only a touch higher than our projection in the October Greenbook. Consistent with our forecast for housing starts, we expect real residential investment to decline more than 10 percent next year, after decreasing approximately

20 percent this year. With economic and financial conditions improving in 2010, our projection calls for residential investment to rise 9 percent in that year.

Business investment. Business spending for capital goods and structures is projected to drop about 17 percent next year, 6 percentage points more negative than the projected change in the October Greenbook. In part, the downward revision to our projection for business spending reflects the substantial deterioration in the economic outlook. In terms of the overall contour of the forecast, we anticipate that the unusually wide corporate bond spreads and tight credit availability will continue to restrain capital spending. In 2010, we project a modest rise in business investment as credit conditions improve somewhat and a recovery in economic activity begins to emerge. Real expenditures on equipment and software are projected to decline more than 12 percent next year and then rise 12 percent in 2010. However, outlays for nonresidential construction-where credit conditions appear to have deteriorated markedly—are projected to decline more than 24 percent next year and an additional 9 percent in 2010, reflecting the usual tendency for business investment on structures to lag a recovery in overall economic activity.

We anticipate that firms will continue to adjust production promptly in line with the weak pace of sales, keeping inventory levels in check. In 2010, as economic activity recovers, we expect inventory accumulation to step up but not enough to contribute noticeably to real GDP growth in that year.

Government spending. Federal government spending is expected to decelerate over the projection period. Growth in real federal expenditures on consumption and investment steps down from $71 / 2$ percent this year to around 2 percent in 2009 and in 2010, with the deceleration coming from defense purchases after their rapid rise this year. At the state and local level, the decrease in expected revenues associated with the deteriorating pace of economic activity has intensified the budget pressures faced by many governments. In response, these governments are planning to cut spending to meet their balanced budget requirements and are adjusting down their capital spending plans, both by more than we had anticipated in the last Greenbook. In this projection, these planned state and local spending cuts are averted because of infrastructure and general grants for states that are assumed to be a part of the federal stimulus package. Accordingly, we project that state and local purchases will increase $1 / 2$ percent in 2009 and 2010, rather than declining as we projected in the last Greenbook.

Net exports. After increasing by an estimated 4 percent this year, real exports are anticipated to edge down by about $1 \frac{1}{4}$ percent in 2009, reflecting the lagged effects of the appreciation of the dollar and slow foreign economic growth. In 2010, global economic activity is expected to recover, and we project exports to increase by $21 / 2$ percent. Real imports are expected to decline 4 percent this year and 1 percent next year, reflecting the weakness in domestic economic activity. As the U.S. economy picks up in 2010, imports are projected to rise by 5 percent. Thus, after adding almost $1 \frac{1}{4}$ percentage points to real GDP growth in 2008, the external sector is projected to make no contribution to the change in real GDP in 2009 and to subtract 0.4 percentage point in 2010. (The International Developments section provides more detail on the outlook for the external sector.)

## Aggregate Supply, the Labor Market, and Inflation

In this forecast, we have reduced our estimates of structural productivity and potential output growth over the next two years to reflect the effects of the projected decrease in business investment on capital deepening. Even so, the level of potential has not been revised down by nearly as much as the actual level of GDP: By the end of 2010, we expect the level of actual output to fall short of potential by about 53/4 percent.

Productivity and the labor market. We expect the pace of job loss to remain elevated over the first half of next year and then to gradually slow in the second half as real economic activity begins to inch back up. The net destruction of about $21 / 4$ million jobs in 2009 is anticipated to push up the unemployment rate to almost $8 \frac{1}{4}$ percent by the beginning of 2010. ${ }^{2}$ Firms are projected to begin hiring again in mid-2010, with private payroll gains edging up to about 95,000 per month by the end of that year. However, given our estimate of the underlying trend in the labor force, the slow rate of job creation in 2010 is insufficient to bring down the unemployment rate. We expect productivity growth to fall below the growth rate of structural productivity until the middle of next year, as businesses lay off workers more slowly than the decline in real economic activity. Productivity growth then picks up as the economy recovers.

[^1]Decomposition of Structural Labor Productivity
Nonfarm Business Sector
(Percent change, Q4 to Q4, except as noted)

| Measure | $1974-$ <br> 95 | $1996-$ <br> 2000 | $2001-$ <br> 06 | 2007 | 2008 | 2009 | 2010 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Structural labor productivity | $\mathbf{1 . 5}$ | $\mathbf{2 . 5}$ | $\mathbf{2 . 6}$ | $\mathbf{2 . 1}$ | $\mathbf{1 . 9}$ | $\mathbf{1 . 7}$ | $\mathbf{1 . 7}$ |
| $\quad$ Previous | 1.5 | 2.5 | 2.6 | 2.1 | 2.0 | 1.9 | 1.8 |
| Contributions |  |  |  |  |  |  |  |
| Capital deepening |  |  |  |  |  |  |  |
| $\quad$ Previous | .7 | 1.4 | .7 | .6 | .4 | -.0 | .1 |
| Multifactor productivity | .7 | 1.4 | .7 | .6 | .5 | .2 | .3 |
| $\quad$ Previous | .5 | .7 | 1.6 | 1.2 | 1.3 | 1.6 | 1.5 |
| Labor composition | .5 | .7 | 1.6 | 1.2 | 1.3 | 1.5 | 1.4 |
| MEMO | .3 | .3 | .3 | .2 | .2 | .2 | .1 |
| Potential GDP |  |  |  |  |  |  |  |
| $\quad$ Previous | 3.0 | 3.4 | 2.6 | 2.5 | 2.5 | 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.
. . . Not applicable.
The Outlook for the Labor Market
(Percent change, Q4 to Q4, except as noted)

| Measure | 2007 | 2008 | 2009 | 2010 |
| :--- | ---: | ---: | ---: | ---: |
| Output per hour, nonfarm business | 2.7 | 2.0 | .8 | 2.4 |
| $\quad$ Previous | 2.7 | 1.7 | 1.7 | 2.2 |
| Nonfarm private payroll employment | .9 | -1.8 | -1.9 | .4 |
| $\quad$ Previous | .9 | -1.2 | -1.4 | .7 |
| Household survey employment | .4 | -1.3 | -.9 | .6 |
| $\quad$ Previous | .4 | -.8 | -.5 | .8 |
| Labor force participation rate $^{1}$ | 66.0 | 65.9 | 65.5 | 65.3 |
| $\quad$ Previous | 66.0 | 66.0 | 65.6 | 65.4 |
| Civilian unemployment rate $^{1}$ | 4.8 | 6.7 | 8.1 | 8.2 |
| $\quad$ Previous | 4.8 | 6.3 | 7.2 | 7.2 |
| MEMO $^{\text {GDP gap }}$ |  |  |  |  |
| $\quad$ Previous | -.3 | -3.1 | -6.0 | -5.8 |

1. Percent, average for the fourth quarter.
2. Actual less potential GDP in the fourth quarter of the year indicated as a percent of potential GDP. A negative number thus indicates that the economy is operating below potential.
. . . Not applicable.

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

| Measure | 2007 | 2008 | 2009 | 2010 |
| :---: | ---: | ---: | ---: | ---: |
| PCE chain-weighted price index | 3.5 | 1.9 | .7 | 1.0 |
| Previous | 3.5 | 2.8 | 1.4 | 1.4 |
| Food and beverages | 4.5 | 6.3 | 2.0 | 1.0 |
| Previous | 4.5 | 6.2 | 2.2 | 1.4 |
| Energy | 19.1 | -9.8 | -8.1 | 4.8 |
| Previous | 19.1 | -1.0 | -2.3 | 3.3 |
| Excluding food and energy | 2.2 | 2.0 | 1.1 | .8 |
| Previous | 2.2 | 2.4 | 1.5 | 1.3 |
| Consumer price index | 4.0 | 1.7 | .7 | 1.3 |
| Previous | 4.0 | 2.8 | 1.5 | 1.7 |
| Excluding food and energy | 2.3 | 2.1 | 1.3 | 1.0 |
| Previous | 2.3 | 2.4 | 1.7 | 1.5 |
| GDP chain-weighted price index | 2.6 | 2.6 | 1.5 | .8 |
| Previous | 2.6 | 3.0 | 1.6 | 1.3 |
| ECI for compensation of private |  |  |  |  |
| industry workers ${ }^{1}$ | 3.0 | 2.5 | 2.0 | 1.6 |
| Previous | 3.0 | 2.9 | 2.3 | 1.5 |
| Compensation per hour, |  |  |  |  |
| nonfarm business sector | 3.6 | 3.2 | 2.4 | 1.6 |
| Previous | 3.6 | 4.0 | 3.1 | 2.1 |
| Prices of core goods imports ${ }^{2}$ | 3.4 | 3.9 | -2.7 | 1.3 |
| Previous | 3.4 | 5.5 | -.5 | 1.5 |

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

Prices and labor costs. We currently project that core PCE price inflation will decline from 2 percent this year to 1 percent next year and to $3 / 4$ percent in 2010. This ratcheting down in core inflation reflects widening slack in resource utilization, fading cost pressures from energy and materials prices, and a net decline in core import prices; these factors also result in some reduction in long-run inflation expectations. Each of these disinflationary factors is more significant in this forecast than in the October Greenbook, and our projection for core inflation in each of the next two years is about $1 / 2$ percentage point lower. Headline PCE price inflation is projected to slow from 2 percent this year to about $3 / 4$ percent in 2009, reflecting these same factors and a further drop in energy prices
early next year. In 2010, total prices are projected to rise 1 percent, a bit more than core inflation, reflecting the projected turn upward in energy prices.

In light of the weaker outlook for the economy and the slower projected pace of price inflation, we have also marked down our forecast for compensation growth. In particular, we now project that compensation per hour in the nonfarm business sector will rise $21 / 2$ percent in 2009 and $11 / 2$ percent in 2010; our forecast for both years is about $1 / 2$ percentage point lower than in the October Greenbook.

## The Long-Term Outlook

We have extended the staff forecast to 2013 using the FRB/US model, adjusted to incorporate staff assessments of long-run potential output growth, fiscal policy, and foreign economic conditions. The contour of the long-run outlook depends on the following key assumptions:

- Monetary policy aims to stabilize PCE inflation at $13 / 4$ percent in the long run, consistent with the discussion of longer-term inflation forecasts provided by FOMC participants in October. We have made no provision for unconventional policy actions in the construction of this extension.
- Risk premiums on corporate bonds and equity continue to fall back to historically more normal levels beyond 2010 as financial market strains abate further.
- Governments are assumed to work to reduce their budget deficits in 2011 through 2013 as the economy gradually recovers.
- Beyond 2010, foreign real GDP expands $41 / 2$ percent per year while the dollar depreciates $21 / 2$ percent per year in real terms; nominal WTI crude oil prices rise gradually from recent levels to above $\$ 70$ per barrel by the end of 2013, consistent with futures prices. Under these assumptions, movements in prices of energy and imports have only minor implications for domestic inflation.
- The NAIRU remains flat at $43 / 4$ percent, and potential GDP expands a little more than 2½ percent per year, on average, from 2011 to 2013.

The unemployment rate enters 2011 considerably above the staff's estimate of the NAIRU. Moreover, inflation is well below the assumed long-run target. Under the assumptions used to construct the baseline extension, the federal funds rate does not begin to rise above the effective lower bound until 2013. The lingering effects of financial upheaval continue to fade, and the recovery in residential construction picks up steam; coupled with stimulative monetary policy, these factors propel real GDP to gains of about $5 ½$ percent per year, on average, from 2011 to 2013. With actual output growth

The Long-Term Outlook
(Percent change, Q4 to Q4, except as noted)

| Measure | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Real GDP | -0.4 | -0.9 | 2.4 | 5.1 | 5.7 | 5.6 |
| Civilian unemployment rate $^{1}$ | 6.7 | 8.1 | 8.2 | 6.8 | 5.4 | 4.2 |
| PCE prices, total | 1.9 | 0.7 | 1.0 | 0.8 | 0.7 | 0.8 |
| Core PCE prices $_{\text {Federal funds rate }^{1}}$ | 2.0 | 1.1 | 0.8 | 0.6 | 0.6 | 0.7 |

1. Percent, average for the final quarter of the period.
outpacing its potential by a wide margin, the unemployment rate declines steadily over this period and falls below the NAIRU in 2013. Nevertheless, reflecting the considerable margin of slack on average over this period, inflation moves down, on net, a bit further after 2010.

## Financial Flows and Conditions

We expect that the growth of domestic nonfinancial debt will increase from an annual rate of $41 / 4$ percent in the first half of this year to $63 / 4$ percent in the second half as government programs aimed toward addressing financial market strains substantially boost federal borrowing. Excluding the federal sector, we forecast that debt will contract at an annual rate of about $1 / 2$ percent in the second half of this year, after having expanded at close to a 3 percent pace in the first half and $71 / 2$ percent in the latter half of 2007. Looking ahead, federal debt is projected to expand at a rapid pace throughout the forecast period, but borrowing by households and nonfinancial businesses is expected to be light by historical standards in 2009 and 2010.

In the third quarter, household debt is estimated to have contracted at an annual rate of $3 / 4$ percent-the first net decrease in the 56-year history of this quarterly series-and preliminary data point to a $21 / 2$ percent annual rate of decline this quarter. Mortgage borrowing and nonmortgage consumer credit have been sharply curtailed by the effects of falling home prices, the substantial deterioration of the labor market, and tighter terms and standards for loans. With these conditions expected to persist well into 2009 and to ease only gradually thereafter, we expect household debt to contract next year and to expand only a little in 2010.

Growth of nonfinancial business debt is expected to slow to an annual rate of $31 / 4$ percent in the second half of this year, down from $61 / 2$ percent in the first half. The slowdown
reflects weaker demand for credit in light of the deterioration in the economic outlook, dramatically higher borrowing costs in the corporate bond market, and tighter terms and standards for bank loans. Commercial and industrial lending jumped in the third quarter as firms drew on existing bank lines of credit in the face of difficulty obtaining other sources of funding. However, we anticipate that bank lending to businesses will decrease markedly in coming quarters as existing lines of credit are used up and as the tightening reported by banks crimps extensions of new credit. We expect that overall credit conditions will begin to ease late next year, but that business borrowing will remain relatively weak throughout the forecast period, reflecting a tepid pace of capital spending.

Federal government debt is on track to surge in the second half of this year at an annual rate of more than 35 percent and is expected to increase about 19 percent in 2009 and 12 percent in 2010. The weak economic outlook, our assumption that a large fiscal stimulus package will be enacted next year, and the outlays by the Treasury associated with the GSEs and the TARP are projected to contribute to federal borrowing of about \$1.2 trillion next year and \$900 billion in 2010.

We anticipate that growth in state and local government debt will slow to an annual rate of about $1 \frac{1}{2}$ percent in the fourth quarter, down from an average pace of $21 / 2$ percent during the first three quarters of the year, largely reflecting the disruptions in the municipal bond market earlier this fall. Although market conditions have improved somewhat, we anticipate that the deteriorating fiscal positions of state and local governments will hold down outlays besides those funded by federal grants, which will restrain borrowing in 2009 and 2010.

After surging in September and October, the growth of M2 dropped back in November. Still, the gains in M2 have remained robust, reflecting increased household demand for safe and liquid assets, depository institutions’ aggressive bidding for small time deposits, and continued demand for deposits insured by the Federal Deposit Insurance Corporation’s Temporary Liquidity Guarantee Program. We expect M2 growth to slow over the forecast period, with the increase in the aggregate projected to be more closely aligned with the sluggish gains in nominal GDP.

## Alternative Scenarios

In this section, we illustrate risks to the staff forecast using simulations of the FRB/US model. In the first scenario, financial market turmoil is greater and more persistent than in the baseline. In contrast, the next scenario considers the possibility that the recovery

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

| Measure and scenario | 2008 | 2009 |  | 2010 | 2011 | $\begin{gathered} 2012- \\ 13 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H2 | H1 | H2 |  |  |  |
| Real GDP |  |  |  |  |  |  |
| Greenbook Extension | -2.6 | -3.1 | 1.3 | 2.4 | 5.1 | 5.7 |
| More financial stress | -2.6 | -4.0 | -0.6 | 0.7 | 4.4 | 5.5 |
| Faster recovery | -2.6 | -3.0 | 4.8 | 5.8 | 5.8 | 3.0 |
| Bigger fiscal package | -2.6 | -1.8 | 1.5 | 2.6 | 5.0 | 5.4 |
| Anchored inflation expectations | -2.6 | -3.1 | 1.3 | 2.5 | 5.2 | 5.5 |
| Deflation | -2.6 | -3.1 | 1.3 | 2.4 | 5.1 | 5.5 |
| Unemployment rate ${ }^{1}$ |  |  |  |  |  |  |
| Greenbook Extension | 6.7 | 7.8 | 8.1 | 8.2 | 6.8 | 4.2 |
| More financial stress | 6.7 | 7.9 | 8.5 | 9.2 | 8.1 | 5.4 |
| Faster recovery | 6.7 | 7.8 | 7.7 | 6.5 | 4.6 | 3.9 |
| Bigger fiscal package | 6.7 | 7.6 | 7.8 | 7.8 | 6.5 | 4.1 |
| Anchored inflation expectations | 6.7 | 7.8 | 8.1 | 8.2 | 6.8 | 4.2 |
| Deflation | 6.7 | 7.8 | 8.1 | 8.2 | 6.8 | 4.3 |
| Core PCE inflation |  |  |  |  |  |  |
| Greenbook Extension | 1.9 | 1.4 | 0.9 | 0.8 | 0.6 | 0.7 |
| More financial stress | 1.9 | 1.4 | 0.8 | 0.3 | -0.1 | -0.2 |
| Faster recovery | 1.9 | 1.4 | 0.9 | 1.2 | 1.4 | 1.6 |
| Bigger fiscal package | 1.9 | 1.4 | 1.0 | 1.0 | 0.9 | 0.9 |
| Anchored inflation expectations | 1.9 | 1.4 | 1.0 | 1.1 | 1.2 | 1.5 |
| Deflation | 1.9 | 1.2 | 0.6 | 0.3 | -0.1 | -0.3 |
| Federal funds rate ${ }^{1}$ |  |  |  |  |  |  |
| Greenbook Extension | 1.1 | 0.3 | 0.3 | 0.3 | 0.3 | 1.3 |
| More financial stress | 1.1 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Faster recovery | 1.1 | 0.3 | 0.3 | 1.0 | 4.2 | 5.4 |
| Bigger fiscal package | 1.1 | 0.3 | 0.3 | 0.3 | 0.3 | 3.6 |
| Anchored inflation expectations | 1.1 | 0.3 | 0.3 | 0.3 | 0.3 | 3.8 |
| Deflation | 1.1 | 0.3 | 0.3 | 0.3 | 0.3 | 1.6 |

1. Percent, average for the final quarter of the period.
from the recession will be more in line with historical experience, and thus faster than we anticipate. The third scenario considers a larger fiscal stimulus package. The fourth scenario assumes that inflation expectations are better-anchored than in the baseline, thereby mitigating the drop in inflation. In contrast, the final scenario assumes a larger reduction in inflation, more in line with some of the models the staff monitors. In each
of these scenarios, we assume that the federal funds rate follows the prescriptions of a version of the Taylor rule, subject to an effective lower bound of $1 / 4$ percent. ${ }^{3}$

More financial stress. Our baseline forecast assumes a gradual waning in financial market strains over the next two years. In this alternative scenario, we instead assume that credit losses and solvency concerns intensify into next year and remain elevated through 2010, with adverse consequences for asset prices, the cost of borrowing, and credit availability. Risk premiums on conventional mortgages, investment-grade private securities, and corporate equity move up about 50 basis points from their current levels, then come down more slowly over the next two years than we assume in the staff forecast. In this environment, problems in the housing market deepen by more than in the staff projection, causing home prices to decline an additional 10 percent relative to baseline by the end of 2010; prices only slowly return to baseline thereafter. We also assume that these more adverse financial conditions spill over to activity abroad, causing foreign output to expand 1 percentage point per year more slowly in 2009 and 2010 than in the baseline; weaker global growth, in turn, drives the price of WTI crude oil about $\$ 8$ per barrel below baseline, on average, over the next three years.

The additional financial market stress causes household and business spending to weaken more appreciably than in the baseline. Real GDP contracts at an annual rate of 4 percent in the first half of 2009 and continues falling into 2010. The unemployment rate peaks at 9114 percent in 2010 and inflation falls more steeply than in the baseline. A recovery begins in 2010, but unemployment remains above the NAIRU throughout the projection period and inflation falls below zero. In the face of persistent slack and ongoing deflation, the federal funds rate remains pinned at its effective lower bound through 2013.

Faster recovery. Our baseline outlook is for a sluggish recovery despite considerable stimulus from monetary and fiscal policy, with GDP growing more slowly than potential until the second quarter of 2010. In this scenario, however, the baseline fiscal package, a federal funds rate close to zero, and the various programs now in place or under way to increase liquidity and boost credit availability prove more successful in jump-starting the economy. As a result, business and household sentiment bounces back more quickly and financial stress abates faster than in the staff forecast. The reduction in financial market stress is reflected in lower risk premiums on residential mortgages, investment-grade

[^2]private securities, and corporate equity, which decline about 50 basis points below their baseline paths. Improved financial conditions also lead to greater credit availability than in the baseline, augmenting the stimulus to household and business spending from greater wealth, lower interest rates, and more optimistic expectations for future economic activity.

Under these assumptions, real GDP rises at a $43 / 4$ percent annual rate in the second half of 2009 and almost 6 percent in 2010 and 2011. Thus, this cyclical episode turns out to be more V-shaped, similar to the average pattern seen prior to the last two U-shaped business cycles. The unemployment rate peaks at $73 / 4$ percent in mid-2009 and then falls quickly. With stronger real activity, inflation is also higher than in the baseline, declining only to 1 percent over the next two years and remaining close to that level thereafter. With a robust recovery under way in 2010, monetary policy begins to tighten appreciably, boosting the federal funds rate above $41 / 2$ percent in 2012.

Bigger fiscal package. Although the baseline incorporates a sizable amount of fiscal stimulus, some of the proposals now under discussion are even more ambitious. In this scenario, the tax cuts are roughly double the size of the baseline assumption, and government purchases increase appreciably, boosting the two-year cost of the package relative to baseline by $\$ 300$ billion. We assume that the larger tax cut is sustained beyond 2010 and that households regard it as permanent. Accordingly, they spend about two-thirds of it within two years, in line with the propensity to consume out of permanent labor income in the FRB/US model.

The extra stimulus adds $3 / 4$ percentage point to real GDP growth in 2009 and adds $1 / 4$ percentage point to growth in 2010. The stimulus to output fades thereafter, partly reflecting the assumed return of government spending to baseline. The peak unemployment rate in 2010 is almost $1 / 2$ percentage point below baseline. There is also a less pronounced drop in core inflation, which remains around 1 percent. Reflecting stronger activity and higher inflation than in the baseline, the federal funds rate begins to rise quickly in 2012.

Anchored inflation expectations. In the staff forecast, core inflation drops below 1 percent in 2010 and declines further through 2012, despite improving economic conditions. Long-run inflation expectations are a key element in this projection; the staff expects them to move down to 1 percent by 2012 in response to persistently low readings on headline inflation, continued economic slack, and, with the federal funds rate pinned
at its effective lower bound, the perception that the Federal Reserve will be unable to reverse these factors anytime soon. In this scenario, long-run inflation expectations remain near their assumed current level of about 2 percent, thereby preventing any shortrun decline in actual inflation from becoming entrenched in wage and price formation. As a result, as activity recovers, so does inflation. In response, the federal funds rate begins to increase quickly starting in 2012. However, higher inflation expectations offset much of the rise in nominal interest rates and so real activity is little changed from baseline.

Deflation. Although the staff projection assumes that persistent economic slack and falling commodity prices will have a sizable effect on inflation, some reduced-form models with lower sacrifice ratios suggest even larger effects. In this scenario we follow these models, with the result that core PCE inflation declines to $1 / 4$ percent by 2010 and falls below zero in 2011. In response, inflation expectations also drift down further. With the federal funds rate pinned at its effective lower bound, the decline in inflation expectations raises real interest rates relative to baseline; real activity is somewhat weaker as a result. By 2013, the economy has recovered sufficiently for the Taylor rule to prescribe an increase in interest rates, despite the much lower inflation. ${ }^{4}$

[^3]
## Selected Greenbook Projections and 70 Percent Confidence Intervals Derived from Historical Greenbook Forecast Errors and FRB/US Simulations

| Measure | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Real GDP <br> (percent change, Q4 to Q4) |  |  |  |  |  |  |
| Projection | -0.4 | -0.9 | 2.4 | 5.1 | 5.7 | 5.6 |
| Confidence interval |  |  |  |  |  |  |
| Greenbook forecast errors | -.8-. 1 | -2.4-. 6 | 1.1-3.8 | ... |  |  |
| FRB/US stochastic simulations | -. $7-.1$ | -2.0-. 1 | 1.1-3.6 | 3.5-6.3 | 4.1-7.1 | 4.0-6.9 |
| Civilian unemployment rate (percent, Q4) |  |  |  |  |  |  |
| Projection | 6.7 | 8.1 | 8.2 | 6.8 | 5.4 | 4.2 |
| Confidence interval |  |  |  |  |  |  |
| Greenbook forecast errors | 6.6-6.8 | 7.5-8.7 | 7.2-9.2 | ... |  |  |
| FRB/US stochastic simulations | 6.6-6.8 | 7.7-8.5 | 7.7-8.8 | 6.3-7.6 | 4.9-6.3 | 3.6-5.2 |
| PCE prices, total (percent change, Q4 to Q4) |  |  |  |  |  |  |
| Projection | 1.9 | 0.7 | 1.0 | 0.8 | 0.7 | 0.8 |
| Confidence interval |  |  |  |  |  |  |
| Greenbook forecast errors | 1.7-2.1 | -.1-1.6 | .0-2.1 | ... |  |  |
| FRB/US stochastic simulations | 1.8-2.0 | .1-1.4 | .2-1.7 | -.1-1.5 | -.3-1.5 | -.3-1.6 |
| PCE prices excluding food and energy |  |  |  |  |  |  |
| Projection | 2.0 | 1.1 | 0.8 | 0.6 | 0.6 | 0.7 |
| Confidence interval |  |  |  |  |  |  |
| Greenbook forecast errors | 1.8-2.3 | .6-1.7 | -.2-1.7 | $\ldots$ |  |  |
| FRB/US stochastic simulations | 2.0-2.1 | .7-1.5 | .2-1.3 | -.1-1.2 | -.3-1.2 | -.2-1.4 |
| Federal funds rate (percent, Q4) |  |  |  |  |  |  |
| Projection | 1.1 | 0.3 | 0.3 | 0.3 | 0.3 | 1.3 |
| Confidence interval <br> FRB/US stochastic simulations | 1.1-1.1 | . $3-1.3$ | .3-1.6 | .3-1.7 | . $3-1.6$ | . $3-2.7$ |

Notes: Intervals derived from Greenbook forecast errors are based on projections made from 1987-2007.
Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1987-2007 set of model equation residuals.
. . . Not applicable. The Greenbook forecast horizon has typically extended about two years.

Forecast Confidence Intervals and Alternative Scenarios
Confidence Intervals Based on FRB/US Stochastic Simulations
$\square$ Anchored inflation expectations $\square$ Deflation

Real GDP


PCE Prices excluding Food and Energy
4-quarter percent change


Unemployment Rate


Federal Funds Rate


Class II FOMC - Restricted (FR)

## Evolution of the Staff Forecast



Unemployment Rate


Change in PCE Prices excluding Food and Energy



[^4]December 10， 2008

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|  | $\stackrel{m}{\sigma}$ | $\underset{i}{+}$ | $=\infty \quad \underset{i}{\infty} \underset{i}{n}$ | Non no no | $\stackrel{N}{i}$ | ${\underset{i}{0}}_{\infty}^{\sim} \underset{i}{\sim}$ | $\begin{array}{ccc} n \\ \underset{1}{n} \underset{\sim}{*} & \text { n } \end{array}$ | $\infty \infty \bullet \bigcirc \backsim$ $\dot{\sim} \dot{\sim} \dot{\sim} \dot{\sim}$ | ${\underset{n}{n}}_{n}^{n}$ |
|  | $\underset{\sigma}{\mathrm{O}}$ | $\infty \infty$ <br> ヘ | $\underset{\sim}{\forall} \underset{ナ}{+} \uparrow$ |  | $\begin{aligned} & m \\ & m \\ & m \end{aligned}$ | nnoonn Nヘ คi $\infty \infty$ | $\begin{aligned} & \infty \\ & \infty \\ & m \\ & \cdots \\ & \cdots \end{aligned}$ | のの omon <br>  | $\bar{n} \vec{n}_{i} N$ |
|  | $\bar{\sigma}$ | 99 | $\because \cong \overbrace{i}$ | $\text { G } 9 \underset{\sim}{\square}$ | $\begin{aligned} & \text { in } \\ & \underset{1}{n} \end{aligned}$ | $\underset{\sim}{\star} \underset{i}{0} \bigoplus_{i}^{0} \infty$ | $\begin{array}{cc} \underset{i}{0} & \rightarrow \infty \\ \underset{i}{o} \\ i \end{array}$ | gacman | $\underset{1}{\circ} \frac{0}{1} \frac{\infty}{1} 0$ |
| \＃ |  |  |  |  |  |  |  |  |  |

[^5]| Item | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Real GDP | 1.9 | 3.7 | 3.1 | 2.7 | 2.4 | 2.3 | -. 4 | -. 9 | 2.4 |
| Previous | 1.9 | 3.7 | 3.1 | 2.7 | 2.4 | 2.3 | . 3 | -. 1 | 2.3 |
| Final sales | . 8 | 3.7 | 2.8 | 2.7 | 2.8 | 2.5 | -. 3 | -1.4 | 2.4 |
| Previous | . 8 | 3.7 | 2.8 | 2.7 | 2.8 | 2.5 | . 2 | -. 5 | 2.3 |
| Priv. dom. final purch. | 1.1 | 4.1 | 4.3 | 3.1 | 2.3 | 1.4 | -2.5 | -2.0 | 3.2 |
| Previous | 1.1 | 4.1 | 4.3 | 3.1 | 2.3 | 1.4 | -1.9 | -1.1 | 2.9 |
| Personal cons. expend. | 1.9 | 3.4 | 3.7 | 2.6 | 3.2 | 2.2 | -1.5 | . 7 | 2.7 |
| Previous | 1.9 | 3.4 | 3.7 | 2.6 | 3.2 | 2.2 | -. 9 | 1.0 | 2.4 |
| Durables | 1.2 | 8.3 | 5.6 | 1.2 | 6.9 | 4.2 | -12.5 | 1.2 | 6.5 |
| Nondurables | 2.1 | 3.9 | 3.5 | 3.6 | 3.2 | 1.7 | -2.5 | -. 2 | 2.5 |
| Services | 1.9 | 2.2 | 3.3 | 2.4 | 2.6 | 2.1 | . 9 | 1.1 | 2.3 |
| Residential investment | 7.0 | 11.7 | 6.7 | 5.4 | $-15.5$ | -19.0 | -20.5 | -10.4 | 8.9 |
| Previous | 7.0 | 11.7 | 6.7 | 5.4 | -15.5 | -19.0 | -20.8 | -15.8 | 13.4 |
| Business fixed invest. | -6.5 | 4.9 | 7.5 | 4.9 | 6.5 | 6.4 | -2.7 | -16.9 | 4.8 |
| Previous | -6.5 | 4.9 | 7.5 | 4.9 | 6.5 | 6.4 | -1.2 | -10.9 | 4.1 |
| Equipment \& software | -3.4 | 6.6 | 9.4 | 7.0 | 4.2 | 2.8 | -7.6 | -12.4 | 11.8 |
| Previous | -3.4 | 6.6 | 9.4 | 7.0 | 4.2 | 2.8 | -4.7 | -7.7 | 10.2 |
| Nonres. structures | -14.9 | . 2 | 2.3 | -. 5 | 12.8 | 14.5 | 7.2 | -24.4 | -8.6 |
| Previous | -14.9 | . 2 | 2.3 | -. 5 | 12.8 | 14.5 | 5.9 | -16.4 | -7.5 |
| Net exports ${ }^{1}$ | -471 | -519 | -594 | -617 | -616 | -547 | -385 | -324 | -380 |
| Previous ${ }^{1}$ | -471 | -519 | -594 | -617 | -616 | -547 | -381 | -307 | -319 |
| Exports | 3.8 | 5.8 | 7.4 | 7.0 | 10.1 | 8.9 | 4.0 | -1.3 | 2.6 |
| Imports | 9.7 | 4.8 | 11.5 | 4.8 | 3.8 | 1.1 | -4.2 | -1.0 | 4.9 |
| Govt. cons. \& invest. | 4.0 | 1.7 | . 7 | . 6 | 2.1 | 2.4 | 3.2 | 1.2 | 1.2 |
| Previous | 4.0 | 1.7 | . 7 | . 6 | 2.1 | 2.4 | 2.4 | . 9 | . 5 |
| Federal | 7.8 | 5.5 | 2.4 | 1.0 | 2.9 | 2.3 | 7.4 | 2.6 | 2.2 |
| Defense | 8.4 | 7.5 | 2.5 | . 8 | 4.1 | 2.7 | 9.5 | 2.6 | 1.9 |
| Nondefense | 6.8 | 1.9 | 2.3 | 1.4 | . 5 | 1.5 | 2.9 | 2.7 | 2.7 |
| State \& local | 2.1 | -. 4 | -. 4 | . 3 | 1.6 | 2.4 | . 8 | . 4 | . 6 |
| Change in bus. inventories ${ }^{1}$ | 12 | 14 | 54 | 39 | 42 | -2 | -31 | -36 | 27 |
| Previous ${ }^{1}$ | 12 | 14 | 54 | 39 | 42 | -2 | -29 | 16 | 40 |
| Nonfarm ${ }^{1}$ | 15 | 14 | 48 | 39 | 46 | -4 | -34 | -36 | 26 |
| Farm ${ }^{1}$ | -2 | 0 | 6 | 0 | -3 | 1 | 2 | 1 | 1 |

Class II FOMC
Restricted（FR）

|  | － | $\stackrel{n}{i}$ | $\underset{\sim}{*} \underset{\sim}{n} \stackrel{\rightharpoonup}{*}$ | Gr. | $\cdots \cdots$ |  | ${\underset{i}{\prime}}_{\substack{1}}^{\infty}$ | Nー | 0000. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \overline{\hat{a}} \\ & \stackrel{\rightharpoonup}{\mathrm{o}} \end{aligned}$ | $97$ | $\underset{i}{+} \underset{i}{0}$ | $n+-O n$ | ? ? | $\underset{i}{\infty} \underset{i}{N} \infty_{i}^{\infty} \underset{i}{0}$ | $0 \text { O Y ָ Y }$ | $\text { n N }-T-0$ |  |
|  | $\stackrel{\bar{\infty}}{\stackrel{-}{8}}$ | $\nabla_{i} ?$ |  | $\underset{i}{T} \overbrace{i} ?$ | ${\underset{i}{\infty}}_{\infty}^{\infty}$ | $n_{i} \prod_{i} n_{i} \because$ | NM n | ¢n | $\rightarrow-7$ |
| － | $\pm$ | O.O. | ONON <br> iNim | $\vec{i}$ | $\cdots$ | $\uparrow \infty \bigcirc \bigcirc \rightarrow ఛ$ | $0_{i} \overbrace{i}+\underset{i}{0}$ | $\bigcirc \bigcirc \rightarrow-\bigcirc \bigcirc$ | ナ．+ ¢． |
|  | $\hat{\sigma}$ | $\begin{aligned} & 0 \backsim \\ & \cdots \sim \end{aligned}$ | $\hat{\text { Nin }}$ | $0 \text { 악 }$ | $\cdots$ ？ |  | $\Gamma_{i} O+\underbrace{}_{i}$ | $\rightarrow \bigcirc \rightarrow-\bigcirc \square$ | N N N No. |
|  | $\underset{O}{\circ}$ | No | $\underset{\sim}{\infty} \underset{\sim}{n} \text { N }$ | $96 n \backsim$ | N． | tn গn n! ? | $\bigcirc \overbrace{\text { O }}$ |  | $\varphi_{i} \infty_{i} \varphi_{i} 0$ |
|  | $\cdots$ | $9 ?$ | Yo | $\underset{-}{\circ} \text { అ }$ | N－ | $\rightarrow \bigcirc \cdots \overbrace{i}$ | ${\underset{i}{i}}_{\sim}^{\sim}$ | ナ ก ¢－N－ | N® |
| $\begin{aligned} & 0 \\ & 8 \\ & 8 \\ & \text { Nin } \end{aligned}$ | $\pm$ | $0$ |  | $\underset{-}{+}$ | $\cdots ;$ | ${\underset{i}{N}}_{\infty}^{\infty}{\underset{i}{+}}_{i}^{\infty}{\underset{i}{0}}_{i}^{0}$ | $\overbrace{i} \overbrace{i} \rightarrow \infty$ | ナーツกセー． | $\pm 9 \text { no }$ |
|  | $\vartheta$ | $0$ | $\infty{\underset{i}{1}}_{N_{i}}^{n_{i}}$ |  | $\because ?$ | $\underset{i}{0} \underset{i}{T}{\underset{i}{i}}_{i}^{O}{\underset{i}{i}}^{O}$ | $\forall_{i} \overbrace{i} ?$ | M－No．T | $90 .$ |
|  | $\approx$ | $\underset{i}{\sim}$ | $\underset{\sim}{\sim} \underset{i}{\infty} \underset{\sim}{\infty} \underset{\sim}{\square}$ | $\bigcirc \uparrow+\overbrace{i}$ | $?$ | $\underset{i}{N} \underset{i}{N} \underset{i}{O} \underset{i}{0}$ | $-\backsim$ | ナ．ก ๓ฺọ | 0000 |
|  | $\bar{\sigma}$ | $\underset{i}{0} \underset{\sim}{i}$ |  | $9_{i} \overbrace{i}{\underset{i}{*}}_{+}$ | $\underset{i}{\rightrightarrows}$ | ${\underset{i}{n}}_{\cdots}^{\sim} \underset{i}{m} \underset{i}{\infty}$ | 90\％ | $\rightarrow$ T－OOT | $\underset{1}{0} 0 \cdot \frac{n}{T} 0 .$ |
| $\begin{aligned} & \infty \\ & \underset{\sim}{\infty} \\ & \underset{N}{2} \end{aligned}$ | $\pm$ | $\underset{\sim}{\uparrow}$ | 0 on $0 \infty$ prip | $\underset{\sim}{0} \underset{i}{0} \underset{1}{n}$ | $\frac{0}{i} 9$ |  | $\forall . \nabla_{i} 9$ | n గ m nopo | $\because \underset{N}{N} \rightarrow-$ |
|  | $\stackrel{\sim}{0}$ | $+\frac{0}{i}$ | $\underset{\sim}{-\infty} m$ | Nm n！！ $\underset{1}{\mathrm{~T}} \underset{\mathrm{~T}}{ }$ | $\varphi_{i}^{\infty}{ }_{i}$ | $\rightarrow \sqcap \nabla_{i} \rightarrow \nabla_{i}$ | $\because \underset{\sim}{\square}$ | Too Ton | $\wedge \overbrace{i}^{\infty}$ |
|  | $\approx$ | $\stackrel{\infty}{\infty}$ | $\underset{\sim}{n} \underset{\sim}{n} 0$ | $\bigcirc \bigcirc \uparrow \infty$ | $?$ | $m_{n} \nabla_{i} \nabla_{i} \bullet$ | $\text { Nà } \because \underset{-}{\square}$ | $\infty \infty$ n + ¢ | $\underset{i}{n} \underset{i}{n} \underset{i}{*}$ |
|  | $\cdots$ | $9 \bigcirc$ | $90!?$ | $\bigcirc 0.0$ | $\underset{T}{7}$ | nnoonn | $\infty, \infty$－－ | ナ．ナ．+ ？－ | OOM Y |
| 霏 |  |  |  |  |  |  |  |  |  |


| $\stackrel{\rightharpoonup}{0}$ | $\infty$ | $\bigcirc \underset{\rightarrow-\infty}{\infty} \underset{\sim}{\infty} \underset{\sim}{+}$ |  | on |  | $\cdots \backsim$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { הे, } \\ & \text { הे } \end{aligned}$ | $\stackrel{n}{\square}$ |  | ヘッツ介 | $0 \stackrel{m}{i}$ |  | in |
| $\begin{aligned} & \text { ò } \\ & \text { Nì } \end{aligned}$ | © | $0 \infty \infty$ м M O <br>  | $\underset{i}{\infty} \underset{i}{i} \underset{i}{J}$ | $\stackrel{n}{i}$ |  | gin |
| $\pm$ | ㄱ. |  | - | $\because \backsim$ |  | $\mathfrak{n}$ |
| $\cdots$ | $\infty$ |  | Nion | ? | $\vec{i} \mathrm{H}_{\mathrm{i}} \text { no } \mathrm{Ni}_{i} 0$ | n? |
| $\circ \approx$ | $\bigcirc \underset{-}{ \pm}$ |  | $\underset{\sim}{\text { mis }}$ | 극 |  | $\underset{\sim}{+}$ |
| $\nabla$ | $\cdots \xrightarrow{\sim}$ |  | $\stackrel{+}{\sim} \stackrel{\infty}{-}$ | $\stackrel{\infty}{-}$ |  | $\stackrel{+}{-}$ |
| $\pm$ | $\bigcirc \cdots$ | $\underset{\rightarrow}{\text { Nơn No }}$ | $\underset{-}{+\infty} \xrightarrow[-]{0} \xrightarrow[-]{0}$ | 99 |  | $\bigcirc$ |
| $\cdots$ | $\underset{\sim}{*} \because$ | nornomot． $\rightarrow-\infty$ ヘ | $\xrightarrow[\sim]{\sim} \stackrel{\sim}{\sim}$ | $\xrightarrow[\sim]{C}$ | om Jo NT． <br> iN iウ | 「 |
| O | $\stackrel{0}{0}$ |  | $\stackrel{0}{1} \xlongequal[-1]{ } \stackrel{\infty}{-}$ | $\mathrm{O}_{\mathrm{i}}^{\mathrm{i}}$ |  | $\underset{\text { i}}{\underset{i}{*}}$ |
| $\sigma$ | $\underset{i}{i}$ | $\stackrel{\infty}{\infty} \underset{\rightarrow}{\infty} \underset{1}{\infty} \text { in }$ | $\underset{i}{\text { No }} \underset{-}{\mathbf{N}}$ | $\stackrel{\circ}{i} \stackrel{0}{\mathrm{i}}$ |  | $\mathfrak{n}$ |
| $\pm$ | $\stackrel{+}{*}$ |  | $\operatorname{nin}_{\infty}^{\infty} \underset{\sim}{\infty}$ | Nべ |  | 온 |
| $\infty{ }^{2}$ | 子ヲ |  |  | $\stackrel{\circ}{\text { ¢ }}$－ | $\underset{\rightarrow}{\text { ¢ }}$ | $\stackrel{\bullet}{+}$ |
| N 2 | $\rightrightarrows \rightrightarrows$ | ตツ t．t．NT $\underset{\sim}{*} \underset{\text { N }}{\substack{*}}$ | 0099 | $\stackrel{m}{i}$ |  min m ત̀ | $\begin{aligned} & 0.0 \\ & \varrho-0 \\ & \hline 0 \end{aligned}$ |
| $\overline{0}$ | $\begin{gathered} \circ \\ \stackrel{\circ}{\mathrm{i}} \end{gathered}$ | 0．0．0．0．mm <br>  | $\underset{\sim}{m} \underset{\sim}{n} \stackrel{n}{n}$ | $0.0$ | $0_{0} 0 \infty \times$ Y Y <br>  | $\cdots \sim$ |
| E00 |  |  |  |  |  |  |

1．Change from fourth quarter of previous year to fourth quarter of year indicated．
3．Core goods imports exclude computers，semiconductors，oil，and natural gas．
Class II FOMC
Restricted (FR)
December 10, 2008

| Item | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GDP chain-wt price index | 1.7 | 2.2 | 3.2 | 3.5 | 2.8 | 2.6 | 2.6 | 1.5 | . 8 |
| Previous | 1.7 | 2.2 | 3.2 | 3.5 | 2.8 | 2.6 | 3.0 | 1.6 | 1.3 |
| PCE chain-wt price index | 1.8 | 1.9 | 3.1 | 3.3 | 1.9 | 3.5 | 1.9 | . 7 | 1.0 |
| Previous | 1.8 | 1.9 | 3.1 | 3.3 | 1.9 | 3.5 | 2.8 | 1.4 | 1.4 |
| Energy | 7.7 | 7.6 | 18.3 | 23.1 | -4.0 | 19.1 | -9.8 | -8.1 | 4.8 |
| Previous | 7.7 | 7.6 | 18.3 | 23.1 | -4.0 | 19.1 | -1.0 | -2.3 | 3.3 |
| Food | 1.3 | 2.6 | 2.9 | 2.1 | 2.3 | 4.5 | 6.3 | 2.0 | 1.0 |
| Previous | 1.3 | 2.6 | 2.9 | 2.1 | 2.3 | 4.5 | 6.2 | 2.2 | 1.4 |
| Ex. food \& energy | 1.6 | 1.4 | 2.2 | 2.2 | 2.3 | 2.2 | 2.0 | 1.1 | . 8 |
| Previous | 1.6 | 1.4 | 2.2 | 2.2 | 2.3 | 2.2 | 2.4 | 1.5 | 1.3 |
| CPI | 2.3 | 2.0 | 3.4 | 3.8 | 1.9 | 4.0 | 1.7 | . 7 | 1.3 |
| Previous | 2.3 | 2.0 | 3.4 | 3.8 | 1.9 | 4.0 | 2.8 | 1.5 | 1.7 |
| Ex. food \& energy | 2.1 | 1.2 | 2.1 | 2.1 | 2.7 | 2.3 | 2.1 | 1.3 | 1.0 |
| Previous | 2.1 | 1.2 | 2.1 | 2.1 | 2.7 | 2.3 | 2.4 | 1.7 | 1.5 |
| ECI, hourly compensation ${ }^{1}$ | 3.1 | 4.0 | 3.8 | 2.9 | 3.2 | 3.0 | 2.5 | 2.0 | 1.6 |
| Previous ${ }^{1}$ | 3.1 | 4.0 | 3.8 | 2.9 | 3.2 | 3.0 | 2.9 | 2.3 | 1.5 |
| Nonfarm business sector |  |  |  |  |  |  |  |  |  |
| Output per hour | 2.9 | 4.7 | 1.8 | 1.5 | . 6 | 2.7 | 2.0 | . 8 | 2.4 |
| Previous | 2.9 | 4.7 | 1.8 | 1.5 | . 6 | 2.7 | 1.7 | 1.7 | 2.2 |
| Compensation per hour | 3.2 | 5.3 | 3.9 | 3.6 | 4.3 | 3.6 | 3.2 | 2.4 | 1.6 |
| Previous | 3.2 | 5.3 | 3.9 | 3.6 | 4.3 | 3.6 | 4.0 | 3.1 | 2.1 |
| Unit labor costs | . 2 | . 5 | 2.1 | 2.1 | 3.6 | . 9 | 1.2 | 1.6 | -. 8 |
| Previous | . 2 | . 5 | 2.1 | 2.1 | 3.6 | . 9 | 2.2 | 1.4 | -. 1 |
| Core goods imports chain-wt. price index ${ }^{2}$ | . 1 | 1.6 | 3.6 | 2.2 | 2.4 | 3.4 | 3.9 | -2.7 | 1.3 |
| Previous ${ }^{2}$ | . 1 | 1.6 | 3.6 | 2.2 | 2.4 | 3.4 | 5.5 | -. 5 | 1.5 |

[^6]Class II FOMC
Restricted (FR)
December 10, 2008

| Item | 2008 |  |  |  | 2009 |  |  |  | 2010 |  |  |  | $2008^{1}$ | $2009^{1}$ | $2010^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |  |  |  |
| Employment and production Nonfarm payroll employment ${ }^{2}$ | -. 1 | -. 2 | -. 4 | -1.2 | -1.4 | -. 4 |  | -. 1 | -. 1 | . 3 | . 0 | . 2 | -1.9 | -2.1 | . 5 |
| Unemployment rate ${ }^{3}$ | 4.9 | 5.3 | 6.0 | 6.7 | 7.5 | 7.8 | 8.0 | 8.1 | 8.3 | 8.3 | 8.2 | 8.2 | 6.7 | 8.1 | 8.2 |
| Previous ${ }^{3}$ | 4.9 | 5.3 | 6.0 | 6.3 | 6.6 | 6.9 | 7.1 | 7.2 | 7.3 | 7.3 | 7.3 | 7.2 | 6.3 | 7.2 | 7.2 |
| GDP gap ${ }^{4}$ | -. 7 | -. 6 | -1.3 | -3.1 | -4.8 | -5.6 | -5.9 | -6.0 | -6.1 | -6.1 | -6.0 | -5.8 | -3.1 | -6.0 | -5.8 |
| Previous ${ }^{4}$ | -. 6 | -. 5 | -1.4 | -2.3 | -3.2 | -3.9 | -4.3 | -4.7 | -4.9 | -4.9 | -4.9 | -4.7 | -2.3 | -4.7 | -4.7 |
| Industrial production ${ }^{5}$ | . 4 | -3.4 | -7.6 | -9.1 | -6.5 | -1.0 | . 2 | 1.4 | 1.6 | 2.1 | 3.3 | 3.3 | -5.0 | -1.5 | 2.6 |
| Previous ${ }^{5}$ | . 4 | -3.1 | -6.0 | -. 6 | -. 1 | -. 1 | 1.4 | 2.5 | 1.7 | 2.7 | 3.1 | 3.3 | -2.4 | . 9 | 2.7 |
| Manufacturing industr. prod. ${ }^{5}$ | -1.0 | -4.0 | -7.8 | -13.2 | -8.5 | . 0 | 1.0 | 1.2 | 1.1 | 2.0 | 3.4 | 3.5 | -6.6 | -1.7 | 2.5 |
| Previous ${ }^{5}$ | -1.0 | -3.8 | -5.8 | -4.8 | -2.6 | -. 4 | . 9 | 1.9 | 2.2 | 3.2 | 3.5 | 3.9 | -3.8 | -. 1 | 3.2 |
| Capacity utilization rate - mfg. ${ }^{3}$ | 78.7 | 77.5 | 75.7 | 72.8 | 71.2 | 71.2 | 71.3 | 71.6 | 71.8 | 72.3 | 73.0 | 73.7 | 72.8 | 71.6 | 73.7 |
| Previous ${ }^{3}$ | 78.7 | 77.6 | 76.1 | 74.9 | 74.3 | 74.1 | 74.1 | 74.4 | 74.7 | 75.1 | 75.7 | 76.3 | 74.9 | 74.4 | 76.3 |
| Housing starts ${ }^{6}$ | 1.1 | 1.0 | . 9 | . 7 | . 7 | . 7 | . 8 | . 8 | . 9 | . 9 | 1.0 | 1.0 | . 9 | . 7 | . 9 |
| Light motor vehicle sales ${ }^{6}$ | 15.2 | 14.1 | 12.9 | 10.3 | 10.5 | 11.3 | 11.6 | 12.0 | 12.2 | 12.9 | 13.3 | 13.6 | 13.1 | 11.3 | 13.0 |
| Income and saving Nominal GDP5 | 3.5 | 4.1 | 3.6 | -2.4 | -3.0 | . 4 | 2.4 | 2.5 | 2.7 | 3.1 | 3.4 | 3.7 | 2.2 | . 6 | 3.2 |
| Real disposable pers. income ${ }^{5}$ | -. 7 | 10.7 | -9.2 | 5.7 | 8.1 | . 9 | -. 5 | 1.1 | 1.9 | 1.5 | 2.0 | 2.3 | 1.3 | 2.4 | 1.9 |
| Previous ${ }^{5}$ | -. 7 | 11.9 | -8.4 | -. 2 | 3.7 | . 3 | . 1 | 1.2 | 1.7 | . 9 | 2.7 | 2.4 | . 4 | 1.3 | 1.9 |
| Personal saving rate ${ }^{3}$ | . 2 | 2.5 | 1.1 | 3.4 | 5.7 | 5.8 | 5.4 | 5.3 | 5.2 | 5.0 | 4.9 | 4.8 | 3.4 | 5.3 | 4.8 |
| Previous ${ }^{3}$ | . 2 | 2.7 | 1.5 | 2.1 | 3.1 | 3.0 | 2.8 | 2.8 | 2.8 | 2.5 | 2.6 | 2.6 | 2.1 | 2.8 | 2.6 |
| Corporate profits ${ }^{7}$ | -4.3 | -14.3 | -3.0 | $-22.0$ | -21.9 | -1.6 | 1.4 | 6.3 | 4.2 | 7.0 | 8.8 | 6.7 | -11.2 | -4.6 | 6.7 |
| Profit share of GNP3 | 11.2 | 10.6 | 10.5 | 9.9 | 9.4 | 9.4 | 9.3 | 9.4 | 9.4 | 9.5 | 9.6 | 9.7 | 9.9 | 9.4 | 9.7 |
| Net federal saving ${ }^{8}$ | -331 | -650 | -544 | -555 | -707 | -796 | -822 | -830 | -876 | -869 | -892 | -893 | -520 | -789 | -882 |
| Net state \& local saving ${ }^{8}$ | -52 | -67 | -102 | -103 | -92 | -97 | -101 | -95 | -90 | -89 | -83 | -77 | -81 | -96 | -85 |
| Gross national saving rate ${ }^{3}$ | 12.4 | 11.3 | 11.4 | 12.7 | 12.7 | 12.1 | 11.7 | 11.6 | 11.4 | 11.4 | 11.3 | 11.3 | 12.7 | 11.6 | 11.3 |
| Net national saving rate ${ }^{3}$ | . 0 | -1.3 | -2.0 | -. 3 | -. 7 | -1.5 | -1.9 | -2.1 | -2.3 | -2.3 | -2.4 | -2.4 | -. 3 | -2.1 | -2.4 |

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

| Other Macroeconomic Indicators <br> (Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Employment and production Nonfarm payroll employment ${ }^{1}$ | -. 7 | -. 1 | 2.1 | 2.4 | 2.1 | 1.2 | -1.9 | -2.1 | . 5 |
| Unemployment rate ${ }^{2}$ | 5.8 | 5.8 | 5.4 | 4.9 | 4.4 | 4.8 | 6.7 | 8.1 | 8.2 |
| Previous ${ }^{2}$ | 5.8 | 5.8 | 5.4 | 4.9 | 4.4 | 4.8 | 6.3 | 7.2 | 7.2 |
| GDP gap ${ }^{3}$ | -2.5 | -1.7 | -. 7 | -. 2 | -. 1 | -. 3 | -3.1 | -6.0 | -5.8 |
| Previous ${ }^{3}$ | -2.4 | -1.6 | -. 6 | -. 1 | . 0 | -. 2 | -2.3 | -4.7 | -4.7 |
| Industrial production ${ }^{4}$ | 2.6 | 1.5 | 3.1 | 2.6 | 1.7 | 2.1 | -5.0 | -1.5 | 2.6 |
| Previous ${ }^{4}$ | 2.6 | 1.5 | 3.1 | 2.6 | 1.7 | 2.1 | -2.4 | . 9 | 2.7 |
| Manufacturing industr. prod. ${ }^{4}$ | 2.6 | 1.7 | 3.7 | 3.7 | 1.1 | 2.3 | -6.6 | -1.7 | 2.5 |
| Previous ${ }^{4}$ | 2.6 | 1.7 | 3.7 | 3.7 | 1.1 | 2.3 | -3.8 | -. 1 | 3.2 |
| Capacity utilization rate - mfg. ${ }^{2}$ | 73.2 | 74.8 | 77.5 | 79.2 | 79.0 | 79.3 | 72.8 | 71.6 | 73.7 |
| Previous ${ }^{2}$ | 73.2 | 74.8 | 77.5 | 79.2 | 79.0 | 79.3 | 74.9 | 74.4 | 76.3 |
| Housing starts ${ }^{5}$ | 1.7 | 1.8 | 2.0 | 2.1 | 1.8 | 1.4 | . 9 | . 7 | . 9 |
| Light motor vehicle sales ${ }^{5}$ | 16.7 | 16.6 | 16.8 | 16.9 | 16.5 | 16.1 | 13.1 | 11.3 | 13.0 |
| Income and saving Nominal GDP4 | 3.6 | 5.9 | 6.5 | 6.3 | 5.3 | 4.9 | 2.2 | . 6 | 3.2 |
| Real disposable pers. income ${ }^{4}$ | 2.9 | 3.7 | 4.1 | . 9 | 3.6 | 1.8 | 1.3 | 2.4 | 1.9 |
| Previous ${ }^{4}$ | 2.9 | 3.7 | 4.1 | . 9 | 3.6 | 1.8 | . 4 | 1.3 | 1.9 |
| Personal saving rate ${ }^{2}$ | 1.8 | 2.2 | 2.5 | . 8 | . 9 | . 4 | 3.4 | 5.3 | 4.8 |
| Previous ${ }^{2}$ | 1.8 | 2.2 | 2.5 | . 8 | . 9 | . 4 | 2.1 | 2.8 | 2.6 |
| Corporate profits ${ }^{6}$ | 20.6 | 12.6 | 20.3 | 18.8 | 6.9 | -2.0 | -11.2 | -4.6 | 6.7 |
| Profit share of GNP ${ }^{2}$ | 9.0 | 9.5 | 10.8 | 12.0 | 12.2 | 11.3 | 9.9 | 9.4 | 9.7 |
| Net federal saving ${ }^{7}$ | -248 | -372 | -371 | -292 | -201 | -229 | -520 | -789 | -882 |
| Net state \& local saving ${ }^{7}$ | -34 | -20 | 2 | 29 | 46 | 10 | -81 | -96 | -85 |
| Gross national saving rate ${ }^{2}$ | 13.6 | 13.7 | 13.8 | 15.0 | 15.5 | 13.4 | 12.7 | 11.6 | 11.3 |
| Net national saving rate ${ }^{2}$ | 1.5 | 1.9 | 2.1 | 2.8 | 3.4 | 1.2 | -. 3 | -2.1 | -2.4 |

[^7]| Item | Fiscal year |  |  |  | 2008 |  |  |  | 2009 |  |  |  | 2010 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2007{ }^{\text {a }}$ | $2008^{\text {a }}$ | 2009 | 2010 | Q1 ${ }^{\text {a }}$ | Q2 ${ }^{\text {a }}$ | Q3 ${ }^{\text {a }}$ | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Unified budget |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Receipts ${ }^{1}$ | 2568 | 2524 | 2377 | 2429 | 540 | 788 | 590 | 559 | 484 | 742 | 591 | 565 | 517 | 743 | 604 | 586 |
| Outlays ${ }^{1}$ | 2729 | 2978 | 4053 | 3272 | 746 | 761 | 759 | 1062 | 1051 | 1057 | 882 | 825 | 829 | 819 | 799 | 865 |
| Surplus/deficit ${ }^{1}$ | -162 | -455 | -1675 | -842 | -206 | 27 | -169 | -503 | -567 | -315 | -291 | -260 | -312 | -76 | -195 | -278 |
| Previous | -162 | -455 | -853 | -587 | -206 | 27 | -169 | -456 | -277 | 9 | -128 | -212 | -258 | 11 | -128 | -218 |
| On-budget | -343 | -638 | -1832 | -992 | -237 | -64 | -171 | -569 | -577 | -400 | -287 | -317 | -322 | -162 | -192 | -338 |
| Off-budget | 181 | 183 | 157 | 150 | 31 | 91 | 2 | 66 | 10 | 85 | -4 | 57 | 10 | 86 | -3 | 59 |
| Means of financing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Borrowing | 206 | 768 | 1461 | 860 | 200 | -48 | 526 | 529 | 343 | 281 | 307 | 249 | 302 | 100 | 210 | 268 |
| Cash decrease | -23 | -296 | 322 | 0 | 11 | -7 | -318 | 32 | 264 | 30 | -5 | 15 | 15 | -20 | -10 | 15 |
| Other ${ }^{2}$ | -22 | -17 | -108 | -18 | -5 | 29 | -39 | -59 | -41 | 4 | -12 | -5 | -5 | -5 | -5 | -5 |
| Cash operating balance, end of period | 75 | 372 | 50 | 50 | 46 | 53 | 372 | 339 | 75 | 45 | 50 | 35 | 20 | 40 | 50 | 35 |
| NIPA federal sector |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Receipts | 2624 | 2606 | 2528 | 2569 | 2673 | 2479 | 2595 | 2583 | 2512 | 2493 | 2525 | 2552 | 2554 | 2573 | 2598 | 2623 |
| Expenditures | 2832 | 3047 | 3248 | 3436 | 3003 | 3128 | 3140 | 3137 | 3219 | 3289 | 3347 | 3382 | 3430 | 3442 | 3490 | 3517 |
| Consumption expenditures | 842 | 910 | 980 | 1032 | 898 | 918 | 954 | 962 | 974 | 987 | 998 | 1011 | 1029 | 1042 | 1048 | 1053 |
| Defense | 569 | 624 | 677 | 707 | 614 | 629 | 660 | 666 | 671 | 681 | 689 | 696 | 704 | 710 | 717 | 723 |
| Nondefense | 273 | 286 | 303 | 326 | 284 | 289 | 294 | 295 | 302 | 306 | 309 | 315 | 325 | 332 | 331 | 330 |
| Other spending | 1990 | 2136 | 2268 | 2404 | 2105 | 2210 | 2186 | 2176 | 2245 | 2302 | 2349 | 2371 | 2401 | 2400 | 2442 | 2464 |
| Current account surplus | -209 | -440 | -720 | -867 | -331 | -650 | -545 | -555 | -707 | -796 | -822 | -830 | -876 | -869 | -892 | -893 |
| Gross investment | 123 | 134 | 146 | 151 | 129 | 138 | 144 | 145 | 144 | 146 | 148 | 149 | 150 | 151 | 153 | 154 |
| Gross saving less gross investment ${ }^{3}$ | -221 | -458 | -742 | -888 | -344 | -671 | -569 | -579 | -728 | -818 | -843 | -852 | -897 | -889 | -912 | -913 |
| Fiscal indicators ${ }^{4}$ <br> High-employment (HEB) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| surplus/deficit | -225 | -430 | -527 | -572 | -325 | -646 | -507 | -450 | -532 | -570 | -556 | -542 | -584 | -570 | -593 | -599 |
| Change in HEB, percent of potential GDP | -0.3 | 1.4 | 0.5 | 0.2 | 0.6 | 2.2 | -1.0 | -0.4 | 0.5 | 0.2 | -0.1 | -0.1 | 0.2 | -0.1 | 0.1 | 0.0 |
| Fiscal impetus (FI), percent of GDP | 0.2 | 0.8 | 0.6 | 0.7 | 0.1 | 0.5 | 0.7 | -0.3 | 0.0 | 0.4 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 | 0.1 |
| Previous | 0.2 | 0.7 | -0.0 | 0.1 | 0.1 | 0.5 | 0.6 | -0.5 | -0.1 | 0.1 | -0.1 | -0.0 | 0.1 | 0.1 | 0.0 | 0.0 |

3. Gross saving is the current account surplus plus consumption of fixed capital of the general government as well as government enterprises.
4. HEB is gross saving less gross investment (NIPA) of the federal government in current dollars, with cyclically sensitive receipts and outlays adjusted to the staff's measure of potential output and the NAIRU. Quarterly figures for change in HEB and FI are not at annual rates. The sign on Change in HEB, as a percent of nominal potential GDP, is reversed. FI is the weighted difference of discretionary changes in federal spending and taxes in chained (2000) dollars, scaled by real GDP. The annual FI estimates are on a calendar year basis. Also, for FI and the change in HEB, positive values indicate
[^8]| Class II FOMC <br> Restricted (FR) |  | Change in Debt of the Domestic Nonfinancial Sectors <br> (Percent) |  |  |  |  | December 10, 2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Households |  |  |  |  |  |  |
| Period ${ }^{1}$ | Total | Total | Home mortgages | Consumer credit | Business | State and local governments | Federal government | Nominal GDP |
| Year |  |  |  |  |  |  |  |  |
| 2003 | 8.1 | 11.6 | 14.2 | 5.2 | 2.5 | 8.3 | 10.9 | 5.9 |
| 2004 | 8.9 | 11.1 | 13.6 | 5.5 | 6.2 | 7.4 | 9.0 | 6.5 |
| 2005 | 9.5 | 11.0 | 13.2 | 4.3 | 8.7 | 10.2 | 7.0 | 6.3 |
| 2006 | 9.0 | 10.2 | 11.2 | 4.5 | 10.5 | 8.1 | 3.9 | 5.3 |
| 2007 | 8.6 | 6.8 | 6.8 | 5.5 | 13.1 | 9.3 | 4.9 | 4.9 |
| 2008 | 5.6 | . 1 | -. 7 | 1.7 | 4.9 | 2.2 | 23.6 | 2.2 |
| 2009 | 4.4 | -1.0 | -1.2 | -1.3 | 2.6 | 5.9 | 18.7 | . 6 |
| 2010 | 4.3 | 1.1 | . 3 | 3.1 | 3.0 | 6.0 | 11.7 | 3.2 |
| Quarter |  |  |  |  |  |  |  |  |
| 2008:1 | 5.3 | 3.2 | 2.6 | 4.7 | 7.2 | 3.4 | 8.1 | 3.5 |
| 2 | 3.1 | . 6 | -. 1 | 3.9 | 5.6 | . 8 | 5.9 | 4.1 |
| 3 | 7.2 | -. 8 | -2.4 | 1.2 | 2.9 | 2.9 | 39.2 | 3.6 |
| 4 | 6.3 | -2.5 | -2.8 | -2.8 | 3.4 | 1.6 | 34.9 | -2.4 |
| 2009:1 | 3.3 | -1.9 | -1.8 | -3.4 | 2.4 | 5.1 | 15.6 | -3.0 |
| 2 | 5.5 | -1.2 | -1.4 | -1.8 | 2.5 | 5.4 | 24.8 | . 4 |
| 3 | 4.6 | -. 7 | -. 9 | -. 7 | 2.7 | 6.3 | 17.2 | 2.4 |
| 4 | 3.8 | -. 3 | -. 7 | . 5 | 2.7 | 6.2 | 12.5 | 2.5 |
| 2010:1 | 3.8 | . 2 | -. 5 | 1.5 | 3.0 | 6.0 | 10.9 | 2.7 |
| 2 | 4.2 | . 7 | . 0 | 2.8 | 3.1 | 5.9 | 11.7 | 3.1 |
| 3 | 4.1 | 1.3 | . 5 | 3.7 | 2.8 | 5.8 | 10.2 | 3.4 |
| 4 | 4.9 | 2.1 | 1.4 | 4.5 | 3.0 | 5.7 | 12.1 | 3.7 |

Note. Quarterly data are at seasonally adjusted annual rates.

1. Data after 2008:Q3 are staff projections. Changes are measured from end of the preceding period to end of period indicated except for annual nominal
GDP growth, which is calculated from Q4 to Q4.

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

| Category | 2007 | 2008 | 2009 | 2010 | 2008 |  | 2009 |  |  |  | 2010 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Domestic nonfinancial sectors Net funds raised |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 1692.2 | 1373.3 | 1211.8 | 1269.1 | 1934.5 | 1630.0 | 832.0 | 1605.8 | 1325.9 | 1083.6 | 1086.9 | 1258.4 | 1208.7 | 1522.2 |
| Net equity issuance | -831.2 | -410.5 | -255.0 | -240.0 | -413.6 | -460.0 | -280.0 | -260.0 | -240.0 | -240.0 | -240.0 | -240.0 | -240.0 | -240.0 |
| Net debt issuance | 2523.4 | 1783.8 | 1466.8 | 1509.1 | 2348.1 | 2090.0 | 1112.0 | 1865.8 | 1565.9 | 1323.6 | 1326.9 | 1498.4 | 1448.7 | 1762.2 |
| Borrowing indicators |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Debt (percent of GDP) ${ }^{1}$ | 220.6 | 228.0 | 239.3 | 243.1 | 226.6 | 231.9 | 236.4 | 238.8 | 240.3 | 241.4 | 242.0 | 242.6 | 243.1 | 243.5 |
| Borrowing (percent of GDP) | 18.3 | 12.5 | 10.3 | 10.3 | 16.3 | 14.6 | 7.8 | 13.1 | 10.9 | 9.2 | 9.1 | 10.2 | 9.8 | 11.8 |
| Households |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net borrowing ${ }^{2}$ | 876.3 | 11.5 | -137.3 | 147.3 | -117.4 | -349.9 | -257.4 | -166.4 | -90.2 | -35.4 | 21.5 | 102.3 | 173.8 | 291.7 |
| Home mortgages | 674.5 | -73.6 | -124.2 | 35.5 | -258.9 | -300.0 | -189.3 | -142.0 | -94.6 | -71.0 | -47.3 | 0.0 | 47.3 | 142.0 |
| Consumer credit | 133.6 | 44.6 | -35.0 | 80.3 | 30.5 | -72.0 | -89.3 | -45.6 | -17.7 | 12.6 | 38.0 | 71.3 | 95.0 | 116.7 |
| Debt/DPI (percent) ${ }^{3}$ | 131.5 | 129.8 | 125.7 | 122.6 | 130.4 | 129.8 | 127.1 | 125.7 | 125.1 | 124.2 | 123.3 | 122.7 | 122.1 | 121.6 |
| Business |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Financing gap ${ }^{4}$ | 185.6 | 181.2 | 73.3 | 78.7 | 134.5 | 103.0 | 93.0 | 54.1 | 63.2 | 82.8 | 98.1 | 72.9 | 62.7 | 81.0 |
| Net equity issuance | -831.2 | -410.5 | -255.0 | -240.0 | -413.6 | -460.0 | -280.0 | -260.0 | -240.0 | -240.0 | -240.0 | -240.0 | -240.0 | -240.0 |
| Credit market borrowing | 1224.2 | 516.2 | 291.6 | 341.0 | 321.7 | 375.6 | 270.4 | 282.8 | 308.0 | 305.2 | 345.6 | 350.3 | 322.4 | 345.6 |
| State and local governments |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net borrowing | 185.9 | 48.4 | 131.6 | 141.6 | 65.3 | 35.0 | 113.6 | 121.6 | 145.6 | 145.6 | 141.6 | 141.6 | 141.6 | 141.6 |
| Current surplus 5 | 246.6 | 146.7 | 119.3 | 136.7 | 109.6 | 107.3 | 120.9 | 118.0 | 115.7 | 122.6 | 129.0 | 131.5 | 139.8 | 146.7 |
| Federal government |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net borrowing | 237.1 | 1207.7 | 1181.0 | 879.1 | 2078.5 | 2029.3 | 985.4 | 1627.8 | 1202.4 | 908.2 | 818.2 | 904.2 | 810.9 | 983.2 |
| Net borrowing (n.s.a.) | 237.1 | 1207.7 | 1181.0 | 879.1 | 526.5 | 529.4 | 343.4 | 280.9 | 307.5 | 249.1 | 301.6 | 100.0 | 209.6 | 267.9 |
| Unified deficit (n.s.a.) | 187.9 | 851.0 | 1431.9 | 861.1 | 168.9 | 503.0 | 566.9 | 314.7 | 290.6 | 259.6 | 312.1 | 75.5 | 195.1 | 278.4 |
| Depository institutions Funds supplied | 851.7 | 184.2 | 265.8 | 460.4 | -43.3 | -188.1 | 261.5 | 81.0 | 341.0 | 379.6 | 468.7 | 618.8 | 460.9 | 293.1 |

[^9](This page intentionally blank.)

## Class II FOMC—Restricted (FR)

## International Developments

The near-term outlook for growth abroad has deteriorated substantially since the time of the last Greenbook amid continuing financial stress, and we now project that foreign activity will contract $11 / 2$ percent at an annual rate in the current quarter. This is a significant downward revision from the $1 / 2$ percent growth rate projected in the October Greenbook, reflecting both incoming data that point to less domestic demand abroad and the deeper projected contraction in the United States. Foreign activity is now forecast to stabilize during the first half of next year and then to pick up gradually thereafter.

The slower pace of activity has put further downward pressure on prices for oil and other commodities. The spot price of West Texas intermediate (WTI) crude oil has declined by more than 40 percent since the time of the October Greenbook, and indexes for nonfuel primary commodities prices have declined about 15 percent. In light of these lower commodity prices and greater slack abroad, we have marked down our forecast for foreign CPI inflation by more than a percentage point in both the current quarter and the first half of 2009.

## Summary of Staff Projections

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

| Indicator | 2008 |  | Projection |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | Q3 | $\begin{gathered} \text { 2008: } \\ \text { Q4 } \end{gathered}$ | 2009 |  | 2010 |
|  |  |  |  | H1 | H2 |  |
| Foreign output | 1.8 | . 7 | -1.6 | -. 6 | 1.5 | 2.8 |
| Previous Greenbook | 1.7 | . 5 | . 5 | . 9 | 1.8 | 2.9 |
| Foreign CPI | 5.1 | 4.4 | -. 1 | . 9 | 1.8 | 2.0 |
| Previous Greenbook | 5.1 | 4.4 | 1.3 | 2.1 | 2.1 | 2.1 |
|  | Contribution to growth (percentage points) |  |  |  |  |  |
| U.S. net exports | 1.8 | 1.1 | . 4 | . 5 | -. 5 | -. 4 |
| Previous Greenbook | 1.8 | 1.2 | . 4 | . 5 | -. 1 | -. 2 |

Note: Change for year measured as Q4/Q4; half-years are Q2/Q4 or Q4/Q2.

The starting point for our projected path for the broad real dollar is about 2 percent higher than in the last Greenbook. Going forward, we are also projecting a less rapid decline. Together, these changes imply a broad real dollar that is $43 / 4$ percent stronger at the end of 2010 than we wrote down in the October Greenbook.

As a result of the higher dollar, lower commodity prices, and lower foreign inflation, we now project that core goods import prices will decline at a 7 percent annual rate in the current quarter, much steeper than in the previous projection. We expect these prices to decline further during the first half of next year and then to rise gradually.

After adding 1 percentage point to U.S. real GDP growth in the third quarter, we expect the contribution of real net exports to decline to $1 / 2$ percentage point in the fourth quarter and the first half of 2009, as weak activity abroad pulls down exports even as imports continue to contract. In the second half of 2009 and in 2010, net exports are projected to subtract roughly $1 / 2$ percentage point from GDP growth, as imports recover with U.S. activity and more than offset the positive impact of resumed export growth. For 2009 and 2010, we have lowered our forecast for the contribution by $1 / 4$ percentage point as both the higher dollar path and weaker foreign outlook weigh on export growth.

## International Financial Markets

In reaction to large markdowns in prospects for output and inflation, many central banks lowered policy interest rates, with the European Central Bank, the Swiss National Bank, and the Bank of England slashing rates during the period 125, 150, and 250 basis points, respectively. The Bank of Canada cut its target for the overnight rate 75 basis points, and the Bank of Japan reduced its policy rate, to 30 basis points. Market participants appear to expect further easing by each of these central banks in 2009. Long-term sovereign bond yields in major industrial economies dropped sharply as well. Equity prices, which suffered very large declines in September and October, were mixed during this Greenbook period.

The staff's major currencies index of the foreign exchange value of the dollar is little changed, on net, since the time of the October Greenbook. While the dollar declined 1 percent versus the euro and 6 percent against the yen, it appreciated 9 percent against sterling. The dollar is slightly higher on balance against the currencies of our other important trading partners.

We now project that the broad real index of the dollar will decline at an annual rate of about $1 \frac{1}{2}$ percent over the next two years, compared with a $31 / 4$ percent decline in our previous forecast. Evidence that the Chinese authorities may be responding to the global economic slowdown by guiding the exchange value of the renminbi lower has led us to project that the renminbi and other Asian currencies will depreciate slightly against the dollar in the first half of 2009. We also raised the projected value of the dollar against the Latin American currencies through the next couple of quarters. Accordingly, the projected value of the broad real dollar rises a bit in the near term. By the second half of 2009, the dollar starts to decline again but at a slower pace than in our previous forecast, reflecting in part a diminished rate of depreciation against the emerging market currencies. In addition, the staff's projected path for the fed funds target lies below current market expectations by a lesser amount than in the previous projection, which tempers our forecast for the dollar's rate of depreciation against the major currencies.

## Advanced Foreign Economies

The advanced foreign economies fell deeper into recession in the third quarter. Output contracted in Japan, the euro area, and the United Kingdom, as investment collapsed and the contribution from trade turned negative. In Canada, output rose as domestic demand edged up and net exports were flat. Grim incoming data, worsening prospects for U.S. growth, and drag from the ongoing financial turmoil point to further weakness in the near term. We project that real GDP in the advanced foreign economies will contract $21 / 4$ percent at an annual rate in this quarter and next, and an additional $1 \frac{1}{4}$ percent in the second quarter of 2009. Growth is projected to remain anemic in the second half of 2009 and recover only gradually thereafter, reaching just over 2 percent by the end of the forecast period. This recovery is conditioned on stimulative monetary and fiscal policy, improving financial conditions, and a recovery in U.S. growth.

Compared with the October Greenbook, our outlook for growth in the advanced foreign economies is $1 \frac{1}{2}$ percentage points lower through the first half of next year. This downward revision reflects both the substantial markdown in U.S. growth and weaker incoming data, as well as greater fallout from the ongoing financial stress.

Consistent with incoming data showing a marked deceleration in consumer prices throughout the advanced foreign economies, we see four-quarter inflation as having peaked at about $31 / 2$ percent in the third quarter. We project that inflation will turn negative, plunging to $-1 / 4$ percent in the third quarter of 2009, before rising to $1 \frac{1}{4}$ percent by the end of the forecast period. The forecast for 2009 is almost a full percentage point
lower than in the October Greenbook, reflecting the lower path of oil and other commodity prices and wider output gaps. We now project that by the second quarter of 2009 deflation will resume in Japan and continue for the rest of the forecast period.

With markedly weaker growth and substantially lower inflation, we now assume that monetary policy in the advanced foreign economies will be much more accommodative than in the October Greenbook. We expect policy rates to be cut further through the second quarter of next year, when rates are projected to reach $13 / 4$ percent in the euro area, 1 percent in the United Kingdom, $3 / 4$ percent in Canada, and zero in Japan. In addition, many advanced foreign economies have announced fiscal stimulus packages, and it now appears that more stimulus will be forthcoming as activity slows further. We expect this fiscal stimulus, announced and prospective, to add $1 / 4$ to $1 / 2$ percentage point to GDP growth in these economies in late 2009 and 2010. The possibility that these countries will put forward more sizable fiscal stimulus packages is an upside risk to our forecast.

## Emerging Market Economies

Growth in the emerging market economies slid further in the third quarter to an annual rate of $13 / 4$ percent. The weakness was particularly pronounced in emerging Asia, driven by the slowdown in China and sluggish exports to the industrialized countries. In the current quarter, incoming data and anecdotal reports paint a very gloomy picture for activity. Exports have dropped, manufacturing PMIs have plummeted, and consumer confidence has plunged. Accordingly, we expect activity to contract by nearly 1 percent this quarter and remain stagnant next quarter. Thereafter, growth gradually rises to 3 percent by the end of next year and strengthens further in 2010. This recovery will be supported by a pickup in the United States, easing financial stresses, and policy stimulus. Monetary policy has been eased in most of emerging Asia, and fiscal stimulus packages have been announced in several countries, including China, Korea, and Mexico. Relative to the October Greenbook, we revised down our growth forecast for the emerging market economies by nearly 3 percentage points in the current quarter and smaller amounts further out.

Four-quarter inflation in the emerging market economies is expected to decline to 5 percent in the current quarter and step down to 2 percent by the third quarter of next year. The decline is largely driven by emerging Asia, and generally reflects weaker activity and lower prices for food and other commodities. In Mexico and Brazil, inflation pressures have abated some, but are still present, partly reflecting pass-through from recent exchange rate depreciations. Relative to the previous Greenbook, the outlook for
inflation is lower due to the downward revision to the paths for commodity prices and economic activity.

## Commodity Prices

Oil prices continued to decline sharply over the intermeeting period. Since peaking at \$145 per barrel in mid-July, the spot price of WTI crude oil has fallen over \$100, closing most recently on December 9 at $\$ 42.07$ per barrel, about $\$ 29$ lower than at the time of the October Greenbook. Spot WTI currently stands at levels not seen since early-2005. In contrast, the price of oil deliverable in December 2016 has declined by much less, closing on December 9 at $\$ 79.69$ per barrel, about $\$ 10$ lower than at the time of the October Greenbook. Given this path of futures prices, our current projection has the price of WTI crude oil averaging \$46 in the first quarter of next year and then rising sharply over the remainder of the forecast, ending 2010 at about $\$ 65$ per barrel. Relative to the October Greenbook, this projection is $\$ 20$ per barrel lower on average over the forecast period.

The sharply lower prices reflect the depressed outlook for world economic activity and the resulting implications for the global demand for oil. The International Energy Agency and the Department of Energy have revised down their forecasts for global oil demand yet again. Oil market participants appear to view the softening of demand as most acute in the near term. Indeed, a comparably steep slope to futures prices was last seen during the 1997 Asian crisis.

On the supply side, OPEC has been taking measures to prevent a further collapse of oil prices. The group held meetings in September and late October after which it announced production cuts totaling roughly 2 million barrels per day. There was a subsequent meeting on November 29 where a formal decision regarding additional cuts was delayed until a mid-December meeting. Analysts speculate that the delay was intended to give OPEC time to confirm that previously announced cuts are being implemented.

Nonfuel commodity prices have continued to fall sharply since the October Greenbook, as the weakening global economic outlook has restrained demand. We now estimate that our trade-weighted average of nonfuel commodity prices will decline at an annual rate of 70 percent in the current quarter, about 20 percentage points faster than projected in October. Given the recent movements in spot markets, we project a further decline of 24 percent (annual rate) in the first quarter of 2009. In subsequent quarters, the futures markets point to a modest increase in prices.

## Prices of Internationally Traded Goods

Core import prices fell sharply in October. The decline was primarily due to lower prices for metals and, to a lesser extent, foods. In contrast, prices of imported finished goods were little changed. Combining these October readings with more recent moves in commodity prices and the dollar, we now estimate that core import prices will decline at an annual rate of 7 percent in the fourth quarter and $81 / 2$ percent in the first quarter of next year. We expect core import prices to turn up in the second half of 2009, as commodity prices are projected to firm and the dollar begins to depreciate again. Relative to the previous Greenbook, we have revised down our forecast for import price inflation substantially for the current and next several quarters, reflecting the stronger path for the dollar and the weaker commodity price forecast.

## Staff Projections of Selected Trade Prices

(Percent change from end of previous period, annual rate, excepted as noted)

| Trade category | 2008 |  | Projection |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | Q3 | $\begin{gathered} \text { 2008: } \\ \text { Q4 } \end{gathered}$ | 2009 |  | 2010 |
|  |  |  |  | H1 | H2 |  |
| Imports |  |  |  |  |  |  |
| Core goods | 9.5 | 4.6 | -7.0 | -5.5 | . 1 | 1.3 |
| Previous Greenbook | 9.5 | 6.5 | -2.9 | -2.2 | 1.1 | 1.5 |
| Oil (dollars per barrel) | 108.65 | 117.53 | 68.09 | 47.92 | 52.64 | 61.12 |
| Previous Greenbook | 108.65 | 117.85 | 75.26 | 70.17 | 73.32 | 78.65 |
| Exports |  |  |  |  |  |  |
| Core goods | 13.0 | 6.7 | -13.5 | -5.4 | . 6 | . 9 |
| Previous Greenbook | 13.0 | 7.8 | -6.0 | -1.3 | . 9 | 1.0 |

Note: Prices for core exports exclude computers and semiconductors. Prices for core imports exclude computers, semiconductors, oil, and natural gas. Both prices are on a National Income and Product Account chain-weighted basis.

The price of imported oil for multiquarter periods is the price for the final quarter of the period. Imported oil includes both crude oil and refined products.

Given the recent declines in commodity prices and the sharp decline in core export prices in October, we expect core export prices to fall $13^{1 ⁄ 2} 2$ percent (annual rate) in the fourth quarter and $81 / 2$ percent in the first quarter of 2009. Thereafter, core export price inflation is projected to average under 1 percent. Compared with the previous Greenbook, core export price inflation has been marked down considerably in the near term, reflecting lower projected prices for petroleum products, intermediate goods, and other commodities.

## Trade in Goods and Services

Real exports of goods and services increased at an annual rate of $31 / 2$ percent in the third quarter, about half the pace projected in the October Greenbook, on account of weaker-than-expected exports in the trade data for September. We project that exports will decline 4 percent in the fourth quarter and a further $23 / 4$ percent in the first half of 2009, pulled down by the contraction in economic activity abroad. Exports are expected to trough in the second half of 2009 and then expand at a $2^{1 ⁄ 2}$ percent pace in 2010 as foreign growth recovers. Compared with the previous Greenbook, we lowered our forecast for export growth in the fourth quarter and the first half of 2009 by 6 percentage points, largely reflecting the downward revision to our projection for foreign growth. We revised down our forecasts for the second half of 2009 and 2010 by $21 / 2$ and $11 / 4$ percentage points, respectively, on account of the higher projected path for the dollar.

## Staff Projections for Trade in Goods and Services

(Percent change from end of previous period, annual rate)

| Measure | 2008 |  | Projection |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | Q3 | $\begin{gathered} \text { 2008: } \\ \text { Q4 } \end{gathered}$ | 2009 |  | 2010 |
|  |  |  |  | H1 | H2 |  |
| Real imports | -4.1 | -3.2 | -5.2 | -5.6 | 3.7 | 4.9 |
| Previous Greenbook | -4.1 | -1.0 | -. 3 | -. 7 | 2.5 | 4.3 |
| Real exports | 8.6 | 3.4 | -4.1 | -2.7 | . 1 | 2.6 |
| Previous Greenbook | 8.6 | 8.0 | 2.6 | 3.1 | 2.5 | 3.9 |

Note: Changes for years are measured as Q4/Q4; half-years are measured as Q2/Q4 or Q4/Q2.

Real imports of goods and services fell $31 / 4$ percent in the third quarter, reflecting declining real imports of oil, automotive products, and computers. The decline in imports was about $21 / 4$ percentage points larger than projected in the previous Greenbook, as imports in September came in below our expectations. We expect imports to continue to decline in the fourth quarter and in the first half of 2009, consistent with shrinking U.S. demand. Real import growth is expected to turn positive in the second half of 2009 and then to pick up further in 2010 in line with the upturn in U.S. activity. We revised down our outlook for import growth in the fourth quarter and the first half of 2009 by about 5 percentage points on average, on account of the deteriorating outlook for economic activity in the United States. Our projection for the remainder of the forecast period is a bit higher, reflecting slightly higher U.S. growth, the stronger dollar, and lower import prices.

## Alternative Simulation

Our alternative simulation uses the FRB-Global model to explore the risk that foreign activity may turn out to be weaker than expected. The shock we consider temporarily reduces real GDP growth in major U.S. trading partners by 1 percentage point (per year) relative to baseline. The shock begins next quarter and by the end of 2010 reduces the level of foreign GDP by 2 percent. It then gradually dies away. The fall in foreign activity reduces U.S. real net exports directly through lower foreign spending and indirectly through a modest appreciation of the dollar. As a result, U.S. GDP growth declines about 0.3 percentage point relative to baseline in 2009 and 0.5 percentage point in 2010. The effects of the shock are amplified because the federal funds rate is constrained by its effective lower bound. Core PCE inflation declines 0.1 percentage point below baseline in 2009 and 0.2 percentage point below baseline in 2010, reflecting the effects of lower import prices and weaker aggregate demand. The contraction in U.S. net exports associated with weaker foreign demand and an induced appreciation of the dollar eventually causes a significant deterioration of the U.S. trade balance of around 0.5 percent of GDP by the end of 2013.

| Alternative Scenario: <br> Lower Foreign Demand(Percent change from previous period, annual rate, except as noted) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indicator and simulation | 2009 |  | 2010 |  | 2011 | $\begin{gathered} 2012- \\ 13 \end{gathered}$ |
|  | H1 | H2 | H1 | H2 |  |  |
| U.S. real GDP |  |  |  |  |  |  |
| Baseline | -3.1 | 1.3 | 2.1 | 2.8 | 5.1 | 5.7 |
| Lower Foreign Demand | -3.3 | 1.0 | 1.7 | 2.3 | 4.6 | 5.3 |
| U.S. PCE prices excluding food and energy Baseline Lower Foreign Demand |  |  | 8 |  |  |  |
|  | 1.4 | . 8 | . 8 | . 8 | . 7 | . 7 |
| U.S federal funds rate (percent) |  |  |  |  |  |  |
| Baseline | . 3 | . 3 | . 3 | . 3 | . 3 | 1.3 |
| Lower Foreign Demand | . 3 | . 3 | . 3 | . 3 | . 3 | . 3 |
| U.S. trade balance (percent share of GDP) |  |  |  |  |  |  |
| Baseline | -2.3 | -2.6 | -3.0 | -3.2 | -3.6 | -4.3 |
| Lower Foreign Demand | -2.2 | -2.5 | -3.0 | -3.3 | -4.0 | -4.9 |

Note: H1 is Q2/Q4; H2 is Q4/Q2. The federal funds rate is the average rate for the final quarter of the period.

## Evolution of the Staff Forecast

Current Account Balance


Foreign Real GDP


Core Import Prices*

*Prices for merchandise imports excluding computers, semiconductors, oil, and natural gas.
Class II FOMC
Restricted（FR）

|  | 2008 |  |  |  | $\begin{aligned} & - \text { Projected } \\ & 2009 \end{aligned}$ |  |  |  | 2010 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Measure and country | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |

REAL GDP（1）
Total Foreign
Advanced Foreign Economies
of which：
Canada
Japan
United Kingdom
Euro Area（2）
Germany
Emerging Market Economies
Asia
Korea
China
Latin America
Mexico
Brazil

CONSUMER PRICES（3）
Total Foreign
 of which：

Japan
United Kingdom（4）
Euro Area（2） Germany

Foreign GDP aggregates calculated using shares of U．S．exports． China
Latin America
Mexico
Brazil ウへウウ
Class II FOMC
Restricted (FR)

| Measure and country | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | -----Projected---- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 2008 | 2009 | 2010 |
| REAL GDP (1) |  |  |  |  |  |  |  |  |  |
| Total Foreign | 3.0 | 2.9 | 3.8 | 4.0 | 4.0 | 4.2 | 0.7 | 0.5 | 2.8 |
| Advanced Foreign Economies of which: | 2.5 | 1.8 | 2.6 | 2.7 | 2.7 | 2.6 | -0.4 | -0.6 | 1.9 |
| Canada | 3.5 | 1.5 | 3.7 | 3.0 | 2.2 | 2.8 | -0.2 | -1.1 | 2.0 |
| Japan | 2.1 | 2.4 | 1.1 | 2.9 | 2.1 | 2.0 | -1.9 | -0.6 | 1.2 |
| United Kingdom | 2.4 | 3.2 | 2.3 | 2.0 | 3.2 | 2.9 | -0.9 | -0.2 | 1.7 |
| Euro Area (2) | 1.1 | 1.2 | 1.8 | 2.1 | 3.3 | 2.1 | -0.2 | -0.3 | 1.9 |
| Germany | 0.0 | 0.2 | 0.2 | 1.6 | 4.1 | 1.7 | -0.1 | -0.4 | 1.8 |
| Emerging Market Economies | 3.9 | 4.5 | 5.5 | 5.8 | 5.7 | 6.4 | 2.1 | 1.9 | 4.1 |
| Asia | 6.4 | 6.9 | 6.0 | 7.6 | 7.0 | 7.8 | 3.1 | 3.4 | 5.7 |
| Korea | 7.7 | 4.1 | 2.9 | 5.6 | 4.2 | 5.9 | 2.1 | 1.7 | 3.8 |
| China | 8.6 | 10.3 | 9.8 | 10.2 | 10.6 | 11.4 | 8.0 | 7.1 | 8.9 |
| Latin America | 1.6 | 1.8 | 5.0 | 3.9 | 4.4 | 4.9 | 0.7 | 0.1 | 2.4 |
| Mexico | 2.0 | 1.3 | 4.4 | 3.4 | 3.7 | 4.2 | -0.4 | -0.5 | 2.1 |
| Brazil | 4.9 | 1.0 | 4.7 | 3.6 | 4.6 | 6.1 | 5.0 | 1.8 | 3.2 |
| CONSUMER PRICES (3) |  |  |  |  |  |  |  |  |  |
| Total Foreign | 2.5 | 2.1 | 2.8 | 2.3 | 2.1 | 3.6 | 3.6 | 1.4 | 2.0 |
| Advanced Foreign Economies of which: | 2.1 | 1.3 | 1.8 | 1.6 | 1.4 | 2.2 | 2.3 | 0.4 | 1.3 |
| Canada | 3.8 | 1.7 | 2.3 | 2.3 | 1.3 | 2.4 | 2.4 | 0.2 | 1.3 |
| Japan | -0.5 | -0.3 | 0.5 | -1.0 | 0.3 | 0.5 | 1.2 | -1.4 | -0.1 |
| United Kingdom (4) | 1.5 | 1.3 | 1.4 | 2.1 | 2.7 | 2.1 | 3.5 | 0.4 | 2.4 |
| Euro Area (2) | 2.3 | 2.0 | 2.3 | 2.3 | 1.8 | 2.9 | 2.4 | 1.5 | 2.0 |
| Germany | 1.2 | 1.1 | 2.1 | 2.2 | 1.3 | 3.1 | 2.0 | 1.0 | 1.4 |
| Emerging Market Economies | 2.9 | 3.1 | 3.9 | 3.0 | 2.9 | 5.1 | 5.0 | 2.4 | 2.8 |
| Asia | 0.8 | 2.3 | 3.1 | 2.6 | 2.3 | 5.4 | 4.3 | 1.8 | 2.5 |
| Korea | 3.4 | 3.5 | 3.4 | 2.5 | 2.1 | 3.4 | 4.6 | 1.9 | 1.9 |
| China | -0.6 | 2.7 | 3.2 | 1.4 | 2.1 | 6.6 | 3.5 | 1.6 | 2.5 |
| Latin America | 6.4 | 4.9 | 5.6 | 3.8 | 4.1 | 4.3 | 6.3 | 3.7 | 3.4 |
| Mexico | 5.2 | 3.9 | 5.3 | 3.1 | 4.1 | 3.8 | 5.7 | 3.1 | 2.9 |
| Brazil | 10.7 | 11.5 | 7.2 | 6.1 | 3.2 | 4.3 | 6.3 | 5.0 | 4.6 |

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

Class II FOMC
Restricted (FR)
OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

|  | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | $\begin{array}{r} \text { Project } \\ 2009 \end{array}$ | 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NIPA REAL EXPORTS and IMPORTS |  |  |  |  |  |  |  |  |  |
|  | Percentage point contribution to GDP growth, Q4/Q4 |  |  |  |  |  |  |  |  |
| Net Goods \& Services | -0.9 | -0.1 | -0.9 | -0.1 | 0.4 | 0.8 | 1.2 | -0.0 | -0.4 |
| Exports of G\&S | 0.4 | 0.6 | 0.7 | 0.7 | 1.1 | 1.0 | 0.5 | -0.2 | 0.3 |
| Imports of G\&S | $-1.3$ | -0.7 | $-1.7$ | -0.8 | -0.6 | -0.2 | 0.7 | 0.2 | -0.8 |
| Percentage change, Q4/Q4 |  |  |  |  |  |  |  |  |  |
| Exports of G\&S | 3.8 | 5.8 | 7.4 | 7.0 | 10.1 | 8.9 | 4.0 | -1.3 | 2.6 |
| Services | 10.2 | 3.0 | 8.3 | 4.0 | 11.5 | 9.3 | 1.3 | -3.4 | 2.8 |
| Computers | $-1.1$ | 11.3 | 5.8 | 14.2 | 8.1 | 0.9 | 13.7 | -0.9 | 9.5 |
| Semiconductors | 10.1 | 38.3 | -6.0 | 17.6 | 2.9 | 29.3 | 4.0 | -0.7 | 11.0 |
| Core Goods 1/ | 0.6 | 4.9 | 8.0 | 7.4 | 10.0 | 8.2 | 5.0 | -0.4 | 1.9 |
| Imports of G\&S | 9.7 | 4.8 | 11.5 | 4.8 | 3.8 | 1.1 | -4.2 | -1.0 | 4.9 |
| Services | 8.8 | 2.2 | 9.3 | -0.1 | 8.0 | 1.8 | -2.1 | 1.1 | 2.9 |
| Oil | 3.8 | 1.2 | 10.8 | 1.0 | -9.2 | 0.6 | -7.3 | -6.6 | 3.2 |
| Natural Gas | 19.5 | 1.3 | 4.9 | 13.7 | $-12.6$ | 12.1 | -9.9 | -4.8 | 0.8 |
| Computers | 13.2 | 17.0 | 23.2 | 12.5 | 13.8 | 8.4 | 3.8 | -0.2 | 15.5 |
| Semiconductors | 11.0 | $-0.1$ | 9.8 | 7.5 | $-0.3$ | 3.8 | 1.8 | -1.4 | 5.0 |
| Core Goods 2/ | 10.0 | 5.2 | 11.4 | 5.9 | 5.7 | 0.1 | -4.0 | -0.8 | 5.2 |
| Billions of Chained 2000 Dollars |  |  |  |  |  |  |  |  |  |
| Net Goods \& Services | -471.3 | -518.9 | -593.8 | -616.6 | $-615.7$ | -546.5 | -384.7 | -323.7 | -380.3 |
| Exports of G\&S | $1013.3$ | $1026.1$ | $1126.1$ | $1205.3$ | $1314.8$ | $1425.9$ | $1536.2$ | $1523.0$ | $1542.7$ |
| Imports of G\&S | 1484.6 | 1545.0 | 1719.9 | 1821.9 | 1930.5 | 1972.4 | 1920.9 | 1846.7 |  |
| Billions of dollars |  |  |  |  |  |  |  |  |  |
| US CURRENT ACCOUNT BALANCE | $-461.3$ | $-523.4$ | $-625.0$ | -729.0 | -788.1 | -731.2 | $-676.5$ | -428.0 | $-483.8$ |
| Current Acct as Percent of GDP | -4.4 | -4.8 | -5.3 | -5.9 | -6.0 | -5.3 | -4.7 | -3.0 | -3.3 |
| Net Goods \& Services (BOP) | $-423.7$ | -496.9 | -607.7 | $-711.6$ | $-753.3$ | $-700.3$ | -654.2 | -354.4 | $-460.3$ |
| Investment Income, Net | 33.0 | 51.0 | 73.4 | 78.8 | 63.8 | 88.8 | 108.2 | 55.6 | 103.7 |
| Direct, Net | 102.4 | 112.7 | 150.9 | 173.2 | 184.1 | 233.9 | 248.9 | 174.7 | 192.6 |
| Portfolio, Net | -69.4 | -61.7 | -77.5 | -94.4 | $-120.3$ | -145.1 | -140.7 | -119.1 | -88.9 |
| Other Income \& Transfers, Net | $-70.5$ | $-77.5$ | -90.6 | -96.2 | -98.6 | -119.7 | -130.4 | -129.2 | -127.2 |

[^10]NIPA REAL EXPORTS and IMPORTS
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|  | 2005 |  |  |  | 2006 |  |  |  | 2007 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| NIPA REAL EXPORTS and IMPORTS |  |  |  |  |  |  |  |  |  |  |  |  |
| Percentage point contribution to GDP growth |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Goods \& Services | 0.3 | 0.8 | -0.1 | $-1.3$ | 0.1 | 0.6 | -0.1 | 1.3 | $-1.2$ | 1.7 | 2.0 | 0.9 |
| Exports of $G \& S$Imports of G\&S | 0.8 | 0.9 | 0.0 | 1.1 | 1.7 | 0.6 | 0.4 | 1.7 | 0.1 | 1.0 | 2.5 | 0.5 |
|  | -0.5 | -0.1 | -0.1 | -2.4 | -1.6 | 0.0 | -0.5 | -0.3 | $-1.2$ | 0.7 | -0.5 | 0.4 |
|  |  | Perc | ntage ch | ange from | previour | s perio | d, s.a.a |  |  |  |  |  |
| Exports of G\&S | 8.1 | 8.8 | 0.4 | 10.9 | 16.7 | 5.5 | 3.5 | 15.6 | 0.6 | 8.8 | 23.0 | 4.4 |
|  | 10.2 | -2.8 | 3.2 | 5.7 | 13.4 | 2.7 | 3.2 | 28.6 | -2.7 | 13.3 | 25.9 | 2.7 |
| Computers | 16.8 | 27.9 | 8.3 | 5.2 | 12.0 | 17.5 | -7.9 | 12.7 | 3.9 | -4.0 | 14.4 | -9.2 |
| Semiconductors | -5.2 | 11.7 | 30.7 | 38.0 | 20.3 | 16.1 | -5.6 | -15.0 | 15.9 | 23.7 | 20.5 | 61.7 |
| Core Goods 1/ | 7.3 | 13.8 | -2.9 | 12.4 | 18.3 | 5.6 | 4.8 | 11.8 | 1.3 | 6.6 | 22.1 | 3.7 |
| Imports of G\&S | 3.2 | 0.6 | 0.8 | 15.3 | 10.3 | 0.1 | 3.1 | 2.0 | 7.7 | -3.7 | 3.0 | -2.3 |
| ServicesOil | $-5.7$ | -0.0 | -1.0 | 6.8 | 17.7 | $-2.0$ | $-0.3$ | 18.4 | 4.2 | -2.0 | 6.3 | -0.9 |
|  | 5.1 | -27.1 | $-11.6$ | 53.6 | $-2.8$ | -27.1 | 7.5 | -10.6 | 30.9 | -22.3 | -13.5 | 16.5 |
| Natural Gas | 58.6 | -14.1 | 111.1 | -41.9 | -50.7 | 91.9 | 26.6 | -51.2 | 70.8 | 74.2 | 28.2 | -58.6 |
| Computers | 3.2 | 11.6 | 20.4 | 15.4 | 20.7 | 21.1 | 19.7 | -4.3 | 34.9 | -6.5 | -0.2 | 9.7 |
| Semiconductors | -9.2 | 7.7 | 14.0 | 20.0 | 0.2 | -0.5 | 17.7 | -15.8 | 1.2 | 6.7 | 1.0 | 6.4 |
| Core Goods 2/ | 4.8 | 6.1 | 0.3 | 12.7 | 13.7 | 4.9 | 1.2 | 3.2 | 2.2 | -1.1 | 5.8 | -6.0 |
| Billions of Chained 2000 Dollars, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Goods \& Services | $-623.7$ | $-601.3$ | $-603.6$ | $-637.8$ | $-636.0$ | $-619.4$ | -623.0 | -584.2 | $-618.6$ | -571.2 | -511.8 | -484.5 |
| Exports of $G \& S$Imports of $G \& S$ | 1177.9 | 1203.1 | 1204.3 | 1235.7 | 1284.3 | 1301.4 | 1312.6 | 1361.1 | 1363.2 | 1392.2 | 1466.2 | 1482.1 |
|  | 1801.7 | 1804.4 | 1807.9 | 1873.6 | 1920.2 | 1920.9 | 1935.7 | 1945.3 | 1981.8 | 1963.4 | 1978.0 | 1966.5 |
| Billions of dollars, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |
| US CURRENT ACCOUNT BALANCE Current Account as \% of GDP | -696.2 | -711.3 | -675.6 | -832.9 | -783.8 | -799.6 | -843.6 | -725.4 | -787.7 | -776.4 | -691.8 | -669.0 |
|  | -5.7 | -5.8 | -5.4 | -6.6 | -6.0 | -6.1 | -6.4 | -5.4 | -5.8 | -5.7 | -5.0 | -4.8 |
| Net Goods \& Services (BOP) | -664.0 | -682.9 | -721.4 | -778.0 | -756.4 | -767.4 | -789.9 | -699.5 | -718.2 | -715.3 | -672.5 | -695.1 |
| Investment Income, Net | 88.6 | 77.8 | 88.7 | 59.9 | 65.2 | 70.7 | 51.7 | 67.7 | 57.8 | 45.8 | 98.9 | 152.6 |
| Direct, NetPortfolio, Net | 170.2 | 168.5 | 187.8 | 166.3 | 177.2 | 189.2 | 171.9 | 198.2 | 201.1 | 196.2 | 238.8 | 299.3 |
|  | -81.6 | -90.7 | -99.0 | -106.5 | -112.0 | $-118.5$ | -120.3 | $-130.5$ | -143.2 | -150.4 | -139.9 | -146.7 |
| Other Inc. \& Transfers, Net-120.9 |  | -106.2 | -42.9 | -114.8 | -92.6 | -103.0 | -105.4 | -93.6 | -127.4 | -106.9 | -118.3 | -126.4 |

[^11]Last Page
NIPA REAL EXPORTS and IMPORTS
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|  |  | $\begin{aligned} & \infty \\ & \infty \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & m \\ & m \\ & 1 \\ & 1 \end{aligned}$ |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |


| Billions of dollars，s．a．a．r． |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US CURRENT ACCOUNT BALANCE | －702． 6 | －732．6 | －716．8 | －553．9 | －440．7 | －417．6 | －418．6 | －435．0 | －475．4 | －471．3 | －480．2 | －508．4 |
| Current Account as \％of GDP | －5．0 | －5．1 | －5．0 | －3．9 | －3．1 | －2．9 | －2．9 | －3．0 | －3．3 | －3．2 | －3．3 | －3．4 |
| Net Goods \＆Services（BOP） | $-708.4$ | －722．2 | －707．4 | －478．9 | －330．8 | －338．0 | －357．1 | －391．6 | －438．7 | －446．2 | －463．3 | －493．2 |
| Investment Income，Net | 140.0 | 116.5 | 114.8 | 61.5 | 27.3 | 46.9 | 65.0 | 83.0 | 89.8 | 101.3 | 109.6 | 114.2 |
| Direct，Net | 281.0 | 255.4 | 256.1 | 203.2 | 170.7 | 174.1 | 174.6 | 179.2 | 184.3 | 190.3 | 195.7 | 200.2 |
| Portfolio，Net | －141．0 | －138．9 | －141．2 | －141．7 | －143．4 | －127．2 | －109．7 | －96．2 | －94．5 | －89．0 | －86．1 | －85．9 |
| Other Inc．\＆Transfers，Ne | －134．2 | －126．9 | －124．3 | －136．5 | －137．3 | －126．5 | －126．5 | －126．5 | －126．5 | －126．5 | －126．5 | －129．5 |

[^12]
[^0]:    ${ }^{1}$ In this projection, we have replaced the Federal Housing Finance Agency (FHFA) House Price Index (formerly known as the Office of Federal Housing Enterprise Oversight House Price Index) with the LoanPerformance Home Price Index that is constructed by First American CoreLogic. We view the LoanPerformance measure as a more representative index of changes in house prices because, unlike the FHFA index, it includes both conforming and nonconforming loans, and it has better geographic coverage than the S\&P/Case-Shiller index.

[^1]:    ${ }^{2}$ The current projection also assumes that unemployed workers will be eligible for 26 weeks of EUC benefits in 2009 and 39 weeks in 2010, compared with the 13-week period of eligibility for EUC benefits incorporated in the October Greenbook. The availability of EUC benefits is expected to induce workers to extend their job search and remain in the labor force, which we estimate to raise the unemployment rate by about $1 / 4$ percentage point next year and $1 / 2$ percentage point in 2010 .

[^2]:    ${ }^{3}$ The rule is $i_{t}=\rho_{t}+\pi_{t}+0.5\left(\pi_{t}-\pi^{*}\right)+1.0 y_{t}$, where $i_{t}$ is the nominal funds rate, $\rho_{t}$ is a weighted moving-average of past values of the real federal funds rate, $\pi_{t}$ is the four-quarter rate of core PCE inflation, $\pi^{*}$ is the inflation target (assumed to equal 1.75 percent), and $y_{t}$ is the output gap.

[^3]:    ${ }^{4}$ If the federal funds rate in this scenario was instead set using optimal control, similar to the approach used to set the baseline monetary policy, the rate would remain pinned at $1 / 4$ percent.

[^4]:    1. Level, except for two-quarter and four-quarter intervals.
    
[^5]:    

[^6]:    1. Private-industry workers.
    2. Core goods imports exclude computers, semiconductors, oil and natural gas.
[^7]:    1. Change, millions.
    2. Percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.

    Peres change. fourth quarter of the yor
    4. Percent change.
    6. Percent change, with inventory valuation and capital consumption adjustments.
    7. Billions of dollars, values are annual averages.

[^8]:    aggregate demand stimulus.
    a--Actual

[^9]:    Note. Data after 2008:Q3 are staff projections.

    1. Average debt levels in the period (computed as the average of period-end debt positions) divided by nominal GDP.
    2. Includes change in liabilities not shown in home mortgages and consumer credit.
    3. Average debt levels in the period (computed as the average of period-end debt positions) divided by disposable personal income.
    4. For corporations, excess of capital expenditures over U.S. internal funds.
    5. NIPA state and local government saving plus consumption of fixed capital and net capital transfers
    n.s.a. Not seasonally adjusted.
    2.6.4 FOF
[^10]:    1. Merchandise exports excluding computers and semiconductors.
    2. Merchandise imports excluding oil, natural gas, computers, and semiconductors.
[^11]:    1. Merchandise exports excluding computers and semiconductors.
    2. Merchandise exports excluding computers and semiconduters. and semiconductors.
[^12]:    1．Merchandise exports excluding computers and semiconductors．
    2．Merchandise imports excluding oil，natural gas，computers，and semiconductors．
    1．Merchandise exports excluding computers and semiconductors．
    2．Merchandise imports excluding oil，natural gas，computers，and semiconductors．

